Developing a Framework for Business Continuity Management within Local Government

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Developing a Framework for
Business Continuity Management
within Local Government

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ABSTRACT

Local government in New South Wales (NSW) has taken an active interest in business continuity management (BCM), driven by legislative and operational requirements. However, the implementation of BCM has been hampered by a lack of understanding of what business continuity is and what it entails for local government. BCM can be defined as an agreed, tried and systematic approach used by an organisation for the management of any crisis. It is business-centric, focused on dealing with a crisis or disaster at the organisational level. It is focused primarily on the organisation’s people, services to customers, suppliers, processes and systems’, ensuring that recovery is achievable without significant disruption to the organisation. Currently, there is a knowledge gap on what design elements for BCM are most important and suitable for local government. This research will first profile the current approach to BCM within the NSW local government sector. Second, it will seek to develop key design elements for BCM that could assist councils in developing effective BCM programmes for their organisations.

The study undertakes a thematic analysis on the available literature on the use of BCM in the public, private and local government sectors. The thematic analysis of the literature was used to produce a BCM maturity model and a matrix of key components/design elements necessary for an effective BCM programme. These components were empirically explored using a qualitative multiple case study methodology. Five councils in NSW were studied through semi-structured interviews and a focus-group activity with key stakeholders (in this study, managers) from within the participant councils. The outcomes of this research will ascertain the applicability of BCM to the sector and develop an understanding of how BCM is being used within local government, ensuring that there is a sector understanding of how some programmes have been implemented to date. It will contribute to the discussion on the value of using BCM frameworks when implementing BCM programmes within organisations and provide strategic leaders in local government with design criteria that could be used to build internal BCM knowledge and capabilities.
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RESEARCH QUESTIONS

The research questions for this study are:

How is local government currently engaging with BCM? — Use empirical evidence to ascertain how BCM is used within local government.

What design elements for BCM are most relevant and significant to local government? — Develop design elements that may assist councils in implementing a more effective BCM programme.
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CHAPTER 1- INTRODUCTION

1.1 Introduction
This thesis explores business continuity management (BCM) theory and practice; in particular, through the experiences of managers within the local government sector. Section 1.2 provides an introduction and overview of the BCM discipline and the motivations behind the study. Section 1.3 details the purpose of the research and identifies the knowledge gap before defining the research questions. Section 1.4 outlines the research methodology. Section 1.5 provides a synopsis of the significant theoretical frames used in this study and justifies why they are relevant and significant to this research. Section 1.6 provides a structural outline of the whole thesis. The chapter concludes with a brief profile of the researcher as she is an employee of one of the participating councils in this study.

1.2 Background and Motivations to the Study
BCM as defined by Gibb et al. (2006, p.129) ‘is concerned with identifying and managing the risks which threaten to disrupt essential processes and associated services, mitigating the effects of these risks, and ensuring recovery of a process or service is achievable without significant disruption to the enterprise’. Thus, it is a systematic and business-centric process concerning how the organisation will deal with a crisis or disaster that affects it. It is focused primarily on its people, services to customers, suppliers, processes and systems ensuring that recovery is achievable without significant disruption to the organisation.

The focus of this research will be BCM in local government and how management engages internally in the event of a crisis or disaster affecting the organisation. The research does not extend to emergency management which is socio-centric, oriented outward towards society and how local government engages, plans for, responds to and recovers from a crisis or disaster affecting society. BCM is not just disaster recovery planning, which plays a key support role but nonetheless only focuses on the technical recovery of systems and IT infrastructure in the event of a crisis or disaster. This research will spotlight the key components that make up a holistic and effective BCM management programme, in local government administration.
Local governments were established by state governments to take responsibility for a number of community services; their powers are defined by the state governments. Councils provide and support essential services such as:

- waste collection
- road maintenance
- parks, reserves, playing fields, pools and recreational facilities
- community centres and libraries
- animal control
- building and development control
- environmental protection

They also have vital roles in planning for the future of their local areas and operate under a number of fiscal and authority constraints and within increasing - and increasingly complex - expectations from the communities they serve.

The essential services that local government provides are critical to the community and must be continuously available. Preparing the organisation for the unexpected and being equipped to continue services will ensure that local government maintains goodwill and credibility with its constituents and the general public. Media attention tends to focus on the impact of major disasters like the floods of Queensland in 2011 and the fires in Melbourne in 2009. ‘The extreme magnitudes of these disasters can distract from the likelihood that, in reality, most disasters will be smaller in scale, be less extreme and have more localised impacts’ (Elliot 2007, p.25). The fires that affected Liverpool City Council 2010 and Bankstown City Council in 1997 have proven that localised small incidents can have a major impact on local government functioning. These events have provided the momentum for this industry to focus on BCM. It prompted the Division of Local Government (DLG) – the state department that defines the policy and legislative framework for the NSW - local government sector - to make business continuity plans a legislative requirement. In April 2007 the DLG communicated a circular to councils reminding them that ‘business continuity management is an integral part of business risk management, corporate governance and quality management’ (DLG Circular 2007, p.1). This has prompted councils to focus their attention on instituting BCM programmes to meet this regulatory expectation.
More recently, the Destination 2036 Local Government forum hosted by the DLG listed this issue as a top priority. One of the options to help alleviate this acute problem is to engender regional cooperation and focus on working together on delivering services and programmes. In a circular to NSW Councils the DLG confirmed that ‘a current and comprehensive business continuity plan is essential to the long-term sustainability of councils and should be part of “business as usual” for all councils’ (DLG Circular 2009, p. 2). These requirements affirm the need for councils to have well developed business continuity plans in place to minimise the impact of emergency or adverse events on their core services and secure long-term sustainability for their organisations. Given these important issues, developing a greater understanding of BCM in local government is important; this is the underlying motivation for this study. Until now, the local government discipline and its practitioners did not know how the sector perceived BCM practices or how it incorporated them into their operations. General practitioner perceptions are that BCM implementations are currently ad-hoc and ill-defined across the sector. Additionally, there are currently no coherent guidelines that can help guide local government practitioners to achieve a consistency of practice for BCM across local government areas. These represent the specific opportunities that this study seeks to address.

1.3 Purpose of the Research

The first objective of this research was to examine and profile the current approaches to BCM within local government, ascertaining the level of industry understanding of how BCM has been implemented to date in the NSW local government sector. This examination specifically included what tools, if any, have been used in local government to implement these business continuity plans. To date, there is currently no published academic research on current approaches to BCM within the local government sector.

The second objective was to identify and develop a set of key design elements for BCM that could assist councils in applying themselves to developing effective BCM programmes for their organisations. There is also a lack of information or guidance
on what design elements for BCM are most important and suitable in the local government context. Overall then, the purpose of this study is to illuminate the BCM issue within the local government field, and to develop and propose useful guidelines or frameworks that will aid BCM implementations in council organisations.

The research also revealed that the lack of academic literature available on the use of BCM within local government and public sector experience also extends to small and medium enterprises (SME). Herbane (2010a) reaffirms this lack of literature and research in the SME field stating that ‘the dearth of literature is profound’ (p. 44). Swartz (2003) found that fewer than 10% of SMEs have implemented contingency planning. This study’s outcomes may also assist BCM implementation efforts amongst SMEs.

1.3.1 Research Questions

Building on the motivations and objectives previously indicated, the specific research questions for this study are:
(a) How is local government currently engaging with BCM?
(b) What design elements for BCM are most relevant and significant to local government?

1.4 Methodological Framework

The epistemology or philosophical grounding for this research is constructionism. It is crucial that the underlying philosophy is made explicit, since it underpins the research design and how the researcher approached the research questions. Social constructivism considers that people construct knowledge between them; in other words, that ‘meaning is not discovered, but constructed’ (Crotty 1998, p. 9). It is a subjectivist perspective under which the goal of the researcher is to collect and analyse the participants’ ‘view of the topic under investigation’ to create meaning and understanding. Thus constructivists assert that there are multiple realities, that these realities are socially constructed and that investigating these realities from multiple perspectives will generate divergent and rich inquiry. Subsequently, this study reflects the constructivist paradigm, as the objective was to explore and understand the phenomenon of BCM from the multiple perspectives of professionals.
engaged in the practice of BCM within local government. These multiple perspectives included how BCM is structured and practiced within councils and the experiences of the participants in the process, be they process owners or participants. Thus, divergent views and rich data were obtained from the field, from which a pattern of meaning was derived.

This study incorporated a multiple case study approach, as it was considered most appropriate in addressing the topic under investigation and the exploratory research questions. This approach enabled the collection of a broad range of rich qualitative data across a number of investigation sites through the use of methods typically deployed in case-study research. This research involved five case-study councils; these represented both regional and city perspectives and small, medium and large local government entities.

In all, 19 interviews with council managers who had varying backgrounds in and exposure to BCM constituted the principal empirical data collected in this study; Appendix F provides sample transcripts of these interviews. The data-analysis techniques included categorising, describing and synthesising the data. Open coding was used in the first stage of data analysis to locate themes and assign category titles. Clusters of categories were then organised and grouped, guided by the research questions and emergent themes. This enabled the researcher to make sense of the data and collate an initial assessment of BCM maturity for the case councils and to identify 23 empirically derived design elements that participants considered to be most important.

This initial BCM maturity assessment and 23 derived design elements were then presented at a focus-group activity involving these managers. This focus group sought to gain consensus on the BCM maturity measure, and then further critically analyse the design elements in dealing with three likely disruption scenarios. The three-hour focus group was transcribed (Appendix G), and thematic analysis performed using the same methods as described for the interview data. This step resulted in a confirmed assessment of BCM maturity for the case councils, and of the BCM maturity model’s potential utility in local government. The focus group also
aggregated the 23 design elements down to seven core design elements. Thereafter, the researcher compared these to the design elements previously identified in the literature-review process, and condensed these seven into five key design elements that were deemed most significant in dealing with the disruption scenarios presented.

Chapter 3, the research methodology chapter, contains more-detailed information about the research strategy. This includes the methods used for gathering, analysing and interpreting the data, the ethical considerations and the strategies employed to maximise validity and reliability.

1.5 Theoretical Framework
This study used a range of theoretical perspectives to both inform the study and address the research questions. A theoretical/conceptual framework may be defined as the concepts and theories that support and inform one’s research. Put more simply, it is the ‘theory about what is going on, what is happening and why’ (Robson 2002, p. 63). To identify the conceptual/theoretical concepts underpinning this research project, the researcher drew on a range of theoretical resources, including works on risk management, crisis management, emergency management and service recovery, as they provided context for the inception and major influencing factors regarding the development of the practice of BCM. BCM theory served as the core foundation for this research; specifically, theory focussed on business continuity management maturity modelling and business continuity frameworks, as well as literature from a practitioner's perspective. This literature was valuable to this study, as it provided guidance on the collection of empirical data and served as a comparative benchmark from an academic standpoint.

1.6 Structure of the Thesis
This thesis is organised into five chapters, followed by the reference list and appendices.

Chapter 1 introduces the study and establishes the field of research of BCM. In particular, it provides a background to the current discipline of BCM and summarises previous research in this field. It then introduces the purpose of the current research
and the gap that this research has identified. It then presents the research questions. The chapter also briefly outlines the methodology employed by the study, followed by a synopsis of its significant theoretical frameworks. It concludes with an outline of each chapter of the thesis.

Chapter 2 examines the literature relating to theories underpinning this research and establishes the knowledge gap in this field of study. It begins by exploring the diverse definitions of BCM and reviews current thinking on how to best manage a BCM programme within an organisation. It then develops a BCM maturity model matrix and derives a comparative benchmark of design elements sourced from both the academic literature and the literature of ‘best practice’ standards. The dependent literature fields of business continuity planning, emergency response management and disaster recovery planning are then examined, providing context on how they are critical components of an effective BCM programme. The review then briefly addresses the formative relationship with risk management and goes on to describe the interrelationship with crisis management, emergency management and service recovery, qualifying how they have affected the evolution of BCM practice. The final literature field focuses on BCM in the public and local government sectors and confirms the scarcity of literature on BCM in the small to medium enterprise field and in the local government discipline.

Chapter 3 details the research design and methodology and provides justifications for the methodology and methods used to gather, analyse and interpret the data, as well as any ethical issues involved in pursuing those choices. An exploratory, multiple case study methodology was selected to enable close exploration of the phenomenon of BCM. The framework was designed to enable a rich data set on BCM in local government to be collected and analysed, while ensuring that perceptions, experiences and current practices were captured from participants in multiple local government locations.

Chapter 4 details the findings from the empirical data collected from the five case-study councils. The significant outcomes involve an insight into the participants’ current understanding of BCM and the presentation of a ‘scaled maturity approach’
that was used to assess local government BCM maturity. It also identifies five core
design elements that participants and the researcher considered necessary for
effective BCM in local government. This chapter concludes by illustrating and
elaborating on the iterative process of determining this final set of design elements,
which involved a comparative analysis between the empirical data and what was
learnt from existing academic literature.

Chapter 5, the final chapter, provides a discussion on the findings and a conclusion
for the study. It first discusses the findings in reference to the two research questions
and to current theory. As major outputs of this thesis, it then presents and discusses a
BCM Programme framework and a BCM Maturity Matrix for local government. It
then presents and discusses this study’s substantive, theoretical and methodological
research contributions, and articulates the implications for professional practice of
using the BCM outcomes developed in this study. The significance of this research in
the field of BCM includes an outline of the limitations of the current study and
potential future research opportunities stemming from this work. To conclude the
thesis, the chapter presents a final summary of the overall significance and benefit of
this study.

1.7 Researcher Profile

The approach this study pursued has been influenced by, and has relied on the
interpretation of the researcher, who is also a member of one of the case councils.
She also has substantial professional experience in the field under examination. Thus,
it is important at this point in the thesis to convey a brief description of the
researcher’s background as it pertains to the study.

The researcher has worked as a senior manager of Information Management and
Technology for over 15 years, the last eight years managing Hurstville City
Council’s systems and infrastructure. As a technical specialist, the researcher has
been involved in developing disaster recovery process plans. Through this role she
observed staff members’ primary and excessive reliance on the tools they used to
deliver their services. This motivated the researcher to explore alternative ways to
ensure that services are maintained and to build better resilience within her
organisation. In that professional capacity, this study was initially identified by the researcher as practically important to the sector and consistent with her intentions.

Conducting this study required the researcher to put her own biases and experiences aside as she observed and explored current practices, beliefs and views of other managers across multiple local government entities. Consequently, the findings of this research have challenged the researcher’s perceptions of what is required of an effective BCM programme and redirected her own understanding about what process owners and participants in the process within an organisation need, when ensuring continuity for their services. Thereby, and perhaps not unexpectedly, this study has generated new learnings for the researcher at both professional and researcher levels.
CHAPTER 2 - LITERATURE REVIEW

Introduction

The focus of this literature review is to establish the conceptual framework that informs and guides this research. Figure 1 depicts the key literatures that have influenced BCM, and are therefore covered in this chapter. It also provides context for this research by illustrating the overlapping relationships between the fields that have influenced BCM.

Figure 1: Business Continuity Management Key Relationships

This literature review will primarily focus on BCM and its dependent literature of business continuity planning, emergency response management and disaster recovery planning. The overarching literature of risk management and interrelated literatures of crisis management, emergency management and service recovery are briefly covered to provide context on how these fields have influenced BCM; however, they
will not be a key focus. The public-sector and local government literature will also be explored to identify any specific or context-relevant issues from that research field that may affect BCM in this context.

Section 2.2 presents the key definitions and themes of BCM from the academic literature and practitioner standards. It explores this literature to critically appraise current thinking on how to best implement and manage a BCM programme within an organisation. It provides this study with guidance on key themes and on ways of assessing BCM in organisations and serves as a comparative benchmark. Sections 2.3 to 2.5 describe the dependent literatures of business continuity planning, emergency response management and disaster recovery planning and their effects on Section 2.6 examines the formative influence risk management has on BCM. This formative influence implicates risk management as the foundation for the development of BCM literature. Sections 2.7 through to 2.9 provide an overview and discussion on the significance of the literature concerning the interrelated fields of crisis management, emergency management and service recovery literature to BCM. Section 2.10 reviews BCM in the public-sector and local government literature to assess current research and substantiate the paucity of BCM literature in the local government context. Section 2.11 provides a summary of the key themes identified in these studies and their relevance to this research.

2.2 Business Continuity Management

The aim of this thesis is to contribute to BCM theory, specifically in regards to literature focused on the public-sector experience. Figure 2 illustrates the process of this literature exploration.

![Figure 2: Business Continuity Management Exploration Process](image)
The process begins with sourcing various definitions of BCM across the literature to develop a robust definition for this study. Second, it explores studies that have measured BCM maturity and proposes a BCM maturity model matrix to assist in the collection of empirical data. Finally, it explores academic and practitioner standards in the literature for design elements critical to an effective BCM programme. These design elements are then used as a comparative baseline in the findings chapter of this thesis.

Various definitions of BCM exist Geelan-Baas et al (2008) define it as a ‘decision-making process aimed at minimising business loss and maximising business recovery and continuance following any disaster that may occur at any time’ (Geelan-Baas & Johnstone 2008, p. 162). Herbane et al. (2004) define it as ‘a process that identifies an organisation’s exposure to internal and external threats and synthesises hard and soft assets to provide effective prevention and recovery’ (Herbane, Dominic & Swartz 2004, p. 435). While Gibb et al. (2006) see BCM as ‘a tool that can be employed to provide greater confidence that the outputs of process and services can be delivered in the face of risks’ (Gibb & Buchanan 2006, p. 129). Prudential Standard APS 232 describes BCM as a ‘whole-of-business approach to ensure critical business functions can be maintained, or restored in a timely fashion, in the event of material disruptions arising from internal or external events’ (Australian Prudential Regulatory Authority 2005, p. 2). Alternatively, the Australian National Audit Office defines BCM as ‘the capability that assists in preventing, preparing for, responding to, managing and recovering from the impacts of a disruptive event’ (ANAO 2009, p. 2). Its focus is strategic in nature. This study combines these themes and defines BCM for this research as an agreed, tried and systematic approach used by an organisation for the management of any crisis. It is business-centric, focused on how an organisation deals with a crisis or disaster. It is focused primarily on its people, services to customers, suppliers, processes, and systems, ensuring recovery is achievable without significant disruption to the organisation.

Business continuity management began to emerge as a discipline in the 1970s, when the concentration was on managing risks and recovering from information-technology malfunctions. Bowman indicates that a shared infrastructure approach
was used to lower mainframe computer costs; this gave rise to large data centres that were ‘underfunded afterthoughts of the corporate world which represented an increasingly vulnerable asset’ (Bowman 2008, p. 6). For example, events such as the Illinois Bell Hinsdale central office fire ‘served as a reminder that computer systems were vulnerable to the loss of external third party infrastructure’ (Harrison 1988; Herbane 2010; Pauchant Mitroff & Ventolo 1992). Over the next 20 years, disaster recovery planning evolved into business continuity planning driven by a management focus on building and facilities in the 1980s and the emergence of a business-process orientation in the 1990s (Herbane 2010; Randeree et al. 2012). Business continuity planning began to evolve into BCM from the late 1990s and early 2000s as ‘business continuity became an embedded enterprise-wide and enterprise-spanning activity among leading practice companies in sectors such as financial services, utilities and information technology’ (Herbane 2011, p. 922). The approach evolved from a reactive, incident-driven activity to a comprehensive, integrated management discipline. Alesi (2008) discusses how the terrorist attacks of 11 September 2001 influenced BCM practices to incorporate the notion of organisation-wide continuity, in which there is shared accountability for resilience by employees and a wider focus in the business continuity plans developed to respond to large-scale disruption scenarios. A significant shift in accountability for a BCM programme occurred at this time as this specific incident raised awareness of the need for business continuity links between human resource management and business continuity activities (Mainiero 2002; Meisinger 2006; Perry & Mankin 2005). Research concerning BCM in large-enterprise contexts is well established – (See Adamou 2014; Cerullo & Cerullo 2004; Gallagher 2003; Gallagher 2005; Jackson 2006; Morganti 2002; Pitt & Goyal 2004; Sevcik 2007; Wainwright 2007; Zsidisin et al. 2005), ‘but the literature is far less developed in its understanding of BCM in the small and medium sized enterprise and voluntary public sector contexts’ (Herbane 2011, p. 922). This literature provides the study an overall definition of BCM and a brief historical picture of its origins. It outlines the evolution of BCM from the reactive technical approach of disaster recovery planning to the tactical business-process approach of business continuity planning and, finally the enterprise-wide, strategic BCM programmes necessary for today’s organisations.
2.2.1 The Measurement of BCM Use within an Organisation

It was important to choose recognised BCM maturity profiling techniques to examine the effectiveness of BCM programmes with the local government sector. The techniques referenced were academically robust and had been used previously to measure the effectiveness of BCM programmes within institutions. Many BCM best-practice methodologies exist, such as those proposed by Kenny (2006), Koch (2001) and Lindstrom et al. (2010). As highlighted by Randeree et al. (2012) literature focussed on best practice promote very similar frameworks and specifically provide information on how to implement BCM programmes, but do not provide any mechanism to prescribe the extent to which an organisation should implement BCM. These specific BCM methodologies do not offer a way to assess where an organisation currently stands in terms of BCM maturity, how far they have to go, and what they need to do to get there. Herbane et al. (2004), Rai and Mohan (2006), Randeree et al. (2012) and Tammineedi (2010) were used as sources for ideas on how to gather empirical evidence to ascertain how BCM was used within an organisation. These recent sources have focused on tools to assist in evaluating BCM programmes within organisations.

Herbane et al. (2004) for example offered a model to measure the effectiveness of BCM programmes within six UK-based financial-services organisations. In their study, semi-structured interviews were used to gain an understanding of an organisation’s attitude to BCM; they proposed that an organisation can take different approaches to implementing it. How an organisation deals with a crisis and how it engages with ‘four key process dimensions’ (p. 453) defines where it sits within their BCM maturity model. These process dimensions (Hernane et al. 2004) are key characteristics necessary for an effective BCM programme:

- Human resources and responsibilities
- Business continuity planning and processes
- Communication and structure
- Attitudes towards BCM and ownership of process

These four dimensions were measured against a scaled maturity. A scaled approach, according to Herbane et al. (2004), can be expressed by three levels of sophistication of the process dimension:
• Disaster recovery planning (technical),
• Business continuity planning (functional)
• Business continuity management (strategic).

The strength of Herbane et al.’s (2004) study lay in the specific approach for data collection that it advocated and the use of process dimensions versus scaled maturity continuity. Its apparent weakness was the difficulty in generalising its findings, given the small sample of organisations studied which were all in the UK financial sector. Nonetheless, this BCM maturity framework has provided the current study with a continuity-diagnostics tool to identify process dimensions on which organisations should focus to achieve a comprehensive BCM programme.

As an alternative, Rai and Mohan (2006) offered in their ‘Business Continuity Reality Check’ framework five components to achieve a comprehensive BCM programme:
• Organisational – a clear vision and direction exists in regards to BCM
• Processes – key processes are identified and continuity ensured
• People – all stakeholders, employees/customers/business partners and external stakeholders are engaged to ensure continuity
• Technology – there is adequate investment into tools to provide redundancy and ensure continuity
• Facilities management – facilities that are not controlled by the organisation such as power, transportation, communication services and amenities need to have plans in place to ensure continuity

Rai and Mohan (2006) recommended that these components be continually reviewed, and developed criteria and metrics to measure their effectiveness. These criteria and metrics were used to study BCM within eight large and 14 small to medium-sized banks within India. The senior, middle and functional management interviewed in their study were asked to rate on a scale from 0 (very low) to 5 (very high) their perceptions on how the above components had been implemented in their organisation. The criteria they were asked to rate were:
• Strength/preparedness – participants rated their perceptions on how prepared they felt in regards to dealing with a disruption.
• Threats/challenges – participants rated their perceptions on how the felt in regards to being across the threats/challenges they could face.
• Vulnerabilities – participants rated their perceptions on how confident they felt in regards to understanding the probability of occurrence of these disruptions.
• Up-gradation – participants rated their experience in regards to the degree to which the organisation upgraded, reviewed and tested their BCM practices.

Overall, the application of this reality-check model provided insight into the gaps that existed in otherwise comprehensive BCM implementations and measured the effectiveness of existing BCM practices. The strength of this model was that it was comprehensive; its weaknesses were in the complexity of the calculation of the metrics and its applicability across other business sectors. In any case, it provided this study with an alternative framework to that proposed by Herbane et al. (2004).

Furthermore, Tammineedi (2010) offered a BCM measurement tool, the Business Continuity Management Maturity Model®, a free open-access tool developed by Virtual Corporation in 2003. This tool was created to assist businesses in establishing and maintaining effective BCM programme. It was built to objectively benchmark business continuity management programmes across all business sectors. It is a tool that recommends measuring eight key competencies:
• Leadership—executive commitment to an enterprise program
• Employee awareness—awareness through all staff levels
• Program structure—appropriately scaled enterprise program
• Program pervasiveness—integration with other appropriate programs and limitations
• Metrics—performance measurements
• Resource commitment—personnel, financial and other resources
• External coordination—communication with external community
• Program content—incident management, security management, technology recovery, business recovery (Virtual Corporation 2003, p. 6).

This technique offered a detailed framework and tools to measure the effectiveness of BCM within an organisation, but no evidence was found of its use as part of
academic research. Tammineedi (2010) refers to it as a potential tool to ‘maintain momentum of the BCM program’ (p. 49) within the organisation. In regards to this study the key competencies were used as a comparative benchmark.

Randeree et al. (2012) offered an alternative comprehensive BCM maturity model that had been used to examine the banking sector. Their five components (levels) critical to a BCM programme were:

- Level 1 Technology
- Level 2 People
- Level 3 Processes
- Level 4 Facilities management
- Level 5 Organisational soft issues.

Figure 3 illustrates the Randeree et al (2012) matrix used to measure BCM maturity, with the Y axis consisting of the five components critical to a BCM programme. The matrix was used to map the sophistication of participant organisations’ BCM programmes, with BCM quality shown on the X axis, which ranged from the lowest quality, ‘ad-hoc’ to the highest quality being, ‘optimised’.

![BCM Maturity Model](image-url)
Finally, the ‘Capability Maturity Model Integration’ (CMMI) illustrated in Figure 4 was developed by Carnegie Mellon University’s Software Engineering Institute (SEI). It is a process-improvement training and appraisal program that assists organisations to improve their performance on any process or project, across a division or an entire organisation (Godfrey 2008). This model assists in providing transparency of progress and provides an audit trail of process improvement. Randeree et al. (2012) used this approach to measure the maturity of the BCM programme in the United Arab Emirates banking sector. The maturity levels illustrated in Figure 3 and 4 and the associated key characteristics were considered relevant to this study, as they offered an effective way to articulate progression of sophistication of the key components required for a comprehensive BCM programme.

![Characteristics of the Maturity Model](image)

**Figure 4: Characteristics of the Maturity Model (Godfrey 2008)**

These cited studies (Herbane et al. 2004; Rai and Mohan 2006; Tammineedi 2010; Randeree et al. 2012), inform the current study by illustrating that there are key characteristics of BCM involved in an effective BCM programme, and that the levels these characteristics are at is what determines the maturity of BCM within an organisation. This has provided the study with a ‘scaled maturity approach’ to measuring the effectiveness of a BCM programme within an organisation. The
academic literature on BCM maturity has primarily focussed on the banking sector. Continuity of operation is a key requirement for the banking sector due to the risk of financial loss; hence this sector has led the way in the development of BCM and offers other industries a referential best-practice model.

2.2.2 BCM Key Characteristics and Maturity Levels

Synthesising the studies described above, this section proposes the following key characteristics and maturity levels to be examined when assessing the maturity of a BCM programme for local government.

**Organisational Framework for the Programme**

This characteristic is focused on organisational commitment to the BCM programme. It is measured by confirming that there is executive leadership and a formal charter commitment. Four attributes are required for an optimised implementation of this key characteristic:

- A formal programme charter exists.
- Executives have formally endorsed the BCM programme.
- A formal budget is allocated to the programme.
- Evidence exists of a BCM programme being integrated into the overall corporate planning framework.

Herbane et al. (2004) refer to this characteristic as the human resources and responsibility component of their BCM maturity model. Rai and Mohan (2006), refer to it as the organisational component of their BCM maturity model. Tammineedi (2010), refers to it as the leadership component of their maturity model. Randeree et al. (2012) define it as the BCM program management characteristic.

**Plans and Processes in Place**

This characteristic measures the business continuity plans available within the organisation, indicating the quality of the organisation’s existing BCM process. The attributes required for an optimised implementation of this key characteristic are:

- The plans are formatted to be concise and easy to read.
- The organisation has a disaster recovery plan that focuses on the technical components of the recovery
• The organisation has a business continuity plan that focuses on the people component of recovery and gives the reactive measures to be undertaken in case of a crisis or disruption.
• The organisation has process continuity plans that focus on individual critical processes and how they can be resumed in case of a crisis or disruption.
• The organisation has a maintenance plan, that describes the procedures for maintaining the BCM plans.
• The organisation has a training plan that describes the training schedule for the BCM plans, to ensure that BCM is embedded cross-functionally within the organisation.

Herbane et al. (2004) refer to this characteristic as the business continuity planning and process dimension. Rai and Mohan (2006), consider it to be two independent components of technology and process. Tammineedi (2010) defines it as the component that confirms the development of the critical business continuity plans required for a healthy BCM programme. Randeree et al. (2012) refer to it as the business continuity program content measure.

**Staff Engagement Programme in Place**

This characteristic qualifies how engaged staff are in the BCM programme, in other words, the degree to which they acknowledge ownership for the programme. The attributes required for an optimised implementation of this key characteristic are:
• Functional managers have ownership of their business continuity plans
• Functional managers and departments have an understanding of how crises and disruptions can threaten the organisations operations.
• A formal appraisal system exists to measure functional managers’ BCM performance.

Herbane et al. (2004) refers to this characteristic as the attitude and ownership dimension. Rai and Mohan (2006) make reference to it in their people component. Tammineedi (2010) refers to it as the program pervasiveness measure. Randeree et al. (2012) make reference to this in the planning and analysis area of their BCM maturity model, confirming that the extent to which internal stakeholders are involved in the BCM process determines its quality.
**Maintenance of Programme in Place**

Randeree et al. (2012) in their BCM maturity model refer to this as their maintenance component. This characteristic is focused on the processes of ongoing training of staff and testing of the BCM programme. It ensures that BCM permeates through the organisation and that there is evidence of an ongoing commitment and application to the programme. The attributes required for an optimised implementation of this key characteristic are:

- A cross-functional committee exists and meets regularly.
- Plans are regularly tested and exercised under simulated or live situations.
- An organised maintenance schedule keeps all BCM plans up to date.
- There is an independent audit of BCM processes that is integrated with the overall external audit programme.

**BCM Maturity Levels**

As discussed above, Randeree et al. (2012) incorporated the CMMI model in their BCM maturity model. This study has elected to use the maturity levels found in Randeree et al. (2012, p. 478) with one exception, I condensed their five levels, into four. This was done to simplify the levels and was considered entirely sufficient for use in this study to ascertain meaningful outcomes. In this study the Randere et al. (2012) measure of ‘defined’ was merged with ‘integrated’ and renamed as ‘measured’, referring to the expectation that the process is visibly measured and controlled.

The BCM maturity levels proposed for the current study are:

- Adhoc—processes are unpredictable, poorly controlled and reactive.
- Managed—programme is in place and organisation is proactive.
- Measured—programme is measured and controlled.
- Optimised—a focus on process improvement for the programme.

Table 1 constitutes this study’s BCM maturity matrix.
<table>
<thead>
<tr>
<th>BCM characteristics (Herbane et al. 2004; Rai and Mohan 2006; Tammineedi 2010; Randeree et al. 2012)</th>
<th>BCM maturity</th>
<th>Adhoc</th>
<th>Managed</th>
<th>Measured</th>
<th>Optimised</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Organisational framework of programme</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• No formal programme charter</td>
<td>• A programme charter exists</td>
<td>• A programme charter exists</td>
<td>• A programme charter exists</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• No executive awareness</td>
<td>• Executive endorsement attained</td>
<td>• Executive endorsement is attained</td>
<td>• Executive endorsement is attained</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• No dedicated budget for programme</td>
<td>• No dedicated budget</td>
<td>• A dedicated budget is evident</td>
<td>• There is a dedicated budget</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• No evidence of connection of BCM programme to organisational planning</td>
<td>• No evidence of connection of BCM programme to organisational planning</td>
<td>• No evidence that BCM programme is connected to organisational planning</td>
<td>• Evidence exists that BCM programme is connected to organisational planning</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Plans and processes</strong></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>• Disaster recovery plan may exist</td>
<td>• Disaster recovery plan exists</td>
<td>• Disaster recovery plan exists</td>
<td>• Disaster recovery plan exists</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Business continuity plan may exist</td>
<td>• Business continuity plan exists</td>
<td>• Business continuity plan exists</td>
<td>• Business continuity plan exists</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• No process continuity plans</td>
<td>• Process continuity plans may exist</td>
<td>• Process continuity plans may exist</td>
<td>• Process continuity plans may exist</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• No maintenance plan</td>
<td>• No maintenance plan</td>
<td>• Maintenance plan exists</td>
<td>• Maintenance plan exists</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• No testing plan</td>
<td>• No testing plan</td>
<td>• No testing plan</td>
<td>• Testing plan exists</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Staff engagement</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Evidence of ‘not my job’ attitude</td>
<td>• Basic understanding of business continuity programme</td>
<td>• Comprehensive understanding of business continuity programme including risks and crises/disruptions that may affect them</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• No process continuity plans written by functional managers</td>
<td>• Process continuity plans exist owned by functional managers</td>
<td>• Process continuity plans exist owned by functional managers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• No awareness of BCM programme</td>
<td>• BCM committee is aware BCM programme</td>
<td>• Functional managers are aware of BCM programme</td>
<td>• BCM included in position description BCM targets set for functional managers in annual appraisals.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
BCM characteristics (Herbane et al. 2004; Rai and Mohan 2006; Tammineedi 2010; Randeree et al. 2012)

<table>
<thead>
<tr>
<th>Maintenance of programme</th>
<th>BCM maturity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Adhoc</td>
</tr>
<tr>
<td>• No BCM committee</td>
<td>• BCM committee exists; membership is cross-functional</td>
</tr>
<tr>
<td>• No evidence of testing and training on BCM</td>
<td>• No evidence of testing and training on BCM</td>
</tr>
<tr>
<td>• No evidence of maintaining the BCM plans exists</td>
<td>• No evidence of BCM plan maintenance</td>
</tr>
<tr>
<td>• No evidence of audit on BCM programme</td>
<td>• No evidence of audit on BCM programme</td>
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</tbody>
</table>

Table 1: BCM Maturity Model Matrix

In its published standards the Australian National Audit Office (ANAO) documented common characteristics of better-practice business continuity programmes. These characteristics are tabled in the guide ‘Business Continuity Management—Building resilience in public sector entities’. The guide divides these characteristics into two levels; basic and mature. ‘Basic level characteristics are generally found in small, non-complex or less critical entities, while mature level characteristics are found in mature, large, complex geographically dispersed or critical entities’ (ANAO 2009, p. 9). It lists eight characteristics that are necessary to ensure good practice:

- A business continuity management framework is in place
- Training and awareness-building has been conducted
- A risk assessment has been conducted
- A business impact analysis has been conducted
- Preparatory controls have been implemented
- The entity has documented, and the executive has endorsed, its business continuity plans and framework
- Business continuity testing and exercises have been conducted
• The entity monitors business continuity.

These guidelines offer a practitioner-oriented perspective to assessing where an organisation resides in the implementation of a BCM programme. Therefore, this was deemed useful in this study, but it had the limitation that no academic study had used this criteria in measuring organisations’ BCM maturity. Nonetheless, these guidelines are consistent with and support the key BCM characteristics derived from extant theory and detailed in Table 1.

2.2.3 BCM Key Design Elements

This review also examined academic literature focussed on BCM frameworks that are used in the implementation of BCM within an organisation. As highlighted by Randeree et al. 2012, this literature differs to the BCM maturity model literature in that it focuses on implementation rather than measuring the success of a BCM programme.

In the mid-1990s, the field of business continuity had begun to attract the attention of academic researchers who began to examine crisis-orientated planning and management systems from a cross-functional perspective (Swartz et al. 1995; Herbane et al. 1997, Herbane 2010). This literature on BCM frameworks continued to formalise BCM methodology and promoted design elements such as project initiation, risk identification, business impact analysis (BIA), plan development, risk-reduction measures and recovery resource requirements, along with implementation through training, awareness, and the maintenance and testing of plans; see (Botha and Solms 2004; Cerullo & Cerullo 2004; Elliott et al. 2002; Gallagher 2005; Gibb et al. 2006; Herbane et al. 1997; Herbane et al. 2004; Herbane 2010, Hiles and Barnes 1999; Kenny 2006; Koch 2001; Morganti 2002; Pitt & Goyal 2004 and Sharp et al. 2002). Through thematic analysis of this literature, the most common key design elements were identified and appraised. It is notable that some of the key design elements were very similar to the BCM characteristics documented in Table 1: this provides more evidence of their importance for an effective BCM programme. The elements are discussed below.
Establishing a BCM Programme Structure

Botha and Solm (2004) assert that it is important to clarify what a BCM programme aims to achieve. This enables the programme to have clear goals and objectives. The first priority is to establish executive endorsement for the programme; a director or employee placed high in the organisation hierarchy must be accountable for BCM. A successful BCM programme requires commitment of resources and cooperation from various departments. Therefore, executive endorsement is crucial in driving BCM initiatives (Phelps 1986), as it legitimises the programme and ensures that BCM is a strategic commitment from the leadership team.

A BCM charter/policy is a strategic document that provides ‘the context for specific initiatives and guidelines for their delivery’ (Gibb et al. 2010, p. 129). It defines the scope and quality of the BCM process. Cerullo et al. (2004) acknowledge that in line with a formal charter, there should be a budget commitment to the programme, as financial commitment legitimises the programme. Key components of this design element as noted by Botha and Solms (2004), Cerullo & Cerullo (2004), Elliott et al. (2002), Gallagher (2005), Gibb et al. (2006) and Hiles and Barnes (1999), include:

- Executive endorsement of the programme
- Cross-functional commitment to the programme
- Establishment of a BCM programme policy or charter
- Formal budget commitment to the programme.

It is notable that there are similarities to the BCM characteristic of organisational framework of programme (discussed earlier and listed in Table 1). Both sets of literature support the need to institute this key design element for a comprehensive BCM programme.

Performing a Risk Assessment

The literature qualifies a risk assessment as an activity that enables an organisation to prioritise and plan the recovery and mitigation strategies for its BCM programme based on business priorities (Botha & Solms 2004; Cerullo & Cerullo 2004; Elliott et al. 2002; Gallagher 2005; Gibb et al. 2006). Attributes of this design element are risk analysis and business-impact assessment. Both the risk analysis and business-impact
assessment components enable an organisation to address business continuity holistically across the organisation. Gibb et al. (2006) assert that the risk-analysis phase helps the organisation identify the key risks that it faces. This enables the organisation to extract the most likely disruption scenarios for which the BCM programme must plan. The business-impact analysis phase helps the organisation to understand, identify and classify its business systems, processes and external stakeholders based on their significance to the business, and through this, determine risk mitigation and recovery strategies (Elliott et al. 2002; Gallagher 2005).

**Develop BCM Plans**

This key design element focuses on the documentation phase of a BCM programme. Recovery and mitigation strategies are documented through the development of BCM plans. These are key plans that must be written in an effective, simple and usable format to ensure staff engagement. These plans need to be written specifically for each facility or building and need to cover the disruption scenarios most likely in the organisation. Key BCM plans required for an effective BCM programme (Botha & Solms 2004; Gibb et al. 2006; Lindstrom et al. 2010; Moore 1995) include:

- **Business continuity plan** - sometimes referred to as the process salvage and recovery plan. It describes how key business processes can be resumed from another site in case of a disaster and how to ensure business continuity for these key processes; this literature review specifically focuses on business continuity planning literature.

- **Business continuity (business unit) section plans** - defines the business-unit processes that are followed to recover key services by the specific business unit in support of the overall business continuity plan. They are distinct from process continuity plans in that they focus on critical services and the processes that support them and take a functional approach, rather than addressing single processes in isolation.

- **Disaster recovery plan** - defines the recovery procedures for IT infrastructure. This can include corrective and preventive actions.

- **Emergency response management plan** - defines the evacuation procedures to protect the ‘life and safety’ of all employees of an organisation.
• Testing plan—describes how all BCM plans are to be tested, including the schedule.
• Maintenance plan—describes the annual maintenance schedule for all BCM plans and includes an external audit schedule.

This design element qualifies the commitment of an organisation to BCM and outlines the processes to follow through recovery. It has similarities to the BCM characteristic of plans and processes (discussed earlier and listed in Table 1). Both sets of literature demonstrate the need to institute this key design element for a comprehensive BCM programme.

**Develop Programme Communication Structure**

This design element keeps the BCM programme at the forefront of the organisation’s consciousness and encourages the engagement of staff across the organisation with the BCM programme. Communication and awareness of the BCM programme is critical to its success, as this enables staff to understand their roles, in the event of a disruption (Cerullo & Cerullo 2004; Gallagher 2005). A cross-functional team or committee responsible for the BCM programme is essential to ensure that communication about the programme permeates the organisation (Gibb et al. 2006; Hiles & Barnes 1999). A commitment to meet at least annually to monitor the programme is essential to assist in promoting awareness. A component of staff awareness includes a training programme that assists staff in understanding their role in the BCM programme (Hiles & Barnes 1999; Sharp et al. 2002). Awareness and formal training will promote engagement with BCM across the organisation. Communication is imperative as all participants need to be aware of their roles and responsibilities (Gibb et al. 2006; Morwood 1998).

Recommended components that enable this design element are (Hiles and Barnes 1999; Sharp et al. 2002) include:

• The establishment of a BCM committee that meets on a regular basis
• The establishment of a staff training and awareness plan
• A ‘business continuity/risk management culture’ (Gallagher 2005, p. 68) engendered across the organisation.
It has similarities to the BCM characteristic of staff engagement (discussed earlier and listed in Table 1). The literature for both BCM maturity and the BCM framework demonstrates the need to institute this key design element for a comprehensive BCM programme.

**Establish a Maintenance Programme Structure**

According to the literature this design element keeps the BCM programme alive, ensuring that momentum and commitment to the programme within the organisation is maintained. It assists in keeping the BCM programme under continual review and helps the organisation consider BCM as an ongoing exercise, rather than a one-time commitment. Botha and Solms (2004) refer to this design element as an iterative, cyclic process that undergoes continuous improvement. Regular testing and exercising of plans under simulated tests or live situations help in gaining confidence and prepare the organisation to face potential disasters. Gaps arising out of the tests should be addressed and reviewed. Independent review and audit of an established BCM programme provides credibility and suggested improvements.

Recommended components of this design element include (From Ashton 2005; Botha & Solms 2004; Cerullo & Cerullo 2004; Elliott et al. 2002; Gallagher 2005; Gibb et al. 2006; Hiles & Barnes 1999; Sharp et al. 2002):

- Establishment of a testing regime for all plans
- Annual review of plans
- External audit of the BCM programme

There are similarities with the BCM characteristic of staff engagement and maintenance of programme characteristics (discussed earlier and listed in Table 1). The literature of both BCM maturity and BCM frameworks demonstrate the need to institute this key design element for a comprehensive BCM programme.
These listed design elements are the most commonly identified from an academic perspective. These design elements will now be compared to those extracted from best-practice practitioner-standards literature.

2.2.4 BCM Practitioner Standards

Limited academic literature exists in the application of best-practice practitioner standards. Only three studies were identified; Boehmer (2009), Geelen-Baass and Johnstone (2008) and Tammineedi (2010); only one of the three used the Australian practitioner standards. These studies critiqued the application of practitioner standards and identified the design elements most commonly addressed from a best-practice practitioner-standards approach within the Australian context. Before the design elements from these three studies are reviewed, a brief overview of existing practitioner standards that assist practitioners through the implementation of BCM are listed below. The standards referenced are most appropriate for the present study because they are well established as guidelines for organisations in Australia.

- Australian Prudential Regulatory Authority (2005), ‘Business Continuity Management’;

All these standards provide a high-level framework for the implementation of BCM. Figure 5 illustrates the framework promoted by Standards Australia HB 292:2006. This visual representation was chosen as it succinctly illustrates the iterative broad framework promoted by the practitioner guidelines, and provides the key elements for developing an effective BCM programme within an organisation.
In reference to these practitioner standards and the aforementioned three studies on implementing them, the key design elements from a best practice, practitioner perspective include:

**Initiate the Programme**

Geelen-Baass et al (2008) recommend that the BCM programme should be introduced into the organisation through a project-initiation phase. It is essential that the programme be endorsed by the leadership team of the organisation and conducted
as a cross-functional initiative. This approach ensures that BCM receives the appropriate commitment from the key stakeholders. This design element is very similar to the design element of ‘establish a BCM programme structure’ identified in the academic literature.

**Perform a Risk Assessment**

Organisations use many frameworks to manage enterprise risk, (Section 2.6 reviews this literature). In relation to BCM, ‘the risk management process should provide the grounding for the whole BCM process: it establishes the scope, needs and priorities’ (Standards Australia/Standards New Zealand 2004, p. 5) for the BCM programme. Tammineedi (2010) acknowledges that BCM depends on risk management, and is most effective when fully integrated within the risk management strategy. This design element ensures that each team within an organisation carries out risk assessments for resources, such as people, facilities, information technology, suppliers and stakeholders. This design element is identical to the design element of performing a risk assessment, as identified in the academic literature.

**Perform Business Process Identification**

Understanding what services and processes are essential to the delivery of business objectives within an organisation is the key output of this design element. This design element enables the organisation to understand and prioritise business processes across the organisation, ‘enabling a targeted approach to business continuity planning’ (Geelen-Baass & Johnstone 2008, p. 168).

A key component of this design element is to perform a business-impact analysis, which ‘is the foundation of business continuity planning’ (Tammineedi 2010, p. 42). The key objectives are to determine the potential impact a disruption event or outage could have on an organisation. It enables an organisation to understand its maximum tolerable period of disruption for critical services and processes. It determines the sequence of recovery of business functions and data in the event of an disruption event or outage. The focus of this component is to ‘identify recovery strategies, minimum resources, and vital records that are necessary for business continuity’ (Tammineedi 2010, p. 42). This design element will prioritise and drive the
organisation’s business continuity plans. The standards literature specifically focusses on this component, while the academic literature merges this design element into the risk-assessment phase.

**Develop BCM Plans**

Development of business continuity plan documents provide a ‘centralised repository for the business continuity information, roles and responsibilities, tasks and procedures that will facilitate timely response to a disaster interfering with critical business processes’ (Tammineedi 2010, p. 44). Three levels of business continuity plans should be developed:

- **Process-level BCPs**—plans that focus on continuity for key processes of the business and are ‘determined in accordance with the business impact analysis’ (Geelen-Baass & Johnstone 2008, p. 168);
- **Utility-recovery BCPs**—plans that focus on how the organisation responds to the loss of utilities, such as power; and
- **Corporate-level BCPs**—plans that focus on ‘how the organisation responds to the loss of a widely shared resource such as personnel’ (Geelen-Baass & Johnstone 2008, p. 168).

The standards literature qualifies this design element as the documentation phase of the programme. It is very similar to the design element of the same name extracted from the academic literature, confirming that the documentation phase is a necessity for a successful BCM programme. Minor variations lie in the focus for documentation and the specific naming of the plans.

**Establish a Test and Training Programme Schedule**

Regular testing keeps plans current, serves as hands-on training, raises awareness for staff through self-reflection and uncovers gaps in practice. Tammineedi (2010) acknowledges that it is important to carry out testing in a way that exercises the defined business continuity plan. There are two types of testing processes: discussion-based, which involve simulations and is scenario-focused and operations-based exercises which are action-based, and includes activities such as drills and full-scale exercises. Operation-based exercises tend to be more expensive to execute, especially at full scale. Organisations tend to use discussion-based, scenario-focused
testing to enable staff to walk through plans. ‘Exercises improve organisational
disaster readiness by facilitating the following:

• Providing a way to evaluate operations and plans
• Clarifying roles and responsibilities
• Developing, individual performance, and reinforcing team work, and
• Improving inter-departmental coordination’ (Tammineedi 2010, p. 44).

This design element is encompassed as a component of the ‘establish a maintenance
programme structure’ identified in the academic literature of BCM frameworks.

**Establishing a Maintenance and Review Programme Schedule**

Tammineedi (2010) acknowledges that it is imperative that business continuity plans
are living documents, meaning that the plans must remain current and at the forefront
of the organisation’s business priorities. Therefore, the plans must be regularly and
formally evaluated by executive management and internal or external auditors. ‘The
purpose of the BCM maintenance process is to ensure that the organisation’s BCM
competence and capability remains effective, reliable, and up to date’ (Tammineedi
2010, p. 44). It should include a review of training and skills for the BCM committee
and changes driven from risk management and organisational changes. This design
element is very similar to the design element found in the literature of BCM maturity
and BCM frameworks, confirming that external auditing and an annual review of the
programme is a key component for a healthy BCM programme.

These best-practice practitioner-standard design elements are now compared to those
extracted from BCM maturity modelling literature and the academic literature
concerning BCM frameworks. The final set of consolidated design elements will
provide a benchmark for a comparative analysis with those design elements derived
from analysis of empirical data.

Table 2 provides a consolidated, comparative list of these key design elements. The
final column on the right side lists the comparative design elements that will be used
in this study.
<table>
<thead>
<tr>
<th>BCM Design Elements</th>
<th>Academic BCM frameworks literature</th>
<th>Academic practitioner best-practice standards literature</th>
<th>Comparative benchmark</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Organisational framework of programme</strong> (Herbane et al. 2004; Rai and Mohan 2006; Tammineedi 2010; Randeree et al. 2012)</td>
<td>Establishing a BCM programme structure (Botha and Solms 2004; Cerullo &amp; Cerullo 2004; Elliott et al. 2002; Gallagher 2005; Gibb et al. 2006; Lindstrom et al. 2010; Moore 1995)</td>
<td>Initiate the programme (Boehmer 2009; Geelen-Baass and Johnstone 2008; Tammineedi 2010)</td>
<td>Establish the BCM programme structure</td>
</tr>
<tr>
<td><strong>Perform business process identification</strong> (Boehmer 2009; Geelen-Baass &amp; Johnstone 2008; Tammineedi 2010)</td>
<td>Perform business process identification and prioritisation</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Staff engagement</strong> (Herbane et al. 2004; Rai and Mohan 2006; Tammineedi 2010; Randeree et al. 2012)</td>
<td>Develop a Communication structure (Botha and Solms 2004; Cerullo &amp; Cerullo 2004; Elliott et al. 2002; Gallagher 2005; Gibb et al. 2006; Lindstrom et al. 2010; Moore 1995)</td>
<td>Establish a test and training schedule (Boehmer 2009; Geelen-Baass &amp; Johnstone 2008; Tammineedi 2010)</td>
<td>Establish the communication and staff engagement framework for programme</td>
</tr>
<tr>
<td>BCM maturity literature</td>
<td>Academic BCM frameworks literature</td>
<td>Academic practitioner best-practice standards literature</td>
<td>Comparative benchmark</td>
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</tr>
</tbody>
</table>

**Table 2: BCM Design Elements**

### 2.3 Business Continuity Planning

BCM has relied on several literature fields (Figure 1). The first of these fields is business continuity planning (BCP). BCP is an ‘organisation process-wide approach to crisis management’ (Herbane 2010b, p. 983). It ‘emerged as a response to the need to protect and restore the critical value-generating activities of an organisation…essential customer services, revenue generation, essential support services, shareholder and employee confidence and the public image’ (Herbane 2010b, p. 984). A number of studies (for example, Elliott, Swartz, & Herbane 1999b; Heng 1996; Herbane, Elliott & Swartz 1997, Herbane 2010) have supported the notion that organisations can protect and enhance value through the adoption of business continuity planning. Its focus is operational in nature, centred on the restoration and protection of an organisation’s key processes and functions.

There is abundant literature that examines business continuity planning (for example, Clas 2008, Karakasidis 1997, Lam 2002, Maslen 1996, Momani 2010, Plumb et al. 2007, Roberts et al. 2010, Wheeler 1999). The literature ranges from defining business continuity planning as an iterative process (Cerullo & Cerullo 2004, Lindstrom et al. 2010) to managing it as a specific project with the fixed outcome of a business continuity plan. Roberts et al. (2010) advocates for a fixed project planning approach to the delivery of an organisation’s business continuity plan. The disadvantage of a business continuity planning approach is that it has a static output.
(the plan) that becomes outdated as soon as it is complete. Having a project management focus to deliver an output means the organisation has a rigid approach; ‘a plan alone will not teach teams to respond to and manage a crises or disaster’ (Maslen 1996, p. 29).

As illustrated in this chapter there is a clear dependency between business continuity planning and business continuity management literature. Historically, business continuity planning preceded BCM. The evolution from disaster recovery planning to business continuity planning, to what now is termed BCM was covered earlier in the chapter. The ‘typology of continuity approaches’ (Herbane et al. 2004, p. 439) illustrated in Figure 6 distinguishes between different approaches to a crisis response ‘according to whether the scope of the activity is designed to address a technical or socio-technical crisis’ (Herbane et al. 2004, p. 439). If an organisation has followed a route towards planning for socio-technical interruptions, such as key operational function failure, across the organisation (business continuity planning), then it is one step away from BCM. This illustrates the dependent relationship that business continuity planning has with BCM as the response to socio-technical interruptions. The convergence of technical and socio-technical approaches allows an organisation to address a wider set of crises than those arising from IT and facilities interruptions alone, and forms the basis for BCM.

Figure 6: Typology of Continuity Approaches (Herbane et al. 2004, p.439)
Effective business continuity planning is a critical process to master for an organisation, and necessary for an effective BCM programme. In this study, business continuity plans will be explored and assessed as a key design element for an effective BCM programme.

2.4 Disaster Recovery Planning

BCM as a field evolved from disaster recovery planning (DRP), and is one of the three dependent fields illustrated in Figure 1. DRP can be defined as ‘a program focused on technology recovery in the event of a disaster’ (Nollau 2009, p. 52). ‘In an information-based world, the whole of the business is IT-dependent and data driven’ (Bajgoric 2006, p. 450). The emergence of personal computing and the introduction of internet banking in 1999 (Elliott, Swartz & Herbane, 1999a) led to the expectation for systems to be ‘always-on’ or available 24 hours a day, seven days a week. ‘Business today demands systems/applications/data continuity and any amount of downtime can mean lost revenue, lost customers, lost business opportunities’ (Bajgoric 2006, p. 451) and loss of reputation. In responding to those challenges, DRP is the operational response associated with the recovery of technology infrastructure when responding to a crisis or disruption. There is abundant literature on disaster recovery planning within the public and private sector – (for example Chadwick 1975, Rames 1981, Ball et al. 1982, Ginn 1989, Nollau 2009). It demonstrates that BCM uses disaster recovery planning as a subordinate key dependent framework that ‘remains central to BCM’ (Ashton 2005, p. 11). As discussed previously, in the ‘typology of continuity approaches’ (Herbane et al. 2004, p. 439), Figure 6 refers to disaster recovery planning as the technical response to a crisis.

Disaster recovery plans need to address not only disaster recovery, but also prevention through the use of information technologies that enable ‘continuous computing’. These continuous computing technologies, according to Bajgoric (2006, p. 453) can be classified into three categories:

- Fault-tolerance technologies provide high availability of server operating environments and protect against hardware glitches, application failure and server operating system failure.
• Disaster-recovery technologies enable the resumption of operations after a disaster within the IT infrastructure.
• Disaster-tolerance technologies protect against larger outages, such as power outages and natural disasters, and give a system the ability to continue performing operations despite a disaster.

Disaster recovery plans should encompass all of these technologies to boost ‘business continuity’ (Bajgoric 2006, p. 465) and disaster prevention. This literature considers DRP as a key element of an effective BCM programme and as a subset of BCM (Figure 1). In this study, the existence of disaster recovery plans will be explored, but participants’ views on how their organisations have managed this practice is not a focus for this study.

2.5 Emergency Response Management
The next dependent field of BCM is emergency response management (ERM), defined as the ‘the initial response to disruption’ that ‘usually involves the protection of people and property from immediate harm’ (Standards Australia/Standards New Zealand 2004, p. 3). Its focus is the management of staff through a disruption scenario. It is a supporting framework that may be enacted by an organisation if required, depending on the disruption scenario being managed (Hinson 2012; Chen 2008). ERM differs from emergency management in that its focus is business-centric, not socio-centric; in other words that its primary concern is how the organisation itself rather than the community as a whole, will coordinate and protect its staff through a disruption.

Academic literature focused on ERM is limited (Chen 2008) and closely aligned to emergency management literature. ‘Emergency response management (ERM) enables and supports emergency response operations across organisational, jurisdictional and geographical boundaries’ (Chen et al. 2008, p. 66). The coordination of emergency response is demanding, as it involves requirements typical of an emergency situation that include high uncertainty and necessity for rapid decision-making and response under time and resource constraints. ‘Yet, the available literature on coordination issues relating to ERM consists largely of
practitioner articles, governmental reports, and testimonies to Congress. Academic research in this area is scarce’ (Chen et al. 2008, p. 68).

In the context of business continuity management literature, ERM is focused on the protection of people and, as a secondary priority, property. It is the first initial response to a crisis and a key tactical plan for an effective BCM programme. It occurs ‘immediately after the event and its primary concern is the protection of life and safety’ (ANAO 2009, p. 55). The academic literature discussing emergency response management tends to broadly refer to it as a component of the initial crisis-management phase of BCM. The primary focus is ‘to deal with the immediate aftermath of a disaster’ (Hinson 2012, p. 20).

ERM is thus a key dependent practice of an effective BCM (Figure 1). In this study, the existence of an emergency response management plan will be explored as component of the design element of BCM plans, but a detailed exploration of this practice is not within the scope of this study.

2.6 Risk Management
Risk management, which emerged as a field in the mid-1970s can be defined as the effects of uncertainty on organisational objectives, whether positive or negative. Risk management envelops BCM literature, and provides a foundation upon which BCM operates (Figure 1). A range of guidelines exists to direct practitioners through the process of initiating risk management within an organisation. Standards Australia/Standards New Zealand Handbook (2004) offers a generic guide for managing risk. It is a strategic enterprise-wide framework that encompasses a wide focus on managing organisational risk. Common types of risks include employee injuries, contract failure, car accidents and fire. It has become a crucial part of any business and an ‘essential function for management’ (Hagigi & Sivakumar 2009, p. 286).

Risk management evolved from insurance management broadening its approach to encompass a wider focus in managing organisational risk. Common types of risks include employee injuries, contract failure, car accidents and fire. Risks can be categorised into the following types as outlined by Fazio (2010):
• ‘Business risk—associated with an organisation’s particular market or industry
• Market risks—changes in market conditions, such as fluctuations in prices, interest rates and exchange rates
• Credit risks—potential for not receiving payments owed by debtors
• Operational risks—direct or indirect loss resulting from inadequate or failed internal processes, people and systems or from external events
• Legal risks—possibility of other parties not meeting their contractual obligations
• Environmental risks—environmental degradation’ (Fazio 2010, p. 664).

Business continuity management can be defined as a subset of risk management. Geelen-Baass and Johnstone (2008) confirm this view by acknowledging that the lack of a business continuity plan creates a risk to an organisation. However, in contrast to risk analysis, which considers the source of risk, including both the likelihood and consequences. BCM focuses solely on the impact of the disruption scenario and the continuation of business after the disruption has occurred. Therefore, BCM can be defined as a ‘specific form of risk management’ (Fazio 2010, p. 664). Increase in regulation driven by business scandals, such as the Enron collapse, has reframed ‘risk management as a corporate governance requirement’ (Arena et al. 2010, p. 661). Risk management is part of a broader need for all organisations to ensure and demonstrate good governance processes’ (Fazio 2010, p. 662).

The Department of Local Government (DLG), the state agency that governs local government, established a framework to drive good governance through a ‘Reform program—Promoting Better Practice’. A component of this governance framework is that ‘Councils are expected to have a plan to manage the impact of an emergency/critical incident on their operations’ (DLG Circular 2007, p. 1). Manager’s perceptions of this regulatory expectation have influenced BCM within the sector and will be explored in this study.
Risk management serves as the overarching framework that has been the key business driver leading to the creation and development of all the frameworks/literatures illustrated in Figure 1, including BCM. It has played a foundational role in the development of these literatures. In this study, the existence of risk management plans will be explored as components of the design element of BCM plans, but detailed exploration of risk management across the organisation is not within the scope of this study.

2.7 Crisis Management

Crisis management can be defined as the process an organisation uses to deal with a major event that threatens to harm the organisation. ‘An organisational crisis is a low-probability, high impact event that threatens the viability of the organisation’ (Pearson & Clair 1998, p. 60). In the context of BCM, crisis management is also referred to as incident management. The Australian National Audit Office defines it as the ‘overall management of the incident and includes the strategic decision making process’ (ANAO 2009, p. 6). In this study, crisis management will be defined as the responses to multiple incidents/disruption scenarios that can potentially affect the organisation and the BCM programme will be referred to as the systematic process to counter the effects of such disruptions. ‘Business Continuity Management is the most used term for the planning and resourcing of crisis prevention and management activities in organisations’ (Herbane 2010a, p. 45).

Crisis management shares its origins with BCM. ‘The word “crisis” has been found to be used interchangeably in the literature with the term disaster, business interruption, catastrophe, emergency or contingency planning’ (Herbane 2010b, p. 979). The implications of this are that crisis management is a broad literature field encompassing reactive and proactive measures to managing disruptions. Legislation and regulation drove the initial phase of BCM from the mid-1970s to mid-1990s, mainly motivated by the introduction of enterprise risk management and a legislative expectation for ‘requiring organisations to introduce measures to protect resources and activities in the event of serious operational interruptions’ (Herbane 2010b, p. 985). The policies and practices for disaster-based business continuity management notably changed after the 9/11 attacks, in areas such as assessments of the public impact of risk and public-private crisis management (Boin & Smith 2006).
more pragmatic end of the crisis management spectrum, abundant literature exists that has examined the use of crisis management techniques in a broad variety of contexts, including small businesses (for example, Herbane 2010; Keller et al. 2005; Lynch & Sheahan 2009; Runyan 2006; Spillan & Hough 2003) and the public sector (for example, Boin & Smith 2006; Drennan & McConnell 2007; Fone & Young 2000; Lodge 2009). Understanding what operational interruptions/disruptions scenarios are most likely for an organisation has been highlighted in academic and practitioner literature as a key step in developing an effective BCM programme (for example, Cerullo & Cerullo 2004; ANA0 2009; Gallagher 2005; Standards Australia 2004). It is part of the risk-analysis stage when developing a business continuity plan.

Herbane (2010b) states that organisations can face a wide variety of crises including physical crises such as accidents, product failures or loss of utilities (gas, power supply, water, telecommunications); personnel crises such as large-scale staff illness or death, industrial action or staff criminality; external criminal crises such as terrorism and product tampering; information crises such as cybercrime or information theft; natural disasters such as flood and storms; economic crises such as economic recession; and reputational crises such as internet defacement or malicious rumours (Mitroff & Alpaslan 2003). Each of these crises may be addressed within an organisation’s business continuity plans that are an outcome of business continuity management. Table 3 provides further examples of the variety of crises that can affect organisations.
Table 3: An Array of Organisational Crises (Pearson et al. p.60)

These crises, which are generic and applicable to all organisations are generally encompassed in the disruption scenarios listed below. These common scenarios were sourced from academic and standards literature (ANAO 2009; Standards Australia/Standards New Zealand 2006), and they provide a focus for an organisation’s business continuity management programme.

- Permanent destruction and loss of building
- Temporary denial of access to premises and/or precinct
- Major disruption or extensive loss of information technology and/or telecommunications infrastructure
- Unplanned or permanent loss of vital records
- Loss of key staff
- Loss of key external dependencies.

Crisis management literature was briefly reviewed for this study to illustrate its relevance to the field of BCM. Crisis management as illustrated in Figure 1, is a subset of risk management and interrelated with BCM. Crisis management identifies
the multiple incidents/disruptions scenarios that can potentially affect an organisation, which the BCM programme as a systematic process is there to counteract. This study will explore crisis/disruption scenarios as a design element that may be required to establish an effective BCM programme for local government; from this, what disruption scenarios are most likely to affect the sector will be further explored.

### 2.8 Emergency Management

Emergency management can be defined as an organisation/entity ‘managing the impact of an emergency on the community’ (ANAO 2009, p. 6). It is socio-centric, oriented towards society and how an organisation engages in the event of a crisis or disaster affecting society. Generally, these emergencies are state or federal-declared crises or disasters, where local government plays a support role.

Emergencies are sparked when hazards, such as floods, train derailments, or industrial accidents, interact with vulnerabilities—physical, social, economic and environmental conditions that make a community susceptible to a hazard (McEntire & Myers 2004). Sometimes, an emergency causes such a widespread social and economic impact that it exceeds the coping capacity of a community; this is referred to as a disaster (Henstra 2010, p. 236).

In American academic literature, ‘Local Government plays a key role in emergency management by developing the necessary policies and concrete procedures for responding effectively to community emergencies and their aftermath’ (Henstra 2010, p. 236). However, the Australian context is quite different, as the state government holds accountability for local emergency management coordination, and councils play supporting roles as described in ‘The Emergency Management Arrangement for New South Wales’, governed by the Department of Police and Emergency Services.

Literature from a range of sources addresses the role of emergency management in crisis situations (for example, Crichton 2009; Henstra 2010; Warren 2010) and its formative relationship with risk management. The approaches of emergency management and business continuity management in academic literature are seen as
‘risk minimisation and mitigation approaches’ (Warren 2010, p. 248). The relationship between BCM and emergency management (Figure 7) is defined as interrelated, in the sense that emergency management may drive the enactment of a business continuity plan for an organisation. Risk management is seen as the encompassing literature that envelopes these two risk-mitigating frameworks.

![Figure 7: BCM in the Context of Risk Management](Image)

This literature’s value to the current research is that it demonstrates how emergency management incidents should be viewed by BCM as potential disruption scenarios that may need to be considered when implementing a BCM programme. An emergency may be caused by numerous reasons, such as floods, fires and storms. The cause is irrelevant; what is necessary is that the organisation is prepared to manage the crisis or disruption if it affects the organisation or customers who are part of the wider community. It also demonstrates why emergency management is seen as a subset of risk management, which is the foundational framework. BCM is an interrelated framework for emergency management whereby BCM processes or plans may be enacted by the organisation if an emergency affects the organisation. If the emergency does not affect the organisation, then BCM processes are not enacted. Therefore, emergency management incidents may be considered as a crisis or disruption scenario that BCM needs to manage as required. This study will explore likely disruption scenarios (as listed in Section 2.7), but a detailed exploration of emergency management practices is not within the scope of this study.
2.9 Service Recovery

Service recovery is interrelated with BCM due to the fact that a service-recovery incident may enact BCM plans. Service recovery can be defined as the way an organisation responds to what is a ‘perceived service failure’ (Pina e Cunha et al. 2009, p. 657). Service failure is a broad term that encompasses ‘instances in which a supplied service fails to meet customer expectation’ (Smith et al. 1999, p. 439). Michel et al. (2008) explains the three perspectives on service recovery to be (a) customer recovery, which is focused on the customer experience and satisfying the customer after service failure; (b) operation recovery, which is focused on production and delivery processes and attempts to learn from failures to improve processes so as to prevent them in the future; and (c) employee recovery, which concentrates on helping employees succeed in attempting to recover customers or to recover themselves from negative feelings from service failure situations (Michel et al. 2008, p. 254).

There is abundant literature on service recovery (for example, Michel et al. 2009, Pina e Cunha et al. 2009, Rust et al. 2000, Smith et al. 1999, Zeithaml et al. 1996). Interest in service recovery has grown because bad service experiences often lead to customers changing service providers, which in turn leads to ‘lost customer lifetime value’ (Rust et al. 2000). Favourable recovery positively influences customer satisfaction, ‘word-of-mouth behaviour, customer loyalty and eventually, customer profitability’ (Michel et al. 2009, p. 254). Effective service recovery management is ‘the integrative actions a company takes to re-establish customer satisfaction and loyalty after a service failure (customer recovery), to ensure that failure incidents encourage learning and process improvement (process recovery) and to train and reward employees for this purpose (employee recovery)’ (Michel et al. 2009, p. 267).

In the context of business continuity management, service recovery incidents may drive disruption scenarios that a BCM framework may need to manage, especially in the private sector, where product/services drive revenue and profitability.

Service-recovery literature was reviewed for this study to define its relationship to field of BCM. It is an interrelated field in that, BCM plans may be enacted by a service-recovery incident. Therefore, such incidents may be a potential disruption
scenario that BCM needs to manage. The relationship between service recovery and BCM is similar to that between BCM and emergency management. This study explores whether disruption scenarios are a key design element for BCM, and if so, which disruption scenarios are most likely to affect local government. A detailed exploration of service recovery is however not within the scope of this study.

The objectives of Sections 2.3 through to 2.9 have been to substantiate the research gap by assessing the formative, interrelated and dependent literatures, that have influenced and informed the development of BCM. Initially, the dependent literature fields of business continuity planning, disaster recovery planning and emergency response management were reviewed and their relationships to BCM explained; the plans extracted from these frameworks will be explored as key design elements for an effective BCM programme. Following from this, the literature fields of risk management and crisis management were briefly reviewed acknowledging their formative influence on BCM, including the business drivers that have influenced the development of BCM within the sector. This also provides this study with common disruption scenarios that will be explored to ascertain which are most likely to affect the sector. Finally, the interrelated fields of emergency management and service-recovery literatures were examined and outlined as to how they have helped shape BCM, and the study’s exploration was expanded to encompass disruption scenarios from an emergency management and service-recovery literature perspective.

2.10 Public Sector and Local Government
Public-sector and local government literature on BCM, risk management, business continuity planning and disaster recovery planning is limited. Moreover, no research has been located that examines BCM in the Australian local government context. Limited literature is available that investigates the public-sector experience with BCM the majority of that being in the government health sector (for example, Geelen-Baass & Johnstone, 2008, Roberts & Molyneux, 2010, Wainwright, 2007). This literature furnishes further support to address the knowledge gap in the exploration of BCM specifically within the local government sector.

As D’Arcy (2007, p. 25) explains ‘Municipal business continuity is unique in many respects; any local government of any size is really many businesses working
together as they plan, pass laws and provide services’. Local government offers unique services that cannot be replicated by the private sector, such as licensing, approving applications and providing certifications. Local governments were established by state governments to take responsibility for a number of community services. Local government powers are defined by the state government that established them. Each council is a statutory corporation and can sue or be sued as a corporate entity. Statutory corporations can be equated to small or medium enterprises depending on the size of the council. Local government powers are constrained in NSW by the Local Government Act 1993, which sets legislative requirements that can limit local government’s capacity to be self-determined.

The Local Government Act (1993), Section 24 states:

Councils have the ability to provide goods, services, and facilities and carry out activities, appropriate to the current and future needs within its local community and of the wider public, subject to this Act, the regulations and any other laws.

Additionally, minimal literature exists that concentrates on how the Australian government has used frameworks and standards when implementing BCM programmes. ‘The literature directly related to public sector management in these scenarios (the role of business continuity in crisis situations) is, however, very limited’ (Warren 2010, p. 248). Employees from the private sector are more aware of ‘the need of business continuity planning, its terminology, and methodology compared to employees in the public sector’ (Lindstrom et al. p. 252). All levels of governments by means of the public service not only have the duty to provide services to the community, but also have a responsibility ‘to show leadership in times of natural disasters and crisis. The public sector should, perhaps even more so than private enterprise, be prepared to meet major disruptions to operations’ (Warren 2010, p. 249). Scholarly literature tends to focus on emergency management programmes (Henstra 2010; McEntire & Myers 2004). Exploring how local government in NSW currently engages with BCM needs further research. How do councils respond effectively to crisis and disruption scenarios and their aftermath? How does local government undertake business continuity management? Herbane
(2010) reaffirms this similar lack of research in the small to medium enterprise (SME) field, stating that ‘the dearth of literature is profound’ (p. 44). He confirms that a gap exists in the SME literature in relation to BCM and the need for further research. Swartz (2003) found that fewer than 10% of SMEs have implemented crisis management, contingency planning, business recovery and business resumption plans. Swartz (2003) urges that future research on BCM in this SME field should focus on the following topics;

- How are decisions made about whether and how to undertake crisis and business continuity planning in SMEs? Such a question addresses the driving force, trade-offs and limitations when establishing a planned response to disruption.
- To what extent are SME owners and managers aware of how to pre-empt and respond to disruption? This points out the need for an evaluation of the experience, training and skill-sets required of owners and managers to carry out risk and business-continuity analyses.
- How does improved resilience affect business survival for SMEs in financial and non-financial terms? Highlighting the need, for an evaluation of the business benefit of implementing business continuity management programmes.
- Absent still are systematic studies of crises impact on SMEs (Momani 2010; Swartz 2003) ‘A clearer understanding of the profundity of loss arising from a crisis may further stimulate, owners, managers and supporting agencies to reconsider their commitments to the improvement of small business resilience’ (Herbane 2010a, p. 61).

This literature confirms a knowledge gap in the local government experience of BCM, and that this BCM knowledge gap extends to the public and private SME sector as well. Thus, it encourages further inquiry into BCM in the local government, public-sector and SME contexts.

2.11 Conclusions

This literature review has depicted the key literatures that have influenced BCM (Figure 1). Section 2.2 outlined the literature that exists on BCM best practice from the academic and practitioner-standards perspectives. This literature is of primary theoretical relevance, and has informed the development of a framework that can be
applied systematically to profile and provide empirical evidence on how BCM is used within the local government sector. It has also facilitated access to a set of key design elements for BCM that are sourced from both academic literature and practitioner standards. This final set of consolidated design elements from the literature will be used to provide a benchmark for a comparative analysis with those design elements derived from an analysis of empirical data.

Sections 2.3 to 2.5 outlined the dependent literature fields of business continuity planning, disaster recovery planning and emergency response management and their relationships to BCM. In this study, the plans extracted from these frameworks will be investigated as key design elements for an effective BCM programme for local government. Sections 2.6 through to 2.7 briefly reviewed risk-management and crisis-management literature, acknowledging their formative influence on BCM, including the business drivers that have influenced the development of BCM within the sector. Sections 2.8 through to 2.9 reviewed the interrelated fields of emergency management and service-recovery literatures and examined how they have helped shape BCM, expanding the study’s exploration to encompass scenarios from an emergency management and service-recovery literature perspective. Section 2.10 reviewed BCM in the public-sector and local government literatures to assess current research on this topic in this sector and substantiate the knowledge gap.

In summary, there is minimal literature available on the experiences of BCM within local government, and there are limited works on the public-sector experience. Consequently, there are significant gaps in knowledge on BCM in this context, and a need for further research is clearly apparent. Based on this opportunity, the two research questions were formulated for the current study. The approach taken to address these research questions is the subject of the following chapter.
CHAPTER 3 - METHODOLOGY

3.1 Introduction
The purpose of this chapter is to describe the research methodology pursued in this study, beginning with an overview of the qualitative research process. Section 3.2 details the multiple case study methodology employed by this study, which includes a description of the cases and participants. Section 3.3 discusses the methods used for gathering the empirical data. Section 3.4 reviews the ethical considerations and strategies employed to maximise validity and reliability. Section 3.5 provides an overview of how the data sets were analysed and interpreted. The chapter concludes with a summary of the research strategies deployed. Figure 8 illustrates the methodological framework pursued in this research. The framework was designed to enable a rich data set regarding the phenomenon of BCM in local government to be collected and analysed, while ensuring that perceptions, experiences and current practices were captured from participants in multiple local government locations. This framework also serves as the discussion structure of this chapter.

Figure 8: Qualitative Methodology Framework
3.1.1 Qualitative Methodology Framework Overview

To address the research questions defined in Chapter 1, Section 3, this study employed a research strategy that was grounded in social constructivism (discussed in detail in Chapter 1, Section 5). A multiple case study framework was deemed the most appropriate methodology, as it enables rich qualitative data sets to be collected and drawn upon to promote a deeper understanding of the subject under investigation. It began with the collation and analysis of current documents on BCM and related matters that exist within the case councils participating in the study. In parallel, a thematic analysis on the available literature on BCM use in the public, private and local government sectors was undertaken. This analysis culminated in the production of a BCM maturity model and the identification of a set of key design elements that previous studies and practitioner standards have considered necessary for an effective BCM programme.

These matters were empirically explored using a qualitative multiple case study methodology. Five case councils in NSW were engaged in the study, and methods involving semi-structured interviews and a focus-group activity were performed with key stakeholders from within the participant councils. These key stakeholders were managers within the case-study councils. These case councils were geographically spread to ensure that both city and regional perspectives were taken into consideration. The sample also included large, medium and small councils, as the size of the organisation could possibly influence priorities and BCM strategy development. Four participants from each case council participated in the inquiry, with representations from both the business and technical sides. This ensured that BCM was studied and assessed from both a process-owner and participant perspectives.

This study’s first objective was to provide empirical evidence of how local government currently engages with BCM. The literature review informed the development of the semi-structured interview questions, enabling the collection of the empirical data. The focus-group activity sought consensus between participants on how some programmes have been implemented to date within local government. The second objective was to ascertain key design elements necessary for a BCM
framework best suited for local government. Design elements were derived from critical analysis of current literature that represented academic and practitioner perspectives. The consolidated list of design elements served as a comparative benchmark to those design elements identified empirically through semi-structured interviews and a focus-group activity with key stakeholders within the five case councils. A final analysis process then drew upon these two lists of key design elements to provide one consolidated list of BCM design elements that are deemed most relevant and significant to the sector.

### 3.2 Multiple Case Study Methodology

An exploratory, multiple case study methodology was chosen to investigate the phenomenon of BCM in the local government context. This approach accessed five case-study councils and conducted 19 individual semi-structured interviews and one focus-group activity involving the interview participants. Multiple case studies are commonly used for close qualitative inquiry that looks into a contemporary phenomenon in its real-life context when the boundaries between phenomenon and context are not clearly observable and in which multiple sources of evidence are used (Yin 2003). It enabled the study to access different participants who construct meaning in different ways, as ‘it is through the daily interactions between people in the course of social life that our version of knowledge becomes fabricated’ (Burr 2003, p. 5). Tellis (1997) advocates that a multiple case study helps strengthen the results by replicating the pattern-matching, thus increasing confidence in the robustness of the research. He defines the multiple case study approach as a triangulated research strategy, whereby the phenomenon is studied from multiple perspectives, providing multiple sources of data to ensure the validity and integrity of the study. Or, put simply, evidence from ‘multiple cases is considered more convincing’ (Yin 2003, p. 46). Such was the motivation in pursuing this approach in this study.

Moreover, at the individual case level, Yin (2011) claims that case study research can be applied, if looking for answers to how and why questions, during an investigation from a real-life view. It is an ‘appropriate methodology given that the research inquiry is a descriptive question that requires a rich description and in-depth study’ (Yin 2011, p. 5). This study presented many ‘how’ and ‘why’ questions, specifically
on the views and actions of participants engaged in the phenomenon of BCM within each specific case council.

3.2.1 The Cases

Five councils were studied and some characteristics of each are listed in the table below:

<table>
<thead>
<tr>
<th>Council</th>
<th>Location</th>
<th>Geographic Size (km²)</th>
<th>Area Population</th>
<th>Number of Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hurstville City Council</td>
<td>City – South Sydney</td>
<td>23</td>
<td>79,648</td>
<td>330</td>
</tr>
<tr>
<td>Rockdale City Council</td>
<td>City – South Eastern Sydney</td>
<td>30</td>
<td>98,360</td>
<td>400</td>
</tr>
<tr>
<td>Bankstown City Council</td>
<td>City – South Western Sydney</td>
<td>77</td>
<td>195,321</td>
<td>620</td>
</tr>
<tr>
<td>Wollongong City Council</td>
<td>Regional – Illawara region</td>
<td>714</td>
<td>292,195</td>
<td>1200</td>
</tr>
<tr>
<td>Tamworth Regional Council</td>
<td>Regional – New England Region</td>
<td>9893</td>
<td>60,000</td>
<td>530</td>
</tr>
</tbody>
</table>

Table 4: Case study councils

General Managers of those 5 councils representing regional and city councils were sent a letter requesting their participation in the study. These 5 were primarily selected based on the following considerations: their variable geographic placement in NSW and the sizes of their organisations; their representation of a broad and diverse population demographic across both city and regional areas; and their likely representativeness of most if not all councils across NSW dealing with the numerous and complex challenges facing local government. The BCM level of experience was not a consideration when selecting the cases, as the intent of the research was to explore the current experience of BCM and not bias the outcome by selecting cases that only had extensive experience with the phenomenon under exploration.
3.2.2 Participants

The participants in this study were all managers accountable for BCM practices as the risk manager, IT manager, human resources manager and representative section managers of their councils. They oversaw, influenced and actively engaged with BCM and its objectives on a regular basis. They provided operational-participant, policy-owner and process-owner perspectives. Their experiences, perceptions, opinions, beliefs and attitudes towards current and future business methods, practices and processes for BCM, ensured that the study explored the phenomenon from a strategic and business-process practitioner perspective.

Risk Manager

This role is responsible for managing the risk-management framework for the council. Responsibilities and interactions are cross-functional and span the entire organisation. The role is responsible for coordinating all risk-management activity within the council. In relation to this research study, the role would encompass the key strategies, operational activities and perceived roadblocks affecting BCM. Risk managers have a strategic and a formative influence on how BCM is run, and provide a process-owner and strategic perspective to this research study.

IT Manager

This role is typically accountable for managing the technology systems and infrastructure for the council. Responsibilities and interactions are cross-functional and span the entire organisation. The role is responsible for strategic and operational coordination of all systems and technology management within the council. In relation to the study, this role would encompass key operational activities and perceived technology issues affecting BCM. Their input was considered highly valuable because BCM depends heavily on technical infrastructure recovery processes and plans. IT managers have a formative influence on how BCM is run, and provide a process-owner and an operational-practitioner perspective to this research study.
**Human Resources Manager**

This role is typically accountable for all people-focused activities including organisational development, workforce planning, recruitment and selection, performance management, training and development and workplace health and safety. The human resources manager’s responsibilities and interactions are cross-functional and span the entire organisation. In relation to the study, this role would encompass key strategic and operational activities and workforce issues affecting BCM. Their input was considered highly valuable because BCM depends particularly heavily on people, as well as processes and plans. Human resource managers have a formative influence on how BCM is run within the council. Their general experience with BCM aided the study by incorporating workforce and personnel-management aspects.

**Section Manager**

Section managers’ responsibilities and interactions are representative of their business units within the council. In relation to this study, this role could be any manager within the organisation with operational responsibility. Their input was considered valuable because BCM is highly dependent on section managers understanding the role they play in BCM and having recovery processes and plans in place that support the BCM programme. They do not directly control how the BCM programme is run, but they are key contributors in the implementation of the programme; they provided a participant's view to this study from a section-manager participant’s perspective.

### 3.3 Data-Collection Methods

This research study used four data-collection methods; documents, literature reviews, semi-structured interviews and a focus group.

The data collection involved three steps:

Step 1 – The human resources manager of each case council was asked to provide the researcher with current council documentation on organisational plans and BCM practices for the BCM document review.
Step 2 – Nineteen individual semi-structured interviews with risk, IT, human resources and section managers were conducted. This participant group excluded the researcher, who is a manager at one of the case councils.

Step 3 – One focus group was conducted to gain consensus among participants on the findings from Step 2.

Justification for the data-collection methods used in this study now follows.

3.3.1 BCM Document and Literature Review

The BCM document review was used to gather evidence and understanding of current BCM documentation within the participant councils and an indication of how they had engaged with BCM. The BCM literature review was used to ascertain how the public and private sectors had engaged with BCM and to derive a BCM maturity matrix and comparative benchmark of BCM design elements for this study.

BCM Document Review

Yin (2011) suggests that a document review is one of the main data sources typically used in case studies. It is commonly combined with other qualitative research methods to achieve triangulation. For this study it involved the collection and examination of existing records or documents on BCM within the case councils. A document review of policies, organisational plans and BCM practices in each council provided value to the research by allowing the researcher to determine how BCM is perceived from a strategic and operational perspective, and to triangulate data collected through the semi-structured interviews. It thereby assisted in the identification of significant patterns and themes.

Documents included, but were not limited, to the following:

• Strategic plans
• Operational plans
• Risk management policies, procedures and practices
• Business continuity, policies, procedures and practices.
**BCM Literature Review**

Cooper (1998) refers to a literature review as a report that aims to review the salient points of current knowledge i.e. the researcher examines reports of previous studies related to the topic of interest, including substantive findings as well as theoretical and methodological contributions. A literature review on BCM in the public, private and local government sectors was undertaken and used to inform the research questions for both the semi-structured interviews and the focus group. Design elements were derived from a critical analysis of current literature that represented academic and practitioner perspectives.

### 3.3.2 Semi-Structured Interviews

Fontana and Frey (2000) define individual interviews as a formalised technique of data collection, which involves interviewing participants one-on-one. The interviewer follows a question guide, but can, if appropriate, follow topical trajectories in the conversation that may stray from the guide. It is a popular data-collection method that can increase the breadth of data, compared to the more structured interview types, which may constrain the results.

Semi-structured interviews were deemed the most appropriate method as they would enable richer information to be collected, such as opinions, current business methods, practices and processes rather than only espoused policies. This let the researcher tap into rich data across the five case councils to answer the research questions. Having an open and flexible approach meant that issues raised by participants could be explored. Therefore, even though the same set of interview questions was used, the method allowed each participant to follow their individual trajectory and accounted for each individual circumstance or context. The use of open-ended questions enabled an exploratory approach that allowed for issues to emerge from the participants, providing insight into the participants’ perspectives and personal views.

The nature of semi-structured interviews also provided the researcher some flexibility in the interview schedule and enabled follow-up questions to specifically focus on an individual participant’s responses. It enabled the researcher to pursue a deeper insight into specific points. Interviews lasted for up to 50 minutes each, with
an approximate average length of 45 minutes. The interview recordings were transcribed, and participant pseudonyms were used in the transcriptions to separate process-owner and participant perspectives. Appendix A contains participant details; Appendix B lists the questions in the interview guide.

This study used principles from Patton’s (1990) guidelines to researchers on how to build effective questions in semi-structured interviews to develop the agenda and questions for both the semi-structured interviews and focus group. Patton’s (1990) six primary kinds of questions are:

1. Experience or behavioural questions relating to what participants do or have done
2. Opinions or value questions designed to understand the participant’s interpretive and cognitive processes
3. Feeling questions designed to understand the emotional responses, participants have to their experiences
4. Knowledge questions relating to factual information the participants have
5. Sensory questions about what the participant has seen or heard
6. Background or demographic questions concerning the identifying characteristics of the participants such as age, occupation and education (pp. 290-293)

The Interview Questions

All participants were given the same interview questions. Appendix B gives a table with the semi-structured interview agenda and rationale for the questions asked in these one-on-one interview sessions. The questions were grouped into three sections. Section A focused on demographic questions. Section B explored participants’ views on current BCM programme practices. The questions explored key BCM characteristics and where the participants perceived their councils sat in regards to maturity of these four key components:

- Organisational framework of the programme
- Plans & processes
• Communication framework of the programme
• Staff engagement

A component of this exploration also included gaining participants’ views of likely disruption scenarios that could affect their councils. Participants were asked to rate the likelihood these six scenarios which had been sourced from standards literature (ANAO 2009; Standards Australia/Standards New Zealand 2006), would affect their council;
• Permanent destruction and loss of building
• Temporary denial of access to premises and/or precinct
• Major disruption or extensive loss of information technology and/or telecommunications infrastructure
• Unplanned or permanent loss of vital records
• Loss of key staff
• Loss of key external dependencies

Section C explored what design elements of a BCM programme were thought necessary or important from a participant perspective.

Most of the questions used were Type 2: opinion questions. There were some experiences (Type 1), knowledge (Type 4), and background (Type 6) questions, but no feeling (Type 3) or sensory (Type 5) questions, as they were not considered appropriate or necessary for this study due to the focus being a management practice. Participants were interviewed separately. These face-to-face interviews were held in private meeting rooms within the case councils. The interviews were digitally recorded on an iPhone. Three process methods recommended by Patton (1990) were applied to the conduct of the interviews in an effort to:

1. Give participants enough time to contemplate and ponder.
2. Keep the questions open ended, Using ‘what’ and ‘how’ (Patton 1990, p. 35) at the beginning of questions.
3. Establish rapport with the participants by ensuring the questions are understandable and rewording when required (Patton 1990)
3.3.3 Focus Group

A focus group, according to Krueger and Casey (2000), is a ‘carefully planned series of discussions designed to obtain perceptions on a defined area of interest in a permissive, non-threatening environment’. In-depth group interviews are used in which participants are brought together for a short time and asked about their perceptions, opinions, beliefs and attitudes towards a defined area of interest. This is an effective method for gaining collaborative consensus on a concept or idea. One of the distinct features of focus-group interviews is their group dynamics; hence the type and range of data generated through the social interaction of the group are often deeper and richer than those obtained from one-to-one interviews. The participant group does not necessarily have to be a representative sampling of a population, but participants must have something to say on the research topic. The uniqueness of a focus group is its ability to generate data based on the synergy of the group interaction (Greenbaum 2000).

It is acknowledged that focus groups as a research method may have disadvantages. These include the possibility of bias, participants misinterpreting the questions, reliability issues due to the lack of standardisation, participant group size, group dynamics and ensuring that the group membership is representative of the initial sample interviewed. This study used several approaches to manage these concerns. The principles used in the semi-structured interviews, recommended by Patton (1990) and Seale and Firmer (1998), were also used with the focus group. The focus group had 10 participants which was representative of the population under study. Demographically, this group represented both process-owner and participants perspectives, and all had been previously interviewed. The size was at a manageable level, as Krueger and Casey (2000) suggest that between six and 10 participants is large enough to gain a variety of perspectives and small enough not to become disorderly or fragmented.

To further explore the themes and outputs generated from the initial analysis of the semi-structured interviews, the focus group involving most of the interviewed participants was performed at Hurstville City Council in October 2013. This collaborative session allowed participants to examine the empirical evidence
collected on the BCM maturity of the programmes studied and provide confirmatory feedback. It also assisted in attaining consensus within the group on what key design elements were considered most suitable and effective for local government. This focus group took approximately two hours and was recorded with all the participants’ permission. A private meeting room at Hurstville City Council was used to ensure confidentiality and privacy from Hurstville City Council staff.

**Focus-Group Questions**

The focus group used the agenda and focus-group questions outlined in Appendix B, which provides the full template used by the researcher at the focus group and the rationale as to why those questions were used in the session. Section A of that agenda focused on questions exploring the participants’ views of the assessment of the BCM programmes. Consensus was sought from the group on the BCM maturity derived from semi-structured interviews.

Section B of that agenda focused on exploring participant’s views on likely disruption scenarios for the local government sector. The objective was to understand what disruption scenarios were most likely for the sector. Prior interview analysis provided the participants with an initial list derived from the literature review:

- Major disruption or extensive loss of information technology and/or telecommunications infrastructure
- Loss of key external dependencies
- Temporary denial of access to premises and or precinct
- Loss of key staff
- Permanent destruction and loss of building
- Unplanned or permanent loss of vital records.

Questions requesting participant views on disruption scenarios were sought. The objective was to reach a consensus with participants on a final, prioritised list.

Section C of the agenda presented to the participants, as derived from their interviews, the design elements they considered critical to an effective BCM programme. The objective was to test the criticality of those key design elements in dealing with three disruption scenarios most likely to affect the local government
sector (these are listed below). Art Kleiner (1999) describes scenario planning as a method that ‘forces us to learn to see more clearly, the possible worlds in which the unimaginable, the unthinkable, the ungodly, and the unpredictable actually come to pass. If we can feel our way around in them in our imagination for a while, then we can prepare ourselves for whatever future does come to pass’ (Kleiner 1999, p.77). Scenarios provide a way for an organisation to practice the future, to be better prepared and able to adapt as change unfolds.

- Scenario 1 Major disruption or extensive loss of information technology and/or telecommunications infrastructure. This scenario was rated in the interviews by the participants of this study as the most likely to affect their councils. In the focus group, participants were asked to imagine that an operational technology system had failed.

- Scenario 2 Loss of key external dependencies. This scenario was rated in the interviews by the participants as most surprising, and most participants believed their current BCM programme did not help them or prepare them to manage such a scenario. In the focus group, participants were asked to imagine a major contractor such as a waste-service provider failed to comply with the weekly duties of picking up the bins.

- Scenario 3 Loss of building. This scenario was rated in the interviews by the participants as the least likely to affect their councils. Yet all participants indicated that their current BCM programmes were focused on managing this particular scenario. In the focus group, participants were asked to imagine their Civic Centre being burnt down.

The scenario planning activity performed in the focus group synthesised the different perspectives between the individuals and enabled the study to derive a confirmatory list of key design elements for BCM that could be effective when dealing with disruption scenarios likely to affect the local government sector.

3.4 Ethical Considerations

It was essential to conduct the research in a reasonable and unbiased manner, in particular by following the stringent ethical guidelines specified by the University of Wollongong to guard the rights of the participants and their councils. Approval was granted by the Human Research Ethics Committee (HREC) of the University of Wollongong. The key ethical issues addressed were those of informed consent,
confidentiality of records, possible risks to participants and payment for participation. Ethical clearance was given in September 2012. Incentive payments for participating in the study were never considered. No participants were financially disadvantaged, as the interviews were carried out during normal business hours.

Concerns about the independence of the researcher were addressed by carrying out in-depth studies of five local government examples. Hurstville City Council is one of the five case councils that participated and as such the researcher, who is the IT manager of Hurstville City Council, was not interviewed for this case council. No participants were in a dependent relationship with the researcher. No council staff members directly reporting to the researcher were approached to participate in the research. To avoid biases stemming from the researcher, the researcher adopted a low profile and ensured that all interviews took place in surroundings familiar to the participants. Techniques were adopted such as the researcher focusing on listening rather than talking when interviewing participants, recording the data accurately and providing full, candid reporting.

3.4.1 Informed Consent

The researcher initially contacted the general manager of each of the case councils to attain consent and support at the executive level. This ensured organisational commitment for the research project before participants were approached. The researcher approached the general manager by telephone to introduce the research and followed up with an email that contained an organisation invitation letter and consent form.

Once the organisational commitment was received via a signed consent form, the researcher contacted the human resources manager by telephone to seek their participation in the study and to request their help in facilitating contact with other managers within the council. The researcher then sent an email to the human resources manager with the participant’s information sheet and consent form. Contact with other defined managers was initially via the human resources manager of each council. They made contact with the managers and gave them a copy of the participant’s information sheet and consent form. They requested permission for the
researcher to make direct phone contact with the defined managers. Once those managers granted permission, the researcher phoned the managers to introduce the research. All participants were then given time to provide consent. In this first contact with participants it was made clear that their involvement in the study was voluntary and that they could withdraw their participation from the study and withdraw any data that they had provided through the document review and interview activities of the research without penalty. It was made clear to participants that withdrawal would not be possible during or after the focus-group activity, as withdrawing information from the focus group would be difficult due to the collaborative nature of this activity. They were also advised in the participants’ information sheet that refusal to participate in the study would not affect their relationship with their case council or the University of Wollongong.

The consent tools used are listed below;
1. Council letter of invitation to the General Manager
2. Council’s consent form from the General Manager
3. Participant’s information sheet
4. Participant’s consent forms.

Examples of these templates can be found in Appendix C.

3.4.2 Confidentiality of Records

The subject of BCM is seen in the business community to be ‘highly sensitive (particularly if no adequate plans exist within the firm’ (Herbane, Elliot & Swartz 2004, p. 444). It was therefore absolutely imperative that neither the participants nor any data associated with participants enabled them to be identified. Data from all case councils was de-codified to remove any reference to individuals and individual councils. Interviewee confidentiality and privacy was maintained. Pseudonyms were used when referring to interviewees and councils. There was no identifiable information in the transcriptions, and participants were requested not to reveal ‘in confidence’ information through the research activities. Therefore, there would be no possibility of identifying individuals to specific information. All data collected throughout the research study was converted to electronic format and stored securely on password-protected personal computers and only accessible to the investigators.
3.5 **Data-Analysis Methods**

Qualitative analysis includes inductive reasoning which starts with observation of parts of the whole or units and ends with generalisations, and deductive reasoning, which starts with generalisations and ends with parts of the whole or units (Creswell 2007). Both types of reasoning occur at various stages of qualitative analysis. Analysis and interpretation of the data began during the data-collection stage, with the researcher also making notes and journal entries of her perceptions of those data streams. Results were inductively derived from those research activities prior to the focus-group activity; these were then presented to participants at the focus group for iterative reflection and confirmation.

Thematic analysis of the data streams was deemed the most appropriate data-analysis method, as it serves as an effective tool to ‘illuminate the process of social constructivism’ (Joffe 2012, p 213). Thematic Analysis is a method for identifying and analysing patterns of meaning in a dataset (Braun & Clarke 2006), and it thereby illustrates which themes are important in the description of the phenomenon under study (Daly et al. 1997). Ultimately, a thematic analysis should highlight the most salient points of meanings present in the dataset. If one were looking at how professionals view a ‘phenomenon’, for example, a thematic analysis of interviews with a carefully chosen sample of such people would reveal how they represent the various professional perspectives on the ‘phenomenon’ in question. Thus, a thematic analysis can tap the latent drivers concerning an issue such as uptake of BCM practices within a specific sector. Figure 9 illustrates the key steps undertaken in the data-analysis process in this study; they will be discussed in detail in the following paragraphs.

In Step 1, an initial literature review and BCM documentation review were undertaken to inform how BCM maturity could be gauged within an organisation and what are considered the necessary design elements for an effective BCM programme. Thematic analysis of these texts and documents was conducted. Articles were read and reread with common themes highlighted across the literatures.
Step 2 involved the transcription of the 19 interviews. The primary focus of analysis during this step was the coding of interview data. The data-analysis techniques included categorising, describing, and synthesising the data. Reducing the data, by means of coding by themes and sub-themes, enabled the ‘description and interpretation of the phenomenon under study’ (Wiersma & Jurs 2005, p. 207). Open coding is the initial stage of looking through the data to locate themes and assign category titles. Categories are then clustered, guided by the research question and emergent themes, to make sense of the data. Selective coding is the deepest and final level of data analysis, as the researcher chooses themes and compares and contrasts them after all data-collection is completed. Tables were used for the selective-coding phase of analysis, enabling the researcher to continue to look for similarities, groupings, clusters, categories and items of particular significance.

To complete the analysis in Step 2, transcripts of the 19 interviews were imported into NVivo, a software application that can be used to organise and analyse any volume of data effectively (QSR 2007). This software enabled the material to be sorted into meaningful sets ready for coding. Initially auto-coding was used to collate the data. The auto-coding tool within NVivo uses the formatted headings within a Word document enabling NVivo to use its search procedures to find those headings and return the whole section in which it occurs. This is a considerable time-saver that allows data to be handled in sections (Richards 1999). Using this process, participant responses were grouped based on the interview questions. These sections were then read and reread and nodes and sub-nodes were created with supporting evidence (quotes). Overall, 17 categories (nodes) were created in NVivo, which mirrored the interview guide. Interview titles in each coding report sorted the responses by participant alias. Additional secondary nodes for each of the primary nodes were created based on probing questions and emerging themes as each line of text was read, and coding was refined within the nodes, resulting in 16 primary nodes with 249 subcategories (secondary nodes) for the 19 interviews. A frequency-count report from NVivo was used only to provide further supportive evidence. An example of these coding reports is provided in Appendix D. Initial analysis of the
results was then presented to participants at the focus group for confirmation and consensus.

Step 3 in the analysis process incorporated the transcription of the focus-group activity. It was divided into two distinct documents. The first transcript focused on BCM maturity and disruption scenarios likely to affect the sector. The second transcript focused on BCM design elements. These transcripts were then read and reread, and through thematic analysis key themes were tabled. Tables were used in the final stages of the data-analysis process, which aided triangulation. This data was then used as confirmatory evidence against outcomes from the interview data analysis, which enabled this study to answer both research questions.
Figure 9: Data-Analysis Process
Triangulation – comparing and considering data from multiple sources (Wierma & Jurs 2005) - was a critical part of the data analysis process. In this study, data triangulation included various council site cases and participant perspectives and data from document reviews, interviews and a focus group. In this study, as recommended by Wierma and Jurs (2005), the results inductively derived from the data analysis resulted in a summary of prevalent themes. These themes will be discussed in Chapter 4.

A system network was also used to iteratively develop the final list of key design elements and their components that were found to be most relevant and significant to the case councils represented. This process assisted in the systematic synthesis of all the data sourced from literature and empirical field work in respect to those final key design elements which reflect a convergence of knowledge and reclassification of that knowledge. This process is further explicated in Chapter 4, Section 3.

3.6 Conclusion
This chapter described the methodological choices made in this study. These included the multiple case study methodology adopted and the methods of document review, semi-structured interviews and focus group used to collect data. This study engaged five case-study councils, performed 19 interviews and conducted a focus group that examined BCM in the local government sector. To organise and assist in the thematic analysis of the interview data, the software tool NVivo was also used. To aid the development of key design elements a systems network was also utilised. The findings from these processes are presented in the next chapter.
CHAPTER 4 – RESULTS

4.1 Introduction

The participants in this study provided rich and insightful comments relating to their experience of BCM. This results chapter is structured into two key areas of focus for this study:

- BCM maturity - a profile of the effectiveness of BCM programmes within the local government sector
- BCM design elements - key components and processes necessary to ensure that a BCM programme is operating effectively within an organisation.

In the discussion below, data from documents, interviews and the focus group have been categorised and distributed into themes and sub-themes. First a definition is provided for each theme/sub-theme, followed by an overview of findings with references to key comments from participants. Finally, an overall summary of the section outlines the researcher’s findings in relation to the section; where relevant, references are made back to the literature review. Section 4.2 focuses on assessing the maturity of BCM within the case councils. Specifically, this covers participants’ understanding of BCM, which includes business drivers, customer perceptions of continuity, current impediments, awareness of BCM knowledge and BCM characteristics and their council’s maturity, resulting in a BCM maturity profile. Section 4.3 identifies and explores the design elements, shown to be most important to an effective BCM programme for the local government sector, and provides a comparative analysis against those derived from literature. Section 4.4 concludes the chapter.

4.2 BCM Maturity

To explore and gain an understanding of the practice of BCM within the local government sector, this study focused first on participants’ initial understanding of BCM, followed by their experiences of the BCM programme in which they participated in. The objective here was to profile current approaches within the sector through the use of a BCM maturity model derived from the literature. As highlighted in the methodology chapter, participants came from varied backgrounds, and either were directly responsible for the practice of BCM or they were employees who represented the wider community within their council who were not accountable for
BCM. This enabled the study to investigate and explore BCM from two distinct perspectives a process-owner perspective and a participant perspective. The results are detailed below; Appendix F and G contain sample transcripts of interviews and the full focus-group activity.

4.2.1 Participants’ Understanding of BCM

This process included asking participant’s to define BCM from their perspective, which enabled the researcher to explore current understandings of BCM before sharing its formal research definition with participants. The process also focused on gauging what participants perceived to be the business drivers behind the need for the practice. What was their understanding of current customer expectations? What best-practice tools were participants aware of, that could assist them in managing effective BCM programmes? The researcher also sought participants’ feedback on her definition of BCM, enabling the study to gain consensus on a BCM definition from a local government perspective.

Five key themes emerged from this process of defining BCM from a participant’s perspective.

- Continuity
- Disruption
- Customer perceptions
- Business drivers which encompassed compliance and resilience
- Awareness of BCM frameworks.

The following sub-section examines each of these results.

Continuity

In the context of business continuity, continuity describes the ability of an organisation to continue to provide its fundamental services in the event of a disruption. Zawila-Niedzwiecki (2010) defined it as a ‘postulated state of immunity of an organisation against disruption’ (Zawila-Niedzwiecki 2010, p. 101). Continuity was a key theme that permeated through the participants’ definitions of BCM, with process owners being primarily concerned with the continuity of services. Representation was primarily from the risk-management and IT management perspective, which included director-level perspectives. One of the risk managers participating in this study defined BCM as ‘the processes and procedures that you
have in place to ensure that should a disruption occur, you are able to continue operating as effectively as you can.’ Another risk manager defined BCM as the ‘systems and procedures in order for Council to continue to provide its services throughout the initial emergency event right through to recovery and rebuilding.’ This common theme was reinforced by the risk coordinator of a larger council, defining it as ‘the process that enables Council to continue to provide the required services to its community.’

IT managers representing the technical perspective reiterated the continuity focus with one participant stating that BCM was ‘a system that enables the organisation to resume business in a very short period of time’, while an IT Manager of a larger Council defined it as a ‘process to ensure the continuation, viability and ability of Council to perform for customers and community’. A culmination of these definitions was succinctly stated by one of the participants from a medium-sized council who said that it is ‘the management of business operations and continuation under all circumstances and situations/environments’.

Other participants were sourced from broad backgrounds including finance, human resources, customer service, infrastructure planning and project management roles. One of these participants, a project officer in one of the medium-sized councils, defined BCM as ‘the systems and processes in place which allow the organisation to continue to deliver its services/products to stakeholders in times of disruption/crisis e.g. IT systems go down, natural disaster.’ An experienced human resources manager with a background of working in both the private and public sectors defined BCM as ‘contingency plans to ensure that an organisation can continue critical operations until other actions are implemented’. A human resource manager of a larger council reiterated the continuity focus, defining BCM as a programme that ‘ensures the critical processes and services are maintained during the first couple of days of a major disruption to Council.’ An experienced library manager defined BCM as ‘a method of ensuring priority aspects of the business continue after a disruption.’ An infrastructure planning manager for one of the medium-sized councils defined it as the ability that ‘enables Council to continue to provide the required services to its community’. This common theme was reinforced by one experienced finance
manager who believed BCM to be an expansive topic that involved ‘disaster recovery, which is your info systems getting back up again and getting your people in places where they can start working again. It is the business continuity - continuation’.

As indicated previously, the interview responses concerning the definition of BCM strongly supported a focus on continuity of service across the councils. The focus-group data analysis also found that councils’ understanding of BCM is that it should be a proactive management framework to support business in continuity of service if a disruption were to occur. As put by one of the participants, if a disruption event were to occur, ‘there will be significant disruption, but it's more about the continuances of those services to customers’. These results would indicate that participants overall aspired to provide continuity of service to the communities they served.

**Disruption**

Disruption in the context of BCM can be described as ‘the event that interrupts normal business, functions, operations, or processes, whether anticipated or unanticipated’ (Bird 2011, p.20); this was also a key theme that pervaded the empirical data. In this context, participants defined BCM as a reactive measure in response to a disruption. Continuity still was represented in these definitions, but the key focus was the disruptive event. Within the participant group there were differing perspectives on the definition of BCM, acknowledging the fact that some participant aspirations were for continuity, but they understood that their current BCM programmes only catered for response to disruption.

Process owners such as an experienced risk manager called BCM ‘an incident that may disrupt the Council's operations, whether it's on a short term or a day or more of its operations. Then this obviously affects the business ability to carry on its traditional business.’ The governance & risk manager of a medium-sized council defined BCM as ‘the process by which the organisation deals with critical business disruption to enable it to return to business as normal.’ An IT manager defined BCM
as ‘the ability to re-establish business operations from an end-user and technical perspective, following an unforeseen event.’

The participant view which represented finance, human resources, customer service and project management perspectives, continued this theme, with one of the human resource managers defining BCM as ‘scenario planning for what ifs and how we would get through the “what if” with minimal disruption to business services’. A finance manager identified BCM as ‘a plan to ensure critical processes can be performed as required in the case of an emergency’. A customer services manager defined it as ‘the systems and processes in place which allow the organisation to continue to deliver its services/products to stakeholders in times of disruption/crisis - e.g. IT systems go down or natural disasters’.

Clearly within local government BCM is still considered as a reactive process that is initiated in response to a disruptive event. These alternative perspectives of continuity and disruption will be further discussed in Chapter 5.

Customers’ Perceptions

Customers’ perceptions, both conscious and subconscious, of their relationship with a brand (Bird 2011). Participants chose to articulate how they anticipated their customers would perceive their council if a disruption occurred.

There were two distinct perceptions. One view was that ‘it would be negative’, as articulated by the IT manager of one of the medium-sized councils. Similarly, the risk manager of one of the larger councils indicated that ‘the customer experience will be subjective. The people that believe things should simply continue unabated will, obviously, be disappointed.’ Participants, agreed with a human resources manager of one of the larger councils, who believed that the perception would be ‘unsatisfactory. I think all we would say to them is, sorry our systems failed, there's nothing we can do about it’.

The alternative view was focused on customer communication. For example, the IT manager of one of the larger councils stated ‘Like a lot of things, it comes down to
managing expectations. So if they managed expectations well in terms of (saying), ‘Look we're just having a problem but I'll take all the information and I'll do what I can and I'll call you back up or I'll come and see you.’ then I'd probably - unless there was something super time-critical. I probably wouldn’t be overly concerned about it.’ This view was expressed by the risk coordinator of the same council who stated ‘So customers aren't very tolerant of mistakes, and I'm assuming they wouldn't be all that tolerant of an issue in relation to that. So the most critical thing in that would be that we make sure they're informed and engaged and the consultative process is out there from the get-go, from the Mayor or the GM to make sure that these people - everybody's informed as to where we are and what we intend to do about it.’ In support of this view, participants provided two real-life examples of managing customer expectations. A human resource manager conveyed an experience of disruption and how the council managed the incident. ‘We had an incident, the fire in the units last year, you might have heard, where one girl died, and nothing to do with us, but three of our key staff set up a mini customer service centre of sorts to help the residents, because they couldn’t go in the building, they had nowhere to go. Nobody from State Government was helping them. It wasn't our thing to manage. It wasn't our building, it was nothing to do with Council, yet our staff actually stepped in and set up the communication framework within a day of it happening.’ The second event was expressed by a participant of the same council; ‘The scenario that they had in '97, the customer service centre was up and operating within 24 hours. They set up demountable buildings and caravans, which became the customer service office. So, people could still go in and pay their bills, their rates, they could still come to council for information and I believe some of the feedback that they got from the residents was, well done, 24 hours ago you had a fire, but you're up and running pretty much straight away’.

In summary, a majority of the participants shared their concerns that customer perceptions of their organisations would be negative through a disruption. They also were not confident their organisations were prepared to deliver continuity of service. An alternative view was that managing customer communication was critical in meeting customer expectations. The reviewed BCM framework literature shows that this experience has been shared by other sectors (Botha & Solms 2004; Cerullo &
Cerullo 2004; Elliott et al. 2002; Gallagher 2005; Hiles & Barnes 1999), which highlights the need to have a structured and planned approach to communicating with customers.

Finally, the last two themes included business drivers and participant’s knowledge of available frameworks that have assisted organisations both private and public organisations in implementing effective BCM programmes.

**Business Drivers**

Understanding what drives the business need to establish BCM programmes was also important in this study, to profile the application of BCM in the sector. Overall, participants agreed that the primary drivers were categorised into either compliance or resilience.

**Compliance**

Compliance is the ‘fulfilment of requirements in a management system context’ (Bird 2011, p. 15). For the local government sector, the influential management systems are those legislative requirements set by the state government, such as the Department of Local Government and their Better Business reviews.

Fire has destroyed the main offices of two NSW councils. These incidents have driven the sector to ensure that they are better prepared. As succinctly put by the HR manager of one of the participant councils ‘it's an issue that has been raised by the Department of Local Government to ensure councils have appropriate plans to counteract these crises’. This was reiterated by a peer of one of the medium-sized councils; ‘The impression I get is, it was from an external push, like it's best practice to have this and we didn't have it.’

Process owners also stated that compliance was a key driver. A risk managers from one of the smaller councils stated that the focus ‘commenced after the fire that destroyed the Civic Centres at Liverpool and Bankstown. There was concern raised through the General Managers Group at the time. The General Manager of Bankstown did a presentation for the General Managers Group to outline their experience. What the circumstances were that caused disruption to his council arose
because they didn't have a BCM in place’. A risk manager of one of the larger councils stated that the ‘audits carried out by the Department of Local Government Better Practice initiatives, where they review all of council’s practices and found in certain local government areas that they don’t have BCMS in place. So the DLG have requested that Council’s make it a priority to develop them.’ A risk manager from one of the medium-sized councils broadened the idea of compliance to include insurance stating. ‘Well, there are a few reasons. One is, at a broader level, your corporate governance requirements. Another driver is your business what we’ll call property-insurer expectations. They ensure losses resulting from the loss of this building and additional costs that you might incur or loss of revenue and so forth and additional costs of working. So it's in their interests to ensure that we’ve got a continuity plan in place.’

In summary, process owners and participants provided insights on compliance being, as one Corporate Services manager said ‘a legislative requirement’. This parallels experiences from both the private and public sectors, such as the introduction of the US Federal Corrupt Practices Act (FCPA), which has been cited as an early piece of legislation that required organisations to make formal arrangements for keeping and protecting vital company records from destruction (Gallagher 2003; Herbane 2010; Meier 2005). Introduction of legislation drove the emergence of BCM and its incorporation into ‘risk management as a corporate governance requirement’ (Arena et al. 2010, p. 661). This provided a legislative standard in which organisations were made to comply with new business standards.

**Resilience**

In the context of BCM, resilience is seen as the ‘ability of an organisation, staff, system, telecommunications network, activity or process to absorb the impact of a business interruption, disruption or loss and continue to provide an acceptable level of service’ (Bird 2011, p. 35).

Some participants extended the theme of compliance to incorporate resilience. A process owner who is accountable for audit and risk in one of the medium-sized councils stated, ‘It's a bit of both. To comply and also we know people who have had
the experiences of disruption and have not been prepared, so we don't want to be caught.’ Community responsibility drives the need for resilience. A risk manager from one of the smaller councils stated, ‘Community expectation is a key driver. Failure to recover from a crisis will see the community lose confidence with us very, very quickly.’ IT managers from two medium-sized councils reiterated the resilience focus, relating it to ‘good governance and risk. The risk profile, certainly of other local governments losing records and buildings in reasonably recent times has driven the need to be prepared’.

Participants expressed a resilience-based view; for example, a human resource manager of a medium-sized council asserted that the fires of Liverpool and Bankstown were ‘a wake-up call to the whole sector. So it's about always being prepared.’ A finance manager from one of the medium-sized councils characterised the issue as ‘continuation, how do we, if we had a disaster, how could we get up and running again?’ An infrastructure manager of one of the larger councils confirmed that for his organisation, the need to build ‘robust systems and processes’ was a key driver. A human resource manager of one of the medium-sized councils confirmed that their experience of disruption was what provided ‘the impetus to get the IT and processes much more robust’.

Process owners and participants thus provided insights that having resilience was important to keep confidence and maintain credibility with the communities they served. This experience has also been evident in other public-sector studies such as Geelen-Baass and Johnstone (2008), which focused on Australian hospitals being able to continue serving their customers in spite of unforeseen events. A number of studies in the private sector (see Botha & Solms 2004; Cerullo & Cerullo 2004; Elliott et al. 2002; Gallagher 2005; Gibb et al. 2006; Lindstrom et al. 2010; Moore 1995), share similar experiences of organisations seeking to become resilient once struck by disruption.

Summary

The perspectives of both process owners and participants indicate that both compliance and resilience are key drivers of BCM within their organisations. As
stated by an experienced risk manager within one of the smaller councils, ‘It's a bit of both, to comply and also we don't want to be caught’. Participants also reflected that resilience was a natural progression from a purely compliance approach, and that for their organisations the initial driver was the fires that disrupted Liverpool and Bankstown councils; consequently their organisations have taken on the need to be resilient for their communities.

**Awareness of BCM Frameworks**

In this study ‘awareness of BCM frameworks’ is defined as participants having a current understanding of existing ‘best practice’ BCM programme implementation and monitoring frameworks. Analysis of the interview data illustrated that the majority of process owners and participants were unaware of available knowledge of BCM frameworks. A common response, as articulated by the human resource manager of one of the smaller councils was ‘No, sorry, don’t know of any. ‘Only five participants in the study were aware of available knowledge, but made no specific reference to frameworks or guidelines.

Although there was limited knowledge of these available frameworks, participants still shared their views on their relevance to the sector. Participants overall appeared very open to learning from this available knowledge. For example a human resource manager of a smaller council said, ‘My thoughts would be that they could be appropriate from a reference perspective. Priorities vary from private Sector to public. Our focuses are the services rather than revenue. So this would drive a different plan, I believe.’ A participant from one of the larger councils agreed; ‘I think probably the higher [level] principles, yes, you could probably use in local government, but I do wonder whether a one-size-fits-all will work for local government because of the diversity of it. I think local government is very different because it is such a diverse organisation, normally spread over a geographic area, generically speaking. If you look at private enterprise they tend to stick to their knitting and have a core business.’ Another human resource manager who commented ‘I think you'd have to do a mixture, because local government covers such a huge sphere of what we do. From, say, your community aspect to your parks, to water and sewerage and depending on which council it is. So the aspects of what
we cover are huge. I don't think there is one single private enterprise, where you could grab their plan and say that we can use that, because that could be good for our Community Services people, but absolutely hopeless for our parks. So I think it's again, you'd have to rate five or six different ones and bring those together to, because, as I said, the sphere of our activity is so huge.’ A customer services manager of one of the medium-sized councils similarly commented that ‘to implement these programme frameworks as is, I think that's where it doesn't work, because they're different motivations and business intents between the two sectors. So I think it's good for learning’.

Process owners expressed a similar perspective, although there seemed to be a difference in opinion on its direct relevance to councils. Advocates such as the risk manager of one of the larger councils articulated ‘that the private-sector models are essential. It's, in fact, a lot of private-sector development over the decades that have got us to the point we're at with BCM frameworks. Particularly overseas, specifically in the US and in the UK with their various terrorism issues respectively, that they've driven a lot of the development of this to the point now where local government, with its lack of expertise and funding, can pick up the models they've developed. I think what's missing is the imposition of some constructive guidance by the Department of Local Government to help local government customise, the private-sector frameworks and approaches to a more detailed level. So that the plan's relevant to local government and that local government, business continuity could be seen to be fairly consistent across all the local government areas. So that if I went from this council to that council, I could be comfortable that I've got a relatively standardised approach to BCM. I think that's what's missing.’ This mindset was repeated by the IT manager of another of the larger councils; ‘I don’t think that we are any different in short. Like, a BCP is how you bring your operations back up and running. Regardless of what your operations are - to a large extent this is irrelevant. The BCP plan doesn't say it's this or this or this, a BCP plan says figure out what's essential to you and get it back up and running. That shouldn't change whether you're in public or private. What will change is the importance of those things and the funding that will come with it. Each plan may be different in terms of how it's designed, because obviously they are a completely different organisation. So from
that perspective, yeah, they are vastly different, in terms of how you would implement a BCP, but the theory behind them is no different.’ A member of a medium-sized council said ‘The private sector impacts a lot of academia, and a lot of the frameworks are developed in academia. They're tested in small pockets of private sectors. They produce fantastic results and then governments come along and adopt this methodology, but you need the private-sector entrepreneur to test it first. Those are your lab rats, before the big government body goes and adopts. I would say that the private sector would heavily influence because the private sector drives that option of technology and drives technology itself, and because the private sector either survives or it doesn't. You sink or swim, essentially.’

Some process owners were open to learning about BCM from the private sector, but warned of the sector's limitations and appropriateness. The risk manager of one of the smaller councils said, ‘In relation to risk management we do use the private-sector models as a guide; they usually drive expertise in this area. We can learn from it but it does not always apply to us as we are different, we have a different focus.’ This view was qualified by the IT manager of one of the medium-sized councils who stated, ‘Oh, sure, we can learn from them. In a bank if one server goes down or one bit of information goes down it automatically flicks to one in Singapore, or it goes to one in New York or something like that. So they have a variety of methods of being able to access information. Yes, and whether it's required for local government because all that stuff costs money. So it's a matter of balance; do we have sufficient funds to be able to have a full-blown 100 percent hot site? Do we really need that at the cost of, say, $700,000 a year? Yes; maybe not. Do we spend $100,000 making sure we've got a site that has trickle information that we can just, within a day, have it up? Yes, okay, that's probably a bit more realistic in terms of cost versus requirement. So it's a matter of balance. So, learning a lot from the corporate sector yes, but we're not the corporate sector.’ Overall the question about local government being able to pick up this private sector knowledge of BCM frameworks and directly apply it was questioned. A unique idea expressed by the risk manager of one of the larger councils was that they would like to see ‘guidance by the Department of Local Government to help local government customise the private-sector frameworks and approaches to a more detailed level. So that the plan's relevant to local government
and that local-government business continuity could be seen to be fairly consistent across all the local government areas.’

Summary

Overall, participants’ definition of BCM focused on providing continuity of service if and when a disruption affected their organisation. It was notable that most participants’ definitions promoted a proactive perspective of BCM, which included the aspiration of making their councils more resilient. Overall, the group agreed with the formal definition of BCM that the researcher provided, requesting some minor adjustments through the focus group to promote the proactive nature of BCM practice. The minor change was in relation to ensuring continuity of services rather than focusing on recovery. This demonstrated that participants’ perceived BCM as a proactive tool that could assist them in promoting continuity of service.

Although participants aspired to promote continuity there was an overall acknowledgement that their current BCM programmes were reactive, focused on recovering from events rather than promoting continuity. Participants as a group articulated their lack of confidence in being able to provide continuity of service to their customers and constituents, sharing their perceptions that customers would be disappointed and frustrated with their organisation if a disruption were to affect their council. There was limited awareness of existing implementation guidelines for BCM. The general experience expressed among participants was that there was minimal awareness of existing and available BCM knowledge that could assist their organisations in implementing effective BCM programmes. Although this was a common view, participants believed that these best-practice frameworks were appropriate and relevant reference tools and that there was much to learn from them.

4.2.2 Impediments to an Effective BCM Programme

Collecting participants’ views on the constraints that they perceived impeded the implementation of effective BCM programmes was also useful for this research, because it supported a more comprehensive insight into issues concerning BCM programmes in this local-government context. The following key constraints were identified in the interview data:

- Inadequate resources
• Staff apathy and denial
• Lack of an integrated approach
• Commitment to training and testing for all staff.

**Inadequate Resources**

Adequate resources can be defined as sustainable assets, people, skills, information, technology (including plant and equipment), premises, supplies and information (whether electronic or not) that an organisation must have available to use, when needed, to operate and meet objectives (Bird 2011).

A common impediment to BCM mentioned by the finance manager of a medium-sized council was ‘no money, no resources, to be able to achieve it.’ The risk manager of one of the larger councils similarly stated that the council ‘can't afford to employ a person or a group that focuses on BCM. They've got to have a variety of skills and experiences. Fortunately, I got that from my background, but, otherwise the organisation would have to rely to a degree on external services, particularly with undertaking activities. So the access to specialised skills or the access to budget provisions to contract in those skills can be a real problem for local government’.

The IT manager of that same council confirmed that ‘impediments would be time and money and resourcing and focus. BCM and, probably more importantly, IT disaster recovery, costs money. That's always a challenge to actually resource both the process of BCM planning and then the actual technology side of delivering IT disaster recovery as well. So that's difficult sometimes to maintain both resources and funding when we're being pulled and stretched in so many different directions’.

The human resources manager of one of the smaller councils provided an alternative view specifically focused on the resource of an alternative site; ‘It's easy to talk about the office-space stuff, and say “Okay, if we can't operate here we go to the library, and if we can't operate in the library then we go to the depot, or the branch library,” or wherever it might be. But I think the biggest impediment is, for instance, what do we do with some of our other critical services? Like our child-care centres. You can't necessarily just move and have children attend another childcare centre, because they won't fit. So even if you had the child-care officers that could come, there are only a maximum number of children that can be taken, and a child-care
centre is not exactly an environment that you can just create overnight. It could be, then, that suddenly a child-care centre doesn't operate. Then of course, that has a significant impact on a number of families and people that work and have a reliance on council looking after their children on a daily basis.’

Participants also highlighted the lack of funding for technology. The dependency on technology and the need to continually invest in technology to enable continuity was a shared concern. One participant recalled ‘When I was located at our depot work site, quite often we just wouldn't have access to our emails because we had a microwave link. If the wind blew a certain way or if it was cloudy we just couldn't work for a couple of hours, so we wouldn't, we'd just have to do the paperwork. I just can't believe that we just accepted it because it was too difficult or too expensive or wasn't a big enough priority to make the big spend to upgrade or change the technology.’ Investment in core infrastructure and continuity technologies was also raised by the IT manager of one of the larger councils who confirmed, ‘That's always a challenge; to actually resource both the process of BCM planning and then the actual technology side of delivering IT disaster recovery as well.’

Participants’ raising inadequate resources as a current key impediment in turn raised the profile of adequate resources as a design element in an effective BCM programme.

**Staff Apathy and Denial**

This involves a lack of ownership of BCM activities, where the staff lacks awareness of the issues of crisis disruption and an understanding of their role in responding to recognised threats.

Process owners and participants of the process commonly noted apathy and denial amongst their staff. A human resource manager of one council stated, ‘Apathy, it'll never happen here, that apathy of “it won't happen here, we're okay”, so therefore people don't think about it and don't prepare themselves.’ The risk manager of another council similarly stated, ‘That's just a common attitude amongst general staff. “Why are we spending hours and hours putting this plan together? We’ve had
our disaster. We won't have another one.” It's trying to get them out of that mindset. It's saying, “Look, it's not saying we're going to have another disaster. It's in the event we do, you need to know what to do.” Participants in general, confirmed that staff engagement was essential to an effective BCM programme. A representative quote from a risk manager was, ‘We probably need to get more buy-in from our staff before we attempt to test our plans on a regular basis, because you'll get the shoulder shrugging and the eye rolling; “This will never happen to me.” But I just think when you see some of the things that occur around the world, often what gets them through are that planning and the drills’.

Engagement of staff and getting them to make a commitment to the BCM programme was a shared concern. A comment from one of the participants of one of the smaller councils was representative; ‘I think the biggest issue that I see, whenever you're working on a project and if you consider a BCM a project, that you hope you never have to implement it, but if you do, I think the biggest impediment is people and managing the people in the process. So an effective BCM would, I think, mitigate those problems with people and how best to engage them. So that would mean having those responsible officers and knowing what they’ve got to do with that process and having a clear hierarchy of communication so that the right people are communicating with the right people and not allowing that devolution of the process.’ The risk manager of one of the medium-sized councils stated; ‘If staff sees that the leadership is following the plan and they’re committed to the plan, then they will follow the plan. So we need to engage the leaders and get them to believe it’s a good plan so they're willing to follow it through, so they have confidence and they communicate that down to their staff. I think part of that process is ensuring that staff is trained, but that is not enough, they need to actually understand it and believe in it and know that it’s going to work. I’ve experienced when council had a crisis. They had a BCM in place, but from what I could gather, it was only known to certain people in the organisation, so the people down the line who were actually dealing with the actual crisis itself were just all over the place. We were getting things like emails from them saying, do you have any disaster recovery plans? What I could gather is that council did have the plans, but they weren’t communicated through
and staff weren’t trained in how to deal with it, and panic set in and they just went and did what they could at the time.’

Staff apathy was also demonstrated by the fact that a popular view amongst some participants was that local-government services were not perceived as time-critical. One of the participants commented, ‘Local government is not a bank. It’s not an environment where you need continuity there’s a fallacy that you have to have your systems up and running within a day, within a week. You do all these assessments about what systems you’ll need. At the end of the day, the criticality of having a local-government environment working is not that critical. I think some people go over the top and say, ”We’ve got to have this up within a day.” Well, no, you don’t. A week to two weeks to get basic services back is sufficient because, at the end of the day, we can still pick up our garbage, we can do all the basic stuff. Our staff knows their runs. They know what they’ve got to do. They just continue on with that. We can revert to manual processes to still pay our people, keep all those processes running in the interim while we recover.’ Comments such as these demonstrated a lack of motivation and focus on BCM.

Staff apathy and denial appeared as a key constraint. Thus it could reasonably be considered that staff engagement would be a key design element that would address this constraint, and hence would be essential to an effective BCM programme.

**Lack of an Integrated Approach**

An integrated approach to BCM incorporates the programme within an organisation’s planning and risk-management frameworks (Bird 2011; ANAO 2009)

A lack of a holistic approach towards the design and implementation of a BCM programme across the sector was a significant issue raised by participants. As articulated by the risk manager of one council, ‘I don't think the gap between BCM and local government is concerned with local government developing and implementing a plan; that's done to death. I think the gap is a lack of guidance from the Department of Local Government, providing councils with a framework for a holistic approach to business continuity management. A component being, what are
the key processes to recover so that you get consistency across LGAs. Should we recover certification, dangerous dogs, waste collection, childcare, customer service, etc.’. This view was reiterated by the IT manager of another council; ‘Banks implement business continuity because they have very steep penalties. State government doesn't place any penalties on local government councils if they fail to meet service standards; therefore that's having a bad consequence or the outcome of not having service-level agreements, and allowing the sector to be complacent on maturing their disaster recovery and business continuity plans. Because whether they do it or they don't do it there is no incentive and there is no penalty. So it just happens that when you don't have a direction, people can stray into all different directions and respond to other pressures without having sufficient focus on what are we going to do with the disaster recovery continuity.’ A risk manager confirmed the need for a compliance framework; ‘I think the provision of some suggested critical processes and compliance requirements is critical to consistency in the sector. The absence of those is a problem.’

A secondary issue generally raised was a lack of integration and a holistic approach within the organisation. For example a risk manager of one council noted, ‘I don’t think that we really looked at it as a business continuity management programme. We looked at it as a business continuity plan and a community emergency plan and an IT crisis plan. We don’t approach it as a programme as a whole.’ This view was also repeated by an IT manager, who indicated that their ‘risk-management matrix was not used when the BCP plan was developed.’ In other words, there was no interconnection between the risk-management framework and business continuity within the organisation.

Lack of an integrated approach was deemed a key issue that faced the case councils. Thus it could reasonably be determined that an integrated approach would be a requirement for an effective BCM programme.

**Commitment to Training and Testing for All Staff**

Training aims to build on knowledge and skills to enhance competency in job performance. Testing is the activity that is performed to evaluate the effectiveness or
the capabilities of a plan, relative to specified objectives or measurement criteria’ (Bird 2011).

Participants frequently cited a lack of commitment to training and testing as a common impediment. The risk manager of one of the smaller councils noted, that the need to ‘train staff in what to do in the case of a disaster was necessary and also the need to know the programme’. The finance manager of one of the larger councils said that his biggest concern was ‘not keeping these things in the forefront of people’s minds, so not keeping them up to date, not reviewing them, not providing the communication and the training to keep people aware on what things to do’. This need for a continuous focus was reiterated by the human resources manager of one of the larger councils, who shared their experience of a testing exercise; ‘So it was a really good exercise for people to actually sit down and critically work out what they do, so it’s a great process to go through. So it should be used as a continuing improvement process rather than a once-off.’ The IT manager of one of the larger councils confirmed the danger is a BCP, once developed, ‘gets left on the shelf and we don’t test it and we don’t practice it.’

Staff training and engaging staff in a testing regime were key gaps identified amongst participating councils. Thus it could reasonably be determined that a training plan and testing schedule should be tentatively deemed as key design elements for an effective BCM programme.

**Summary of Impediments**

Most participants in the study expressed several concerns that they felt were impeding the development of effective BCM programmes within their councils. The above impediment list provided visibility into gaps within existing BCM programmes in the local government sector and assist councils in addressing those gaps. They highlighted key design elements that could be incorporated when developing an effective BCM programme for the sector. These tentative design elements are adequate resources, staff engagement, an integrated approach, commitment to training of all staff and engaging key staff in testing and practicing their roles in the event of a disruption.
4.2.3 BCM Characteristics and their Maturity

The following section presents the experiences expressed by participants’ in the case councils in relation to BCM characteristics and their perceived maturity. These experiences and aggregated responses from the interview and focus-group data are benchmarked against the BCM maturity model derived from literature (Chapter 2, Table 1). The results will be presented as listed below:

- Organisational framework of programme
  - Budget
  - Executive endorsement
  - Integrated planning

- Plans and processes
  - Process continuity plans
  - Business continuity plans (BCP)
  - Disaster recovery plans (DRP)
  - Emergency response plans (ERP)
  - Maintenance plans
  - Testing plans

- Staff engagement
  - Crisis-disruption awareness
  - Ownership
  - Programme awareness

- Maintenance of programme
  - BCM committee
  - Testing
  - Regular maintenance of BCM plans
  - Training

What follows are the results with a concluding section that summarises and discusses the results for each characteristic.

Organisational Framework of Programme

Participants articulated that the following components were perceived to be essential to the effectiveness of the BCM key characteristic of organisational framework of programme.
Budget

In this context, a ‘budget’ refers to the monetary funding used to meet operating expenses of running the BCM programme (Bird 2011; Herbane et al. 2004; Rai & Mohan 2006).

Funding for the programme was a key focus for all participants. Two of the small to medium-sized councils lacked formal funding; the finance manager of one of these councils stated that the main ‘impediment is no money’ for programmes such as BCM. With a human resource manager of one of the larger councils commented. ‘The access to budget provisions to contract in those skills can be a real problem for local government.’ An IT manager of one of the larger councils, said, ‘Funding is always an issue. As I said, it's always put to the bottom of the pile because it's deemed not that important. It's like insurance. You get the question “Why am I going to spend $100,000 on a BCP thing every year?” So councils are continually faced with competing priorities and programmes such as BCM have to compete for finite funding.’

Participants and process owners agreed that an ongoing budget for a BCM programme was a key concern, with only one of the organisations formally allocating funding. Two of the organisations had no budget for BCM; one of those secured funding by redirecting funds from other areas. The common experience was that funding was an issue. One participant stating, ‘Money, that’s the impediment to everything within a local-government sense.’ Comparing this experience to the BCM maturity model derived from the literature shows that committed funding for a BCM programme is a key component within the BCM characteristic of organisational framework of programme. Based on the participants’ common experience in local government as expressed by in this study, the maturity measure for this component of the BCM characteristic of organisational framework of programme would reasonably be considered to be at the ‘ad hoc’ level.
Executive Endorsement

Executive leadership is crucial to the success of an organisation’s business continuity capability. Sponsorship from the executive needs to manifest itself in both actions and words (ANAO 2009).

Overall, all case councils showed a visible commitment at the executive level to BCM, although the level of commitment varied. A risk manager from a medium-sized council indicated that ‘the plan was actually signed off by our executive leadership team back in May 2011, which comprised...the general manager and the four directors that we have’. No demonstrated charter or policy existed in this organisation. Similarly the risk manager of another medium-sized council stated, ‘Yes, I am aware of a BCM. The current program is that the Council has adopted an overall program,’ but no charter or policy was evident or made available to the researcher for review. Similarly, an IT manager of one of the smaller councils stated ‘The executive have seen it. We had a trial run with the executive and there was supposed to be a report back. That report back to my knowledge hasn’t occurred.’

Larger councils had a much more formal approach, for example one risk coordinator stated ‘Yes, the organisation has a BCM program for which there’s a committee. We've all been trained, BCM officers have been trained, roles have been assigned, the plan gets tested. We've had one test; we're about to have another test in July, I think. Again, a retraining exercise and then a test of the other BCM plan.’ This council also had a formal charter in place for the BCM programme. A human resource manager of that same council said ‘Yes, I am aware that there is a BCM program within our organisation. The strategy was probably developed two years ago - 18 months ago - and our risk and compliance or governance and information section has been rolling that out across divisions. There's been a number of workshops across the organisation with processes and systems owners, to allow those people to fully understand the implications and what are some of the tools and risk mitigation strategies that we might put in place to ensure the continuing delivery of those critical services.’ This experience was not shared by the risk manager of one of the other larger councils, who said, ‘Okay, well currently it's in draft format; it was developed back in 2007. So they brought in a consultant to take us through the
process, we identified all the events that affect or any crisis events that would affect our organisation. So I guess that's where we are, that's still in draft form. We've had the consultants have another look at it this year, and we're just in the process of going out to all the stakeholders internally, again, to make sure that we haven't lost anything over these past six years.’ No formal charter was evident in that organisation.

Participants agreed that executive endorsement of their BCM programmes was a key requirement for success, Participants from all councils articulated that they believed that executive endorsement had been achieved, although only one was able to demonstrate the commitment. Based on the BCM maturity model developed from the literature, executive endorsement of a BCM programme is a key component within the BCM characteristic of organisational framework of programme. The participants’ experiences and perceptions suggest that their councils would be at the ‘managed’ level.

*Integrated Planning*

An integrated approach to BCM incorporates the programme within the organisation’s planning framework (Bird 2011; ANAO 2009).

Overall it appeared that BCM was formally incorporated into each council’s management framework. For example, the human resource manager of one of the smaller councils stated that they ‘believed that it's linked to the organisation planning, and obviously it's been highlighted as a potential risk issue, which is all incorporated in our business planning’. A library manager of a similar-sized council stated that she ‘believed that there's obviously a strategic plan that's been facilitated by IT, and that then for each key area, such as human resources and other critical business areas, the managers are developing or have developed their own parts of the plan that integrate into the organisational plan’. A finance manager in the same council commented, ‘We have what's called a risk register, which ties in a whole lot of these type of plans’. The governance link was also noted by a human resource manager of one of the larger councils; ‘The strategy was probably developed two
years ago - 18 months ago - and our risk and compliance or governance and information section have been rolling that out across divisions.’

Process owners had a much more detailed understanding of how BCM was integrated within their councils. A risk manager of one of the smaller councils stated, ‘There's been a number of workshops across the organisation with processes and systems owners, to allow those people to fully understand the implications and what are some of the tools and risk mitigation strategies that we might put in place to ensure the continuing delivery of those critical services.’ An IT manager of one of a smaller councils stated, ‘It’s part of our integrated planning framework and our delivery programme.’

Overall, participants indicated that BCM was part of their councils’ integrated planning framework. For example, BCPs were evident in four of five management plans reviewed and the Department of Local Government’s, ‘Promoting better practice’ programme explicitly required councils to develop a BCP. A key component of an optimised level of maturity for the characteristic of organisational framework of programme is to demonstrate that ‘evidence exists of connections of the BCM programme to organisational planning’ as noted in the literature (such as Herbane et al. 2004 and Rai & Mohan 2006. Based on participants’ experiences and the supporting documentation on this theme, the councils could be considered to be at the ‘measured’ level of maturity.

Summary

As shown in the BCM maturity literature (Herbane et al. 2004; Rai & Mohan 2006; Tammineedi 2010; Randeree et al. 2012), a key characteristic in the BCM maturity matrix is to have a solid organisational framework for the programme. Key steps that guide the successful implementation of this characteristic are, first, to have a formal programme charter in place that legitimises the programme; second, to obtain the formal executive endorsement, as this gives it momentum and focus; third, to fund the programme by providing a dedicated budget; and fourth, to integrate BCM into the organisational planning framework. In this study, participating councils’ experience can be ranked as follows:
Programme charter and executive endorsement is positioned at ‘ad hoc’ with only one organisation having a formal charter for the BCM programme.

Executive endorsement is positioned at ‘managed’

Budget is positioned at ‘ad hoc’

Connection of the BCM programme to organisational planning framework is positioned at ‘measured’.

Overall, it can be suggested that for the BCM characteristic of organisational framework of programme the participating councils can be benchmarked at the ‘managed’ level. This overall measure was presented to participants in the focus group to gain consensus on the positioning. All but one participant agreed that the ‘managed’ level seemed to fit most of the councils, while the one dissenting participant (a risk manager from a larger council) stated that it sat ‘between managed and measured’.

**Plans and Processes**

The questions presented to participants on this issue were focused on investigating their perceptions and knowledge around formal documentation supporting their BCM programmes. The main themes and attributes concerning the BCM key characteristic of plans and processes that emerged from the interviews and focus group are now discussed below:

**Process Continuity Plans**

Process continuity plans focus on critical processes within a business unit and how they can be resumed in case of a crisis/disruption. (Herbane et al. 2004; Tammineedi 2010; Randeree et al. 2012)

Participants’ gave varied responses regarding their councils’ commitment to the documentation of process-led recovery, indicating that it ranged from sophisticated to non-existent. A human resources manager in one of the larger councils said, ‘Every division has a business continuity management plan and they're required to keep that up to date and train their employees in relation to that. I'm not sure that they're all up to date across the organisation, but certainly ours, in human resources, is.’ Similarly a risk manager of a medium-sized council, stated ‘Council has a
template that’s being developed for a BCM, for particular teams, and it’s that template that we’re then using in other areas of council as we slowly roll out the process.’

In other councils there were no individual process continuity plans. An IT manager of one of the larger councils said, ‘The key processes of the organisation are documented and in the BCP. There’s no individual section plan; it’s more this building. So it’s site specific. All right, so our plan's been based on site-specific, this is a problem. With the process of the design of our BCM we took a site-specific approach which unfortunately doesn't actually recognise the services delivered out of this building that affect processes elsewhere.’ A risk manager of a similar-sized council shared that from his experience they had no business continuity plans at the business unit level, and that their overall BCP was ‘currently in draft format, it was developed back in 2007...we brought in a consultant to take us through the process, we identified all the events that affect or any crisis events that would affect our organisation. We then sat down and interviewed every division and directorate, or people within those, to determine their functions, the actual physical functions that they undertake on a daily basis. Then taking each of those crisis events, we worked out what functions were critical and would be affected..... So we had that at a very high level, but it was never finalised.’ The IT manager of a medium-sized council expressed that he had never seen a process-level BCP, and that his organisation was still in the process of developing the overall BCP.

Three out of the five councils had not attempted to develop process continuity plans. Only one of the remaining two demonstrated proficiency, while the other, was just beginning the process of documentation. The existence of process continuity plans is a key component of the plans and processes key characteristic. The overall level of maturity for this component would be at an ‘ad hoc’ level.

Business Continuity Plan (BCP)

A BCP is a documented collection of procedures and information that is developed, compiled and maintained in readiness for use in an incident to enable an organisation
to continue to deliver its critical products and services at an acceptable predefined level (Bird 2011; ANAO 2009).

Such plans were well documented across all councils. Only one council, which was medium-sized had this document in draft form, with the risk manager indicating that ‘it's only in draft form. I don't have a copy. It may be available on the executive committee agenda papers. I know there's no IT recovery process in those documents because that was a missing link.’ All other councils had well-documented plans; as the risk manager of one of the larger councils put it, ‘Sitting under our corporate emergency planning policy we, obviously, have a suite of plans which include the business continuity plan for our administration building.’ It is interesting to note that the Department of Local Government Circular No. 07-12 – ‘Business Continuity Plans’, require councils to have a formal BCP in place. This driver from the Department of Local Government has led councils to comply. There is no compliance driver for any other documentation in support of BCM.

The common experience expressed in the interview data was that BCPs were well documented. They all centred on the recovery of the main administration building. Only one council had a draft plan; all others had established plans. The existence of BCPs is a critical component of the plans and processes characteristic. Based on the data, the measure of maturity for this component for participant councils would reside within the ‘measured’ level.

*Disaster Recovery Plans (DRP)*

DRPs define the recovery procedures for IT infrastructure. This can include corrective as well as preventative actions (Botha & Solms 2004; Cerullo & Cerullo 2004; Elliott et al 2002; Gallagher 2005; Gibb et al. 2006; Lindstrom et al. 2010; Moore 1995).

These plans were well documented across councils. Only one organisation had no disaster recovery plan, with the IT manager stating that he had not seen one and that they were in the process of developing one. Process owners were all aware of the IT focused plan. The insurance and risk coordinator of a medium-sized council stated
that, ‘There is a disaster recovery plan that not only sits on Council's documentation and records management system, but is also on memory sticks for all parties involved so that should a disaster strike everyone has the plan.’ The IT manager of one of the larger councils confirmed this stating that the council has ‘BCM framework that has a plan a crisis plan that is linked to the emergency management plan as well as the IT disaster recovery plan’.

In contrast, participants who were not the process owners expressed a different experience. Those from two out of the five councils confirmed that they had no knowledge of the disaster recovery plan. A customer services manager stated ‘Honestly, I haven’t. I wouldn't know what it looks like. I wouldn't know where I could get a copy of it, other than to ask the governance manager directly.’ The finance manager of one of the larger councils stated, ‘I am really not aware.’ Conversely a human resources manager, of one of the larger councils stated that ‘they were aware of the plan as a key plan of their ‘Emergency planning framework’.

Overall, it appears that Disaster Recovery plans were generally well documented. Only one organisation had no plan, while the other organisations had established plans. A lack of knowledge of these plans from a participant perspective was the one issue that appeared unresolved. Thus the maturity for this component could reasonably reside within the ‘managed’ level.

Emergency Response Plans (ERP)

ERPs define the evacuation procedures to protect the ‘life and safety’ of all employees of an organisation (Botha & Solms 2004; Cerullo & Cerullo 2004; Elliott et al 2002; Gallagher 2005; Gibb et al. 2006; Lindstrom et al. 2010; Moore 1995).

Process owners and participants appeared well versed in emergency response plans and processes. A human resource manager of a smaller council said, ‘Here at the civic centre we manage it through the Manager Governance, who is the chief warden, and of course we run drills on a regular basis.’ The risk coordinator of the same organisation confirmed that ‘Council has a crisis-management document that has identified an emergency management team, and the primary roles of the team
and how they react to a crisis.’ Another council’s corporate risk coordinator indicated that their ‘emergency management plan focusses on peoples safety’.

The empirical data shows that ERPs were well documented. All organisations had a plan in place and went through drills. Thus the measure of maturity for this component would be within the ‘managed’ level.

Maintenance Plans

These plans describe the annual maintenance schedule for all BCM plans and include an external audit schedule (Botha & Solms (2004; Cerullo & Cerullo 2004; Elliott et al. 2002; Gallagher 2005; Gibb et al. 2006; Lindstrom et al. 2010; Moore 1995).

Participants from four of the five councils had no knowledge of the existence of a maintenance schedule for BCM plans. They referred generally to operational plans and risks plans, within which the BCM plans may have been mentioned, but identified no specific maintenance schedule. In a representative comment, one council’s human resources manager said, ‘I'm not aware of anything that's actually that specific.’ Only one council had a committed schedule of maintenance for the BCM documentation; with the human resources manager of this larger Council stating, ‘We only had a recent plan update sent to us just recently. That's why we're now being trained again in July.’

Overall, the empirical data illustrated that maintenance plans were not documented. Only one council had a plan in place. Thus, the level of maturity for this key component would be considered ‘ad hoc’.

Testing Plans

Testing plans describe the testing processes and schedules for all BCM plans (Botha & Solms 2004; Cerullo & Cerullo 2004; Elliott et al. 2002; Gallagher 2005; Gibb et al. 2006; Lindstrom et al. 2010; Moore 1995).

Most participants had no knowledge of a testing schedule. A library manager of a medium-sized council stated that they were ‘not aware’ of any testing framework. Process owners expressed a different perspective of their organisation’s testing
framework. A risk manager of one of the larger councils stated, ‘Our business continuity policy provides, what I call, a sustainability schedule for the plans which identifies, it's not just testing. You test the plan, you train the people, and you review the plan. So that sustainability schedule reflects those elements.’ In contrast, a risk manager of one of the smaller councils commented, ‘There are generally one or two trial evacuations a year. Also the maintenance contractor also does equipment testing, I think, probably on a quarterly basis. The IT, I'm aware that they have a regular test of their plan, and I'm not too sure about other areas.’ This confirms that an informal testing schedule exists but is undocumented. All other councils did not test their plans, for example the IT manager of one of the larger councils said, ‘No, we don’t test, but with the new programme that is being developed there are testing schedules being built into that. I believe at a minimum at least once a year we would do a full-scale test.’

In summary, testing plans were generally not documented. Only one council had a plan in place. In a representative comment, the risk manager of a medium-sized council said, ‘There's no program that I've seen yet that enabled us to do a 12-monthly run through.’ Thus, the measure of maturity for this key component would also be classified as being at the ‘ad hoc’ level.

**Summary**

As found in the BCM maturity literature discussed in Chapter 2, Section 2, a key characteristic was to have formal documentation in place for the BCM programme. A summary of key plans and processes that should exist are listed below, along with the participating councils’ maturity levels for each one;

- Process continuity plans – ‘ad hoc’
- Business continuity plan – ‘measured’
- Disaster recovery plan – ‘managed’
- Emergency response plan – ‘measured’
- Maintenance plans – ‘ad hoc’
- Testing plans – ‘ad hoc’

Overall, it can be suggested that based on the empirical data, the participating councils’ maturity in respect to the BCM plans and processes characteristic can
generally be classified as being at the ‘managed’ level. This positioning was presented to participants in the focus group to gain consensus. All agreed that the ‘managed’ level seemed to reflect the councils current experiences.

**Staff Engagement**

This concept captured the views of participants on how they perceived engagement with their BCM programme. The key components which emerged from the interviews and focus-group data are described below:

*Crisis-disruption awareness*

This involves understanding events that interrupt normal business, functions, operations or processes, whether anticipated or unanticipated and enabling staff to recognise these disruptions and respond accordingly (Bird 2011; ANAO 2009).

Two out of the five councils that participated in this study had actually experienced a major disruption, an electricity outage and a fire that affected the main administration building. No other disruption events were noted. Likely disruption scenarios derived from the literature review were shared with participants in the interviews so as to collate empirical evidence on whether they were aware of them, and their perceptions of how likely the disruption scenarios were to affect their councils. Analysis of those interviews provided the following list of disruption scenarios they considered relevant. These are listed in order on which they agreed, from most likely to least. It also provides a summary of the extent of their awareness across the five councils.

1. Major disruption or extensive loss of information technology and/or telecommunications infrastructure - All participants were aware
2. Loss of key external dependencies - Five participants in the process and two process owners were unaware of this disruption scenario. They were members of small, medium and large councils.
3. Temporary denial of access to premises and or precinct – Two process owners and two participants in the process were unaware of this disruption scenario. They were members of small, medium and large councils.
4. Loss of key staff – All participants were aware
5. Permanent destruction and loss of building – All participants were aware of this disruption scenario

6. Unplanned or permanent loss of Vital Records – One participant was unaware of this disruption scenario

This list was later presented to focus-group participants to seek consensus on the scenarios’ relative likelihood, and if there were any scenarios that might not be captured by these broad categories. Overall, participants agreed on the order, but asked that the loss of key staff be raised in priority to second place. The reasoning for that change was articulated by a risk manager of one of the larger councils, who said, ‘I think loss of key external dependencies was a higher priority in the interviews because people hadn’t thought of it, so they thought, oh no, maybe it is of higher prevalence.’ It was also raised in priority since attracting key staff is an issue that affects regional councils.

Participants identified fraud and corruption within the organisation to also be a likely scenario that the sector also needed to consider. As one of the focus-group participants said, ‘Corruption is a big issue. It not only has an effect on the community, but also on the staff from a morale point of view because then everyone starts saying, “You're corrupt, you're corrupt.” There are probably a few councils that have had that happen to their staff. It is quite devastating.’ The group wanted to add it as an extra item but did not discuss its relative likelihood.

It is important to note that the majority of councils had only planned for continuity for a scenario involving permanent destruction and loss of their building event. Participants rated this scenario as only fifth-likeliest. The focus-group participants agreed that in terms of likely scenarios for the sector, the following prioritised list would assist them in broadening their approach for their BCM programmes;

- Major disruption or extensive loss of information technology and/or telecommunications infrastructure
- Loss of key staff
- Loss of key external dependencies
- Temporary denial of access to premises and or precinct
- Permanent destruction and loss of building
- Unplanned or permanent loss of vital records
- Corruption and fraud

The relative position of Corruption and Fraud within this list does not reflect its priority. Participants in the focus group expressed its importance but did not discuss its relative likelihood.

In terms of the BCM maturity model, participants demonstrated a comprehensive knowledge of likely disruption scenarios that could affect their organisations. Loss of key external dependencies and temporary denial of access to premises or precinct were the two scenarios of which they were least aware. Based on the data, the maturity level for the BCM characteristic of \textit{staff engagement} would reasonably be considered at the ‘measured’ level. Participants agreed that understanding the likely disaster scenarios for the sector had assisted in reprioritising their focus in their current programmes and provided a motivation to improve them.

\textit{Ownership}

This involves engendering ownership of BCM planning, and thus to enable staff to understand their role in responding to recognised threats accordingly (Herbane et al. 2004; Tammineedi 2010).

This study identified three aspects that can be assessed to measure ownership, they are;

- Are functional managers accountable for process continuity/section business continuity plans?
- Is BCM accountability included in position descriptions of staff who are accountable?
- Are BCM targets set for functional managers in annual appraisals?

Process continuity/section business continuity plans were defined and discussed above. Data from interviews illustrated that three out of the five councils had no plans. Only one council (a larger one) had made functional managers accountable for
their section business continuity plans and only this council had completed these plans. A second (medium) council had only recently begun the process.

BCM accountability was seldom incorporated into staff position descriptions. A representative view was expressed by a customer service coordinator of a medium-sized council, who said, ‘No, position descriptions did not incorporate responsibility for BCM. I know that because I’ve looked at a lot of PDs in my role at the moment, at manager and coordinator level, and it's not in.- I don’t think it's in the governance manager's one either. It talks about enterprise and risk management, so I suppose it's captured in there.’ In an alternative view, a risk coordinator of one of the larger councils questioned the necessity of documenting BCM accountability in position descriptions and performance appraisals, stating, ‘Our management policy for business continuity makes it clear that if you've got a role then you've got a responsibility. There are two aspects here. There are people that are responsible for BCM development, maintenance and ensuring that the planning's in place that the framework's in place and being monitored. It may for certain people, it may be referenced in their position description and/or in their performance plans, but that would probably apply to a large extent to the plan owners and to relevant management accountable for those plan owners.’ Performance appraisals that included a review of BCM activity were only mentioned in two of the five case councils (for example BCM activity being documented as actions within process owner’s annual business plan reviews).

Participants’ views on ownership illustrated that there was no clear and consistent approach on engendering ownership across functional management. A representative comment from a risk manager of a medium-sized council, was, ‘It's like risk management. People know it has to be done, but resources it's an issue of resources. If people have the time they concentrate on it, if not they tend to concentrate on their core functions, But I also get the impression that it's incumbent upon the particular manager of that team to really get it off the ground. So the push has to come from the team member, the manager, rather than just from the executive. So, if it doesn’t happen, if the manager doesn’t do it, it doesn’t happen’. Thus the measure for the maturity of this component would be within the ‘ad hoc’ level.
**Programme Awareness**

This involves an understanding of basic BCM issues and limitations and enables staff to recognise threats and respond accordingly (Bird 2011). Participants commonly thought that awareness of the BCM programme was not done well. In a representative comment the human resources manager of a large council said, ‘*How is it communicated? I don’t think it’s communicated very well. I think unless you are in middle management or above or are responsible for one of the critical systems or processes, then you wouldn't know about it, so I don't think it's communicated very well at all.*’ This view was shared by one council’s finance manager, who said, ‘*No, it's ad hoc. It's reactive and it's ad hoc.*’ Process owners’ views coincided with those of the risk manager of one of the larger councils, who stated, ‘*There's none and certainly there's been no communication to the organisation.*’

Overall, the interviews illustrated that an awareness programme for BCM was a weakness across all participating organisations. Thus the maturity for the characteristic *awareness of the programme* could reasonably be considered to be at the ‘ad hoc’ level.

**Summary**

BCM maturity literature (Rai & Mohan 2006; Randeree et al. 2012) acknowledges that *staff engagement* is an essential key characteristic for an effective BCM programme. Key components ensure that this characteristic is implemented effectively and are listed below, along with participating councils’ maturity levels:

- Crises and disruption awareness – ‘managed’
- BCM programme awareness – ‘ad hoc’
- Process continuity owned by functional managers – ‘ad hoc’
- BCM included in position descriptions – ‘ad hoc’
- BCM targets set in functional manager appraisals – ‘ad hoc’.

In summary, it is determined that for the BCM characteristic of *staff engagement*, the participating organisations can be ranked at an ‘ad hoc’ level. This positioning was presented to participants at the focus group to gain consensus. All commented that ‘ad hoc’ did not reflect their perceived view, and that they preferred that it be reflected as an entry level ‘managed’.
**Maintenance of Programme**

Questions were presented to participants to investigate their perceptions and knowledge on the monitoring and management of their BCM programme. The main themes and attributes concerning the BCM key characteristic of *maintenance of programme* that emerged from the interviews and focus group processes are discussed below:

**BCM Committee**

This refers to ‘A top management group to give direction, advice, guidance and financial approval for the BCM programme’ (Bird 2011, p.11).

Three out of the five organisations did have a BCM committee that had cross-functional membership. The risk manager of one of the larger councils described their committee: ‘The IMS committee will, on a regular basis and when I say regular maybe every six or 12 months, they will present to the leadership forum, who then take that back through to their staff.’

The human resources manager of one of the two councils who did not have a BCM committee said. ‘No, nothing, which is why it's being reviewed. That worries me; that worries me a lot.’ In the BCM maturity model, *maintenance of programme* is a key BCM characteristic necessary for an effective BCM programme is referenced as Maintenance of programme. The characteristic requires that a BCM committee exist and that membership is cross-functional. Based on the interview data, the common experience from the case study councils is that this attribute could be considered positioned at the ‘managed’ level.

**Testing**

Testing involves activity that is performed to evaluate the effectiveness or capabilities of a plan relative to specified objectives or measurement criteria (Bird 2011). Testing plans were discussed in detail in Section 4.2.3. The interview data illustrated that four out of the five councils had no documented regular testing schedules in place. Three out of the five committed no time or resources to regularly testing their disaster recovery or business continuity plans. In a representative
comment, a risk manager in one council stated, ‘I'd like to see some sort of testing similar to drills running. We do that with the evacuation of a building. Twice a year we all file down the stairs and outside. We don't really practice anything around the BCP.’ No evidence was found that BCM practices were externally audited. Risk managers in particular referred to their organisational audit programmes, but did not refer to any review of BCM programmes or practices. A key component of the maintenance of programme characteristic is to test all BCM plans, thus, the councils’ maturity for this characteristic would be positioned at the ‘ad hoc’ level.

**Regular Maintenance of BCM Plans**

This involves commitment to regularly reviewing and updating all BCM documentation to ensure it remains current (Botha & Solms 2004; Bird 2011; Cerullo & Cerullo 2004; Elliott et al. 2002; Gallagher 2005; Gibb et al. 2006; Lindstrom et al. 2010; Moore 1995). Documentation was previously discussed in Chapter 4 Section 2. The interview data showed that three out of the five councils did not commit time and resources to regular updates of their BCM documentation. The other two organisations referred to their commitment to updates in their annual operational plan. In reference to the BCM maturity model, this element would be ranked at the ‘ad hoc’ level.

**Training**

‘Training is more formal than awareness. It aims to build knowledge and skills to enhance competency in job performance. Whereas awareness is generally targeted at all staff, training is directed at staff with specific functions and responsibilities’ (Bird 2011, p. 46).

Only one council was seen to conduct training for staff accountable for BCM. This training was specifically targeted at raising awareness and reviewing roles and responsibilities for the revised BCP. The risk manager of that large council stated, ‘In terms of training, it’s training and awareness for the key personnel involved in the plan. It's also more general awareness for everyone else in the organisation. So that when we talk about business continuity, they know what it means without knowing what the plan's all about in detail. So that if there is a fire and they're told not to come into the office, then they can understand, well, it's all part of a plan.’ The IT
manager of that same council said, ‘*We only had a recent plan update sent to us just recently. That’s why we’re now being trained again in July.*’ The common experience for the other participant councils was generally articulated by the human resources manager of one council, who stated ‘*We don’t have any formal training.*’ Four of the five councils did not offer training to staff to support BCM activity. In reference to the BCM maturity model, the councils would generally be positioned at the ‘ad hoc’ level.

**Summary**

It was evident across most of the participating councils that minimal time and resources had been allocated to monitoring and managing the existing BCM programme. As the IT manager of one of the larger councils said ‘*very little is done at this stage and this is probably a symptom of a larger problem.*’ Although there was no formal testing of plans in three of the five case councils, participants acknowledged their awareness of the importance of a testing regime. A risk manager of one of the larger councils said, ‘*I’ve developed a concept referred to as a corporate emergency planning framework. The objective is to ultimately have training, testing and plan review coordinated across the different plans. So that ultimately, our level of maturity with the sustainability of our plans is holistic.*’

In the data, participants made minimal reference to an audit process, which, can be defined as ‘*a systematic, independent and documented process for obtaining audit evidence and evaluating it objectively to determine the extent to which audit criteria are fulfilled*’ (Bird 2011, p.5). As set out in the BCM maturity model developed from the literature, a key characteristic is to commit resources to the *maintenance of the programme*. Key components that guide the successful implementation of this characteristic are listed below, with the participating councils’ rankings;

- BCM Committee meets regularly – ‘managed’
- Evidence of regular testing of plans- ‘ad hoc’
- Evidence of commitment to maintenance of plans – ‘ad hoc’
- Evidence that the BCM programme is externally audited – adhoc’
Overall, then, this aspect was considered to be at the ‘ad hoc’ level. This positioning was presented to participants in the focus group to gain consensus. All participants agreed that the ‘ad hoc’ determination seemed to reflect their experiences.

### 4.2.4 Profile of the Maturity of BCM within Case Councils

The following table collates the results discussed in the above sections and presents an aggregated profile of the current maturity of BCM programmes within participant case councils.

<table>
<thead>
<tr>
<th>BCM characteristic and key components</th>
<th>Case council maturity level</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Organisational framework of programme</strong></td>
<td><strong>Managed</strong></td>
</tr>
<tr>
<td>- A programme charter exists</td>
<td>- adhoc</td>
</tr>
<tr>
<td>- Executive endorsement attained</td>
<td>- managed</td>
</tr>
<tr>
<td>- A dedicated budget is evident</td>
<td>- adhoc</td>
</tr>
<tr>
<td>- Evidence exists of connection of BCM programme to organisational planning</td>
<td>- measured</td>
</tr>
<tr>
<td><strong>Plans and Processes</strong></td>
<td><strong>Managed</strong></td>
</tr>
<tr>
<td>- Disaster recovery plan exists</td>
<td>- managed</td>
</tr>
<tr>
<td>- Business continuity plan exists</td>
<td>- measured</td>
</tr>
<tr>
<td>- Process continuity plans exist</td>
<td>- adhoc</td>
</tr>
<tr>
<td>- Maintenance plan exists</td>
<td>- adhoc</td>
</tr>
<tr>
<td>- Testing plan exists</td>
<td>- adhoc</td>
</tr>
<tr>
<td>- Format of the plans is easily interpreted</td>
<td>- adhoc</td>
</tr>
<tr>
<td><strong>Staff engagement</strong></td>
<td><strong>Managed (entry level)</strong></td>
</tr>
<tr>
<td>- Comprehensive understanding of business continuity programme including risks and crises/disruptions that may affect them</td>
<td>- managed</td>
</tr>
<tr>
<td>- Process continuity plans exist, owned by functional managers</td>
<td>- adhoc</td>
</tr>
<tr>
<td>- Awareness of BCM programme by all staff</td>
<td>- adhoc</td>
</tr>
<tr>
<td>- BCM included in position description</td>
<td>- adhoc</td>
</tr>
<tr>
<td>- BCM targets set for functional managers in annual appraisals</td>
<td>- adhoc</td>
</tr>
<tr>
<td>BCM characteristic and key components</td>
<td>Case council maturity level</td>
</tr>
<tr>
<td>---------------------------------------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td>Maintenance of programme</td>
<td>Adhoc</td>
</tr>
<tr>
<td>• A BCM committee meets regularly.</td>
<td>• managed</td>
</tr>
<tr>
<td>• There is evidence of regular testing of plan exist. This includes simulations</td>
<td>• adhoc</td>
</tr>
<tr>
<td>• Evidence of commitment to regular maintenance of all BCM plans exists</td>
<td></td>
</tr>
<tr>
<td>• Evidence that the BCM programme and existing processes are externally audited</td>
<td></td>
</tr>
</tbody>
</table>

Table 5: BCM Maturity for Case Councils

In summary, it is posited that the BCM maturity for the participating organisations can be ranked at an *entry* ‘managed’ level. This overall positioning was presented to participants at the focus group to gain consensus. All considered and agreed that an *entry* ‘managed’ level seemed to reflect their councils’ experiences to date. The researcher observed that 13 of the 19 components were ranked at an ‘adhoc’ maturity level. An impartial observer may assess the case councils overall at that same level. However, when that view was offered to the participants, they did agree and were firm in their stance that their councils were at the *entry level* ‘managed’ position – which seemingly appears to also take account of the higher rankings on the other 6 components.

### 4.3 BCM Design Elements

Identifying and exploring the design elements which were most important to an effective BCM programme for the local government sector was a second key focus for this research. Section 4.3.1 examines design elements that were derived from the interviews and focus group. Questions posed to participants were focused on investigating their perceptions of what design elements could be used in their organisation to implement an effective BCM programme. This study defines a design element as a key components, or process that is necessary to ensure that a BCM programme is operating effectively within an organisation. These elements are then benchmarked against the BCM design elements extracted from the literature review in Chapter 2, and shown in Table 2.
4.3.1 BCM Design Elements Derived from Interviews and Focus Group

The following table outlines the full list of design elements identified by the interviewees, along with the number of interviewees who made the references. Participants are grouped as either ‘process owners’ or ‘participants’. This list was then presented at the focus group; a detailed discussion on the outcomes can be found later in this section. Definitions of the design elements are presented in this discussion. Appendix E provides the NVivo report which qualifies the design element extracted from data analysis.

<table>
<thead>
<tr>
<th>Design element</th>
<th>Interviewees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accountability</td>
<td>3 Process owners, 1 Participants</td>
</tr>
<tr>
<td>Access to information</td>
<td>1 Process owner, 3 Participants</td>
</tr>
<tr>
<td>Access to resources</td>
<td>2 Process owners</td>
</tr>
<tr>
<td>Alternative working sites</td>
<td>4 Process, 4 Participants</td>
</tr>
<tr>
<td>Ask for feedback</td>
<td>3 Process owners, 1 Participant</td>
</tr>
<tr>
<td>Audits - independent review</td>
<td>1 Process owner, 1 Participant</td>
</tr>
<tr>
<td>Business plan – step by step process</td>
<td>2 Process owners</td>
</tr>
<tr>
<td>Budget</td>
<td>5 Process owners, 3 Participants</td>
</tr>
<tr>
<td>Communication</td>
<td>8 Process owners, 7 Participants</td>
</tr>
<tr>
<td>Contact information</td>
<td>4 Participants</td>
</tr>
<tr>
<td>Delegation</td>
<td>3 Process owners</td>
</tr>
<tr>
<td>Documentation</td>
<td>2 Process owners, 5 Participants</td>
</tr>
<tr>
<td>Identify critical services and resources</td>
<td>5 Process owners, 2 Participants</td>
</tr>
<tr>
<td>Integration with other emergency plans</td>
<td>2 Process owners, 2 Participants</td>
</tr>
<tr>
<td>Job description</td>
<td>4 Participants, 5 Process owners</td>
</tr>
<tr>
<td>Leadership</td>
<td>5 Process owners, 5 Participants</td>
</tr>
<tr>
<td>Ownership – ensure staff understand relevance</td>
<td>2 Process owners, 2 Participants</td>
</tr>
<tr>
<td>Prioritisation of critical services</td>
<td>3 Process owner, 3 Participants</td>
</tr>
<tr>
<td>Simplicity</td>
<td>2 Participants</td>
</tr>
<tr>
<td>Staff engagement</td>
<td>4 Process owners, 4 Participants</td>
</tr>
<tr>
<td>Technology</td>
<td>5 Process owners, 4 Participants</td>
</tr>
<tr>
<td>Testing - continuous improvement</td>
<td>5 Process owners, 3 Participants</td>
</tr>
<tr>
<td>Training and education</td>
<td>5 Process owners, 4 Participants</td>
</tr>
</tbody>
</table>

Table 6: All BCM Design Elements Derived from Interviews

**BCM Design Elements Most Critical to Local Governments**

The above list was presented to the focus group participants. The objective of this step was to discuss each element’s criticality in dealing with the three specific disruption scenarios which are listed below;
Scenario 1 Major disruption or extensive loss of information technology and/or telecommunications infrastructure
Scenario 2 Loss of key external dependencies
Scenario 3 Loss of building

This focus-group process enabled the researcher to probe and investigate what were the most relevant and significant design elements. Participants were presented with the 23 design elements identified from interview data and went through a process of logically grouping them, culminating in a final set of key design elements. These are discussed in detail below.

Communication Strategy – Underlies the Entire Programme

A communication strategy for a BCM programme keeps the programme at the forefront of the organisation’s consciousness (Botha & Solms 2004; Cerullo & Cerullo 2004; Gallagher 2005; Gibb et al. 2006; Hiles & Barnes 1999; Sharp et al. 2002), and should also define the communication framework at the time of an incident.

A communication strategy that encompasses the entire programme was deemed the highest priority for all participants. One of the participants said ‘It seems to me that communication is always the thing that derails people in all sorts of projects, not just BCM, so a clear communication strategy is critical.’ Another participant similarly commented that ‘the communication, I think, is most important, because you can end up working in different ways, if people aren’t communicating well and the leaders aren’t driving the communication and feeding information down and then getting information back up the communication tree, then the whole thing can derail.’

References were also made to how critical communication is during a disruption. A participant in the focus group, discussing the most important aspects of communication, commented, ‘I would probably say that establishing a shop front so the community has a place to walk in is critical, because it's about community, visibility and communication.’

How to effectively communicate with the media and community was also discussed. One of the participants espoused the necessity of ‘having some mechanism in which
the public can communicate with council and vice versa. To ensure that councillors and the media are abreast of the situation. Utilising tools such as Twitter and Facebook to ensure the message gets out to the community.’ Participants as a group agreed that communication, whether external or internal, is a vulnerable area. ‘Poor communication is often where things break down because if there's none, then people think the worst, or they don't know and end up doing things that are probably counterproductive. So certainly communication is critical.’

Access to Resources

This involves the identification and funding of critical resources that enable an organisation to manage an effective BCM programme. One participant articulated the participants’ consensus view saying. ‘The other most critical item that affects Council is the access to resources, whether it's technology, people within the organisation and their skills or access to external skills through budget provision.’ This view was reiterated by other participants, one of whom stated that in ‘local government, in many respects, including BCM, we can't afford to employ a person or a group that focus on BCM. They've got to have a variety of skills and experiences. Fortunately, I've got that from my background but otherwise they and even I rely to a degree on external services, particularly with undertaking activities.’ This experience of not having access to necessary skills within the council and being beholden to external expertise to drive the programme was a common experience across the participating councils.

Participants of the focus group merged some of the previously identified design elements into, the access to resources element, as they were deemed to be critical resources to an effective BCM programme;

- Alternative working site – ‘A site held in readiness for use during a Business Continuity invocation to continue the urgent and important processes of an organisation’ (Bird 2011, p 4).
- Budget refers to the monetary funding used to meet operating expenses of running the BCM programme (Bird 2011).
- Technology - the equipment, facilities, infrastructure, systems and software necessary to ensure continuity in the event of a disruption incident.
Identification and Prioritisation of Critical Services

This involves the identification and prioritisation of services/processes that are essential to the delivery of business objectives. (Boehmer 2009; Geelen-Baass & Johnstone (2008) This includes resources to support the BCM programme.

Participants all agreed that identifying what services should be prioritised to recover from a disaster was critical to assisting the organisation to be ready and prepared. As one participant said, there must be ‘clear prioritisation of what services are critical and what ones can be put to the side in the event of a crisis. I think the priorities are important for almost the same reason, so that everyone’s on the same page and we’re all working towards the same goal. Not towards different goals.’ This view was shared by another, who stated, ‘I think determining what your critical functions are, because local government is a very diverse animal, it's critical that for a continuing program in an event you need to know what you really have to do, not what you would just like to do.’ It is important to note that some participants suggested that the Department of Local Government could offer better guidance in this specific arena; for example, by providing a list of critical services to local government. This could assist the sector in providing consistency of service across local government areas.

Staff Engagement

This involves engendering staff cooperation and ownership for BCM planning activities that enable staff to understand their role in responding to recognised threats. (Rai & Mohan 2006; Randeree et al. 2012)

The group proposed and agreed that engaging staff and assisting them in understanding the BCM programme and the role they play was a critical component of an effective BCM framework. A representative comment from one participant articulates this view; ‘More emphasis is required on the staffing side of things and also making the staff aware of the process because I believe there's not enough awareness of business continuity. So I think it's knowing who the staff is and then also making that staff aware of the part they play.’ A colleague within the group expanded on this point, citing as important ‘the engagement part, getting staff to
understand why it's critical, understanding why councils and local government as a whole should care. So I suppose raising the profile and the importance of BCM.’

Specific references were made in the focus-group discussion to the management of a disruption and how critical it is for staff to know their roles. One participant indicated that the ‘Disaster Recovery Team or the Business Continuity Team have to be up to speed with what their responsibilities are during a disaster or a disruption. The amount of time it takes to be up and running and customers perceptions, will provide a good indicator and will judge whether the BCM programme is working.’ One participant, who had overseas experience, stated. ‘You've got to have staff who knows what's going on, the information infrastructure behind it, also the good plans and procedures and communication of that, so that all staff understand what's expected. I suppose from my experience, I got rung at half past four in the morning to say, “We're opening up an emergency evacuation centre, and you'll be manning it.” Because of the training we'd had, I knew exactly what I needed to do. I knew which hall we were going to. So you went there at four o'clock in the morning, and processed the people in and out, and stayed there.’

Earlier design elements derived from the interviews which were merged into the staff engagement design element are listed below. Participants considered these as key components of this overarching element.

- Ask staff for feedback - consultation with staff when developing the BCM programme.
- Accountability/ownership - engendering ownership of BCM planning and enable staff to understand their role in responding to recognised threats accordingly.
- Delegation - Staff having the necessary financial authority to purchase equipment throughout recovery from a disruption.
- Job description – BCM accountability acknowledged in position descriptions.
- Leadership – Executive sponsorship for the BCM programme.
Documentation

These involve key plans that must be written in an effective, simple and usable format to ensure staff engagement. The plans need to be written specifically for each facility or building, and need to cover disruption scenarios most likely in the organisation. Participants considered that having up-to-date documentation that supports staff in understanding their roles in the BCM programme to be a critical component. The key design elements derived from interview data (listed below) were grouped into the documentation design element.

- Access to information – BCM plans are easily accessible to staff.
- Business plan – a BCM plan that provides step by step guidance to staff.
- Contact information – information about reaching key staff is easily accessible within BCM plans.
- Integration with other emergency plans – the BCM is integrated into the existing emergency management framework.
- Simplicity – the format of all plans is easily interpreted.

One participant articulated the group’s shared view, saying ‘We need robust documentation, so that I understand who’s doing what and when. I want the contact details of all those people involved in the recovery process, within the document, so that it’s a one-stop shop for any disaster. I don’t want to have to be going to any other documents looking anywhere else for anything for it to be effective. I want to know specifically in terms of types of disasters and Council’s process, so reaction to those disasters is effective.’

Training and Education

‘Training and education aims to build knowledge and skills to enhance competency in job performance’ (Bird 2011, p. 46).

The consensus shared amongst the group was that training and education of staff was critical to the success of a BCM programme. They acknowledged that it was a weakness in their current councils, and believed it could be addressed by first raising awareness, then running short training courses to cover the process necessary for their specific business units. One of the participants stated ‘Education and training. You can’t just expect people to take a plan and know exactly what to do. So, I think
it's important that they're trained and given some guidance on how to read it and how to activate their section of it, whatever it might be.’

Testing and Continuous Improvement

This is activity performed to evaluate the effectiveness or capabilities of a plan relative to specified objectives or measurement criteria’ (Bird 2011).

Focus-group participants identified that from their point of view, testing and the continuous review of the BCM plans was critical to the success of a BCM programme within their councils. One of the focus group participants said, ‘Testing is not just for IT but the whole organisation; getting people into a mock environment where you can say, ‘Look, pretend we now have experienced a fire.” You've really got to develop scenarios, what the industry refers to as a desktop scenario, so we just pretend and run through what we would do.’ Another participant commented on his experience: ‘We have an annual actual mock disaster. We hire a consultant to come in and throw some scenarios - we do it at different levels. So we do it at an executive level. What they've got to do, we'd give them all the scenarios on paper and we would say, “This is what's happening.” We would then get a phone call from the company. They'll say, “So and so, I have this problem. What do you do? The mayor - what do you do? The media - what do you do? So a design element which focuses on testing is key to a successful business continuity management plan. It's all about the testing.’

The focus-group participants also elected to merge the audits – independent review design elements from the interview data into this high-priority design element, based on the rationale that an audit drives improvements within the processes audited.

Summary

Focus-group participants reached consensus on a final seven key design elements that they considered necessary for an effective BCM in local government:

- Communication
- Access to resources
• Identification and prioritisation of critical services
• Staff engagement
• Documentation
• Training and education
• Testing and continuous improvement.

It is important to note that in the earlier discussion on impediments facing current BCM programmes (Section 4.2.3), some key gaps within existing BCM programmes were derived. This in turn highlighted key design elements that should be incorporated when developing an effective BCM programme for the sector; adequate resources, staff engagement, integrated approach, commitment to training of all staff and engaging key staff in testing and practicing their roles in the event of a disruption. They support five of the seven overarching design elements derived from this separate analysis of interview and focus-group data.

As a group, participants agreed that a council’s biggest responsibility during a disruption is to their community. ‘The most critical component is communicating what we’re doing, how we’re doing things and that we are still available to the community – advise the community where they can go to do certain things.’ This and similar comments by participants confirms that they considered a communication strategy, that could assist and guide them in times of crisis, to be an essential key design element to an effective BCM programme.

4.3.2 Benchmark of BCM Key Design Elements for Case Councils

The following table benchmarks the design elements identified from the literature against those resulting from the interview and focus-group data. Overall, the two sets of elements correspond closely, albeit with some notable variations. The next section examines these similarities and variations.
Comparative Discussion

Establishing a BCM programme structure was missing as a key design element in the empirical data. Overall, participants did not seem to be concerned and perceived that this had been done well within their organisations. Empirical data highlighted access to resources as a critical key design element. Comparing this with literature, lack of resource commitment was a shared pain point (Botha & Solms 2004; Cerullo & Cerullo 2004; Elliott et al. 2002; Gallagher 2005; Hiles & Barnes 1999). The researcher recommends listing this design element as a component of the establish a BCM programme structure key design element, as access to necessary resources is clearly crucial for a BCM program structure to function effectively.

Performing a risk assessment was also not identified by participants as a key design element. It is important to note that the BCM maturity literature also did not highlight it as a key design element, but as a key component of the overall organisational framework of programme key characteristic. Academic BCM frameworks and best-practice standards literature did highlight it as a stand-alone design element essential to an effective BCM programme. Participants incorporated risk assessment within the identification and prioritisation of critical services overarching design element. It was deemed a dependant process required to be done in order to have an accurate reflection of the critical services affecting the organisation. The elements of identification and prioritisation of critical services and perform business process identification and prioritisations were deemed to represent similar processes. The researcher incorporated all these views and aggregated these
design elements under the *BCM programme structure* key design element, as *risk management* and *identification and prioritisation of critical services*.

A communication strategy for the programme received the highest priority from all participants. In contrast, neither the literature on BCM maturity models nor the best-practice literature placed priority on this, and always deeming it as a component of a broader key design element. The academic BCM framework literature did highlight it, but its definition incorporated BCM program framework components and staff training and awareness, thus diluting the individual importance. Based on the case councils’ experiences, as analysed in this study, it should be highlighted as a key design element. Participants deemed reflective practice to be critical in the continued development of the BCM programme, but also when managing a disruption event. Continued reflection and proactive communication to the community and staff would ensure they would be aware of the facts and issues.

*Staff engagement* was prioritised by participants as a key design element. This was reflected in the BCM-maturity literature, but was not referred to as a key design element within BCM framework and best-practice literatures. Case councils prioritised this to be highlighted as a key design element of a BCM program for local government; participants also highlighted *training and education* as a key design element. This was not reflected in the literature, where this design element was included within the broader *staff engagement* key design element. Based on what was learnt from the literature and case councils’ experiences, the researcher aggregated *training and education* as a key component of the broader key design element of *staff engagement*.

Both the *develop BCM plans* and *documentation* design elements were deemed to represent equivalent processes. Therefore, they were combined to represent the key design element of *plans and process documentation* which is focussed on formally documenting the programme. Participants highlighted *testing and continuous improvement* as very important within the case councils, while the literature referred to *maintenance of the programme* as the key design element. The researcher aggregated *testing and continuous improvement* as a key component of the broader
key design element of maintenance of the programme as it provides clear guidance
on the requirement for continual review to ensure the programme maintains its
relevance.

In an effort to harmonise inputs from extant theory and empirical sources, Table 8
presents a final list of the aggregated design elements. It is noted that through this
aggregation process of comparing design elements derived from literature and from
practice, both Communication Strategy and Plans and Process documentation did not
yield any normative components requiring attention. In that sense, those elements are
a blank canvas for further development.

<table>
<thead>
<tr>
<th>BCM key design elements</th>
<th>Components</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication strategy</td>
<td>Access to resources</td>
</tr>
<tr>
<td></td>
<td>Identification and prioritisation of critical services</td>
</tr>
<tr>
<td></td>
<td>Perform a risk assessment</td>
</tr>
<tr>
<td>Establish the BCM</td>
<td></td>
</tr>
<tr>
<td>programme structure</td>
<td></td>
</tr>
<tr>
<td>Plans and process</td>
<td></td>
</tr>
<tr>
<td>documentation</td>
<td></td>
</tr>
<tr>
<td>Staff engagement</td>
<td>Training and education</td>
</tr>
<tr>
<td>Maintenance of the</td>
<td>Audits – independent review</td>
</tr>
<tr>
<td>programme</td>
<td>Testing and continuous improvement</td>
</tr>
</tbody>
</table>

Table 8: BCM Key Design Elements and Their Components

Hereafter, Figure 10 illustrates how this final set of design elements was arrived at. A
system network was chosen as the best method to illustrate the iterative process used
to derive the above list of key design elements and components. A system network is
a notation for developing classification schemes (Eggins 2004, p. 196-198). The
notation was developed in functional linguistics to show options within language
resources, but in general can be used in any situation that requires the ability to
diagram either superordinal, compositional or hybrid taxonomies. Options that are
arranged in superordinal (logical OR) relationships are shown using square brackets.
Options that are in compositional (logical AND) relationships are shown using curly
brackets. To select a given option requires starting at the point of entry of the system
network (left side) and selecting through the superordinal and compositional options
in the network until landing on a terminal option, which represents the selection of a
specific option within the resource.
In this study, the system network shows the arrangement of candidate elements identified from the interviews conducted with various councils, listed in Table 6 and described in detail in Section 3 of Chapter 4. The first column lists the candidate design elements derived from interviews. The second column represents those key design elements that were highlighted by participants through the focus-group activity as most relevant and significant. Participants decided that certain candidate design elements were compositional to these highlighted key design elements from the focus group. The curly brackets encompass the candidate design elements.

The third column represents key design elements derived from the literature discussed in Section 2 of Chapter 2. Curly brackets are again used to illustrate and acknowledge the compositional relationship between the data-derived and literature-derived design elements. Finally, column four distills what was learnt from both data analysis and the literature to produce the final set of key design elements that are most relevant and significant to local government. Reverse curly brackets represent the participants’ views about the need to separate or aggregate key design elements, such as the separation of communication and staff engagement, articulating that the practice of BCM within local government requires a concerted effort in both areas for a BCM programme to be effective.
Figure 10: System Network of Key Design elements
4.4 Conclusion

Overall, the individual case studies provided a highly informative range of views on BCM. The themes synthesised from this rich data set were presented and described. Section 4.2 provided insight into the participants’ current understanding of BCM. Consensus across case councils demonstrated that participants perceived BCM as a proactive tool that could assist them in promoting continuity of service. They articulated their lack of confidence in being able to provide continuity of service to their customers and constituents. Although participants showed limited awareness of BCM knowledge, they were open to what was available to support them in establishing effective BCM programmes. A ‘scaled maturity approach’ was used to assess where the case councils were in the implementation of an effective BCM programme. Overall, the maturity-model ranking determined that participating councils, were ranked at entry level ‘managed’. Section 4.3 posited five key design elements that participants and the literature considered necessary for an effective BCM in local government. The next chapter will further analyse and discuss these findings with respect to theory.
CHAPTER 5 – DISCUSSION AND CONCLUSIONS

5.1 Introduction
This chapter draws on the key themes identified in the literature review and expands on the results presented in Chapter 4 to discuss the outputs generated in this study in response to the research questions. Section 5.2 outlines how local government is currently engaging with the practice of BCM and discusses current impediments. Section 5.3 presents the final set of key design elements most relevant and significant to the local government sector. Section 5.4 presents a structured BCM implementation framework. Section 5.5 presents the tabulated BCM maturity matrix specifically targeted at the local government sector. Section 5.6 summarises the various contributions to knowledge made by this thesis. Section 5.7 discusses the potential implications for practice resulting from this work. Section 5.8 outlines the limitations of this study and suggests opportunities for further research, and Section 5.9 offers concluding comments on this thesis.

5.2 How Is Local Government Currently Engaging with BCM?
To assess how local government is engaging with BCM, this study explored the participants’ current understanding of BCM through semi-structured interviews with key stakeholders, and through the use of a BCM maturity model derived from the literature. The case councils’ current engagement levels with BCM were profiled, using the thematic approach described in Chapter 3, Section 5.

5.2.1 Study Participant’ Current Understanding of BCM
Overall the study participants expressed a good understanding of, and positive attitude to, BCM. As discussed in Chapter 4, BCM is generally perceived as a proactive tool that can assist local government in promoting continuity of service. Although attitudes towards BCM were positive, technical knowledge of the practice was lacking. As expected, process owners were much more aware of their councils’ business continuity processes, whilst other stakeholders in the process demonstrated limited knowledge. Participants also indicated a limited awareness of existing implementation guidelines for BCM. There was nonetheless a general openness to learning from the available knowledge to support their councils in establishing effective BCM programmes. Participants also indicated that although the initial
driver for BCM within their organisations was compliance with state government regulations, which were a direct response to the fires that had disrupted Liverpool and Bankstown councils, this driver had evolved from purely chasing compliance to that of establishing organisational resilience and robustness. This included the fact that most participants did not perceive continuity to be a technological response, but one on which they could have an impact by taking ownership of the way they responded to a disruption and using communication strategies to inform and manage their customers. Participants also shared several concerns that they perceived were impeding the development of effective BCM programmes within their organisations. These included a lack of adequate resources for implementation and ongoing maintenance, minimal staff engagement, a lack of an integrated approach, and a lack of commitment to both training of staff and engaging key staff in testing and practicing their roles in the event of a disruption. These impediments highlighted gaps within existing BCM programmes that were critical constraints when trying to increase resilience and robustness, and pointed to key design elements that would be important when developing an effective BCM programme for the sector.

In summary, this study revealed that the current understanding of the necessity for BCM programmes across the case councils was well understood. However, participants’ grasp of the practical application of BCM within their organisations was deemed ‘entry-level managed’, only covering the basic requirements essential to a BCM programme. This was seen as a function of lack of investment of time and funding within the case councils. The interviews also brought to light how certain individual participants (usually process owners) were able to transform the way BCM was perceived within their organisation. For example, process owners, integrating BCM practices (e.g. annual testing of disaster recovery plans) in their annual insurance premium assessments provided visibility of how this practice could immediately benefit the organisation. This view was not consistent across councils or staff which perhaps reflects the Participants’ varied conceptions of BCM and how it may be practically integrated amongst staff in local government administration.
5.2.2 Case Councils’ BCM Programme Maturity Profile

The responses obtained during the semi-structured interviews also served to identify each case council’s level of experience with the elements of BCM; a determination could then be made as to where that experience would position a council on the maturity matrix. This study developed a maturity matrix for BCM that combines a number of critical characteristics, such as those detailed by Herbane et al. (2004), Rai and Mohan (2006), Tammineedi (2010), and Randeree et al. (2012), to assess and rank the use of BCM within an organisation. The matrix incorporates four levels of maturity with four key characteristics of an effective BCM program.

The four key characteristics used in this matrix, as discussed in Sections 4.2.4 and 4.2.5 of Chapter 4, were:

1. **Organisational Framework of Programme**
   This characteristic measured the health of councils’ commitment to the programme. The results suggested that overall for this BCM characteristic, the local government sector is currently benchmarked at the ‘managed’ level.

2. **Plans and Processes**
   This characteristic focused on the level of BCM documentation available within councils, indicating the quality of their BCM process. Based on the collected data, it can be suggested that the maturity of the case councils in respect to this characteristic could generally classified as being at the ‘managed’ level.

3. **Staff Engagement**
   This characteristic targeted how engaged staff were in the BCM programme. This study determined that the ranking for the case councils was entering a ‘managed’ level.

4. **Maintenance of Programme**
   This characteristic focused on the processes of ongoing training of staff and testing of the BCM programme. Overall for this characteristic, the ‘ad hoc’ level of maturity seemed to reflect the case councils’ current experiences.

The maturity levels were adopted from the five-step ‘Capability Maturity Model Integration’ (CMMI) framework, developed by Carnegie Mellon Software Engineering Institute (SEI). As described in Chapter 2, this study reduced the
maturity steps to a simplified four-step framework to make it more practically relevant to the local government sector. In this study the Randeree et al. (2012) measure of ‘defined’ was merged with ‘integrated’ and renamed as ‘measured’, referring to the expectation that the process is visibly measured and controlled. The maturity-model levels were:

- Adhoc - processes are unpredictable, poorly controlled and reactive
- Managed – the programme is in place and organisation is proactive
- Measured – the programme is measured and controlled
- Optimised – there is a focus on process improvement for the programme.

The matrix also included a set of key components for each level of maturity from ‘adhoc’ through to ‘optimised’. As an example, the key components for the plans and processes characteristic at the basic level of maturity (ad hoc) listed the following key components that an organisation at this level of maturity needed to demonstrate:

- A disaster recovery plan exists
- No business continuity plan exists
- No process continuity plans exist
- No maintenance plan exists
- No testing plan exists.

The key components necessary for an ‘optimised’ level of maturity for this key characteristic were:

- A disaster recovery plan exists
- A business continuity plan exists
- Process continuity plans exist
- A maintenance plan exists
- A testing plan exists
- The format of the plans is concise and easy to read and the plans are readily available

The managed and measured maturity levels with their respective components sit between and reflect varying combinations of these extremes on the maturity continuum.
It is interesting to note that the size and location of the case councils demonstrated minimal influence, if any, on their BCM maturity level. The individual perspectives did differ; process owners demonstrated a clearer understanding of BCM and were much more conversant with their current BCM programmes. Participants in the process demonstrated a general understanding of BCM, but were less aware of their councils’ BCM programmes and what their own roles were in that programme. This highlights clear gaps in staff engagement in current BCM practice within the case councils.

In this study, through the use of this matrix, the BCM maturity of the participating organisations was determined to be at an entry-level ‘managed’ maturity. Overall, the process used to determine the case councils’ BCM maturity was significant, as it was an inclusive process which brought a diverse group of participants representing local-government entities together. It enabled this group to initially reflect on their own councils’ preparedness and exposed them to the other councils’ levels of BCM preparedness. Through reflective learning based on the discussion that emerged through the research process, participants demonstrably shifted their thinking about and approach to BCM.

5.3 What Design Elements for BCM are Most Relevant and Significant to Local Government?

This study defined design elements as the key characteristics or processes necessary to ensure that an organisation’s BCM programme is operating effectively. Analysis of the data sets obtained from the interviews identified 23 empirically derived design elements, which are discussed in detail in Chapter 4, Section 3. This initial list of 23 design elements was then presented to the focus group. The objective of this step was to discuss and explore each element’s criticality in dealing with the three disruption scenarios which were considered most likely in the sector. This process resulted in the identification of a final set of seven core design elements that seemed most significant in dealing with the disruption scenarios presented.

These elements were then compared against those design elements espoused in current BCM literature. Together, these three analysis activities, ultimately identified a total of 10 core design elements, which were then aggregated into five overarching
key design elements (Table 8 in Chapter 4). Figure 10 in Chapter 4, illustrates the system network, which underpins the iterative decision-making process used to derive this final set of key design elements. A brief review of these design elements follows.

A communication strategy (framework) was determined as a necessary component for an effective BCM programme. A unique aspect of this design element as identified in this study was participants’ perception that it was essential to keep all key stakeholders informed through the process of recovering from a disruption. Specifically, this included being visible and establishing a presence within the community, such as a customer service centre, where the public could walk in or ring and connect to a council officer who would know what is happening with the recovery process. Participants also considered that this communication framework needed to incorporate continued reflection and alignment in response to influences from disruption management or programme management. Such action continually aids the development of the BCM programme, but also improves the processes by which councils can effectively communicate facts to staff and the community within a disruption event.

Participants perceived that their councils had been effective in establishing a BCM programme structure. This study highlighted the need to identify and support key resources essential to the success of the BCM programme. Although these resources are not considered ‘unique entities’ in the BCM literature, participants saw the lack of commitment to provide them as an impediment to an effective BCM programme for the sector. These resources included budgets, alternative working site (facilities) and technology.

This study also identified components necessary for the effective establishment of a BCM programme structure; identification and prioritisation of critical services, which has been recognised across the literature as a necessary component (Boehmer 2009; Geelen-Baass & Johnstone 2008; Tammineedi 2010). Unique to local government was the diversity of services that need to be encompassed into a BCM programme. Such complexity is rare in other sectors. For example, the private-sector
organisations focus on their core business, and hence their BCM programmes tend to be focused on the key services that ensure revenue. State and federal governments have government agencies that are focused on specific services, their complexity being limited by the nature of their service. Local governments provide a range of diverse services that have a wide breadth and direct impact on their communities. The implications of this diversity are that services must be prioritised in regards to continuity and recovery, in alignment with community expectations. Deciding what services are essential can be complex, and participants highlighted the need for and benefits of sharing a standardised list of critical services across the sector to provide consistency of BCM practice across councils. This practice would also help prioritise the development of BCM section plans for these services. Risk management across the participant councils was well established, although the ways they integrated BCM within their risk management framework varied.

Staff engagement was deemed at an entry-level ‘managed’ maturity within all participant councils. Participants deemed staff engagement (specifically training and education) as an essential key design element for an effective BCM programme. This is reflected in BCM maturity literature, but is not referred to as a key design element either within the academic BCM frameworks literature (for example see, Ashton 2005; Boemer 2009; Botha & Solms 2004; Elliott et al. 2002; Gallagher 2005; Gibb et al. 2006; Herbane et al. 2004; Hiles & Barnes 1999; Rai & Mohan 2006; Sharp et al. 2002; Tammineedi 2010) or in practitioner best-practice standards literature as reflected in Table 2 in Chapter 2 of this thesis. The key components that participants deemed essential for this design element included: consultation with staff when developing the BCM programme; engendering ownership at the functional manager level; creating clarity of accountability through documentation within position descriptions; and formalising delegations so staff have the necessary financial authority to purchase equipment throughout the recovery phase after a disruption. These components highlighted the need to focus on staff roles and responsibilities in the recovery of critical services. Participants indicated that this was poorly addressed in current BCM practice. Reasons for this lack of focus were indicated to be mainly due to a lack of access to resources, such as funding to support staff in developing the skills and a lack of investment of time due to conflicting priorities.
Documentation supporting BCM was somewhat established in the case councils; specifically, participants noted the existence of legislated plans such as business continuity plans and disaster recovery plans, as discussed in Chapter 4. Gaps in documentation were evident in process continuity plans, section BCPs and maintenance and testing plans. Overall, participants considered this key design element a necessary requirement for their council’s BCM programme, and that their councils could further improve in this area. The important components of this element involve ensuring easy access to relevant plans for all staff and ensuring that the plans created are easy to read and have all necessary contact information. The gaps in documentation demonstrated that there was a level of ceremonial rather than actual commitment among the case councils to BCM.

Only two councils demonstrated any form of maintenance of the programme and commitment to the testing and updating plans to maintain currency. Moreover, due to the lack of focus, testing and continuous improvement were explicitly highlighted as a key concern amongst participants. Reasons furnished by participants for this lack of commitment to this element were indicated to be a lack of time and resources to attend to it. External audits of BCM activity were deemed a supporting process to this overarching design element in that it was a method to provide a gap analysis of the existing practices, which would support the focus of continuous improvement and highlight necessary investment in time and resources.

5.4 BCM Programme Framework
This study collated the theoretical and empirical findings to develop a BCM programme framework for the effective design and implementation of BCM programmes within the local government sector.

The following section organises the design elements into a structured BCM framework best suited to local government. It incorporates key components of those elements listed in Table 2.2, which were derived from BCM maturity, academic BCM frameworks and practitioners best-practice standards literature.
5.4.1 BCM Programme Structure

The Business Continuity Institute defines this design element as the ‘ongoing management and governance process supported by top management and appropriately resourced to ensure that the necessary steps are taken to identify the impact of potential losses, maintain viable recovery strategies and plans, and ensure continuity of products and services through training, exercising, maintenance and review’ (Bird 2011, p.10). Key components to ensure that this key design element is implemented effectively within a council are described below.

Programme Charter

This is a formal policy document that sets out the organisation’s aims, principles and approach to BCM, ‘what and how it will be delivered, key roles and responsibilities and how BCM will be governed and reported on’ (Bird 2011, p. 11).

Executive Endorsement

Sponsorship and stewardship of the BCM programme by the executive is visible and manifests itself in both actions and words (ANAO 2009).

Access to Resources

This involves the identification and funding of critical resources that enable an organisation to manage an effective BCM programme. Specifically for this sector, the following resources were prioritised:

- Dedicated budget - the monetary funding used to meet operating expenses of running the BCM programme (Bird 2011).
- Alternative work sites - ‘a site held in readiness for use during a Business Continuity invocation to continue the urgent and important processes of an organisation’ (Bird 2011, p. 4).
- Technology secured - investment in the technology tools necessary to support the programme.
**BCM Programme Integrated within Organisational Planning**

An integrated approach incorporates the BCM programme within the organisational planning framework (Bird 2011; ANAO 2009). In regards to the local government sector, it is integrated within the following key plans:

- the organisational operational plan
- the business unit plan
- individual work plans

**BCM Programme Integrated within the Risk Management Framework**

The BCM programme should be evident in risk management documentation. The BCM programme should be driven by understanding the critical risks that face Councils and should be derived from two key processes that are integral to risk management: performing a risk assessment and identifying and prioritising critical services.

- Perform a Risk Assessment

Understanding the risks facing an organisation is critical for a successful BCM programme. ‘The risk management process should provide the grounding for the whole BCM process: it establishes the scope, needs and priorities’ (Standards Australia/Standards New Zealand 2004, p. 5). The BCM programme should address the likely disruption scenarios derived from this research for the sector. They are listed in priority order, from most to least likely.

1. Major disruption or extensive loss of information technology and/or telecommunications infrastructure
2. Loss of key staff
3. Loss of key external dependencies
4. Temporary denial of access to premises and or precinct
5. Permanent destruction and loss of building
6. Unplanned or permanent loss of vital records
7. Corruption and fraud

- Identification and prioritisation of critical services

Understanding what services and processes, are essential to the delivery of business objectives within an organisation is the key output of this component. This will help
focus the programme and assist functional managers in getting to understand the key processes and services that require continuity through disruption.

**BCM Incorporates the Emergency Response Management Framework**

BCM frameworks should make reference to the emergency response management framework of the council. Emergency response management defines the evacuation procedures to protect the life and safety of all employees of an organisation. It is specifically focused on the internal processes of an organisation that revolve around protecting staff and differs from emergency management as described in Chapter 2, Section 8. Outlining how BCP and emergency response management processes work together to support the response to a disruption is critical to the success of continuity of services.

### 5.4.2 Communication Strategy for the Programme

A communication strategy for a BCM programme defines the communication framework necessary at the time of an incident and as defined in the literature, includes the ongoing communication to keep the program at the forefront of the organisation’s consciousness (Botha & Solms 2004; Cerullo & Cerullo 2004; Gallagher 2005; Gibb et al. 2006; Hiles & Barnes 1999; Sharp et al. 2002). Participants in this study chose to highlight communication strategy as a key design element that must be addressed for the practice of BCM to be effective within local government. Key components necessary for this design element to be effective are described below.

**Communication Strategy Framework Endorsed by the Executive**

A document outlining the communication strategy with each stakeholder group is necessary to ensure that expectations are met on when and how communication is delivered. Once documented, it should be formalised through endorsement by the executive team. The general manager should be the sponsor of this programme to ensure commitment. This approach has been endorsed in the academic literature (see Botha & Solms 2004; Cerullo & Cerullo 2004; Elliott et al. 2002; Gallagher 2005; Gibb et al. 2006; Lindstrom et al. 2010; Moore 1995).
Formalise Communication Protocols for the Programme and through Disruption

The communication strategy should outline communication expectations through a disruption event and day-to-day programme management. The target audience should include all staff, councillors, customers, suppliers and the media. Participants highlighted this as a key gap (Chapter 4, Section 3), and hence it is specifically addressed as a key component of the communication key design element.

Continuous Communication Framework to Ensure Currency of Information to Stakeholders

The communication strategy should also outline protocols to ensure currency of information to stakeholders and formalise the channels that will be used to communicate with stakeholders (social media, website, etc.). Participants highlighted that this was not addressed in current BCM programmes (Chapter 4, Section 3). Formalising accountability of communication channels was deemed a key component necessary to ensure that status updates are communicated to stakeholders.

5.4.3 Plans and Process Documentation

These involve key plans that must be written in an effective, simple and usable format to ensure staff engagement. These plans need to be written specifically for each facility/building and need to cover disruption scenarios most likely in the organisation. Key BCM plans required for an effective BCM programme (Botha & Solms 2004; Cerullo & Cerullo 2004; Elliott et al. 2002; Gallagher 2005; Gibb et al. 2006; Lindstrom et al. 2010; Moore 1995) are described below.

Disaster Recovery Plan

A DRP can be defined as ‘a program focused on technology recovery in the event of a disaster’ (Nollau 2009, p. 52). The current experience is that DRP documents exist in four out of the five case councils, but are specifically focused to support a scenario of permanent destruction and loss of building. Based on this study’s findings, major disruption or extensive loss of information technology and/or telecommunications infrastructure is the most likely disruption scenario to affect councils. A DRP is a critical document necessary for an effective BCM programme. This focus needs to be
expanded to embrace continuity of service, in the case of information technology and telecommunications technology investment is made to support ‘continuous computing’. These continuous computing technologies, according to Bajgoric (2006, p. 453) can be classified into ‘three categories:

- Fault-tolerance technologies that provide high availability of server operating environments and protect against hardware glitches, application failure and server operating system failure;
- Disaster recovery technologies that enable the resumption of operations after a disaster occurs within the IT infrastructure;
- Disaster tolerance technologies that protect against larger outages, such as power outages and natural disasters, and let a system to continue operating despite a disaster.

**Business Continuity Plan (BCP)**

A BCP is a documented collection of procedures and information that is developed, compiled and maintained in readiness for use in an incident to enable an organisation to continue to deliver its critical products and services at an acceptable predefined level (Bird 2011; ANAO 2009). The local-government experience is that current BCPs are built to manage one key disruption scenario, which participants deemed fifth in priority in regards to its impact on councils. Business continuity plans should be broadened to manage all likely disruption scenarios.

**Section Business Continuity Plans**

Section business process continuity plans focus on recovering critical services and the supporting processes within a function in case of a crisis/disruption (Gibb et al. 2006; Lindstrom et al. 2010; Moore 1995). Current participants’ experiences are that these plans were not deemed a priority. Only one case council demonstrated that they had established section BCPs. They have a broader approach than that of the process continuity plans discussed in Chapter 2 Section 2. These were deemed more appropriate to local government as they are focussed on critical services rather than just specific processes. Ownership of the specific Section BCP could be allocated to a section manager, enabling clear accountability to be formalised.
**Emergency Response Plan**

Emergency response plans define the evacuation procedures to protect the life and safety of all employees of an organisation (Botha & Solms 2004; Cerullo & Cerullo 2004; Elliott et al 2002; Gallagher 2005; Gibb et al. 2006; Lindstrom et al. 2010; Moore 1995). Current emergency management plans are not integrated or referred to within existing disaster recovery plans, Section BCPs or BCPs. These plans should be interconnected by referring to these plans within the documentation and articulating how they are enacted.

**Maintenance Plans**

These plans describe the annual maintenance schedule (e.g. involving items such as commitment to the annual update of all documentation, including the BCP, section BCPs and disaster recovery plans). It also includes a commitment to an external audit schedule of BCM and its processes (Gibb et al. 2006; Lindstrom et al. 2010; Moore 1995). The commitment to a BCM maintenance schedule would be documented formally within the council’s operational plan to ensure compliance.

**Testing Plans**

These plans describe the testing processes for all BCM plans, including commitment to an annual schedule (Elliott et al 2002; Gallagher 2005). Testing schedules would include testing scenarios which could include role playing and be targeted to focus on likely disruption scenarios.

**Plans Have an Easily Interpreted and Accessible Format**

This requires that all plans are written in a consistent format and easy to read. Participants highlighted this as a key requirement (Chapter 4, Section 3). A key aspect quoted by participants was ‘simplicity’: documents needed to be easily accessible via staff intranets and periodically provided to staff on alternative media. This would enable quick access to plans when a disruption event occurs.
5.4.4 Staff Engagement

This is defined as engendering staff cooperation and ownership of BCM planning activity, as they enable staff to understand their role in responding appropriately to recognised threats (Herbane et al. 2004; Tammineedi 2010)

Staff Understanding of Business Continuity Programme

This involves staff understanding of events that interrupt normal business, functions, operations, or processes, whether anticipated or unanticipated and enabling them to recognise and respond to these disruptions (Bird 2011; ANAO 2009). The programme could focus on the risks and disruption scenarios likely to affect the sector in the prioritised order presented in this study.

Functional Managers Produce Section Business Continuity Plans

This involves functional teams being engaged in the process of developing their own section business continuity plans focused on the recovery of their key processes and on continuity of service. Engendering this activity will promote staff engagement with BCM.

Awareness Programme Ensures All staff Are Aware of BCM

A proactive structured communication approach, in the form of an awareness programme is necessary to inform staff of the activity and progress of the BCM programme. This process includes clarifying staff roles in the overall and section business continuity plans. Tammineedi (2010) refers to awareness as the programme’s pervasiveness measure. Randeree et al. (2012) refer to the extent to which internal stakeholders are involved in the BCM process, saying this determines the quality of the BCM programme and accentuating the need to formalise the approach.

Formal Training Is Provided to Staff Involved in the Programme

There is a need for a proactive structured training plan to formally educate staff involved in the continuity and recovery process to understand their role in the programme and disruption recovery. Best-practice literature (for example Boehmer
2009; Geelen-Baass & Johnstone 2008) formally address this as a key component for an effective BCM programme.

**BCM Activities Are Included in Position Descriptions and Delegations are Documented**

This involves engendering ownership of BCM planning by formally including it as a responsibility within the position description and delegations of the role (Herbane et al. 2004; Tammineedi 2010). This component is focused on formalising accountability and provides a formal process to ensure staff are aware of their responsibilities in the BCM programme and recovery/continuity processes. Delegations may include financial and communication responsibilities.

**BCM Targets Are Set for Functional Managers in Annual Appraisals**

Randere et al. (2012) recommends that targets, such as the annual review and update of the section business continuity plan should be a goal set for managers as one of the key performance measures in the annual appraisal process. This component ensures that there is an annual review within the performance management framework.

### 5.4.5 Maintenance of Programme

There should be an ongoing maintenance strategy for the BCM programme that not only defines the maintenance schedule for the programme, but also explicitly states an ongoing commitment to keep the programme at the forefront of the organisation’s consciousness. This design element was referred to prolifically across the literature of BCM maturity, BCM frameworks, and practitioner best-practice standards.

**Communication Strategy Incorporates Educating Staff on a Maintenance Schedule**

A communication strategy for a BCM programme keeps the programme at the forefront of the organisation’s consciousness (Gallagher 2005; Gibb et al. 2006; Hiles & Barnes 1999). It should incorporate a formal awareness plan for a proactive, formalised maintenance schedule. This ensures that all staff are aware of their required commitment (Sharp et al. 2002).
A BCM Committee Meets Regularly

This refers to regular formalised meetings of a ‘top management group to give direction, advice, guidance and financial approval for the BCM programme’ (Bird 2011, p. 11). This ensures that BCM is paid regular attention in the organisation.

Evidence Exists of Regular Testing of Plans

Regular testing of BCM plans is performed and evidence of those tests is readily accessible. Gaps uncovered in the testing are used to continually improve the BCM plans and BCM programme practice (Lindstrom et al. 2010; Moore 1995).

Evidence Exists of Commitment to Regular Maintenance of All BCM Plans

A committed schedule for staff to update all BCM plans is formalised to ensure that documentation is updated annually (Herbane et al. 2004; Randeree et al. 2012).

Evidence Exists that the BCM Programme Existing Processes are Externally Audited

The external audit programme includes in its schedule, audits of all BCM plans and processes (Herbane et al. 2004; Rai & Mohan 2006; Tammineedi 2010; Randeree et al. 2012).

In summary, the BCM design elements incorporated in this BCM framework for local government, provide a modular and inclusive approach to the design and maintenance of a BCM programme and have high practical utility in any local government authority.

5.5 BCM Maturity Matrix for LG

Based on the above, BCM framework and incorporating what was identified through the review of BCM maturity literature (Chapter 2, Section 2 and Table 1), this thesis proposes the BCM maturity matrix for local government shown in Table 9. This is significantly useful because it provides succinct guidance to practitioners within local government on how to approach and implement BCM programmes within their organisations. This matrix includes the key design elements for an effective BCM programme for local government and lists the key components necessary to
demonstrate competence in achieving each maturity level. The BCM maturity levels proposed are:

- **Basic** - processes are unpredictable, poorly controlled and reactive. Basic is used to reflect the lowest level of maturity rather than ‘adhoc’ as participants in the focus group perceived the word ‘adhoc’ did not reflect their experience and preferred ‘basic’ as a better reflection of the state of their BCM practices.
- **Managed** - programme is in place and organisation is proactive
- **Measured** - programme is measured and controlled
- **Optimised** - there is a focus on process improvement for the programme.

<table>
<thead>
<tr>
<th>BCM key design elements</th>
<th>BCM Maturity Phases</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BCM programme structure</strong></td>
<td><strong>Basic</strong></td>
<td><strong>Managed</strong></td>
</tr>
<tr>
<td>A programme charter exists</td>
<td>A programme charter exists</td>
<td>A programme charter exists</td>
</tr>
<tr>
<td>Executive awareness attained</td>
<td>Executive endorsement attained</td>
<td>Executive endorsement attained</td>
</tr>
<tr>
<td>Access to technology secured</td>
<td>A dedicated budget is evident</td>
<td>A dedicated budget is evident</td>
</tr>
<tr>
<td>No dedicated budget to programme</td>
<td>Some evidence exists of connection to risk management</td>
<td>Some evidence exists of connection to risk management</td>
</tr>
<tr>
<td>No evidence of connection of BCM programme to organisational planning</td>
<td>1. Perform a risk assessment 2. Identify and prioritise critical services</td>
<td>1. Perform a risk assessment 2. Identify and prioritise critical services</td>
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<tr>
<td></td>
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</tbody>
</table>
### BCM Maturity Phases

<table>
<thead>
<tr>
<th>BCM design elements</th>
<th>Basic</th>
<th>Managed</th>
<th>Measured</th>
<th>Optimised</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Communication strategy</strong></td>
<td>• Communication strategy framework endorsed by the executive</td>
<td>• Communication strategy framework endorsed by the executive</td>
<td>• Communication strategy framework endorsed by the executive</td>
<td>• Communication strategy framework endorsed by the executive</td>
</tr>
<tr>
<td></td>
<td>• Formalised communication protocols for programme and when managing a disruption event</td>
<td>• Formalised communication protocols for programme and when managing a disruption event</td>
<td>• Communication plans address all stakeholders (staff, councillors, suppliers and the media)</td>
<td>• Communication plans address all stakeholders (staff, councillor, customers, suppliers and the media)</td>
</tr>
<tr>
<td></td>
<td>• Communication plans address all stakeholders (staff, councillors, suppliers and the media)</td>
<td>• Communication plans address all stakeholders (staff, councillor, customers, suppliers and the media)</td>
<td>• Continuous communication framework is implemented to ensure currency of information to stakeholders</td>
<td>• Continuous communication framework is implemented to ensure currency of information to stakeholders</td>
</tr>
<tr>
<td><strong>Plans and processes documentation</strong></td>
<td>• Disaster recovery plan exists</td>
<td>• Disaster recovery plan exists</td>
<td>• Disaster recovery plan exists</td>
<td>• Disaster recovery plan exists</td>
</tr>
<tr>
<td></td>
<td>• Emergency response plans exist</td>
<td>• Emergency response plans exist</td>
<td>• Emergency response plans exist</td>
<td>• Emergency response plans exist</td>
</tr>
<tr>
<td></td>
<td>• Business continuity plan may exist</td>
<td>• Business continuity plan exists</td>
<td>• Business continuity plan exists</td>
<td>• Business continuity plan exists</td>
</tr>
<tr>
<td></td>
<td>• No section BCPs exist</td>
<td>• No section BCP exists</td>
<td>• Some of the key services have Section BCP</td>
<td>• All key services have detailed section BCPs</td>
</tr>
<tr>
<td></td>
<td>• No maintenance plan exists</td>
<td>• No maintenance plan exists</td>
<td>• Maintenance plan exists</td>
<td>• Maintenance plan exists</td>
</tr>
<tr>
<td></td>
<td>• No testing plan exists</td>
<td>• No testing plan exists</td>
<td>• No testing plan exists</td>
<td>• No testing plan exists</td>
</tr>
<tr>
<td><strong>Staff engagement</strong></td>
<td>• Evidence of “not my job” attitude</td>
<td>• Basic understanding of business continuity programme</td>
<td>• Comprehensive understanding of business continuity programme including risks, crises and disruptions that may affect the organisation</td>
<td>• Comprehensive understanding of business continuity programme including risks, crises and disruptions that may affect the organisation</td>
</tr>
<tr>
<td></td>
<td>• No section BCPs exist</td>
<td>• Key BCPs may exist and are produced by functional managers</td>
<td>• BCPs exist and produced by functional managers</td>
<td>• BCPs exist and produced by functional managers</td>
</tr>
<tr>
<td></td>
<td>• No awareness of BCM programme</td>
<td>• BCM committee is aware of BCM programme</td>
<td>• Functional managers are aware of BCM programme</td>
<td>• Functional managers are aware of BCM programme</td>
</tr>
<tr>
<td></td>
<td>• BCM targets set for functional managers in annual appraisals</td>
<td></td>
<td></td>
<td>• BCM included in position descriptions</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• BCM targets set for functional managers in annual appraisals</td>
</tr>
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Table 9: BCM Maturity Matrix

<table>
<thead>
<tr>
<th>BCM design elements</th>
<th>BCM Maturity Phases</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Basic</td>
</tr>
<tr>
<td>Maintenance of programme</td>
<td>No BCM committee exists.</td>
</tr>
<tr>
<td></td>
<td>No evidence of testing and training on BCM exists</td>
</tr>
<tr>
<td></td>
<td>No evidence exists on maintaining the BCM plans</td>
</tr>
<tr>
<td></td>
<td>No evidence exists of audit on BCM programme</td>
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<td></td>
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</table>

This BCM maturity model also illustrates the relationship between disruption-focused and continuity-focused BCM planning. BCM programmes in the infancy of their maturity cycle tend to be focused on planning for what to do to recover from a specific disruption event. This is reflected in disaster recovery planning being primarily focused on the technological aspects of recovery. This study acknowledges that such a focus was evident in the majority of the case councils involved in this study.

Participants in the study shared their aspirational views for BCM, indicating that making their business units more resilient and robust was a key goal. Using this maturity model and aiming at reaching an optimised maturity level helps participants to reach such a goal. The optimised maturity level provides stability to an organisation no matter what disruption event occurs, signaling that a mature BCM programme must reflect attention to both continuity and disruption.

5.6 Research Contributions

Based on the case studies examined this section now outlines this study’s substantive, methodological and theoretical contributions.
5.6.1 Substantive Contributions

As outlined in Chapter 2, Section 9, there is minimal academic literature available on the use of BCM within local government and this knowledge gap extends to small and medium-size enterprises (SMEs). This study has helped to address this knowledge gap by specifically focusing on a number of case studies in the NSW local government sector, and has exposed and profiled the current levels of engagement with BCM for those representative councils. These outcomes represent new knowledge of the phenomenon of BCM within this context. The knowledge generated in this thesis thereby helps extend BCM utility into the local government sector. This study may also serve as a starting or a comparison point for other researchers in exploring BCM in other contexts.

This study also identified five overarching design elements for BCM in the local government sector. In acknowledgement that these elements, to varying degrees are examined in other studies of BCM, they still represent new knowledge for BCM in this particular local-government context. This aggregation and examination of empirical data from the sector case studies and from previous studies reported in academic literature culminated in the final set of design elements. They may serve as comparative benchmarks for future research in this field. Moreover, they represent macro-level elements wherein individual councils and practitioners can still design customised actions relating to each element in their particular operational contexts. This affords a degree of flexibility to designers and implementers, but also facilitates a commonality of focus across all local government organisations in that a common set of elements forms the basis of their BCM endeavours. Consequently, the design elements both support a common approach across the sector and take account of individual council circumstances and context.

The researcher developed a maturity matrix to sensibly profile the engagement level of BCM within the case councils. The BCM maturity matrix was derived from concepts contained in existing literature (for example, Herbane et al. 2004; Rai & Mohan 2006; Tammineedi 2010; Randeree et al. 2012). As such, this maturity matrix is a further contribution to knowledge in that it incorporates current concepts discussed in BCM literature into a model that can be effectively applied to assessing
maturity in a particular sector. In doing so, the model may have further utility in providing a useful baseline structure to assess BCM maturity in other settings and other sectors.

This maturity matrix model was then further developed to incorporate what was learned through the findings presented in Chapter 4, Sections 3 and 4. This resulted in the development of a BCM programme framework for the local government sector. Here again, this framework incorporates conceptual elements contained in the academic literature in the field of BCM, but has selectively combined them to present an implementation framework that is relevant to the sector of local government. Hence, this new knowledge can act as a touchstone for other researchers in the fields of local government and BCM, and also for local government practitioners seeking to embark on a successful BCM implementation process. With respect to the BCM literature, these outcomes represent further confirmation of the factors and concepts identified with respect to BCM in many previous studies, but also uniquely aggregates concepts from the BCM literature with empirical outcomes from this study into new knowledge in the form of a BCM framework that can be applied in future research in this field.

5.6.2 Methodological Contributions

The use of the system network notation (Figure 10 of Chapter 4) enabled the researcher to demonstrate that BCM frameworks are really a specialised type of classification system that organises particular features of BCM into actions (things that are required to be done, or choices that need to be made amongst a set of alternatives). A BCM framework is therefore a system of differences (alternatives of choice and action). This system network was also used to show the diachronic (time-ordered) development of the BCM framework itself. Both of these things are unique to this study, and treating a BCM framework as a classification system is an interesting and novel methodological contribution.

In this study, using a system network notation illustrated the inductive process used to take the candidate design elements derived from personal opinions (semi-
structured interviews) and illustrate how these were moderated by the group experience (through the focus group), and ultimately how those design elements were aggregated against current knowledge. The contribution of this process makes to the thesis is that it clearly illustrates the process used to inductively develop the design elements most relevant to local government. This systematic process is also a methodological contribution to the process of identifying key design elements for BCM: it could be used in future studies to derive understanding of BCM in different sector contexts and disciplines.

5.6.3 Theoretical Contributions

A specific contribution of this study to theoretical knowledge involves the relative significance of a ‘communication strategy for BCM’ in the local government sector. Academic literature in the field highlights communication as a required key attribute necessary for an effective BCM programme (Botha & Solms 2004; Cerullo & Cerullo 2004; Elliott et al. 2002; Gallagher 2005; Gibb et al. 2006; Lindstrom et al. 2010; Moore 1995). This study has, however, emphasised the need for organisations to be pre-emptive and/or actively and diligently connected to their communities concerning BCM – which goes above and beyond just dealing with communications concerning an in-house business continuity problem. Thus, this outcome is significant for further theory development on BCM, since current theory does not place such a pronounced emphasis on encompassing communication strategies that go beyond the organisational boundary. This means, for example, that council staff will need to educate their communities about the protocols and activities concerning BCM and, in the event of an incident, engage strategies that continuously and accurately inform the community of their progress towards resolution. Such holistic and systematic communication approaches concerning BCM may also have some relevance and utility in other contexts beyond the local government sector. Moreover, further research is needed into what should be communicated and how it should be communicated to staff and the wider public.
5.7 Implications for Practice
This study presents some significant implications for the practice of BCM within local government. First, it provides practitioners a means to assess the maturity of BCM within their councils, thereby giving councils the ability not only to actually assess their BCM progress, but also to prompt a focus on BCM in the organisation. While attention and resources may still need to be applied to any assessment of BCM maturity, it does serve as a prompt to promote acknowledgement of and engagement with BCM.

Second, as a result of this study, practitioners within the sector now have key design elements and a framework to assist them in implementing effective BCM programmes within their organisations. The use of these tools, by implication, requires resourcing and a commitment to action on a number of diverse elements, as earlier espoused. These implications for practice are potentially significant. It is reasonably expected though that the use of these tools will lead to better education of staff, guiding them in the most practical and important tasks and strategies to achieve an effective BCM practice. The application of the framework more generally in the sector will also promote a structured and well informed implementation process across the sector, rather than the current inconsistent approach. Given its comprehensive inclusion of the key design elements of the phenomenon, this framework may also have practical utility for BCM implementation by practitioners in other contexts beyond the local government sector, particularly the SME context.

Third, the issue of communication strategies being so prominent to the success of the BCM programme presents a major implication for practice. This is due to the necessary actions of resourcing such communication activities, training staff and ensuring the level of community engagement necessary at the initiation and ongoing management of the programme before, during and after a disruption event. If credence is given to this study then it underlines the need for councils to embark on enlightenment and education activities about BCM as part of or prior to embracing a BCM programme.
Finally, this study has identified that having some likely risks and disruption scenarios to consider in assessing BCM activities and having an agreed list of critical services and processes across the sector would be advantageous to sector members in implementing a BCM programme. To that end, as detailed above, sector members would need to be prepared to commit the human resources and their time to such assessments. If they are prepared to do so, such a uniformity of approach may allow for sensible comparative benchmarking across local government organisations and a consistency of BCM practice across the sector.

5.8 Limitations of the Study and Opportunities for Further Research

This section provides an overview of the limitations of this study and outlines some opportunities for further research. This study was limited by time and resources and it is specific to the Australian NSW local government sector. This includes the use of five case study councils, and 19 interviews and the limitation of one focus group activity. The sample population of five councils in city and regional areas, ranging in size from small to large, was chosen to be a reasonable cross-sectional representation of NSW local governments.

The difficulties in implementation and the outcomes of using BCM frameworks and BCM maturity models in the workplace still warrant further investigation. For example, since the framework has yet to be enacted in ‘live practice’, it is still not ascertained just how effective it might be in stimulating and supporting the implementation of an effective BCM programme. A future study, for example, could involve action research which would focus on using the BCM framework presented in this study to implement a BCM programme within a council. Prospective investigations could also confirm the completeness of this study’s BCM framework and maturity model, and ascertain if there are more dimensions or components that could be included. Findings emanating from such future studies would continue to build on this original work and only further enhance an understanding of BCM deployment issues within organisations.

This study specifically focused on the dimensions necessary for an effective BCM programme within a specific context. and used a process to inductively derive a final
set of design elements. It did not explore the interdependencies or interconnectedness among these design elements. Future studies that focus on understanding how these design elements connect together and interrelate could strengthen and support the effectiveness of future BCM programme frameworks.

Future research could also adopt the research design used in the study with an increased sample population, to further review and refine the outputs of this study. Moreover, this study was focused specifically on BCM and its dependent areas of business continuity planning, emergency response management and disaster recovery planning. Further research could focus on determining the impact of the contributions of this study on these dependent fields. Finally, future studies could examine how a consistent BCM framework applied across an industry sector would assist the sector in achieving consistency of practice and expand on this, while focusing on understanding the critical services and processes that are consistent across the sector. Overall, a number of future research opportunities have been highlighted that can draw on the outputs of this study and further expand knowledge of the challenges associated with BCM deployment and implementation.

5.9 Conclusion
The base objective of this research was to explore the engagement of BCM within the local government sector, and the design elements most important and suitable for BCM in local government. This study has addressed these gaps in knowledge, and through its findings has developed and presented a BCM programme framework and maturity matrix for local government.

This thesis provides a number of contributions to knowledge. These include the development of models to aid the conceptualisation and implementation of BCM in organisations and in particular the local government sector. It has also espoused the exposition and importance of expansive and systematic communication strategies and highlighted BCM as being particularly relevant to the local government sector. In so doing, this thesis increases knowledge of and promotes reflection on the current status of BCM in the NSW local government sector. Further, the study’s outputs may also assist in guiding the future development of BCM programmes within the sector.
From a broader community-impact perspective, the outcomes of this study, if implemented, will also benefit the wider community because local government will be better prepared for dealing effectively with both large and smaller-scale disruptions ensuring that key services are always available to their communities.
REFERENCES


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Department of Local Government (2007), ‘Business Continuity Plans’, *dlg—circular to councils*, No. 07-12, 


Richards, L 1999, Using NVIVO in Qualitative Research, London, SAGE PUBLICATIONS.


APPENDIX A – PARTICIPANT LIST AND CASE COUNCIL DOCUMENTATION
The following tables provides details on participants and collected documentation for the Case Councils.

<table>
<thead>
<tr>
<th>Perspective</th>
<th>Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>Process owner</td>
<td>Risk Manager/Co-ordinator – 5 participants</td>
</tr>
<tr>
<td></td>
<td>IT Manager – 5 participants</td>
</tr>
<tr>
<td>Participant view</td>
<td>Human Resource Manager – 4 participants</td>
</tr>
<tr>
<td></td>
<td>Library Manager – 1 participant</td>
</tr>
<tr>
<td></td>
<td>Finance Manager – 2 participants</td>
</tr>
<tr>
<td></td>
<td>Infrastructure Services Manager – 1 participant</td>
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<tr>
<td></td>
<td>Customer Service Manager 1 participant</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Case Council</th>
<th>Documentation cited</th>
</tr>
</thead>
<tbody>
<tr>
<td>Case Council 1</td>
<td>Operational plan</td>
</tr>
<tr>
<td></td>
<td>Business continuity plan</td>
</tr>
<tr>
<td></td>
<td>Disaster recovery plan</td>
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<tr>
<td>Case Council 2</td>
<td>Operational Plan</td>
</tr>
<tr>
<td>Case Council 3</td>
<td>Operational Plan</td>
</tr>
<tr>
<td></td>
<td>Draft Business Continuity plan</td>
</tr>
<tr>
<td>Case Council 4</td>
<td>Operational Plan</td>
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<tr>
<td></td>
<td>Business continuity plan</td>
</tr>
<tr>
<td></td>
<td>Disaster recovery plan</td>
</tr>
<tr>
<td>Case Council 5</td>
<td>Operational plan</td>
</tr>
<tr>
<td></td>
<td>Corporate emergency planning Charter</td>
</tr>
<tr>
<td></td>
<td>Business continuity planning policy</td>
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<td></td>
<td>Business continuity plan</td>
</tr>
<tr>
<td></td>
<td>Disaster recovery plan</td>
</tr>
</tbody>
</table>

Table 10: Participant List and Documents Cited
APPENDIX B – RATIONALE FOR QUESTIONS
The following tables provide the agenda and rationale for the questions asked at the semi-structured interviews and focus group. See Chapter 3, Section 3 for further explanation.

Semi-structured interview agenda rationale

<table>
<thead>
<tr>
<th>Question</th>
<th>Type of Question</th>
<th>Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thank you for agreeing to take part in this semi-structured interview which is being conducted as part of a research project undertaken by Fresia Segovia. Fresia is performing this study as part of her Masters of Management by Research supervised by Associate Professor Andrew Sense &amp; Dr Matthew Pepper in the School of Management &amp; Marketing at the University of Wollongong. The objective of these semi structured interviews is to gain an understanding of BCM within your organisations. We will also explore your views, perceptions and thoughts on what design elements a BCM programme should include. The design elements extracted from these interviews will then be workshoped at a later stage with the sample population to ensure suitability to Local Government. As stated in the Participant Information Sheet and Consent Form which you have submitted, what you say during the interview will remain private and confidential. All steps possible will be taken to protect your identity. Data collected from this semi-structured interview will be used in aggregated form in conference and journal publications for the advancement of knowledge. If in those publications the researcher is highlighting an opinion or quotation from an individual participant, a pseudonym will be assigned. This interview will be audio recorded and confidentiality will be maintained at all times. Do you consent to the recording of this interview for the purposes of later transcription? Yes / No</td>
<td>1 2 4 6 X</td>
<td>Introduces the research topic and provides the participant with explanatory comments. Provide guidance on the structure of the interview to the participants. Provides background demographic information to the study. Open-ended question encouraging participant to share experiences of disruption. Open-ended question encouraging participant to share any current knowledge of BCM.</td>
</tr>
</tbody>
</table>

Agenda

A. Participant Information
B. Explore how is BCM is used within Local Government.
C. Explore what design elements for a BCM programme are necessary or important from a Participant’s perspective.
D. Closing the Interview

A. Participant Information
Participant’s name:
Name of organisation:
Your role in the organisation:
Numbers of years working at this organisation: Less than a year/1-4 years/4-9 years/10-14 years/14 and above:
Level of Education: Less than Yr12/HSC/TAFE/Bachelor Degree/Masters/Doctorate

Have you experienced a Disruption which impacted your organisation?
Can you define BCM as you see it?
<table>
<thead>
<tr>
<th>Question</th>
<th>Type of Question</th>
<th>Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td>B. How does Local Government currently engage with BCM?</td>
<td></td>
<td>Provides an introduction to the next phase of the interview and provides participant with explanatory comments on how this study defines BCM.</td>
</tr>
<tr>
<td>This research study defines BCM as follows:</td>
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<tr>
<td>Business Continuity Management (BCM) can be defined as an agreed,</td>
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<td>tried and systematic approach used by an organisation for the</td>
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<tr>
<td>management of any crisis. It is business-centric, focused on how the</td>
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<tr>
<td>organisation will deal with a crisis or disaster that affects it.</td>
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<tr>
<td>It is focussed primarily on its people, services to customers, suppliers</td>
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<tr>
<td>, processes &amp; systems ensuring recovery is achievable without</td>
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<tr>
<td>significant disruption to the organisation. Currently there is a</td>
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<tr>
<td>knowledge gap on what design elements for BCM are most important and</td>
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<tr>
<td>suitable to Local Government.</td>
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<tr>
<td>Are you aware of and if so, please describe the current BCM program</td>
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<tr>
<td>within your organization?</td>
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<td>Please explain the current documentation that exists within your</td>
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<tr>
<td>Council concerning Business Continuity Management?</td>
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<tr>
<td>Describe the risks you perceive for your organisation that a</td>
<td></td>
<td></td>
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<tr>
<td>business continuity management programme is there to mitigate?</td>
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<tr>
<td>Describe what you consider to have been the business drivers for the</td>
<td></td>
<td></td>
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<tr>
<td>development of a BCM program in your organisation? (and if not, what</td>
<td></td>
<td></td>
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<tr>
<td>factors impeded it?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Describe who is responsible for BCM within your organisation? What</td>
<td></td>
<td></td>
</tr>
<tr>
<td>business units are involved?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Describe how those responsible for BCM approach and enact Business</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Continuity management within your organisation?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Describe your organisation’s Business Continuity management</td>
<td></td>
<td></td>
</tr>
<tr>
<td>communication framework?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Describe how your organisation monitors and manages BCM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>performance?</td>
<td></td>
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<tr>
<td>At this moment, if you were a customer of this council and a major</td>
<td></td>
<td></td>
</tr>
<tr>
<td>customer process failed, how would you likely describe your customer</td>
<td></td>
<td></td>
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<tr>
<td>experience in this situation?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Question</td>
<td>Type of Question</td>
<td>Rationale</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
<td>------------------</td>
<td>----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>C. What design elements for a BCM programme are necessary or important from a Participant’s perspective. We are now going to focus on key design elements from your experience could be used in your organisation to implement an effective BCM programme. This research study defines a design element as the key components/processes which are necessary to ensure a BCM programme is operating effectively within an organisation.</td>
<td>1 2 4 6</td>
<td>Provides an introduction to the next phase of the interview and provides participant with explanatory comments on how this study defines a key design element and the operational programme perspective of this study.</td>
</tr>
<tr>
<td>If you ever experienced a major disruption – please describe what you consider to be the most important factors/elements in maintaining services.</td>
<td>X</td>
<td>Open-ended question encouraging participant to share their opinions. Seeks information to assist in development of design elements.</td>
</tr>
<tr>
<td>Given all your experiences to date, please describe what design elements you consider are required to operate an effective BCM programme in your organisation?</td>
<td>X</td>
<td>Seeks information to assist researcher in developing design elements for a BCM programme.</td>
</tr>
<tr>
<td>Out of those listed elements which would you consider being most critical for operating a BCM programme in the LG sector? Why?</td>
<td>X</td>
<td>Seeks information to assist researcher in developing design elements for a BCM programme from the Local Government context.</td>
</tr>
<tr>
<td>Of those remaining elements which do you perceive to be not as critical for operating a BCM programme in the LG sector? Why?</td>
<td>X</td>
<td>Seeks information to assist researcher in developing design elements for a BCM programme from the Local Government context.</td>
</tr>
<tr>
<td>From your perspective do you see any impediments to these design elements being used within the LG sector?</td>
<td>X</td>
<td>Projective question to assist researcher in exploring participant’s views on any issues related to the design elements discussed in the interview.</td>
</tr>
<tr>
<td>What are your thoughts on the imposition of private sector models on public sector entities? Are you aware of them? Have any been used in your organisation?</td>
<td>X</td>
<td>Enabled the researcher to explore participant views on current private sector models they may be aware of. Seeks to explore participant views of relevance of public sector BCM models.</td>
</tr>
<tr>
<td>D. Closing the Interview Thank you for your valued participation. As stated at the start of this interview, the information collected is only for research purposes as part of my Master’s degree, not for starting any changes to your organisation or providing any feedback to your Council. If you feel strongly about any issues that may have come up today, please see your HR manager who can then refer you to the appropriate contact to discuss any concerns you may have. Thank you again for your contribution and time.</td>
<td>X</td>
<td>Closing remarks and thanks.</td>
</tr>
</tbody>
</table>
**Focus group agenda rationale**

<table>
<thead>
<tr>
<th>Question</th>
<th>Type of Question</th>
<th>Rationale</th>
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<td>1</td>
<td>2</td>
<td>4</td>
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</table>

Thank you for agreeing to take part in this Focus Group which is being performed as part of a research project conducted by Fresia Segovia who is performing this study as part of a Masters of Management by Research supervised by Associate Professor Andrew Sense & Dr Matthew Pepper in the school of Management & Marketing at the University of Wollongong.

BCM can be defined as an agreed, tried and systematic approach used by an organisation for the management of any crisis. It is business-centric, focused on how the organisation will deal with a crisis or disaster that affects it. It is focussed primarily on its people, services to customers, suppliers, processes & systems ensuring recovery is achievable without significant disruption to the organisation. Currently there is a knowledge gap on what design elements for BCM are most important and suitable to Local Government.

The objective of this Focus Group is to explore what design elements from a best practice perspective for BCM are most suitable to the Local Government Sector. Participants will be asked to gauge and provide their perceptions and views on each of these key design elements and suitability to Local Government will also be gauged. This data will then be used to ascertain a best fit BCM framework for LG.

As stated in the Participant Information Sheet and Consent Form which you have signed, what you say during the focus group will remain private and confidential. All steps possible will be taken to protect your identity. Data collected from this Focus group will be used in aggregated form in conference and journal publications for the advancement of knowledge. If in those publications the researcher is highlighting an opinion or quotation from an individual participant, a pseudonym will be assigned. This interview will be audio recorded and confidentiality will be maintained at all times.

**Agenda**

A. Review maturity of Local Government Business Continuity Management based on initial analysis of interviews.
B. Review and reach consensus on current Prevalent Disaster Scenarios for the Local Government Sector
C. Present the Design elements for a BCM Programme extracted from the Interviews:
   - Test these Design elements utilising Scenario Planning:
     - Will these Design Elements assist Local Government when dealing with the Prevalent Scenarios which can affect the Local Government Sector?
     - Review the Design elements as a whole and rate the design elements in priority order.

Provide guidance on the structure of the Focus Group to the participants.
### Question | Type of Question | Rationale
--- | --- | ---
A. Review Current Maturity of BCM within Local Government.  
Overall participants in this study had a good understanding of Business Continuity Management and what is required.  
In regards to the maturity of the BCM programme’s within the participating organisations, based on this study has our sector at an entry level Managed Maturity level. (Handout provides the BCM Maturity Matrix developed through the literature review – please see Appendix X) |  | Provides background to initial results extracted from the semi-structured interviews.

What are your perceptions of this assessment? Do you agree with it? Review assessment against each BCM Characteristic.  

Any Prevalent Scenarios missing?  

What are your perception and views on the priority order?  

Understanding this will these shift priorities for your organisation around BCM?  

C. Review Design Elements for an Effective BCM programme – extracted from interviews  
Listed below are the Key Design element extracted from the research interviews.  
This research study defines a design element as the key components/processes which are necessary to ensure a BCM programme is operating effectively within an organisation.

- Accountability
- Access to information
- Access to Resources
- Alternative working sites
- Ask for feedback
- Audits - Independent review
- Automation and standardization
- Backup Plan
- Business plan – step by step process
- Budget
- Communication
- Contact information
- Delegation
- Documentation
- Governance
- Identify critical services and

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<th>1</th>
<th>2</th>
<th>4</th>
<th>6</th>
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<td>X</td>
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<td>}</td>
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<tr>
<td>Resources</td>
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<tr>
<td>Interaction with Council</td>
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<td>Integration with other emergency plans</td>
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<tr>
<td>Job description</td>
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<tr>
<td>Leadership</td>
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<tr>
<td>Ownership – Relevance ensure buy in</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Prioritisation of Critical Services</td>
<td></td>
<td></td>
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<tr>
<td>Simplicity</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Stakeholder engagement (Staff/Community)</td>
<td></td>
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<tr>
<td>Steps in process</td>
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<tr>
<td>Surveillance</td>
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<td></td>
<td></td>
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<tr>
<td>Technology and back-ups</td>
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<tr>
<td>Testing - Continuous improvement</td>
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<td></td>
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<tr>
<td>Training and education</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Which Design elements are most important to you?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open-ended question encouraging participant to share their opinions. Seeks to explore across the participant group the design elements extracted from the semi-structured interviews.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>From your perspective are there any Key Design Elements not listed?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open-ended question encouraging participant to share their opinions. Seeks to explore across the participant group the design elements extracted from the semi-structured interviews.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>If this design element was in place how would it assist in managing the following prevalent disaster scenario? Scenario 1 - Major disruption or extensive loss of Information Technology and/or Telecommunications infrastructure (Most Prevalent) Scenario 2 - Loss of key external dependencies (Most surprising and currently not managed) Scenario 3 - Loss of building (Least Prevalent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open-ended question encouraging participant to share their experience. Scenario planning was references here as an influence on how this section of the focus group was executed. Seeks to explore across the participant group the design elements extracted from the semi-structured interviews.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Do you perceive this design element being critical in responding to this scenario?</th>
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<tbody>
<tr>
<td>Open-ended question encouraging participant to share their opinions. Seeks to explore across the participant group the design elements extracted from the semi-structured interviews.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Do you consider it critical in operating an effective BCM programme in the LG sector? Why? Is this a helpful element for a framework for BCM within your organisation (in general LG)?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open-ended question encouraging participant to share their opinions. Seeks to explore across the participant group the design elements extracted from the semi-structured interviews.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>From your perspective do you see any impediments to this design elements being used for this scenario and overall within a standard framework to BCM within the LG sector? Why?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open-ended question encouraging participant to share their opinions. Seeks to explore across the participant group the design elements extracted from the semi-structured interviews.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Review the design elements (Most Important) as a whole; please rate the design elements in priority order and process order.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open-ended question encouraging participant to share their opinions. Seeks to explore across the participant group the design elements extracted from the semi-structured interviews.</td>
</tr>
</tbody>
</table>
APPENDIX C – CONSENT TOOLS
Letter to the General Manager

University of Wollongong

LETTER TO GENERAL MANAGER

Dear General Manager

We would like to invite four managers of your Council to participate in a research project conducted by the University of Wollongong. The research project is entitled ‘Exploring a framework for Business Continuity Management within Local Government’.

PURPOSE OF THE RESEARCH

The purpose of the research is to investigate Business Continuity Management (BCM) practice within Local Government (LG). BCM can be defined as an agreed, tried and systematic approach used by an organisation for the management of any crisis. It is business-centric, focused on how the organisation will deal with a crisis or disaster that affects it. It is focussed primarily on its people, services to customers, suppliers, processes & systems ensuring recovery is achievable without significant disruption to the organisation.

- It will profile the use of BCM within LG; provide an industry understanding of how some programmes have been implemented to date.
- It will seek to develop key design elements for BCM that could assist Councils in applying themselves in developing effective BCM programmes for their organisations.

We write to you to seek approval and consent for your organisation to participate in this research. Approval is sought to contact managers within your organisation to participate in the study. The researcher would like to interview four managers (Risk, Human Resources, Customers Services and IT Managers) for approximately one hour each about BCM. In addition we would also request their participation in a two hour focus group at a later date at the University of Wollongong. A Participant Information Sheet for Managers is attached providing more information on the research project.

Ethics has been reviewed by the University of Wollongong’s Human Research Ethics Committee.

The findings of this research will provide a basis for future use of BCM within LG. If there are any ethical concerns you can contact the Ethics Officer, Human Research Ethics Committee, University of Wollongong on (02) 4221 4457 or email rso-ethics@uow.edu.au.

Should you require any further information please do not hesitate to contact members of the research team. I have attached a consent form for your authorisation.

Yours sincerely

Fresia Segovia
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Chief Information Officer

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Consent form for General Manager of Case Councils

CONSENT FORM FOR General Manager of Case Councils

Exploring a framework for Business Continuity Management within Local Government

Researcher's Name: Fresia Segovia

I have been given information about a research study titled: ‘Exploring a framework for Business Continuity Management within Local Government’. It seeks to achieve a greater understanding of how Local Government can better engage with Business Continuity Management. I have discussed the research project with Fresia Segovia who is conducting this research as part of a Masters of Management by Research supervised by Associate Professor Andrew Sense & Dr Matthew Pepper in the school of Management & Marketing at the University of Wollongong.

I have been advised of the potential risks and burdens associated with this research, which include the time spent by defined staff on participation in a semi structured interviews and an off-site focus group, and have had an opportunity to ask Fresia Segovia any questions I may have about the research and my organisation's participation.

I understand that my organisation’s participation in this research is voluntary, I am free to refuse to participate and I am free to withdraw my organisation from this research at any time. My refusal to participate or withdrawal of consent will not affect my organisations’ treatment in any way or my organisations’ relationship with the University of Wollongong.

If I have any enquiries about the research, I can contact Fresia Segovia (02 9330 6013) (email: fsegovia@hurstville.nsw.gov.au), or if I have any concerns or complaints regarding the way the research is or has been conducted, I can contact the Ethics Officer, Human Research Ethics Committee, Office of Research, University of Wollongong on 4221 4457 or email: rso-ethics@uow.edu.au.

By signing below I am indicating my consent to (please tick):

- Providing the Researcher with access to contact managers within your organisation to participate in the study.
- Providing the Researcher with any existing Council documentation on current Strategic Plans and Business Continuity practises.

I understand that the data collected from my organisation’s participation will be used in aggregated form in conference and journal publications for the advancement of knowledge.

Signed Date

Name (please print) ............./.../.....

Signature

University of Wollongong
PARTICIPANT INFORMATION SHEET FOR MANAGERS

‘Exploring a framework for Business Continuity Management within Local Government’

PURPOSE OF THE RESEARCH

This is an invitation to participate in a research project conducted by Fresia Segovia who is performing this study as part of a Masters of Management by Research supervised by Associate Professor Andrew Sense & Dr Matthew Pepper in the school of Management & Marketing at the University of Wollongong. The purpose of the research is to investigate Business Continuity Management (BCM) practice within Local Government (LG). BCM can be defined as an agreed, tried and systematic approach used by an organisation for the management of any crisis. It is business-centric, focused on how the organisation will deal with a crisis or disaster that affects it. It is focussed primarily on its people, services to customers, suppliers, processes & systems ensuring recovery is achievable without significant disruption to the organisation.

- It will profile the use of BCM within LG; provide an industry understanding of how some programmes have been implemented to date.
- It will seek to develop key design elements for BCM that could assist Councils in applying themselves in developing effective BCM programmes for their organisations.

INVESTIGATORS

Fresia Segovia  
Student  
Masters of Management  
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Assoc Prof Andrew Sense  
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Dr Matthew Pepper  
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& Marketing  
University of Wollongong  
02-4221 5419  
pepper@uow.edu.au

METHOD AND DEMANDS ON PARTICIPANTS

This is an explorative study and if you choose to be included, you will be asked to participate in the following activities;

Participation in a semi-structured Interview, concerning Business Continuity Management practises. This will be approximated 1 hour and will be done at my work premises. Participation in a focus group concerning development of design elements for BCM that could assist Councils in applying themselves in developing effective BCM programmes for their organisations. This will be approximated 2 hours and will be done at the University of Wollongong.

Both sessions will be audio taped. You may ask any question concerning the research and may withdraw your participation at any time. In the individual interview you will be asked to respond to a number of open-ended questions. Example questions for relevant participants are:

1. Who is responsible for Business Continuity Planning/Business Continuity Management within your organisation? What business units are involved?
2. What approach to Business Continuity is taken within your organisation?
3. What is the level of ownership of Business Continuity in your organisation?
In the focus group you will be asked to participate in a collaborative session with other research participants and respond to a number of open-ended questions, this would need approximately two hours. All Focus group participants are asked to maintain confidentiality regarding sensitive information discussed during the Focus group and refrain from sharing 'in confidence' information at this session.

An example Agenda for this focus group follows:

**Focus Group Agenda**

The objective of this focus group is to review the tentative BCM framework design elements developed from the literature review and semi-structured interviews. In order to maintain Confidentiality all Focus group participants are asked to maintain confidentiality regarding sensitive information discussed during the Focus group and refrain from sharing 'in confidence' information at this session.

Feedback is sought from participants on;
1. What do you perceive are the strengths/weaknesses for each identified key design element?
2. What do you perceive are the strengths/weaknesses of the overall identified matrix of design elements?
3. Your views on these design elements appropriateness to Local Government? Will it assist you in implementing a more effective BCM programme? How so?

Before participating in the interview and focus group, you are required to complete and sign the attached participant consent form.

**POSSIBLE RISKS, INCONVENIENCES AND DISCOMFORTS**

Apart from time for the interview and participating in a focus group, we can foresee no risks for you. Your involvement in the study is voluntary. Participants through the Document Review and Interview activities in the study will have the freedom to withdraw from the research without penalty, if a participant decides to withdraw after or during the focus group activity. It will not be possible to withdraw information from the focus group activity due to the collaborative nature of this activity. All other data can be withdrawn. Refusal to participate in the study will not affect your relationship with your employer or the University of Wollongong. The data provided by you will be securely stored and encrypted. Therefore, there is no possibility of identifying individuals or organisations through any publication associated with this research.

**FUNDING AND BENEFITS OF THE RESEARCH**

This research is expected to assist Local Government in the future use of Business Continuity Management frameworks within the Local Government Sector. Findings from the study will be published in a thesis and in journals. Confidentiality is assured, and the Council and you will not be identified individually in any publications of the research.

**ETHICS REVIEW AND COMPLAINTS**

This study has been reviewed by the Human Research Ethics Committee (Social Science, Humanities and Behavioural Science) of the University of Wollongong. If you have any issues regarding the study, you can contact Fresia Segovia (email: fsegovia@hurstville.nsw.gov.au), Andrew Sense (phone: 02 4221 4724) or Matthew Pepper (phone: 02 4221 5419). If you have any concerns or complaints regarding the way this research has been conducted, you can contact the UoW Ethics Officer on (02) 4221 4457 or email: nsr-ethics@uow.edu.au.

Thank you for your interest in this study.
Consent form for Managers of Case Councils

Exploring a framework for Business Continuity Management within Local Government

Researcher’s Name: Fresia Segovia

I have been given information about a research study titled ‘Exploring a framework for Business Continuity Management within Local Government’. I have discussed the research project with Fresia Segovia who is conducting this research as part of a Masters of Management by Research supervised by Associate Professor Andrew Sense & Dr Matthew Pepper in the school of Management & Marketing at the University of Wollongong.

I have been advised of the potential risks and burdens associated with this research, which include the time spent on participation in a one hour semi structured interview and an off-site two hour focus group, and have had an opportunity to ask Fresia Segovia any questions I may have about the research and my participation.

I understand that my participation in this research is voluntary, I am free to refuse to participate and I am free to withdraw from the research at any time. My refusal to participate or withdrawal of consent will not affect my treatment in any way, my relationship with my employer or my relationship with the University of Wollongong.

If I have any enquiries about the research, I can contact Fresia Segovia (02 9330 6013) (email:fresia.segovia@gmail.com), or if I have any concerns or complaints regarding the way the research is or has been conducted, I can contact the Ethics Officer, Human Research Ethics Committee, Office of Research, University of Wollongong on 4221 4457 or email: rso-ethics@uow.edu.au.

By signing below I am indicating my consent to (please tick):

- Participation in a semi-structured interview, concerning Business Continuity Management practices. This will be approximately 1 hour and will be done at my work premises.
- Participation in a focus group concerning development of design elements for BCM that could assist Councils in applying themselves in developing effective BCM programmes for their organisations. This will be approximately 2 hours and will be done at the University of Wollongong.
- I agree to have my interview/focus group audio recorded by the researchers.
- I agree to maintain confidentiality regarding sensitive information discussed during the Focus group and refrain from sharing ‘in confidence’ information at this session.
- I agree that pseudonyms will be assigned when highlighting an opinion or quotation from an individual participant.

I understand that the data collected from my organisation’s participation will be used in aggregated form in conference and journal publications for the advancement of knowledge. If in those publications the researcher is highlighting an opinion or quotation from an individual participant, a pseudonym will be assigned and I consent for it to be used in this manner.
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APPENDIX D – EXAMPLE OF CODING REPORT
Q05-Business drivers develop BCM

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<td>Constraints - Impediments 2</td>
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<td>Driven by need 4</td>
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Name: Constraints - Impediments

Reference 1 - 0.67% Coverage
So we have a short term burst of, quick, we've got to do something and make sure everything's in place. Then due to just the pressures of your day-to-day job, it just settles down again and we don't anything for a while.

Reference 2 - 1.68% Coverage
I've also seen - it has been led by particular managers, whether at a senior level or executive level, where they've had a particular understanding of them and they tend to try to drive it. But then, when they do that, it's not as successful and it's not across the organisation. It tends to be focused solely on one particular team, so that you end up with this mish mash of BCMs across the organisation, where they don't even understand the overall BCM process and it just comes down to one team having a good one, which is not particularly effective.

Reference 1 - 0.59% Coverage
But I think you have to overcome the view of people - it's not really required, because it won't happen to us. It's - no rating?

Reference 1 - 0.82% Coverage
Facilitator  What do you think is impeding at the moment, if it is being impeded?
Interviewee  I don't know if it's impeded. I get the impression it's in its early stages, so needs to be adopted stage.

Reference 1 - 2.56% Coverage
Facilitator  What do you believe are factors that are impeding it?
Interviewee  I think one of the things that's impeding - well impedes a lot of progress in New South Wales, is the rate peg. It's just resource hungry. If you want to do anything here, you've got to work out okay, if we're going to go and do our business continuity, what's going to suffer? If we've got to go and put a couple of hundred thousand dollars in to make sure that that goes, and we've got our plans and all the rest of it, how are you going to resource it? I think that's one of the biggest issues that a lot of local government, local councils here are facing. So if you're putting it in there, where do you take it from?

Reference 1 - 2.05% Coverage
Facilitator  ...what do you believe has impeded the development of the BCM programme in Rockdale?
Interviewee  Probably the changes in the leadership structures. They've been disrupted. There hasn't really been proper ownership of that area, hasn't been a - they made a commitment by the executive and therefore that's flowed down to managers and so on.

Reference 1 - 2.50% Coverage
Facilitator  Do you think anything's impeding business continuity?
Interviewee  Yes, resources. In terms of - I mean, look, it's always the one thing that goes to the bottom of the pile because it's something that's - it's an insurance thing - oh, I'll put it aside, it's not important; I've got other more important things to deal with. So, definitely, that's a - you don't have the resources to actually drive it well. If you had someone in risk management that looked at BCP - made sure all the testing was done every year, made sure we actually went across and we simulated a disaster and did all that stuff - which is not an IT focus, but a corporate focus - but has the organisation dedicated enough resources to perform those sorts of risk management techniques to make sure that the BCP's working.
Okay, so the first one that I’ve seen in my time in local government has been that reactionary approach to other disasters that have happened for other councils and the way it has tend to evolved is the other council has this crises. Our decision makers then come in. The first thing they do is get business managers to start looking at do we have everything in place to be able to deal with that. So we have a short term burst of, quick, we’ve got to do something and make sure everything’s in place. Then due to just the pressures of your day-to-day job, it just settles down again and we don’t anything for a while. But then along comes an audit, either at an New South Wales or an ever higher level than that and council get some direction from government saying, have you got it in place? Is it part of your processes? If it’s not, we then have to work on it. The other way I’ve seen it come through local government is through those Department of Local Government Better Practice initiatives, where they’ve reviewed all of council’s practices and found in certain local government areas that they don’t have BCMs in place. So that’s become part of their priority to develop them.

Probably more recently it’s an issue that has been raised by the DLG to ensure councils have appropriate plans to counteract some of these crisis issues.

Facilitator Yeah, that's a good one actually. So we're going to move on. Thank you for that. Now we're going to move on to question four. Describe what you consider to have been the business drivers for the development of a BCM programme in your organisation. If not, what factors impeded it? We might have covered a little bit of this before.

Interviewee Personnel.
Facilitator Yep.
Interviewee Business drivers for BCP. Utilities.
Facilitator Yeah so because you reckon we had that utilities?
Interviewee Yes, and processes. How do you consider the business drivers? I think - I'll list those for the company.
Facilitator Do you think - what is - overall is it compliance-driven or is it because the organisation wants to be resilient? What do you think is driving it for Hurstville, is it because DLG tells you you've got to do it or is it because we want to be resilient?
Interviewee It's a bit of both. To comply and to also we know people who have had the experiences like [leave] or so, we don't want to be caught...
Facilitator Caught out?
Interviewee Yes.
Facilitator Now we're going to move on. Describe what you consider to have been the business drivers for the development of a BCM program in your organisation. What have been...
Interviewee I believe it's compliance driven.
Interviewee Describe what you consider to have been the business drivers for the da-da-da program in your organisation. If not, what factors impeded it? Well, I can forget the second part.
Facilitator Yes. [laughs]
Interviewee The business drivers for developing BCM? Well, there's a few. One is, at a broader level, your corporate governance requirements. Another driver is your business - what we'll call property insurer expectations. They ensure losses resulting from the loss of this building and additional costs that you might incur or loss of revenue and so forth and additional costs of working. So it's in their interests to ensure that we've got a continuity plan in place.

There's also a compliance issue, we know that there are things that we are required to do and if we don't do that we might be in the naughty books with somebody.

Facilitator So can you describe what you consider to be the business drivers for this development of the BCM program in your organisation.
Interviewee Legal requirements.
Facilitator So legislative you mean?
Interviewee Yes, legislative, yeah.

Facilitator Can you describe what you consider to have been the business drivers for the development of a BCM program in your organisation?
Interviewee I'm not sure if there was a push from a larger local government body or - it just seemed like out of the blue. I kept on hearing we need a BCM plan or program; it just had to be developed. So yes, it was an external pressure that came to HR and that they had to do it. Then, now that we have a governance manager, that process of - wherever that had been done - it was handed over to the governance manager. I don't work closely with the governance manager, so I don't know if that's something he brought on; he proactively came and said to the general manager look, we don't have a good BCM program so I'm going to develop it. I'm not sure. The impression I get is it was from an external push, like it's best practice to have this and we didn't have it.
Facilitator What do you think is impeding at the moment, if it is being impeded?
Interviewee I don't know if it's impeded. I get the impression it's in its early stages, so needs to be adopted stage.

Facilitator In your view is it driven by a need to be resilient rather than compliant? In this organisation?
Interviewee Probably - yeah, probably it is for the business continuity for - more so than compliance. But I think you have to overcome the view of people - it's not really required, because it won't happen to us. It's - no rating?

Can you describe what you consider to have been the business drivers for the development of BCM program in your organisation? So what's driven it?
Interviewee The main one was the - it commenced after the - a fire - destroyed the Civic Centre at Bankstown. There was concern raised through the General Managers Group at the time. The General Manager at Bankstown did a presentation for the General Managers Group to outline their experience. What the circumstances were that caused disruption to his council because they didn't have a BCM in place.

Facilitator In your view is it driven by a need to be resilient rather than compliant? In this organisation?
Interviewee Probably - yeah, probably it is for the business continuity for - more so than compliance.
Facilitator: Yeah, that's a good one actually. So we're going to move on. Thank you for that. Now we're going to move on to question four. Describe what you consider to have been the business drivers for the development of a BCM programme in your organisation. If not, what factors impeded it? We might have covered a little bit of this before.

Interviewee: Personnel.

Facilitator: Yeah.

Interviewee: Business drivers for BCP. Utilities.

Facilitator: Yeah so because you reckon we had that utilities?

Interviewee: Yes, and processes. How do you consider the business drivers? I think - I'll list those for the company.

Facilitator: Do you think - what is - overall is it compliance-driven or is it because the organisation wants to be resilient? What do you think is driving it for Hurstville, is it because DLG tells you you've got to do it or is it because we want to be resilient?

Interviewee: It's a bit of both. To comply and to also we know people who have had the experiences like [leave] or so, we don't want to be caught...

Facilitator: Caught out?

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Interviewee: It's a bit of both. To comply and to also we know people who have had the experiences like [leave] or so, we don't want to be caught...

Facilitator: Caught out?
So describe what you consider to have been the business drivers for the development of a BCM program in your organisation. So what do you think's...

Interviewee  Been the business drivers?
Facilitator  Yeah.
Interviewee  Good governance probably. Probably risk. Good governance and risk. The risk profile, certainly of other local governments losing records and buildings in reasonably recent times.
Facilitator  Yeah, okay. So those events like Liverpool...
Interviewee  Like Liverpool - Bankstown before it - highlight the need to executive and councils which then gives us the access to the funds and the momentum to actually achieve something.

Reference 1 - 3.43% Coverage
Describe what you consider to have been the business drivers for the development of BCM programs within your organisation? So what drove it?

Interviewee  Well it really was the fire in the admin building when the records were lost. It wasn’t a staffing issue. It was certainly records so that you know as I said the emphasis of the main problem was the current work that people were doing. Most of the physical services were able to be continued, but things that were paper based such as development approvals and those sorts of things, finance, accounting, payment of debtors and creditors and all those sorts of things that were paper based that they stopped for a while. [I mean] it took a while to come up to get together. So it was the impetus to get the IT much more robust. I think the whole system [unclear] robust...

Reference 1 - 2.42% Coverage
Describe what you consider to have been the business drivers for the development of a BCM program in your organisation?

Interviewee  What were the business drivers? I don't know what they were because they developed the business continuity plan a few years ago. I was part of it, but I wasn't part of the reason behind it. Although, that said, I would suggest in Bankstown it would be the fire would still be in people's minds. Yes, that would be, I'd say. They've been through it. Liverpool would probably be the same, now.

Reference 1 - 3.76% Coverage
Describe what you consider to have been the business drivers for development of BCM programme in your organisation. So, what started it all off, do you think?

Male  A realisation from ELT following on from the fire, a learn from the mistakes kind of thing. That's when they began the process of having a plan implemented or put together. So, looking - they looked back and said areas we can improve in. This just happened to be one of those. Is that what that question's - yeah?

Facilitator  It’s really about what's driven it with the council.
Female  Being new, that's hard for me to answer.
Male  We've been fortunate having a supportive executive team that this document hasn’t just died. Everyone’s aware of it, they know it exists, they know where to find it. So, people being informed has kept it alive and makes it easier for us when we have to review to go out to these people and they're saying what's this form? What are you talking about? They know. They go, okay yep, business continuity plan, what do you need from me? The staff are helping - help keeping it driving, yeah.

Reference 1 - 3.97% Coverage
Facilitator  Can you describe what you consider to have been the business drivers for the development of BCM programs in your organisation?
Business drivers is access to information post the crisis because without the information - which, in my view, is the most important asset of council - we can't get funding, we can't get money, we can't get income, we can pay people and all that sort of stuff. So I'd say, from that, the question - sorry, just repeat it. In terms of likelihood or...

Facilitator  It's really motivation.
Interviewee  Look, it's a - look, there's two...
Facilitator  So what been [unclear] - is it because legislative...
Interviewee  The key driver? No, no, no, not from Bankstown's perspective. Because they had the fire I think the fear factor's there. It's not about legislation. It's about knowing - oh crikey, we had all this stuff; we were just lucky on the day that when that fire happened in '97 we actually had people doing - we were in IT area and they managed to just take the tapes and put it under their arm and walk out the door. So it was just...
Facilitator  Unlikely [unclear]...
Interviewee  ...fortunate. I think it's more around the danger of losing that stuff. So now we know what we've got to do to make it work.

Can you describe what you consider to have been the business drivers for the development of a BCM program in your organisation? So what do you think is driving, at least, some commitment?

Interviewee  Well, it's likelihood not to happen, yet it does happen and the consequences are quite severe. So you [ought to be] - it's just a high responsibility to make sure you do have something in place for your key processes. So it's...
Facilitator  So it's risk you think or...
Interviewee  Absolutely.
Facilitator  ...compliance.
Interviewee  No. It's a very real risk, a driver.
Facilitator  Can you describe what you consider to have been the business drivers for the development of BCM programs in your organisation?

Interviewee  I think it was the - well the realisation that if something did happen we needed to have a process there. Everybody can fly by the seat of their pants occasionally, but in a critical situation you need a process, a structured process I guess to allow everybody to have the same information and to follow the same procedure, so that you get to the same end.
Facilitator  Can you describe what you consider to have been the business drivers for the development of a BCM programme in your organisation?

Interviewee  The age of the existing one would be one.
Facilitator  Before that, even that one.
Interviewee  Just recognition that you will get disaster-type events and in those scenarios we've got to make sure - health and safety I think is the biggest driver. Making sure staff are safe and then the ability to obviously meet customer needs. So through those two, one is do we know where everyone is? Second one is how do we service our consumers following it?
Facilitator: Describe what you consider to have been the business drivers for the development of the BCM program in your organisation.

Part1Org1: Look, I think that there was always something in place and something being worked on from a best practice perspective, but I think that probably one of the key drivers that really promoted the fact that this needed more legs, and that we had to take it more seriously, was probably the recent disaster of - which council was it that had an issue?

Facilitator: Liverpool?

Part1Org1: Liverpool, and again, there’d been a previous council a few years earlier. So I think that was a wake-up call to the whole sector, but I think that we - there’d already been some work done from a best practice perspective, but it certainly brought it to the fore, particularly for the executive and for the general manager to then start thinking okay, we really need to make sure that we resource this and manage this because it could happen to us, and are we ready for it?

Facilitator: So you’re saying - so do you believe this is then - it’s a compliance view or is it because really they want to become resilient?

Part1Org1: Oh, no, I think it’s a survival - it’s a best practice, and it’s a survival mechanism. So it’s about always being prepared, which I think is consistent with the way that we operate in this organisation.
APPENDIX E – NVIVO REPORT FROM INTERVIEWS
Design elements required for an effective BCM programme

- Accountability
- Access to Information
- Access to resources
- Alternative working sites
- Ask for feedback
- Audits - Independent review
- Budget
- Communication
- Contact information
- Delegation
- Documentation
- Identify critical services and resources
- Integration with other emergency plans
- Job description
- Leadership
- Ownership – Relevance
- Prioritisation of critical services
- Simplicity
- Staff Engagement
- Business Plan - Steps in process
- Technology
- Testing - Continuous improvement
- Training and education
Name: Accountability

I mean, I said the leadership, and the leadership not just from the general manager in him making the ultimate decisions, but now our BCM program and what's been rolled out is more accountability for the managers at the operational level, so that we know what's responsible. Because of course, the GM's not going to be able to do everything, and that we then kind of kick into gear and do what we need to do.

Interviewee The staff that are on the Disaster Recovery Team or the Business Continuity Team have to be up to speed with what their responsibilities are during a disaster or a disruption.

So how do you know - how do you fit - in your organisation that the BCM programme is healthy, what are the key items that you think, if we're doing right, then the BCM programs healthy?

Interviewee The amount of time it takes to be up and running. The response from customers is also a good indicator. They will be a judge of whether this programme is working.

…there's, obviously, governance. So you've got to have a governance - it's got to have a governance feature to it. So in our instance, it's a policy. You've got to have proper stakeholder engagement, systematic engagement or identification. Assessment of processes and the bits and pieces behind it all.

Name: Access to information

Then once you put them there it's then access to the information they need to be able to deliver the critical service.

The communication, I think, is most important, because you can end up working in different ways, if people aren’t communicating well and the leaders aren’t driving the communication and feeding information down and then getting information back up the communication tree.

Name: Access to resources

The other issue is that local government, in many respects, including BCM, can't afford to employ a person or a group that focus on BCM. They've got to have a variety of skills and experiences. Fortunately, I've got that from my background but otherwise they - and even I rely to a degree on external services, particularly with undertaking activities.

So the access to specialised skills or the access to budget provisions to contract in those skills can be a real problem for local government.

I think the other most critical item is the access to resources whether it's people within the organisation and their skills or access to external skills through budget provision.

access to resources to develop, implement and maintain the plans.

Name: Alternative working sites
You need to have things like alternative space, so for instance what we currently have in place is if something happened to the civic centre then the critical work such as customer service would head down to the library. If something happened and we can't access this whole area, then we head down to the depot. So it's having alternatives in regards to where we can actually house people to do what they need to do, which I think's an important one.

Interviewee You need the utilities to run it.

We would need some form of side area, shop front to deal with the customers

Then ensuring that the BCM is - that the mitigation strategies are kept in place such as backup files being kept offsite

Other factors or elements include your response provisions in so far as having access to alternative accommodation for your continuity co-ordination centre or emergency operations centre, whatever you want to call it. You can't have people standing around at the pub trying to do it. You need a centralised place that people are aware of.

From IT it would be certainly looking at what alternatives there are if there was an issue so they could be put back in place.

So how do you know - how do you fit - in your organisation that the BCM programme is healthy, what are the key items that you think, if we're doing right, then the BCM programmes healthy?

Interviewee The amount of time it takes to be up and running. The response from customers is also a good indicator. They will be a judge of whether this programme is working.

Facilitator That's if it happens, but the programme - we hopefully don't want it to happen, but yes we'd have to be prepared but this is about the programme itself. So how do you know it's healthy?

Interviewee Checking it with others. Benchmarking it against other programmes from other councils.
Facilitator: Yeah.

Interviewee: I think whoever's designing the BCM program needs to talk to the people that are outside their immediate work area. I think there's a lot of - there's theorising, I imagine. I don’t think the BCM program we currently have would consider the experience I just described. I don’t think they'd be aware. I think what they've heard about how slow things are at the depot - I think they think it's an exaggeration. So - not really sure.

Facilitator: So you're saying - for me it's engaging the business unit people...

Interviewee: Engaging all of it, not just what they think we're experiencing, because otherwise how can you design an effective program, because you don't know what disruptions we have experienced and what we can foresee we could experience.

Interviewee: Customer satisfaction would be one. Do you want to know going back to like how would I determine whether...

Facilitator: From a programme perspective, so...

Interviewee: So first of all you have to define the programmes, so which say customer service might be a programme, IT might be a programme, development applications might be a programme. The first thing you've got to do is decide what are those programmes trying to achieve, what service are they delivering and then assess that against either regulatory or internal benchmarks to say okay we - and then your external factors that come in, i.e. customer feedback, customer satisfaction. For something like development applications if we've got 40 days does it take us 42, does it take us 31, what's the turnaround time for things that go onto public exhibition, how often do we get comments that are related more about how it's presented as opposed to what is presented, those types of things.

Name: Audits - Independent review

and audits. I think audits need to be done on the BCM to ensure that people are aware of them, they are communicated and that they're kept up to date.

Importantly too, the independent assurance audit of your continuity framework is important. It depends on the quality of your auditor. But, yes, being able to have that independent verification - and it's not just audit. For example, I paid to get a gap analysis of our business continuity plan done by a contractor that I was comfortable with. So independent review and audit of your framework is important; that's probably the other element I would mention.

Name: Budget

You've got to have budget provision you can't do this without money. Simple as that. You've got to have resources, more broadly speaking.

Name: Communication

Part1Org1: Okay. Well, obviously with leadership, and there has to be very clear sort of understanding and designation of who does what, and I think that with a lot of the work that's going on at the moment, that's what it's all about. Preparing people so that even if the most unlikely thing happened, once you get over the initial shock, yeah, okay, well now let's - now what do we have to do?
Interviewee  Yep, so I want a fairly detailed and robust communication tree, so that I understand who’s doing what and when. I think it would be good and I think we have it. We do have it.

Reference 2 - 0.70% Coverage
I want to know how I effectively deal with my staff, so if we are having close of business for a certain amount of time, how I’m reporting to my staff and what I’m telling them, so communication for that. Yeah. I think that’s it.

Reference 1 - 1.65% Coverage
Interviewee  The staff that are on the Disaster Recovery Team or the Business Continuity Team have to be up to speed with what their responsibilities are during a disaster or a disruption. Then for them to be able to communicate to staff and the public as to what's required to overcome that disaster and put practices into place to continue with our business.

Reference 1 - 2.39% Coverage
Facilitator  Anything else? How about from a leadership perspective?
Interviewee  As in if it's... Does it have a level...
Interviewee  Yes, it has a level of priority or even...
Facilitator  Do they care?
Interviewee  Yes. It comes across as an important thing from the leadership team that BCM is something we should be - just like work health and safety we don't want to be injured at work. We want everyone to be healthy. We want the organisation to be healthy to be able to do what it's meant to do. There's not walking the talk of BCM, so it has a low profile.

Reference 2 - 6.99% Coverage
Interviewee  I feel like if I read a one page BCM then I can go that design element...
[Over speaking]
...would be useful; yes, that's important. I just feel like I don’t know the suite to...
Facilitator  There's literature, but that doesn't mean it's appropriate to us. That's what this whole study is about really. Even from a management perspective - you know how programs should operate effectively. What do you think is missing in your current one for BCM? Overall programs - compare them to BCM. What do you think? You know how to manage programs?
Interviewee  Other programs people are engaged at the start. The intent is clear. I suppose why do we have BCM? It just sounds like a techno jargon word that one manager owns and, maybe, tries to impose it on people and make them live it, but they don't understand why we're going through this. It seems like a tick the box process. So I suppose importance to operate an effective program - engage the staff, make people feel compelled that this is important, that it affects them; that if there is a disruption why it's important that we do have a backup plan that's tried and tested, so that people feel reassured.
Then the program has credibility. People know where to access it. It's in our system. It's visible and that it comes across as an important thing for people at work because the general manager and the directors and the managers talk about it in our organisation if it's a big deal. If it's an organisation-wide important thing it gets put into the team meeting agendas, the monthly team meeting agendas. It's a standing item. For instance, work health and safety or restructure. It's as an item and people can just raise it and ask questions.

Reference 1 - 0.41% Coverage
Interviewee  I think it's people understanding what they've got to do, and knowing what's going on without that.

Reference 1 - 0.21% Coverage
We would need most is communication.

Reference 1 - 0.52% Coverage
Interviewee  Business as normal. Communication, that we have one an where it can be located.

Reference 1 - 0.50% Coverage
Well, first and foremost is communication. The best plan in the world is no good if you can't communicate with the relevant people…
Facilitator  Absolutely.
Interviewee: ...and the broader employment base of the organisation and, indeed, your customers here in the community.

Reference 2 - 0.27% Coverage
You've got to have a communication process so people know what's going on in the development and maintenance of the plan, the testing, the training.

Reference 1 - 0.19% Coverage
Interviewee: I think the communication coupling with the communication for the external - the media

Reference 2 - 0.29% Coverage
the communications side of it, particularly as people change in the organisation.

Reference 2 - 0.38% Coverage

Interviewee: It's communication again.

Reference 3 - 0.12% Coverage
Talking about it regularly

Reference 1 - 1.39% Coverage
Facilitator: So given all your experience to date please describe what design elements you consider are required to operate an effective BCM program in your organisation.

Interviewee: Organisational-wide?
Facilitator: Yes.
Interviewee: Effective?
Facilitator: What...
Interviewee: In testing?
Facilitator: Yes.

Interviewee: Communication is key, as I've pointed out again.

Facilitator: But this is specific to the actual business continuity management programme, so if it was a health programme what factors do you think are key from your experience because you...

Interviewee: Yep, to me making - in terms of how do I know if it's working, you can get access to the information you need. Customers can get served and customers can get in contact. I know PCB usually works well if people can work from home. So people need to be able to access information, whether that be from home or from the office. Customers need to be able to contact council, so that means having you know you can get people up and going set up in a face to face or call centre quickly. From a web services side you can get communications out to the market or to the people there. Then on the flipside if I go more on the extremes around say the people doing roads and potholes and those types of things where you can just at least get messages out to your staff who can then portray that message out to the rest of organisation.

Name: Contact information

Reference 1 - 1.31% Coverage
But I think that the things that I raised just before, you have to make sure that you've got - for instance, with your mobile phones, can you - like at the moment we have a directory that has all contact numbers and stuff like that, so just making sure that through your mobile phone you can access phone numbers of people in the organisation that you might not normally have within your contacts, you can go in and get their emails and stuff like that, that's if the systems are still operating, but, say, the power's out.
Obviously just being able to contact staff, which is something that we're looking at, which is managers having lists of individuals and how they can contact people, both home numbers, personal mobiles or work mobiles, so that if something was to happen over a weekend, on a Sunday, knowing that council might not be open or whatever, we can make contact with people. That's really important.

Interviewee Yes, so I want a fairly detailed and robust communication tree, so that I understand who's doing what and when. I think it would be good and I think we have it. We do have it. I want the contact details of all those people within that process, within the document, so that it's a one shop stop for any disaster. I don't want to have to be going to any other documents looking anywhere else for anything for it to be effective.

You need the documented programme also.

Facilitator Yes. I think so.

Interviewee Well if I'm reading it right, it's obviously the plan itself has to be available.

Facilitator Yes. I think so.

Secondly, is access to your planning documents. You can have the best plans in the world but if you can't find them then they're useless.
**Name: Identify critical services and resources**

Interviewee: Again I think identifying what services are critical to the community, identifying the resources required to meet those services. From a staffing point of view I'd suggest knowing the skills of the staff that maybe could be redeployed if limited staffing was an issue. From IT it would be certainly looking at what alternatives there are if there was an issue so they could be put back in place. Does that answer the question?

Facilitator: It half does. So from a process...

Interviewee: Yeah, so this is not when we've been hit for a disaster and we have to react, it's more about how do we keep it alive so that people know what...

Interviewee: I think knowing the skills of your staff is important, so an up-to-date knowledge of that and being aware of the elements that make up the services so they can be addressed.

**Name: Integration with other emergency plans**

Interviewee: Well again we have to identify all the actual functions that you undertake and work out which of those are critical to the ongoing organisation in that crisis situation. Work out the mitigating programs to attack those or make sure that that customer still gets serviced at some service level. So I guess that's probably it.

Interviewee: Part1Org1: Okay. Well, obviously with leadership, and there has to be very clear sort of understanding and designation of who does what, and I think that with a lot of the work that's going on at the moment, that's what it's all about. Preparing people so that even if the most unlikely thing happened, once you get over the initial shock, yeah, okay, well now let's - now what do we have to do?

**Name: Job description**

Interviewee: Okay. Well, obviously with leadership, and there has to be very clear sort of understanding and designation of who does what, and I think that with a lot of the work that's going on at the moment, that's what it's all about. Preparing people so that even if the most unlikely thing happened, once you get over the initial shock, yeah, okay, well now let's - now what do we have to do?
Interviewee  The staff that are on the Disaster Recovery Team or the Business Continuity Team have to be up to speed with what their responsibilities are during a disaster or a disruption.

Reference 1 - 0.41% Coverage

Reference 1 - 0.57% Coverage

Interviewee  I think it's people understanding what they've got to do, and knowing what's going on without that.

Reference 1 - 0.68% Coverage

Maintenance staff being constantly trained if they're critical staff members to when the BCM is enacted and audits.

Reference 1 - 0.86% Coverage

Interviewee  Again I think identifying what services are critical to the community, identifying the resources required to meet those services. From a staffing point of view I'd suggest knowing the skills of the staff that maybe could be redeployed if limited staffing was an issue. From IT it would be certainly looking at what alternatives there are if there was an issue so they could be put back in place. Does that answer the question?

Facilitator  It half does. So from a process...

Interviewee  A process, yeah.

Facilitator  Yeah, so this is not when we've been hit for a disaster and we have to react, it's more about how do we keep it alive so that people know what...

Interviewee  I think knowing the skills of your staff is important, so an up-to-date knowledge of that and being aware of the elements that make up the services so they can be addressed.

Female  Again, the same type of thing. The technology to support it, the people to support it. The processes and procedures with that programme as well. Do we know what to do with our people and our technology to make it happen?

Name: Leadership

Reference 1 - 0.40% Coverage

Part1Org1:  Okay. Well, obviously with leadership, and there has to be very clear sort of understanding and designation of who does what, and I think that with a lot of the work that's going on at the moment, that's what it's all about. Preparing people so that even if the most unlikely thing happened, once you get over the initial shock, yeah, okay, well now let's - now what do we have to do?

Reference 2 - 1.00% Coverage

Reference 1 - 0.70% Coverage

I said the leadership, and the leadership not just from the general manager in him making the ultimate decisions, but now our BCM program and what's been rolled out is more accountability for the managers at the operational level, so that we know what's responsible. Because of course, the GM's not going to be able to do everything, and that we then kind of kick into gear and do what we need to do.

Reference 2 - 1.10% Coverage

Reference 1 - 0.40% Coverage

who can talk to who within those processes. So in terms of media and so on. I want the hierarchy. Who we're reporting to and what.

Reference 2 - 0.70% Coverage
I want to know how I effectively deal with my staff, so if we are having close of business for a certain amount of 
time, how I’m reporting to my staff and what I’m telling them, so communication for that. Yeah. I think that’s it.

Interviewee The staff that are on the Disaster Recovery Team or the Business Continuity Team have to be up to 
speed with what their responsibilities are during a disaster or a disruption. Then for them to be able to communicate 
to staff and the public as to what's required to overcome that disaster and put practices into place to continue with 
our business.

Facilitator To run the BCM programme. Not exactly - not really recovery because then we - it's basically - but this 
is about the programme itself. So what are the…

Interviewee I think you need the people and are sent the programme.

Facilitator Yeah, so people are key.

Interviewee You need the utilities to run it.

Facilitator Anything else? How about from a leadership perspective?

Interviewee As in if it's...

Facilitator Does it have a level...

Interviewee Yes, it has a level of priority or even...

Facilitator Do they care?

Interviewee Yes. It comes across as an important thing from the leadership team that BCM is something we should 
be - just like work health and safety - we don't want to be injured at work. We want everyone to be healthy. We want 
the organisation to be healthy to be able to do what it's meant to do. There's not walking the talk of BCM, so it has a 
low profile.

Facilitator There's literature, but that doesn't mean it's appropriate to us. That's what this whole study is about really. 
Even from a management perspective - you know how programs should operate effectively. What do you think is 
missing in your current one for BCM? Overall programs - compare them to BCM. What do you think? You know 
how to manage programs?

Interviewee Other programs people are engaged at the start. The intent is clear. I suppose why do we have BCM? It 
just sounds like a techno jargon word that one manager owns and, maybe, tries to impose it on people and make 
them live it, but they don't understand why we're going through this. It seems like a tick the box process. So I 
suppose importance to operate an effective program - engage the staff, make people feel compelled that this is 
important, that it affects them; that if there is a disruption why it's important that we do have a backup plan that's 
tried and tested, so that people feel reassured.

Then the program has credibility. People know where to access it. It's in our system. It's visible and that it comes 
across as an important thing for people at work because the general manager and the directors and the managers talk 
about it in our organisation if it's a big deal. If it's an organisation-wide important thing it gets put into the team 
meeting agendas, the monthly team meeting agendas. It's a standing item. For instance, work health and safety or 
restructure. It's as an item and people can just raise it and ask questions.

Interviewee Business as normal. Communication, that we have one an where it can be located. Education of staff 
so that they know what to do when something does happen. Then ensuring that the BCM is - that the mitigation 
strategies are kept in place such as backup files being kept offsite, staff being constantly trained if they're critical 
staff members to when the BCM is enacted and audits. I think audits need to be done on the BCM to ensure that 
people are aware of them, they are communicated and that they're kept up to date.
Maintaining services - and I guess the other thing is that you have to have prior agreement which is obtained through the adoption of the plan and adequate consultation in developing that plan. But you have to have prior agreement around the priorities set within the plan. Once you start arguing about priorities after the plan's been activated then you're all over the shop.

Reference 2 - 0.10% Coverage
You've got to have management support and ownership of it.

Reference 3 - 0.51% Coverage
All this is blended together so that you know things change, you've got a framework of relevant stakeholders to review the change and identify what needs to be done to reflect those changes in your plans. Then you report it through so that your governance - to your governance team.

Reference 1 - 2.82% Coverage
Interviewee I think the communication, also the delegation. The roles and responsibility of the committee, giving them the delegation to make decisions, including financial delegations, in those sort of emergencies, coupling with the communication for the external - the media - and then I also said technology and the IT disaster recovery plan being enabled. So the central committee in conjunction particularly with ICT and whoever that communicating member is to call into effect the ICT DR plan, i.e. this building's unavailable, those services are gone, rebuild, rebuy.

Reference 1 - 3.58% Coverage
Interviewee Again I think identifying what services are critical to the community, identifying the resources required to meet those services. From a staffing point of view I'd suggest knowing the skills of the staff that maybe could be redeployed if limited staffing was an issue. From IT it would be certainly looking at what alternatives there are if there was an issue so they could be put back in place. Does that answer the question?

Facilitator It half does. So from a process…

Interviewee A process, yeah.

Facilitator Yeah, so this is not when we've been hit for a disaster and we have to react, it's more about how do we keep it alive so that people know what…

Interviewee I think knowing the skills of your staff is important, so an up-to-date knowledge of that and being aware of the elements that make up the services so they can be addressed.

Name: Ownership – Relevance

Reference 1 - 0.11% Coverage
You've got to have management support and ownership of it.

Reference 1 - 2.65% Coverage
Also, it needs to have relevance; it's no good asking a philosophical question if the individual asking it of cannot put it into a context that they can relate to. Sorry for the psycho babble.

Facilitator That's alright. I agree.

Interviewee But yeah, if they can't relate it to something that they have either experienced or can actually imagine happening - it's a pity there's no video - it's going to float right over their heads and they're just not going to get it.
Name: Prioritization critical services

and also a clear prioritisation of what services are critical and what ones can be put to the side in the event of a crisis.

I think the priorities are important for almost the same reason, so that everyone’s on the same page and we’re all working towards the same goal. Not towards different goals.

Facilitator So out of those listed elements, which would you consider being most critical for operating a BCM program in the LG sector and why?

Interviewee I think determining what your critical functions are, because local government is a very diverse animal, it's critical that for a continuing program in an event you need to know what you really have to do, not what you would just like to do.

Name: Simplicity

Interviewee I would - okay design elements. The first one would be simplicity. The simple reality is that depending on where your working, depending on who you’re working with you’ll have highly technically competent people who will be able to look at it and go, ah, that’s what that’s talking about. Then if you turn it over to somebody who doesn’t have a lot of experience with risk management, or mitigating risk, or any of those sorts of elements, they are going to look at it and go, how am I supposed to do this again? And you’re going to get a lower quality final product out of that person.

Name: Business Plan - Steps by step process

I don’t want to have to be going to any other documents looking anywhere else for anything for it to be effective. I want to know specifically in terms of types of disasters and council’s process, so reaction to those disasters. So what are the steps that we’re going to follow and who can talk to who within those processes.

I want to know how I effectively deal with my staff, so if we are having close of business for a certain amount of time, how I’m reporting to my staff and what I’m telling them, so communication for that. Yeah. I think that’s it.

Interviewee Business as normal. Communication, that we have one an where it can be located. Education of staff so that they know what to do when something does happen. Then ensuring that the BCM is - that the mitigation strategies are kept in place such as backup files being kept offsite, staff being constantly trained if they're critical staff members to when the BCM is enacted and audits. I think audits need to be done on the BCM to ensure that people are aware of them, they are communicated and that they're kept up to date.

Maintaining services - and I guess the other thing is that you have to have prior agreement which is obtained through the adoption of the plan and adequate consultation in developing that plan. But you have to have prior agreement around the priorities set within the plan. Once you start arguing about priorities after the plan's been activated then you're all over the shop.

and then I also said technology and the IT disaster recovery plan being enabled. So the central committee in conjunction particularly with ICT and whoever that communicating member is to call into effect the ICT DR plan, i.e. this building's unavailable, those services are gone, rebuild, rebuy.
Interviewee Again I think identifying what services are critical to the community, identifying the resources required to meet those services. From a staffing point of view I'd suggest knowing the skills of the staff that maybe could be redeployed if limited staffing was an issue. From IT it would be certainly looking at what alternatives there are if there was an issue so they could be put back in place. Does that answer the question?

Facilitator It half does. So from a process...

Interviewee A process, yeah.

Facilitator Yeah, so this is not when we've been hit for a disaster and we have to react, it's more about how do we keep it alive so that people know what...

Interviewee I think knowing the skills of your staff is important, so an up-to-date knowledge of that and being aware of the elements that make up the services so they can be addressed.

Facilitator [It's easy]. [Okay, that will do]. So we're going to number 2. Given all your experience to date - now, this is now about the program itself - please describe what design elements - so key processes - you consider are required to operate an effective BCM program in your organisation? So this is now, how do you measure the program working effectively within your organisation? So what are the key components? And again, it's from your experience, so...

Interviewee Look, I'm not too sure on this, Fresia. Design elements? Other than what I just talked about.

Facilitator Yeah, which is - and it can be similar. So you said in the first this is when a disruption happened, to you it was communication. So now, it's the program itself because it's - that's situational...

Interviewee Yeah, okay.

Facilitator ...this one's the actual operational component. So this is where sometimes you can forget about things because everything is so sweet, so you don't...

Interviewee Yeah, you know it's all covered.

Facilitator Yeah.

Interviewee Well, you've got - you've got your back up data and systems. You've basically got your alternatives for whatever it is, so another office with PCs to access the data that you know has been saved or operate at a separate building to what's no longer available. So the backup, the alternatives and the procedures so people know what to follow.

Name: Staff Engagement

Interviewee They're all critical in my opinion. I guess in the absence of documentation it's the key staff because they can - one would fill in - I'd expect that they will remember what the key elements are even if there's no documentation how to kick-start the whole process.

Interviewee Yeah, I think first off, you've got to have staff who know what's going on, the information infrastructure behind it. Also the good plans and procedures that people - and communication of that, so that all staff understand what's expected, when, what happens. I suppose what - from my experience in New Zealand, we - I got rung at half past four in the morning to say we're opening up an emergency evacuation centre, and you'll be manning it. Because of the training we'd had, I knew exactly what...

Facilitator Yeah, you knew what to do.

Interviewee Knew - I knew which hall we were going to. Went up - my wife and I, who - my wife also works in local government. We were called out. So you went to - there at four o'clock in the morning, when they had their evacuation, and processed the people in and out, and stayed there. I think we got out of there at about three o'clock in the afternoon.

So it's - you just get used to it. You - we had the training to do it, and that's what I think lacks here. But again, it's a different scenario - slightly different scenario, because we - in Australia, you have SES. In theory, they are the guys that know what's going on and what they've got to do and where things are. So the type of emergencies that we have to deal with in local government here are quite different.

Facilitator So again, it's like the state/local government discussion always, who's holding the baby?

Interviewee Yeah.
The other issue is that local government, in many respects, including BCM, can't afford to employ a person or a group that focus on BCM. They've got to have a variety of skills and experiences.

Reference 2 - 0.06% Coverage
So the access to specialised skills

Reference 3 - 0.32% Coverage
I think the other most critical item is the access to resources whether it's people within the organisation and their skills or access to external skills through budget provision.

Reference 2 - 0.12% Coverage
So the access to specialist skills is also required on the staffing side of things and also making the staff aware of the process because I believe there's not enough awareness of business continuity. So I think it's knowing what the staff are and then also making the staff aware of the part they play.

Reference 2 - 0.12% Coverage
Facilitator Out of those listed elements, I think you listed about four - four or five, which would you consider being most critical for operating a BCM programme in the LG sector and why?

Male Most critical?
Female That's hard for me. It's a toss up between people and technology, because we're so service and community focussed that people want to see someone and talk to someone. However, how much can a person deliver if you don't have the support of the technology to know what - where to direct them or give them back information?

Facilitator Yeah, because we are very dependent.
Female Yeah, yep.
Facilitator That's alright. You can pick the two as...
Female Yeah

Name: Technology

Reference 2 - 0.12% Coverage
But I think that the things that I raised just before, you have to make sure that you've got - for instance, with your mobile phones, can you - like at the moment we have a directory that has all contact numbers and stuff like that, so just making sure that through your mobile phone you can access phone numbers of people in the organisation that you might not normally have within your contacts, you can go in and get their emails and stuff like that, that's if the systems are still operating, but, say, the power's out.

Reference 2 - 0.12% Coverage
So that's the issue for that, and your laptops.

Reference 2 - 0.12% Coverage
Interviewee It will rely heavily and be driven by technology and from there it's going to force a process maturity and from the interaction between the process and the technology you're going to find the knowledge gaps that exist so it will almost end up with an up skilling. You almost design rapid response teams and you run them through fire drills if you want to call them. With those fire drills they test the resilience of both your technology and the process and then it becomes a continuous learning, continuous improvement and the more of that you do, provided it's not cost prohibitive to do the exercise or introduces new risks, the more you do it the better.

Reference 2 - 0.12% Coverage
we'd need some form of IT I think.

Reference 1 - 0.66% Coverage
Then ensuring that the BCM is - that the mitigation strategies are kept in place such as backup files being kept offsite

Reference 1 - 0.66% Coverage
and then I also said technology and the IT disaster recovery plan being enabled.

Reference 1 - 0.52% Coverage
From IT it would be certainly looking at what alternatives there are if there was an issue so they could be put back in place.

Female  Again, the same type of thing. The technology to support it, the people to support it. The processes and procedures with that programme as well. Do we know what to do with our people and our technology to make it happen?

Facilitator  [It's easy]. [Okay, that will do]. So we're going to number 2. Given all your experience to date - now, this is now about the program itself - please describe what design elements - so key processes - you consider are required to operate an effective BCM program in your organisation? So this is now, how do you measure the program working effectively within your organisation? So what are the key components? And again, it's from your experience, so...

Interviewee  Look, I'm not too sure on this, Fresia. Design elements? Other than what I just talked about.

Facilitator  Yeah, which is - and it can be similar. So you said in the first this is when a disruption happened, to you it was communication. So now, it's the program itself because it's - that's situational...

Interviewee  Yeah, okay.

Facilitator  ...this one's the actual operational component. So this is where sometimes you can forget about things because everything is so sweet, so you don't...

Interviewee  Yeah, you know it's all covered.

Facilitator  Yeah.

Interviewee  Well, you've got - you've got your back up data and systems. You've basically got your alternatives for whatever it is, so another office with PCs to access the data that you know has been saved or operate at a separate building to what's no longer available. So the backup, the alternatives and the procedures so people know what to follow.

Name: Testing - Continuous improvement

Interviewee  It will [rely] heavily and be driven by technology and from there it's going to force a process maturity and from the interaction between the process and the technology you're going to find the knowledge gaps that exist so it will almost end up with an up skilling. You almost design rapid response teams and you run them through fire drills if you want to call them. With those fire drills they test the resilience of both your technology and the process and then it becomes a continuous learning, continuous improvement and the more of that you do, provided it's not cost prohibitive to do the exercise or introduces new risks, the more you do it the better.

Interviewee  Business as normal. Communication, that we have one an where it can be located. Education of staff so that they know what to do when something does happen. Then ensuring that the BCM is - that the mitigation strategies are kept in place such as backup files being kept offsite, staff being constantly trained if they're critical staff members to when the BCM is enacted and audits. I think audits need to be done on the BCM to ensure that people are aware of them, they are communicated and that they're kept up to date.

A third factor is flexibility. The plan is a plan is a [unclear]; it's not the be all and end all. It's not the absolute truth so you need to be flexible to adapt to the circumstances and you use the plan as a tool not as a goal.

Interviewee  …there's, obviously, governance. So you've got to have a governance - it's got to have a governance feature to it. So in our instance, it's a policy. You've got to have proper stakeholder engagement, systematic engagement or identification. Assessment of processes and the bits and pieces behind it all.

You've got to have your sustainability schedule otherwise it goes off the rails.

You've got to have - importantly, you've got to have a reporting process so you can demonstrate your sustainability of the plans.
You've got to have ongoing surveillance and monitoring of the organisation and of changes to the organisation. So that includes not only business processes that might come and go over time, changes to compliance requirements, changes to your infrastructure, say, if you've got new facilities or facilities decommissioned. Then you need to be able to manage that. So that surveillance of your organisation and changes over time are critical.

We need some sort of a framework around it, and we need to test it anyway, because it's out of date. So it needs to be tested, and I would suggest it probably needs more regularity around that testing anyway. So even if we tested it now, we'd probably be testing it again in - I'm not sure what the recommended cycle is, two years or three years or whatever. So the testing side of it

I'd like to see some sort of almost like drills running. We do that with the evacuation of a building. Twice a year we all file down the stairs and outside. We don't really practice anything around the BCP. So I think that's an important part of it. Talking about it regularly, and testing it, and maybe whatever you call that, the 'fire evacuationing' of it.

In terms of the design elements - is that the question? It's, again, localised to me. It's about being able - look, the only thing I have to do really is to ensure that we've got all the data. The methodology which we perform here through our backup systems and backup process - logging and ensuring that the process is working - is a daily process. So from a design element that's key to me; communication, of course, but that's corporate-wide.

I won't waffle on, but I think your testing phases, but not just for IT but the whole gambit of things; getting people into a mock environment where you can say look, pretend we now have a fire and you have to go and do something. So that's key to be able to - you've really got to develop scenarios where - at Blacktown we did this very well. We would have what they call a desktop scenario, so we just pretend. I think once a year we would have - can you hear me?

Facilitator Yes. I just - it's timing [laughs].

Interviewee We have an annual actual mock disaster. So we would hire a consultant to come in and throw some scenarios - we do it at different levels. So we do it at an executive level. What they've got to do - we'd give them all the scenarios on paper and we would say this is what's happening. We would then get a phone call from the company. They'll say, so and so, I have this problem. What do you? The mayor what do you do? The media what do you do? So those sorts of design elements around a testing phase are key to a successful business continuity management plan. It's all about the testing.

The staff that are on the Disaster Recovery Team or the Business Continuity Team have to be up to speed with what their responsibilities are during a disaster or a disruption.

I think it's people understanding what they've got to do, and knowing what's going on without that.

Yeah, I think first off, you've got to have staff who know what's going on, the information infrastructure behind it. Also the good plans and procedures that people - and communication of that, so that all staff understand what's expected, when, what happens. I suppose what - from my experience in New Zealand, we - I got rung at half past four in the morning to say we're opening up an emergency evacuation centre, and you'll be manning it. Because of the training we'd had, I knew exactly what…

Facilitator Yeah, you knew what to do.

Interviewee Knew - I knew which hall we were going to. Went up - my wife and I, who - my wife also works in local government. We were called out. So you went to - there at four o'clock in the morning, when they had
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Facilitator  So again, it's like the state/local government discussion always, who's holding the baby?
Interviewee  Yeah.
Education of staff so that they know what to do when something does happen.
You've got to have a communication process so people know what's going on in the development and maintenance of the plan, the testing, the training.
Female  Again, the same type of thing. The technology to support it, the people to support it. The processes and procedures with that programme as well. Do we know what to do with our people and our technology to make it happen?
Male  Education and training. You can't just expect people to take this plan and go - know exactly what to do. So, I think it's important that they're trained and given some guidance on how to read it and how to activate their section of it, whatever it might be.
I won't waffle on, but I think your testing phases, but not just for IT but the whole gambit of things; getting people into a mock environment where you can say look, pretend we now have a fire and you have to go and do something. So that's key to be able to - you've really got to develop scenarios where - at Blacktown we did this very well. We would have what they call a desktop scenario, so we just pretend. I think once a year we would have - can you hear me?
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Interviewee  I would - okay design elements. The first one would be simplicity. The simple reality is that depending on where your working, depending on who you’re working with you’ll have highly technically competent people who will be able to look at it and go, ah, that’s what that’s talking about. Then if you turn it over to somebody who doesn’t have a lot of experience with risk management, or mitigating risk, or any of those sorts of elements, they are going to look at it and go, how am I supposed to do this again? And you’re going to get a lower quality final product out of that person.
The following provides a subset of the full interview transcripts.

**Interview Transcript : Council1Participant1**

**Part1Org1:** ...as in brothers.

**Facilitator:** So thank you again, XXXXXXXX, from Hurstville City Council, in participating in my research, which is a framework for local government for business continuity management. XXXis now filling in her participation information and she's giving us information about who she is and - yes, so just your initial thoughts of how do you define business continuity management as you see it now. This is my first interview for 28 March 2013.

**PART A**

**Q1** Can you define BCM as you see it?

**Part1Org1:** Contingency Plans to ensure that an organisation can continue critical operations until other actions are implemented.

[Break in Audio]

...concession. So this is the second session of XXXX, Hurstville City Council's interview. In this second session we want to explore how does local government currently engage with BCM? So I wanted to firstly define business continuity management in respect to the research, and based on the literature that's been done, the expanded literature that's been done for this research, let's read together what this research defines business continuity management. Because I think it will then set context. We have your definition, because that will add value, because I understand how you see it, but let's now understand how this research paper defines it.

**Part1Org1:** Yep.

**Facilitator:** So business continuity can be defined as an agreed tried and systematic approach used by an organisation for the management of any crisis. It is business centric, focused on how the organisation will deal with a crisis or disaster that effects it, it is focused primarily on its people, services to customers, suppliers, processes and systems, ensuring recovery is achievable without significant disruption to the organisation. Currently there is a knowledge gap on why design limits for BCM are most important and suitable to local government.

**Part1Org1:** Yep.

**Facilitator:** Okay? So that's what we're targeting in this research.

**Part1Org1:** Yep.

**Facilitator:** So we'll start with the questions.

**Part1Org1:** Yep.

**PART B**

**Q2** So are you aware of, and if so, please describe the current BCM program within your organisation?

**Part1Org1:** Okay. So I'm aware that there's been a lot of work done - there was probably, from my knowledge, always some sort of plan in place from an IT perspective in regards to if there was some sort of disaster or issue of being able to operate things offsite. But that - I am aware that because of most recently, I think, an issue with another council that lost all its premises, that our council has been very focused on making sure that whatever we currently have was improved and I suppose looked beyond just the IT systems, and looked at all the critical services that needed to continue until, obviously, council could sort out a long term plan, depending on how severe the critical issue was.

So from an HR manager perspective, I've been involved in I suppose part of a project which is what's my role in relation to what information we need to make sure that managers have so that if we either had to send employees home or we had to contact employees, how do we do that, and starting that process of looking at the HR impacts of what are the critical functions that we would still have to continue? So who are the HR resources that still would have to come in? Where would they be located?
So we've been doing a lot of work, and that's sort of work in progress across the organisation.

Facilitator: Okay. Thank you for that. I just want to just expand a few things, just to understand more.

Part1Org1: Yep.

Facilitator: So was the program endorsed by executive at all?

Part1Org1: Yes.

Facilitator: Okay. Is it integrated with business planning?

Part1Org1: I believe so. What exactly do you mean by that question?

Facilitator: So your corporate business planning?

Part1Org1: Yep.

Facilitator: So is it just…

Part1Org1: Yep.

Facilitator: Okay.

Part1Org1: Yep, yep.

Facilitator: So is it just something you've come up with, or is it organisation-wide?

Part1Org1: Oh, no. I believe that it's linked to the organisation planning, and obviously it's been highlighted as a potential risk issue, which is all incorporated in our business planning.

Facilitator: Great. Thank you for that. So we'll move on to the second question.

Part1Org1: Yep.

Q3 Please explain the current documentation that exists within your council concerning business continuity management?

Part1Org1: Okay. Well I believe that there's obviously a strategic plan that's been facilitated by MIS, and that then for each key area, such as human resources and other critical business areas, the managers are developing or have developed their own parts of the plan that integrate into the organisational plan. We have been given little whatever you call it…

Facilitator: Storage…

Part1Org1: USB sticks.

Facilitator: Okay.

Part1Org1: Yep, yep.

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Part1Org1: Yep, which obviously have the information in relation to what it is that we'd need to do. We have things around making sure that we take our laptops home, because that's obviously kind of like our mobile network, so that if anything happened to this particular space - the managers obviously operate on laptops, so there are lots of practical things we do, but then depending on if you're one of those managers identified you know what the plans are in relation to what it is that you're doing. Which I'm in the process of kind of working through with MIS's help.

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Facilitator: Do you believe you should be testing it on a regular basis?
Part1Org1: Yeah, if you can possibly do that. We're coming up with scenarios, but obviously making sure that those scenarios are not disruptive to the business itself. So you have to obviously be reasonable and practical. Yes, what's likely, even highly unlikely, but you're not always going to be able to test for that, but just making sure that you test the things that you would implement.

So for instance, one of the issues is staff addresses and things like that. So what's the process for ensuring that that's kept up-to-date with the managers? So you would have other processes in place to ensure that the things that you would rely on in case something happened is still being monitored and updated on a regular basis.

Facilitator: A maintenance schedule for - I know again you're trying to finalise that plan, but have you - is there a commitment to then continually review it? What's it like with respect to your current...
Part1Org1: I'm not aware of anything that's actually specific, but in HR we typically review things on an annual basis. So I'd expect that that would be similar to our policy reviews, our workforce planning, our strategic HR planning, that it would be an annual update, unless something occurred, even a minor or a near miss, that would actually make us think about reviewing it in the meantime.

Facilitator: Great. Thank you. So we're going to move on to question three.

Q4
Describe the risks you perceive for your organisation the business
continuity management program is there to mitigate.
Part1Org1: So describe the risks you perceive for your organisation - okay, so you're asking me what the sort of likely risks are? Okay.
Facilitator: Just to get your understanding, or what you think.
Part1Org1: Yeah. Well, I suppose one of the questions that you asked in your little thing at the intro was has there been any experiences of things that have disrupted our service so far? The one that I can recall that was fairly was significant was a power outage. So that was an issue because we had - for instance, at the depot if they have any issues like that, potentially, then there are times where they might have actually sort of wrapped up the work and staff have gone home.

Here there was a power outage when there were issues with energy companies for a period of time. So you have a number of issues that came out of that. Number one, because we're very technology focused and very self-sufficient from a technical perspective, and there's really not much manual work, then it's very hard to be able to do anything without power, unless, for instance, your laptop's got some battery. But not everyone in the organisation has that.

Also you then have health and safety issues, so no air conditioning. I remember the building getting quite hot and stuffy, very uncomfortable, which meant that people - even if there were things that they could do, after a few hours it certainly became an issue that it wasn't reasonable and that people were being sent home. I suppose then just a communications issue in relation to that. So that was one that we experienced that I suppose had a significant impact.

We had to close customer service, so we couldn't have the customers coming in because we obviously couldn't service them. Then you have things like, and I'm not sure, but security cameras, things that don't operate that we'd normally have operating. Yeah, so that was the biggest issue. But there were things that were put in place.

So I suppose what we did was - the executives were very hands on in relation to what was happening and started to come together and make decisions. I think at some stage we still didn't know how long the power outages would last for, and so all those issues and concerns were raised and then they just went through a process of what they end up doing for that afternoon.

I think at one stage some people were sent home, but then the power eventually came back on. Then we rang people and told them to come back.

Facilitator: So very disorganised? Thank you for that. I just would like to understand if you had any prior knowledge or any understanding of business continuity plans that focus on process level business continuity scenarios. Do you know what they - no?
Part1Org1: No.
Facilitator: That's all right.
Part1Org1: No. I mean, the only thing that I would say historically that I've known is if you think of disaster recovery, it's all been very much focused on IT systems, as opposed to how do you keep your doors open and operating? So it's always been about are there back-ups and where else can IT operate from, and make sure that if there's anything happening in the system that they can limit any issues.
Facilitator: So you're aware of utility recovery business process? So where it's just very much about…
Part1Org1: Yeah.
Facilitator: …the thing.
Part1Org1: Yeah, yeah. I mean, I am aware, though, of - from a former environment where you then have a back-up environment that you could actually move people to, so that people could keep on answering the phones. Obviously I'm aware that here at council we look at if something happened to this particular building then we could move customer service and other critical essential services to the library, if the library was un-impacted by whatever the issue was.
Facilitator: How about human resources business continuity scenarios? Are you aware of any of those?
Part1Org1: From a…
Facilitator: Key loss…
Part1Org1: Yeah, from an HR perspective the only thing that I've ever been involved in is just how do we physically move people and have them operating elsewhere? I think that the environment's changed now, so where years ago it would be what happens to all the personnel files because they're all hard copy and if they get destroyed, so the issue now is that most of that data is actually on a system. So it would just be understanding well, what happens to all that data? Again, then, from an MIS perspective.
Facilitator: Okay. Thank you. We're going to go through some - so based on research we have an understanding of what the most prevalent disaster scenarios are that could affect organisations. So what I'd like to get is your views and your assessment of how these scenarios could affect, would affect your organisation.
Part1Org1: Yep.
Facilitator: So I'm just going to list them.
Part1Org1: Mn.
**Disruption Scenarios**
Facilitator: So permanent destruction and loss of building. Are you aware of this disruption scenario?
Part1Org1: Yes. It's happened to other councils.
Facilitator: Yes. Please rate probability from one, is unlikely, to five, as most likely to impact your organisation.
Part1Org1: Five is unlikely, is that correct?
Facilitator: No, one is unlikely. One to five.
Part1Org1: I would put one as unlikely, in that if you kind of thought about it - yeah, it's highly unlikely, but it has happened. It's something that you don't focus your whole business around every single day, but that you can't ignore the fact that there's a chance it can happen because it's happened recently over the last few years to a couple of councils.
Facilitator: Yep. Thank you. Temporary denial of access of premises and/or precinct; are you aware of this disruption scenario?
Part1Org1: Yeah, yep.
Facilitator: What does it mean to you?
Part1Org1: Well, I suppose that means that something's happened to a building. So whether there's been a smaller fire, or something, or part of a damage to the building or to the access to the area. So there could be a road issue, there could have been a gas leak, or something like that where you can't get your staff - even if you're building's fine you can't get your staff into that area.
Facilitator: So please rate probability from one, is unlikely, to five, as most likely to impact your organisation.
Part1Org1: I would say two, because your risks become a little bit higher, in that when you're looking just beyond your own building that there are things - there are gas pipes underneath, there are other businesses around the place where something could happen that could impact access to your own. So it's still unlikely, but it's not as highly unlikely as losing your whole building.

Facilitator: Okay. So thirdly, major disruption or extensive loss of information technology and/or telecommunications infrastructure; are you aware of this disruption scenario?

Part1Org1: Yeah, are you saying permanent loss or just temporary loss?

Facilitator: Major disruption or extensive loss, so it's not permanent loss, it's just...

Part1Org1: Yeah, well - yeah, not that I'm aware of. I mean, sometimes you experience temporary issues. Then again, I'd rate that as probably at a two.

Facilitator: Thank you. Unplanned or permanent loss of vital records; are you aware of this disruption scenario?

Part1Org1: No.

Facilitator: Okay. This is where - which is great - this is where you lose basically records that are not electronically kept.

Part1Org1: Right, yeah.

Facilitator: So vital records in your scenario would be...

Part1Org1: Yep, personnel files.

Facilitator: Yes, personnel files.

Part1Org1: Yep, yep.

Facilitator: So please rate probability from one, again, up to five...

Part1Org1: I'd say one.

Facilitator: In regards to how are they lost?

Part1Org1: Through a disaster as opposed to...

Facilitator: So it could be loss of - for example pandemic.

Part1Org1: Everyone gets the flu and only 10 per cent of people turn up to work.

Facilitator: Yeah, well I mean we did have that SARS virus thing probably about four years ago, three years ago, where we were very active. We were actually instructing pregnant women to stay home. Also we did have a very high percentage of people that were staying home, either they were sick of they had family members sick. It was quite a sector wide response. So that did have a significant impact on how we were operating at that time. It didn't end up probably as bad as they were expecting throughout Australia, but they were still publically talking with businesses, because there was a concern it could have got a lot worse.

Facilitator: Okay. Please rate probability, again, one to five.

Part1Org1: Look, I would say a three, because it's not happened again to that degree. So even though we have some bad flus and things that happen, we kind of manage and anticipate our sick leave going up in winter, particularly for our outdoor staff. So we already kind of know that that happens and we manage to that. But we haven't had that issue of that SARS virus, or whatever it was, for probably three or four years. So it certainly could happen, but the fact that it doesn't happen every year means that - yeah, I'd say probably three. Yep.

Facilitator: Okay. Thank you. The last one there is loss of key external dependencies; are you aware of this disruption scenario?

Part1Org1: So what's an example of that?

Facilitator: Contracts. So for example in this council you're very dependent on the [wait] services contract.

Part1Org1: Yeah.

Facilitator: So if that contract - you wouldn't have any...

Part1Org1: Yeah, I don't...

Facilitator: So any contracts for you, they're your dependent, so you're not aware of it?

Part1Org1: No, no.

Facilitator: So how - please rate probability of one to five, as like...

Part1Org1: I mean, for me, I'd say five in that…
Facilitator: Most...
Part1Org1: Yeah, yeah.
Facilitator: Okay. Most prevalent.
Part1Org1: Yeah. Oh, sorry, one.
Facilitator: Okay, thank you.
Part1Org1: One, sorry.
Facilitator: As unlikely to impact?
Facilitator: Thank you. Now we're going to move to question four.

Q5
Describe what you consider to have been the business drivers for the
development of the BCM program in your organisation.

Part1Org1: Look, I think that there was always something in place and something being worked
on from a best practice perspective, but I think that probably one of the key drivers
that really promoted the fact that this needed more legs, and that we had to take it
more seriously, was probably the recent disaster of - which council was it that had an
issue?
Facilitator: Liverpool?
Part1Org1: Liverpool, and again, there'd been a previous council a few years earlier. So I think
that was a wake-up call to the whole sector, but I think that we - there'd already been
some work done from a best practice perspective, but it certainly brought it to the fore,
particularly for the executive and for the general manager to then start thinking okay,
we really need to make sure that we resource this and manage this because it could
happen to us, and are we ready for it?
Facilitator: So you're saying - so do you believe this is then - it's a compliance view or is it
because really they want to become resilient?
Part1Org1: Oh, no, I think it's a survival - it's a best practice, and it's a survival mechanism. So
it's about always being prepared, which I think is consistent with the way that we
operate in this organisation.

Facilitator: Thank you.

Q6
Can you describe who is responsible for BCM within your organisation?
What business units are involved?

Part1Org1: Well, for me, I would see that it's the executive who ultimately own business
continuity management, because it's their businesses, and the GM because the GM is
responsible to the councillors to be able to say yes, if some critical incident occurs we
can still do A, B, C and D. Then in week one - in week two we'll be able to do other
things. In relation to who's been involved, obviously MIS has been critical in
facilitating the process, but of course that can't be done without the key departments,
particularly the key departments that do need to keep operating.
So departments like myself as HR in supporting and making sure that the key
departments that are identified, then what is it that HR can do to support those
managers? Customer service probably would be one of them. Then looking at the
impacts of the remote staff and whether they'd be impacted or not. Development
assessment. Yeah, so all those managers that kind of operate things that the
community would expect would happen. Of course there are some things that you
would want up and running ASAP, and others that we can live without for a little
while longer.

Facilitator: Okay. Thank you. Question number six, we're almost there;

Q7
Describe how those responsible for BCM approach and enact business
continuity management within your organisation.

Part1Org1: Well I think from my experience that even though really, it's probably the executive
that are the owners, not that I've really kind of had a lot of exposure, but knowing
sometimes how it operates, I'd say that if you asked other people who owns BCM,
people would just say MIS. Because they're the ones that are facilitating it and the
ones that are having to push it and to make it happen, and if they didn't do what they
did then nothing would happen. So whilst there's that ownership at the executive level, I would say that they're not really driving it. It's being driven by MIS

Facilitator: Thank you for that.

Q8
Describe your organisation's business continuity management communication framework.

Part1Org1: Okay...
Facilitator: Is there such a thing?
Part1Org1: Well, the communication that I've had is probably more so from being a manager that can assist from the critical management perspective. So there has been, I suppose, a lot of interaction and meetings. There's been communication up at the executive level, so significant communication about what was going to happen, them agreeing, so that MIS was facilitating what was agreed, and that the business units and the directorates knew who was going to be involved and what they had to do.

Obviously there's communication then with MIS bringing those key parties together, but also then liaising individually with those key parties about what their part of the plan is, and what it is they have to do in helping them with the actions in relation to what they need to follow up and have, so that if these scenarios occur that everyone has what they need and they know what they need to do.

Facilitator: So does a committee exist?
Part1Org1: I believe so.
Facilitator: Does it meet?
Part1Org1: I believe so.
Facilitator: So you're still grey, which says a lot...
Part1Org1: Yeah, yeah.
Facilitator: ...about - it's a good thing. So for me, it gives us an insight.
Part1Org1: Yeah.
Facilitator: Is it a once off process, or is it...
Part1Org1: I - no...
Facilitator: I think, based on what you're saying...
Part1Org1: Yeah. The intention, I see, is that it's not a once off process. There are probably a lot of activities that are once off to get them up and running, but that there are things that would need to be checked. So for instance, the example of my accountability is - part of it was about establishing address lists, but then there was manager's accountability was to have those address lists and for them to keep on updating those.

Now, I suspect, though, that that's not going to happen necessarily, so it's about then HR looking at how we maybe update those address lists for the managers on a quarterly basis or a six monthly basis, so that they can be replaced on their little USB, because I don't think that managers, with everything else that they're doing, it's something that they're going to see as a priority.

So that's something that from an HR perspective, and we know that it's not going to happen, and it's not necessarily because a manager doesn't care, but because they've got competing priorities. Then our job is to think about well how else can we help them to make sure, because I understand that if we were trying to get in contact with people and something fell - a process broke down, then HR couldn't just stand there and go oh, well it's not our fault. Like when you're in the middle of a critical incident, you want to be part of that.

Facilitator: Thank you for that. So

Q9
Describe how your organisation monitors and manages BCM performance.

Part1Org1: I'm not really sure. I mean, I know of - see the MIS manager is facilitating the whole establishment of this process and that I would expect that there would be some sort of a review. The way our ex-com, which is our executives work, is that they meet regularly. They have different focuses. One of the focuses would be projects and processes.

So I would believe - not that I know, but I would believe that this would be one of those things that typically would be on their radar at least once a year, that the MIS manager would probably have to report to the executive to say well this was what was
At this moment, if you were a customer of this council and a major customer process failed, how would you likely describe your customer experience in this situation?

Part1Org1: Well what would be an example...
Facilitator: Do you think you'd be prepared?
Part1Org1: …of a customer, though, that experiences a complete failure?
Facilitator: So imagine, just for…
Part1Org1: So they could have a DA and the IT system…
Facilitator: So the IT system's completely crashed…
Part1Org1: Yep, yep. What are you asking me then to interpret?
Facilitator: So do you think your organisation is prepared, really?
Part1Org1: Knowing the work that I know that's been going on, I would say - I couldn't say that I know that I would guarantee that we would be able to fix, because obviously from a technical perspective you know that there are some things that are out of your control, but I do think that we would have a response in place, and that I would be - if I knew the information that I know, I would be comfortable to know that MIS would have processes in regards to knowing where to look and what to do about trying to recover information or to get the systems up and running.
Facilitator: But how about customer service then, servicing that customer? Do you think that they'd have processes in place to manage that situation?
Part1Org1: I don't know. I mean, I would expect that they would manage it from a manual perspective as best they could, but beyond that then they're limited in regards to not being able to get the information out. Yeah, but I'm not sure whether they have any processes in place or not.
Facilitator: Okay. Thank you for that. So that finalises section B. So now we are going through section C of our interview process for XXXXXXXX of

PART C

Hurstville City Council. So we'll start with section C.

What design elements for a BCM program are necessary or important from a participant perspective? So we're now going to focus on key design elements from your experience could be used in your organisation to implement an effective BCM program.

So this research study defines a design element as a key component processes which are necessary to ensure a BCM program is operating effectively within an organisation. So we'll start with one;

Q11

If you ever experienced a major disruption, please describe what you consider to be the most important factors/elements in maintaining services.

Part1Org1: I think mobile phone is critical, because that's something that still operates on battery. We have a lot of our staff, even our sort of depot staff, [gangers] with mobile phones. So I think that just being able to use that and get access through your mobile phone to all the numbers for our staff, then I think that's critical, for one.

I think the other thing is just the leadership. I remember when we had this issue of the power going down, people were informing the general manager and he was monitoring and then making decisions as required. So I think that as much as you plan you can't always anticipate what's going to happen and what the circumstances are attached. So it's very important that there is someone there that is kind of ultimately going to be able to make those decisions.

I know when we had the power issue, Victor was there, and I think that was very good. I suppose as a manager myself, it made me feel a lot more comfortable in dealing with a very unknown situation. Factors/elements in maintaining service - I think laptops are important because they can be battery run. Because one of the issues
we have in our organisation is everything that we do and have been doing now for at
least a couple of years is electronic.
So we - after we scan material we destroy hard copies, so the issue you have is if you
have a disruption that obviously - for instance, say power, then your desktops aren't
going to work but you still need to be able to access that information. Whilst you still
have laptops around that might have some power attached, they are at least useful to
get that online information, because it's not often, especially as we move forward year
after year, the information, the hard copy information that we have is going to become
less relevant.
So I think that's critical. I can't think of anything - I mean, there are lots of other
things, but I'm just thinking of - and again it's all sort of - most of it seems to be very
technology focused. I think they're the kind of three key things.

Facilitator: Okay, for you?
Part1Org1: Yep.
Facilitator: Thank you.

Q12
So given all your experience to date, please describe what design elements
you consider are required to operate an effective BCM program in your
organisation?
Part1Org1: Okay. Well, obviously with leadership, and there has to be very clear sort of
understanding and designation of who does what, and I think that with a lot of the
work that's going on at the moment, that's what it's all about. Preparing people so that
even if the most unlikely thing happened, once you get over the initial shock, yeah,
okay, well now let's - now what do we have to do?
But I think that the things that I raised just before, you have to make sure that you've
got - for instance, with your mobile phones, can you - like at the moment we have a
directory that has all contact numbers and stuff like that, so just making sure that
through your mobile phone you can access phone numbers of people in the
organisation that you might not normally have within your contacts, you can go in and
get their emails and stuff like that, that's if the systems are still operating, but, say, the
power's out.
So that's the issue for that, and your laptops. You need to have things like alternative
space, so for instance what we currently have in place is if something happened to the
civic centre then the critical work such as customer service would head down to the
library. If something happened and we couldn't access this whole area, then we head
down to the depot. So it's having alternatives in regards to where we can actually
house people to do what they need to do, which I think's an important one.
Obviously just being able to contact staff, which is something that we're looking at,
which is managers having lists of individuals and how they can contact people, both
home numbers, personal mobiles or work mobiles, so that if something was to happen
over a weekend, on a Sunday, knowing that council might not be open or whatever,
we can make contact with people. That's really important.
I'm just trying to think what else. I mean, I said the leadership, and the leadership not
just from the general manager in him making the ultimate decisions, but now our
BCM program and what's been rolled out is more accountability for the managers at
the operational level, so that we know what's responsible. Because of course, the
GM's not going to be able to do everything, and that we then kind of kick into gear
and do what we need to do.

Facilitator: Okay. So out of those listed elements which you've spoken about…
Part1Org1: Yep.
Facilitator: …which

Q13
Out of those listed elements which would you consider being most critical
form operating a BCM program in the LG sector and why?
Part1Org1: Well, I think you need alternative space. So the fact is that if you think about the
types of critical incidents you're going to have, it's going to impact on your ability to
access whatever your core space is. So you need to have contingency plans set up of
where you can actually set up alternatively.
So as I said, if something happens here, we go next door. If something happens in the area then we go to the depot. So I think in the first instance you have to have somewhere else. It doesn't matter if you can access your people and you've got your people. If you can't put them somewhere then that's not going to help. Then once you put them there it's then access to the information they need to be able to deliver the critical service.

Facilitator: Okay.

Q14
Of those remaining elements, which do you perceive to be not as critical to operating a BCM program in the LG sector, and why?
Part1Org1: Well, it's not that they're not critical, it's just it's all connected. So you can't have one without the other, in that you can find space for people - that's probably the first one, because even if you can't access your systems you've still got the face accounts - or being a community based organisation, people still want to walk into a door somewhere and speak to someone.

Even if we say I'm sorry, this has happened and we can't access this information, or we're not processing development assessments at the moment, or whatever, they still want to talk to someone and expect to get that answer. So that's why the space was the most important. But then of course you then - the next ones are okay, once you've got people there they can manually do stuff.

That's your first point. Then everything else is then can you hook them up with the technology? Of course, the leadership is making sure that the right people are where they should be, is the managers knowing what they should do. It's all connected. But at least you need to have alternative space available, then of course the managers know who to contact, where to get them to, and then how can we set them up to give the information back to the public?

Facilitator: Okay. Thank you. So

Q15
From your perspective do you see any impediments to these design elements being used within the LG sector, the ones that you've just brought up?
Part1Org1: No. I don't see - I mean, the only - it's easy to talk about the office space stuff, and say okay, if we can't operate here we go to the library, and if we can't operate in the library then we go to the depot, or the branch library, or wherever it might be. But I think the biggest impediment is, for instance, what do we do with some of our other critical services? So the depot.

So if something happened at the depot, where else would we go? Now, I assume we own parks and lands and stuff like that, so there might be alternatives there. Or is that an opportunity to make contact with, say, Rockdale Council, who has a depot literally 10 minutes up the road, that council could share their services in the short term, and their space, to ensure that our residents continue getting the service that they need. But then you have the issues if something were to happen to a childcare centre. So a lot of my discussion here's been focused on civic centre where I operate, but then you can't necessarily just move and have children attend another childcare centre, because they won't fit. So even if you had the carers that could come, there's only a maximum number of children that can be taken, and a childcare centre is not exactly an environment that you can just create overnight.

So to me, I see that the office based operations is easier to try and kind of find alternative. Your depot is probably the next one, but that you either utilise parks that we have or maybe have connections with Rockdale Council, because they have a very big depot. I think it's your children's services that is the biggest limitation, because if it's a childcare centre then you can't just shift the kids across and you can't just go to another space because of all the obligations about the environment, and the controls, and the safety and stuff.

It could be, then, that suddenly a childcare centre doesn't operate. Then of course, that has a significant impact on a number of families and people that work and have a reliance on council looking after their children on a daily basis.
Q16
Facilitator: Yeah. I've added this extra question, - what are your thoughts on the imposition of private sector models on public sector entities? - are you aware of any private sector models at all, with respect to business continuity?
Part1Org1: I am unaware of any models sorry. But my thoughts would be that they could be appropriate from a reference perspective. Priorities vary from Private Sector to Public. Our focuses are our services rather than revenue. So this would drive a different plan I believe.

Facilitator: Okay. Thank you for that. So thank you for your time. I'm going to close the interview now. So thank you for your valued participation. As stated at the start of this interview, the information collected is only for research purposes as part of my master's degree. Not for starting any changes to your organisation or providing any feedback to your council. If you feel strongly about any issues that may have come up today, please see your HR manager who can then refer you to the appropriate contact to discuss any concerns you may have. Thank you again for your contribution at this time.
Part1Org1: Thank you.
Facilitator: Thank you. So I'm going to stop the recording now.
Part1Org1: Yep.
Facilitator: What I'd like to do...
Interview Transcript : Council1 Participant2

Facilitator: I’m going to start recording now. Just that first question, can you define BCM as you see it, we do that because we like to understand your perceptions and views before we influence it with the next section. What I’m going to go through, the next section for the interview, how does local government engage in BCM, the whole, I guess, objective is to understand what is currently occurring within local government. It will just then allow us to understand where we’re at as a sector. That’s part of the outcomes of this research is to define where we are. So I just wanted to share with you the definition of business continuity as this research sees it. Because then, I guess, that allows you to understand where the questions are coming from. So I’ll just read through the definition and we’ll read it through together. Business continuity management can be defined as an agreed tried and systematic approach used by an organisation for the management of any crisis. It is business centric focused on how the organisation will deal with a crisis or disaster that affects it. This focuses primarily on its people services to customers, suppliers, processes and systems, ensuring recovery is achievable without significant disruption to the organisation. So in my current research, the knowledge gap is what designer limits for BCM are most important and suitable for local government. So the way we are going to uncover what is most suitable is to firstly understand where we’re at, which is the first section of the interview and then the second section is just exploring what you perceive to be the most important design elements. So we’ll go through question one.

PART A
Q1 Can you define BCM as you see it?
A method of ensuring priority aspects of the business continue after a disruption.

PART B
Q2 Are you aware of, if so, please describe the current BCM program within your organisation.
Interviewee: Okay. So what I understand, Hurstville Council is in the process of developing a BCM and they’re working it on particular departments within the organisation. I understand that they’ve perhaps taken the view of looking at those areas that would be highest impact to the organisation first and they’re working with those teams. But I also get the impression that it’s beholden to the particular manager of that team to really get it off the ground. So the push has to come from the team member, the manager, rather than just from the executive or something like that. So if - it doesn’t happen - if the manager doesn’t do it, it doesn’t happen.

Facilitator: Okay. Thank you.
Interviewee: That’s all right.

Q3 Facilitator: So can you please explain the current documentation that exists within your council concerning business continuity management.
Interviewee: Okay. So the documentation that I’ve looked at, council has a template that’s being developed for a BCM, for particular teams and it’s that template that we’re then using in other areas of council as we slowly roll out the process. Though, I haven’t look at it in detail yet, so I’m not sure of all the elements to it.

Facilitator: That’s fine. So I just want to explore a little bit more. I know you’ve given us your view. Do you believe the following plans exist, just to get an idea. A business continuity plan, an overall business continuity plan. Are you aware of...
Interviewee: Yes. That council has one. Yep. That we’ve been given a copy of it, so in the event of a crisis, we’ve all got it.

Facilitator: Okay.
Interviewee: Yeah.

Facilitator: A section business continuity plan. Are you aware of...
Interviewee: Yeah. I thought there was a couple in council. I thought maybe Records might have one and IT, MIS would have one, as well, but our section doesn’t yet.

Facilitator: Disaster Recovery Plan. What does...
Interviewee: What does it...
Facilitator: ...it mean? Yeah.
Interviewee: Or do we have one? Not that I’m aware of. No.
Interviewee: Yes. I know that there’s one overall for council, but I also have them for different facilities, so it works on the building in our case, so I’ve got one for entertainment, one for Hurstville Library, one for Penshurst Library and I’ve always got one for the museum and gallery, though they’re at different stages of suitability at the moment.
Facilitator: Yep. Testing schedules for plans.
Interviewee: Not aware.
Facilitator: Maintenance schedules for plans.
Interviewee: For the plans themselves. No.

**Q4**
Facilitator: Okay. Thank you. Describe the risks you perceive for your organisation that a business continuity management is there to mitigate.
Interviewee: Okay. So what I see as the risks for this council as an organisation or my area in particular.
Facilitator: What’s driving the program as you see it.
Interviewee: What’s driving it. Well, if I understand the question right...
Facilitator: What it’s trying to...
Interviewee: Yep.
Facilitator: What is that program? What risk is it trying to mitigate, you think?
Interviewee: Well, I think, if I go back a step, I think councils tend to be a little reactionary when it comes to BCM development. So we tend to react if another council has gone through some form of crisis. So as a starting point, I think, what we’re trying to mitigate is having the same problems occur for us as have occurred for other councils. Like, say Liverpool, when they had their fires. So we tend to react then and create the BCMs for that. But I also think we’re trying to mitigate major crises in most cases, so for us, things like fire, any sort of natural disaster, they would be the types of things that a lot of council staff would think we’re trying to mitigate. But then there’s smaller things that we would be looking at, risks as well, such as electricity failures which cause major concerns for some areas, like entertainment, but there would other crises, smaller things, like problems with community members trying to get into facilities, that sort of thing. So it goes from the really big issues right down to the smaller ones, as well. I think we have to cover them all.

**Disruption Scenarios**
Facilitator: Thank you. What I’d like to just cover here is your perceptions and understanding of prevalent - are you aware of prevalent disaster scenarios that could affect your organisation? So what I’m going to do is list it and then I’m going to ask if you’re away of it. Then I’m going to ask you to rate the likelihood from one to five and one being most - well, unlikely.
Interviewee: Most unlikely.
Facilitator: Yes.
Interviewee: Okay.
Facilitator: Then five being most likely. So one being the low. So I’m going to just start going through the list. So permanent destruction and loss of building. Are you aware of this disruption scenario?
Interviewee: Mm.
Facilitator: Yes?
Interviewee: Yep.
Facilitator: Sorry.
Interviewee: Get it on tape.
Facilitator: Please rate probability from one as unlikely to five as most likely.
Interviewee: One.
Facilitator: Okay. Thank you. Temporary denial of access to premises and/or precinct.
Interviewee: Yes and we’ve had that happen, so four.
Facilitator: Okay. So what do you see - so just - I’d to just understand what you see. You said you’ve had it happen. What was that incident?
Interviewee: We’ve had - no bomb threats, but we’ve had situations where, yeah, there’s been a bag left outside council facilities and it’s followed things like September 11.

Facilitator: [Laughs] I was about to say…

Interviewee: So everyone reacts and they closed off the entire civic centre precinct, which then meant that events in entertainment couldn’t go ahead for a certain amount of time, so we had to block off the area, inform the client, but we didn’t have a BCM in place to deal with that, so we were doing it reactionary, rather than proactively.

Facilitator: Okay. Major disruptions or extensive loss of information technology or telecommunications infrastructure. Are you aware of this disruption scenario?

Interviewee: Yes. I am.

Facilitator: What’s the probability for you? For affecting your organisation?

Interviewee: In the past, before we had a lot of - the processes in place that council now has, I would have put it up at, say, a four, but these days, say in the last four or so years, I would bring it down to a two.

Facilitator: Thank you. Unplanned or permanent loss of vital records.

Interviewee: Yes. I’m aware of it.

Facilitator: So for me, the museum would be a classic example.

Interviewee: So we’ve got back ups in place these days for those types of things, whereas in the past, they were hard copy, so I would put that down as a three now.

Facilitator: Okay. That just...

Interviewee: Yeah.

Facilitator: I just want to understand do you see museum pieces as vital records?

Interviewee: No, in terms of a corporate memory, but the museum artefacts themselves, yep, they’re represented of the Hurstville community and the loss of them would have a huge impact for the community. But there’s no way of replacing those once they’re gone. So it - prevention there...

Facilitator: Is key.

Interviewee: ...is key. Yep.

Facilitator: Okay, so loss of key staff.

Interviewee: Yes. Aware of it. I think the corporate memories are a really tricky one to deal with, because you want the turnover, but at the same time, a lot of people hold a lot of information in their head, so I think that they’re - in some areas of council, not so much my area any more, but in some, it’s quite possible, so I will put that as a three.

Facilitator: Okay. Loss of key external dependencies.

Interviewee: No, in terms of a corporate memory, but the museum artefacts themselves, yep, they’re represented of the Hurstville community and the loss of them would have a huge impact for the community. But there’s no way of replacing those once they’re gone. So it - prevention there...

Facilitator: External dependencies. Can you give me an example of what that would be?

Interviewee: So for waste, for example, for Gary’s areas, our waste contract is completely external to us. So if something happened in that.

Facilitator: Okay. Yep. All right.

Interviewee: I probably wouldn’t have been aware of that one.

Facilitator: That’s fine. That’s good.

Interviewee: But - gee, because it’s external to you, there’s more chance of something happened than the probability of not being managed it well is higher, so I’d probably put that at a three. But keeping in mind that councils are moving more and more to shared services now, that could become a much bigger issue as time goes on. For example, in the library, we have to look at our library management system, Spydus, soon and work out whether we want to keep that or go to a shared service. That’s the push and if we did, this would have a huge impact.

Facilitator: Yes. Thank you. So we’re now going to move on to the next question. Describe what you consider to have been the business drivers for the development of BCM program in your organisation. Now, I’ve think you’ve started...

Interviewee: I started to. Yeah. Okay, so the first one that I’ve seen in my time in local government has been that reactionary approach to other disasters that have happened for other councils and the way it has tend to evolved is the other council has this crises. Our decision makers then come in. The first thing they do is get business managers to start looking at do we have everything in place to be able to deal with that. So we have a short term burst of, quick, we’ve got to do something and make
sure everything’s in place. Then due to just the pressures of your day-to-day job, it just settles down again and we don’t anything for a while. But then along comes an audit, either at an New South Wales or an ever higher level than that and council get some direction from government saying, have you got it in place? Is it part of your processes? If it’s not, we then have to work on it. The other way I’ve seen it come through local government is through those Department of Local Government Better Practice initiatives, where they’ve reviewed all of council’s practices and found in certain local government areas that they don’t have BCMs in place. So that’s become part of their priority to develop them. I’ve also seen - it has been led by particular managers, whether at a senior level or executive level, where they’ve had a particular understanding of them and they tend to try to drive it. But then, when they do that, it’s not as successful and it’s not across the organisation. It tends to be focused solely on one particular team, so that you end up with this mish mash of BCMs across the organisation, where they don’t even understand the overall BCM process and it just comes down to one team having a good one, which is not particularly effective.

Q6
Facilitator: Okay. Can you describe who is responsible for BCM within your organisation? What business units are involved?
Interviewee: Okay. So I think, and I could be wrong, that BCM has been driven primarily from the IT manager or MIS manager, because of their understanding and knowledge in that area. But that the directorate of administration sees that as their overall responsibility. So that they are driving it across the organisation. But then, their focused on key BCMs per section first, so the ones that are the high priority areas, I think, like records, but I’m not sure what other areas have got them. I know that council utilise their senior management group, Hurstville HSC management group, to look at the BCM process overall, the policy and to make sure that it’s relevant to the organisation. They also communicated it out to staff as well, so that they understand that there is one for the organisation and that there will be ones for particular tams.

Q7
Facilitator: Thank you. Describe how those responsible for BCM approach and enact business continuity management with your organisation. I crossed it off. I don’t know why.
Interviewee: Really? That question.
Facilitator: Yeah. Just the end.
Interviewee: Okay. How those responsible approach and enact - okay. All right. So I think the responsible officers started by reviewing the BCM that council had they did that through this senior management group. So they reviewed it. They brought it to HSC management. I understand that they brought in other key council staff that would be impacted by the BCM, so if there were particular areas that were part of the management group, they came along to this meeting to ensure they had everyone in the room that had a part to play in the BCM. I think one of things after reviewing it, they needed to communicate it out to all the staff. It’s good to have one, but if people don’t about it, then it’s absolutely pointless, so they got everyone together and they went through the main components of it, making it clear to each officer what their responsibilities were in relation to the BCM. They also looked at just the practicalities of dealing with it, if there was a crisis, so giving everyone the actual policy document for council overall on a USB, so if that there was a disaster, we had it. They implemented other aspects like getting a - making sure you’re taking your laptop home with you, rather than leaving it at work, so that if something did happen in the workplace, we’ve got something to start the business with in that event. Then I understand once that core group understood their role, they communicated it out to all staff through processes like line managers and the general manager’s news brief at the time as well, so that people understood. Certainly in my area, the library museum and entertainment, I had made it clear that we had this BCM. I explained to my coordinators what was required in my part, which was a smaller role, but in our case, the library would act as a secondary business, if something
happened to, say, the council building, so that our team understand that process and
also if people were acting in my role, I’ve made it clear that that’s their role, if I was
away, as well. I think that answers the question.

Facilitator: It’s very good.
Interviewee: Okay.

Q8
Facilitator: Thank you. Describe your organisation’s business continuity management - sorry, tell
me.
Interviewee: No. That’s what I’ve answered already, the communication framework.
Facilitator: Yeah. You have communication frameworks, so there’s a team that meets sort of
even - how often?
Interviewee: Well, I think, it’s either yearly or every six months.
Facilitator: Okay. Do you think that’s enough?
Interviewee: Probably not, because I think people forget after a time. You get so busy in your day-
to-day or maybe every six month is fine, but a reminder every now and then via other
things like email. Just are you keeping your USB in the right place? Because I know
sometimes I put it in my folder for work and then leave my folder at work. Not a
good place for the USB and also reminding people if - part of our strategy is taking
home laptops, reminding people to actually do it on a daily basis. Not just on the
weekend, so there are things that I think we need to be reminded of sometimes that we
don’t do.

Facilitator: Okay.
Interviewee: Yeah.

Q9
Facilitator: So describe how your organisation monitors and managers BCM performance.
Interviewee: Well, see, across the organisation, I probably don’t really know the answer to that,
because I don’t have a key role in it. I do understand that when they have the meeting
where they discuss it with the key people, they go through all of it and they get
council staff feedback on the BCM and how it’s running. I do know that certain areas
of council, key areas that have the highest damage, if something were to happen, they
test their systems as well. Like, IT. But I’m not sure of any other aspects that are
monitored.

Facilitator: So with respect to your performance BCM, is it monitored?
Interviewee: No. It’s not.
Facilitator: Do you see any visibility of BCM within overall planning? So community strategic
plan, operation plan, business unit plans?
Interviewee: Not at all, but it should be. At the moment, yeah, at the moment, we’re working
through six key risk areas for council, so they did a risk assessment of all of council’s
business and they - after looking at what controls were in place, they looked at the
residual risk and the six areas with the highest residual risk are the areas that council
are working on at the moment to try to decrease that. So the problem is - I’ve got one
of those areas, so entertainment is considered a high risk area and I think the BCM
process will have to come into play in some of those areas, because it talks about loss
of business revenue and so on due to natural disasters.
So I think in the end, BCM will be driven by the risk assessment that we’ve done, but
it would be very easy for a manager to not even contemplate BCM as a potential way
of dealing with some of these problems. I know it’s looking after the business after
the disaster has happened, which doesn’t get rid of the risk completely, but you need
to have it in place to reduce further risk or further damage, so I think, yeah, that’s
going to be huge, but I’ve got 12 months to do that, so it could be a while away still.
Oh dear.

Q10
Facilitator: So at this moment, if you were a customer of this council and a major customer
process failed, how would you likely describe your customer experience in this
situation?
Interviewee: Well, we have some really different ways that customers perceive local government.
So if I was the one of the customers who had a fairly positive experience of council,
say, they’re looking at areas like libraries or museums where they see that business as
wonderful to have, but we could live without it, I think their experience of that business component failing would be, that’s terrible, but yeah, okay, fair enough. There’s problems at the moment that council can’t help and I know that they’ll deal with it and it will reopen at some point. But there are certain aspects of local government that people expect that are going to be delivered no matter what. If they had no service, say, in waste or trees not being looked after or particular service requests not being done, you know, pot holes and so on, I think they would describe their customer experience as being terrible and they would absolutely up in arms and they would be endeavouring to contact council rather strenuously to deal with those aspects. Then of course, you’ve got those customers who are very, very critical of local government. Sometimes for good reason and sometimes not and I think they would probably describe their experience, if we had a process that failed, they would describe it in terrible terms and we would be the worst people in the world for that process. So I think there would be some huge damage control for the customer process.

Facilitator: Yeah.
Interviewee: Yeah.
Facilitator: But how do you perceive your organisation with those critical ones that you see, do you think they’re ready?
Interviewee: Do you think council is ready to deal with them?
Facilitator: Yeah. Do you think that if that occurred tomorrow, which [knocks on wood] it doesn’t, do you think we’re ready to deal with it and that there would still - as you’re saying, you just don’t know what kind of customer you’re going to get, but overall, do you think there would be a consistent experience for them? Do you think we’re ready to provide that with the BCM program we have now?
Interviewee: I don’t think so. I think we would still have an issue where we would panic and we would react in inconsistent ways and the customer experience would be haphazard, at best, in those key critical services. I don’t think we’re mature enough in our approach and I don’t think we’re all on the same wave length when it comes to BCM. I think in some areas of council, and I’m glad that this is kept confidential, I think that in some areas of council, we’re more worried about how we will look than how we will provide service, so we will only care about putting up good face than we are about putting up a good service or fixing that service appropriately, so we tend to react in ways that are perhaps not appropriate and therefore we don’t follow processes like a BCM at the time, if it were to happen. We tend to just say, quick, how are we going to make ourselves look good and also how to shift blame, which is a big one, when it comes to huge risk. Any big risk, we have a culture of pointing a finger, rather than follow a process through and working together, so I think we actually have a problem there, but maybe I’m being too negative.
Facilitator: That’s all right. Thank you. So we’re now going to move on to the second phase of this interview. This phase is about understanding your perceptions and views of what design elements for BCM program are necessary and important from your perspectives, so from a participant perspective. We define a design element as a key component or process which is necessary to ensure a BCM program operates well, so it’s about how it is operating in your business, how you want it. What key design elements you think will be critical for it to operate well. So operation is the key here. It’s not about implementation about how it runs from day-to-day.
Interviewee: Yep.

PART C
Facilitator: As you know, there is a third phase to this research and that’s a final focus group and in that final focus group, we’ve done a lot of research, both from an academic and private industry perspective. Research in wider key design elements for programs out there, so that information will be provided, but what we wanted to do was understand from a participant perspective now and see if there are key areas that haven’t been covered and what’s in most - the forefront of the participant’s mind, before we influence it again. So that’s what this section is all about.
Interviewee: Okay.
Q11
Facilitator: So we’ll start with the questions again. If you ever experienced a major disruption, please describe what you consider to be the most important factors or limits in maintaining services.

Interviewee: Okay. So I think one of the most important factors is understanding which services we’re going to maintain. But having a consistent approach, so that I know - if I’m the officer that has to maintain those services, I want to know from government what ones they believe are intrinsic and what ones can be left and for how long. So I want to know timeframes. I want to know how long they want that service or how long they need before that service needs to be back up and running. I want to know what level of service they want us to provide, so the quality of the service. How we’re providing it.

I want to know if I am providing a whole service, do they want the service within the same area? So I want to know where the business should be set up. I want to know locations. I want detail. I want to know what staff I would need to bring in to keep that service going and then I would want to know what resources I need to keep that service going, so that might be in terms of what technology I’m going to have, what staff I’ll have on board, whether I’ve got buildings that I can go to, other locations that I can go to or whether I’m still in my particular buildings, but I’m providing a different type of service within those buildings. I think they’re the main ones.

Q12
Facilitator: Thank you. So given all your experience to date, please describe what design limits you consider are required to operate an effective BCM program in your organisation. So in order to be prepared, I guess, what we spoke about, what are the key components that tell you you’re prepared, because that’s what the BCM program should drive.

Interviewee: Yep, so I want a fairly detailed and robust communication tree, so that I understand who’s doing what and when. I think it would be good and I think we have it. We do have it. I want the contact details of all those people within that process, within the document, so that it’s a one shop stop for any disaster. I don’t want to have to be going to any other documents looking anywhere else for anything for it to be effective. I want to know specifically in terms of types of disasters and council’s process, so reaction to those disasters. So what are the steps that we’re going to follow and who can talk to who within those processes. So in terms of media and so on. I want the hierarchy. Who we’re reporting to and what. I want to know how I effectively deal with my staff, so if we are having close of business for a certain amount of time, how I’m reporting to my staff and what I’m telling them, so communication for that. Yeah. I think that’s it.

Q13
Facilitator: Thank you. We’re on track. Out of those listed elements, which would you consider to be most critical for operating a BCM program in the LG sector and why? So you’ve listed a few there.

Interviewee: Communication and it seems to me that communication is always the thing that derails people in all sorts of projects, not just BCM, so a clear communication strategy and also a clear prioritisation of what services are critical and what ones can be put to the side in the event of a crisis. The communication, I think, is most important, because you can end up working in different ways, if people aren’t communicating well and the leaders aren’t driving the communication and feeding information down and then getting information back up the communication tree. I think the priorities are important for almost the same reason, so that everyone’s on the same page and we’re all working towards the same goal. Not towards different goals.

Q14
Facilitator: Thank you. Are those elements you’ve discussed, which do you perceive as not as critical and why?

Interviewee: I guess, the getting down to the nitty gritty of all those priorities - sorry, not the priorities. All those processes that we need to put in place. Where we’re moving to, what resources we’ve got, what staffing resources we’ve got, how we’re going to
work the business. It’s not as important as the other elements, because if you’ve got the communication in place and you’ve got the priorities in place and everyone’s working towards the same goal, in the end, we’ll get there. Obviously, the more detail you have, the more effective the process will be, but I would probably consider that to be secondary to that communication.

**Q15**

*Facilitator:* Thank you. From your perspective, do you see any impediments to the design limits you’ve listed being used within the LG sector and even within your council? Do you see any impediments within your business in regards to BCM?

*Interviewee:* Yep. In terms of having a BCM that’s effective, right?

*Facilitator:* Yep.

*Interviewee:* I think the biggest issue that I see, whenever you’re working on a project and if you consider a BCM a project that you hope you never have to implement, but if you do, I think the biggest impediment are people and managing the people in the process. So an effective BCM would, I think, mitigate those problems with people, but I think it would still be an impediment that you would have to be very clear on. So having those responsible officers and knowing what they’ve got to do in that process and having a clear hierarchy of communication so that the right people are communicating with the right people and not allowing that devolution of the process so that in the end, different people are doing different aspects of the role, just because they might have a particular strength in one area. I think you have to follow the BCM process through, if it’s a well thought out BCM process. Otherwise, it can come unstuck, because people start doing different things and it evolves quickly in a crisis and people panic.

I think when panic sets in, for all sorts of reasons, people then don’t follow the plan any more and they go off and they just do what they need to do.

*Facilitator:* What do you think helps them follow the plan?

*Interviewee:* I think if they feel that the leadership is following the plan and they’re committed to the plan, so the leaders actually think it’s a good plan and they’re willing to follow it through, so they have confidence and they communicate that down, I think part of that process is ensuring the staff are trained up in it enough, yeah, that they’re actually going to understand it and believe in it and know that it’s going to work. I’ve seen in an instance where a council had a crisis. They had a BCM in place, but from what I could gather, it was only known to certain people in the organisation, so the people down who were actually dealing with the actual crisis itself were just all over the place. We were getting things like emails from them saying, do you have any disaster recovery plans? We need it. People were emailing through, but from what I could gather, the council probably had them, but they weren’t communicated through and they weren’t trained in how to deal with it and panic set in and they just went and did what they could at the time.

*Facilitator:* Okay. Thank you for that.

*Facilitator:* So thank you for that. I just - so from an impediment point of view, I think you’ve answered that question. Yes.

*Interviewee:* Okay.

**Q16**

*Facilitator:* Yeah. I've added this extra question, - what are your thoughts on the imposition of private sector models on public sector entities? - are you aware of any private sector models at all, with respect to business continuity?

*Interviewee:* I feel that a private sector model might become a necessity for local government given that a private model is often most economically efficient and effective. Private models are often less bureaucratic and response times are usually better.

*Facilitator:* So thank you for your valued participation. I stated at the start of the interview the information collected is only for research purposes as part of my master’s degree, not for starting any changes to your organisation or providing any feedback to your council. If you feel strongly about any issues that may have come up today, please see your HR manager who can refer you to the appropriate contact to discuss any concerns you may have. Thank you again for contribution and time.

*Interviewee:* That’s all right.
Facilitator: Next step, so we’re hoping that July/August, we will then
Interview Transcript : Council1Process1

Facilitator: So thank you XXXXXX from Hurstville City Council, the XXXXXXXXof Hurstville City Council to participate in this research study. Exploring the framework for BCM within local government. So XXXXX is just going through filling in the participation information…

[Blank Audio 0:00:25.2 - 0:00:45.1]

Interviewee: It was a Bachelor Diploma at Mitchell College.

Facilitator: So you say TAFE.

Interviewee: So it's…

Facilitator: That's TAFE.

Interviewee: Yeah, classified as TAFE, is it? Okay. Yeah.

**PART A**

**Q1**

Facilitator: So what we like to do before we start is I want to understand how you perceive and what your definition is of business continuity before we start the research. Before I influence anything. You can either write it down or just talk about it, it's up to you. So can you define BCM as you see it?

Interviewee: Well probably in very simple terms, it's a - I'll call it an incident that may disrupt the Council's operations. Whether it's on a daily or [unclear] a short-term or a day or more of its operations. Which then obviously affects the business' ability to carry on its traditional business.

Facilitator: Thank you for that.

Interviewee: That's okay.

**PART B**

**Q2**

Facilitator: We move on to Section B now which is, how does local government currently engage with BCM? So this section of the interview just focuses on understanding your perceptions and views. Before we go on, what I'd like to do is share the definition of Business Continuity Management according to this study. The objective of this study is to understand from an expansive literature review, be it both academic and also business literature. Understanding how the world defines BCM. So what I've done is combined those and this is the definition for the study.

So Business Continuity Management can be defined as an agreed, tried and systematic approach used by an organisation for the management of any crisis. It is business-centric, focussed on how the organisation will deal with a crisis or disaster that affects it. It is focussed primarily on its people, services to customers, suppliers, processes and systems. ensuring recovery is achievable without significant disruption to the organisation. That's the definition.

Interviewee: Yeah.

Facilitator: My study focuses on the fact that there's a current knowledge gap on what design elements for BCM are most important and suitable to local governments. So this is what this study is about. So what we'll go through is firstly understand what's going on in Hurstville according to Warren Park. We'll start going through the questions. Question 1, are you aware of, and if so, please describe the current BCM program within your organisation?

Interviewee: Yes I am aware of a BCM. The current program is that the Council has adopted an overall program. We're now in the process of going down to business unit level for those business units to create, design and implement their own BCM should something occur within their particular area. Or affects the Council as a wider entity.

Facilitator: Thank you for that. Are you aware of any obvious constraints to the - to this program?

Interviewee: Like anything in local government comes down to resources, it's the time commitment that can be provided by the relevant people to get in and actually create a document from scratch. Then think of all the processes that they're involved in that could be affected by some incident or crisis. So it's - it really comes down to time management and resources within each part of the Council, as to the time commitment to put into this project.
Q3
Facilitator: Thank you for that. Can you please explain the current documentation that exists within your council, concerning Business Continuity Management?

Interviewee: The documentation is, as stated previously, an overall policy document of the Council and a crisis management document. That has identified an emergency management team, and the primary of the roles of the team and how they react to a crisis. The other documentation is the - I'll call it a template - that's being provided to business units to create their BCM.

Facilitator: Thank you for that. I just want to dig a little bit deeper into that. Do you - are you aware of a - so you've mentioned Business Continuity Plans, so that's the holistic one.

Interviewee: Yeah.

Facilitator: You've mentioned section. Are you aware of a disaster recovery plan? What's the difference, is there a difference? What's your perception?

Interviewee: Well there's some units do have a disaster recovery plan. I'm aware of the IT one, and there's also a Records Management one. That's obviously where those particular business units have created their own plan as to how to get the business back up and running, should something occur within their own units. Or in the Council as a whole. That's where we're trying to get other business units of the organisation up to - as to how they can respond to different crisis or incidents that would affect their daily operations.

Facilitator: Emergency response management plan, are you aware of any of those?

Interviewee: Well we also have an evacuation plan for the Civic Centre and we have a Chief Fire Warden and there's a management committee for that. They deal with crisis or emergencies during business hours for the safety of staff. I'm aware that there are other plans in place for the Library and Depot and I believe the Entertainment Centre.

Facilitator: Testing schedule for plans, are you aware of any?

Interviewee: The one for the Civic Centre evacuation, there is generally one or two trial evacuations a year. Also the maintenance contractor also does equipment testing, I think, probably on a quarterly basis. The IT, I'm aware that they have a regular test of the - of their plan, and I'm not too sure about other areas. But I know the Library, through their environment have a number of evacuations a year, through other causes. So they don't need trials, they get the actual real event.

Facilitator: Then maintenance schedules for plans, so [they'll]...

Interviewee: I haven't been involved or aware of what schedules are involved in - or are taken into account for those plans. I'm just assuming the managers of those areas review them on a reasonably regular basis. To ensure that any changes are noted, and the plan is up to date on a regular basis.

Q4
Facilitator: Thank you for that. Can you describe the risk you perceive for your organisation that a Business Continuity Management program is there to mitigate?

Interviewee: Well I think the main ones that we have is issues with downtime with our IT environment. Which in today's society is probably critical. There are other issues that could arise, such as a major flu epidemic that could wipe out a number of staff for a period of time. Therefore there's no resources to undertake business. There has been an occasion when we've had a - I'll call it a blackout - where the staff had to close down the building because there was no air conditioning or lighting. It was a health issue.

So part of our civic centre evacuation program can deal with those issues and also the IT for - if there's a breakdown in our, say, power supply or other issues. Providing the IT environment for the business to operate.

Disruption Scenarios
Facilitator: I'm just going to make you aware of the more - most prevalent disaster scenarios that could affect an organisation. I'd just like you to rate - to understand first of all, are you aware of the disruption scenario. Two, I'd like you to rate it as from a probability perspective of affecting your local government, your Council?
I'll start; permanent destruction and loss of building. Are you aware of this disruption scenario?

Interviewee: Well obviously that's a major disruption.

Facilitator: Yeah.

Interviewee: Yeah.

Facilitator: Yes?

Interviewee: Yeah.

Facilitator: So please rate probability from one as unlikely to five as most likely.

Interviewee: Well probably a two, because of - there are - there's fire systems in place, so that can minimise possibility of a fire. I suppose that's the main incident that would come to people's minds that a building burns down.

Facilitator: Temporary denial of access to premises and/or precinct. Are you aware of this disruption scenario?

Interviewee: Yes that's a natural - for the safety of staff and then also for any investigation that need to be carried out. Again, it's probably about a two.

Facilitator: Major disruption or extensive loss of information technology and/or telecommunications infrastructure.

Interviewee: Well yes.

Facilitator: The rating?

Interviewee: Probably a three. You want me to go into any past incidents that's happened?

Facilitator: Yeah, that would be great.

Interviewee: Yeah? I'm aware of one incident where a - I understand it was a person put a USB stick into a computer and there was a virus, went through the organisation. That caused - although we were up and running, there was still substantial interruption to the business for probably, I believe, a two-week period.

Facilitator: Unplanned or permanent loss of vital records. Are you aware of this disruption scenario?

Interviewee: Yes.

Facilitator: Then the likeliness?

Interviewee: Probably back to a two, because it would be related to mainly fire.

Facilitator: Loss of key staff.

Interviewee: Yes, that can be either through unfortunate, untimely death or obviously staff moving on to other work environments, or just generally retirement.

Facilitator: What's the likeliness?

Interviewee: [Unclear]…

Facilitator: Yeah.

Interviewee: Probably more a three.

Facilitator: Loss of key external dependencies.

Interviewee: You referring to suppliers or…

Facilitator: Any external dependency.

Interviewee: Yes, aware of that. Hopefully with our contractors there's sufficient supply there that we could move to, should one company falter. That's one of the reasons we've undertaken a recent change in our business process for our minute-taking and business papers. Probably the rating - I'm not aware of any incidents, so I'd probably have to say maybe a two.

Q5

Facilitator: Thank you.

I'm going to move on now. Can you describe what you consider to have been the business drivers for the development of BCM program in your organisation? So what's driven it?

Interviewee: The main one was the - it commenced after the - a fire - destroyed the Civic Centre at Bankstown. There was concern raised through the General Managers Group at the time. The General Manager at Bankstown did a presentation for the General Managers Group to outline their experience. What the circumstances were that caused disruption to his council because they didn't have a BCM in place. Probably more recently it's an issue that has been raised by the DLG to ensure councils have appropriate plans to counteract some of these crisis issues.
Facilitator: In your view is it driven by a need to be resilient rather than compliant? In this organisation?

Interviewee: Probably - yeah, probably it is for the business continuity for - more so than compliance. But I think you have to overcome the view of people - it's not really required, because it won't happen to us. It's - no rating?

Q6
Facilitator: Describe who is responsible for BCM within your organisation. What business units are involved?

Interviewee: Well the BCM ultimately is the responsibility of the General Manager. However, it's been placed in the hands of the CIO to implement the business units throughout the organisation. To be the main coordinator of that. It involves all the businesses within the Council.

Q7
Facilitator: Thank you for that. Can you describe how those responsible for BCM, approach and enact business continuity management within your organisation?

Interviewee: Again I think it comes back to a bit of resource as to how much time people put in to a BCM. But - and I think it's overcoming the complacency of staff to contribute towards it. Because it's - just one manager cannot do - implement a plan. Because it's the individual Business Unit Managers and their staff that know how the business operate. They're the ones that need to stand up and put an appropriate plan in place.

Facilitator: How do you - why - do you think managers are there with respect to understanding that commitment or involvement, in this organisation?

Interviewee: Once it's put to the managers, I believe they get on board and do it. But then they, I think, probably understand what's required and involved. But again it comes down to resources and priorities at the time, of all involved, to finalise a business unit plan.

Q8
Facilitator: Can you describe your organisation's Business Continuity Management communication framework?

Interviewee: It comes down to the General Manager, then the Directors. There's a few - I'll call them say, Deputies, of those - of the Directors, should a director not be available. Then it's the rest of the Committee who would then liaise with the appropriate line managers throughout the organisation. Is that all on that one, or…

Facilitator: Yeah.

Interviewee: Yep.

Q9
Facilitator: I think so. There's lots of other questions I can ask, but I think you've answered them through the - can you describe how your organisation monitors and manages BCM performance?

Interviewee: Well the Council has adopted its overall policy and then it's left up to the CIO to implement the business unit ones. Now whether that is within her work plan, I don't know. But obviously it'd be driven by the Director of Administration as well, who is in charge of that area of council. Again it's a matter of resources and time and priorities to implement - to engage the other business units throughout the Council.

Facilitator: So do you think it's visibly tracked through other committees? Like…

Interviewee: It's been raised through our audit and risk management committee. We also have a staff governance and risk management committee. Also through the governance and risk focus meetings of our executive committees at relevant times. It's not permanently on the agenda, but it can be considered on a number of occasions throughout the year.

Q10
Facilitator: So at this moment, if you were a customer of this council and a major customer process failed, how would you likely describe your customer experience in this situation?

Interviewee: It comes down to how the Council's staff interact with the customer. Obviously customers feel that they can carry on with business, all their transactions, no matter what circumstances have affected the organisation. But I think it's the level of communication and interaction with the customer and how they can - depending whether it's a major or minor interference with the business operations. As to how they appreciate the Council is doing all it can to finalise their transaction. Given
whatever circumstances may prevail. Or at least provide other opportunities for say payments, if we have other avenues available.

**PART C**

Facilitator: We're now going to move on to Part C of this interview, thank you very much. Part C, what we're focussing on is what design elements for a BCM program are necessary or important from a participant's perspective. So this is on your current experience.

As you know, there's two phases to this research, one is interview and the second phase is a focus group. I've gone out and looked at an expansive literature review, both sides of the coin, both academic and business literature. Combined what design elements are necessary to an overall BCM program. But what I'd like to do in this section is just to understand from your experience - because that can feed valuable information into the overall framework. That we then will share with all participants in the focus group. Really that's what I'm trying to understand, is your perceptions of operationally how to effectively a BCM program. So that's the focus.

**Q11**

Have you - if you ever experienced a major disruption, which you have, which is great. Please describe what you consider to be the most important factors, elements in maintaining services?

Interviewee: Mainly it's communication with not only the staff but also the public. It's important to let the staff know how they can continue with business if there is no individual business unit BCM. So it obviously comes down to directions from senior staff as to how the disruption can be overcome. So it's a matter of whether you can put in a workaround to keep the business going. Again it comes down to the type of disruption that it is. Whether it just affects the staff and we can do a workaround, so that the public is not aware of the issue. Or one that directly affects the customer by way of them not being to complete a transaction with council.

That can be either through the incidents I've mentioned as a power outage, so where we've actually had to close the building for a couple of hours. To an IT issue that affected the organisation say for a couple of weeks, but there were workarounds to keep the processes going.

**Q12**

Facilitator: Given all your experience to date, please describe what design elements you can see that are required to operate an effective BCM program in your organisation?

Interviewee: Well if I'm reading it right, it's obviously the plan itself has to be available.

Facilitator: Yep.

Interviewee: The staff that are on the Disaster Recovery Team or the Business Continuity Team have to be up to speed with what their responsibilities are during a disaster or a disruption. Then for them to be able to communicate to staff and the public as to what's required to overcome that disaster and put practices into place to continue with our business.

**Q13**

Facilitator: Thank you. Out of these - out of those listed elements, which would you consider being most critical for operating a BCM program in the LG sector, and why? So you listed about three, I think, through…

Interviewee: Yeah. I think leadership through the team and communication is critical. You can have a plan in place, but if people don't follow the plan or communicate that plan, that can be negative to the whole situation. I think the main one would be the leadership and communication, followed by the business plan. So at least there is a step-by-step process and you don't need to think in a stressful situation as to what is required to get your business back up and running.

**Q14**

Facilitator: Now I'm going to just ask, of those remaining elements which you've discussed, which do you perceive to be not as critical for operating a BCM program in the LG sector, and why? Do you perceive any? Maybe it's something you haven't thought of either.

Interviewee: I think - yeah. Not as critical? Well I think the - well from the ones I've mentioned I think the - I correct that, I'm not too sure. I think they all play a part…

Facilitator: They're all essential.
Interviewee: …in being an effective - to get a business back up and running. They may been not as important, but I believe that they all play a part in being an effective BCM.

Q15
Facilitator: So the last question. From your perspective, do you see any impediments to these design elements you've listed being used within the LG sector for BCM programs?

Interviewee: They're all easily achievable but it - again it comes down to the resources available. Some organisations I'm aware have engaged outside consultants to implement a BCM. However, you still need the staff input as to their individual requirements for operating the business. So again, just the resources and time and priority of implementing or creating and implementing a BCM.

Just with the local government sector I'm aware that whenever a disaster strikes a council that a number of other councils offer to assist in any way they can. So there's good cooperation through the LG sector.

Facilitator: So thank you for your valued participation. As stated in the - at the start of this interview - the information collected is only for research purposes, part of my Masters Degree. Not for starting any changes to your organisation or providing any feedback to your council. If you feel strongly about any issues that may have come up today, please see your HR manager who can then refer you to the appropriate contact to discuss any concerns you may have. Thank you again for your contribution and time, Warren.

Interviewee: No problem.
Facilitator: Thank you. So the next steps…

Q16
Facilitator: Yeah. I've added this extra question, - what are your thoughts on the imposition of private sector models on public sector entities? - are you aware of any private sector models at all, with respect to business continuity?

Interviewee: Yes I am aware of them. They are not relevant to us as we are a government entity. We can use them as guides, but the private sector have revenue as a driver. We have a moral responsibility to lead our community through crisis. The State government holds overall accountability but we play a key role.
Interview Transcript: Council1Process2

Facilitator: So thank you [XXXX] from XXXXX Council and your role - we're going to go through the interview process and the agenda is we're going to collect some participation information from you and if we turn the table there, turn the page there, it will give you some - thank you - so the participation information on the other side. If you could just provide us with the details there.

Interviewee: [Unclear] organisation.

Facilitator: So what would - yeah. So have you ever experienced a disruption while you've been in the workplace, we just want to know about experience.

Interviewee: What disruption are we talking about?

Facilitator: So what do you perceive - so for me it's about you telling me what you think is disruption. I can give you some examples.

Interviewee: Examples, power failure?

Facilitator: Yeah, have you experienced that?

Interviewee: Yeah.

Facilitator: Just list power failure and anything else. So where was it?

Interviewee: Here…

Interviewee: Yeah, who had once been…

Facilitator: That's right, you were here in finance then.

Interviewee: Yes.

Facilitator: So that's enough.

PART A

Q1

Can you define BCM as you see it?

Interviewee: Okay. Can you define BCM?

Facilitator: As you see it. So why we ask that is just to understand how you see it before I then share how the research study has defined BCM. It just allows us to understand what you - how you define BCM before we influence you at all.

Interviewee: Okay. For me it's the processes and procedures that you have in place to ensure that should a disruption, okay, you are able to continue operating as effectively as you can.

Facilitator: Okay, thank you. So I think you don't need to write it down, just say that I've recorded it. Before we begin, I just wanted to share from the extensive literature that's been carried out for this research. Business Continuity for this study is defined as an agreement, tried and systematic approach used by an organisation for the management of any crisis. It is business centric, focussed on how the organisation will deal with a crisis or disaster that affects it. It is focussed primarily on its people, services to customers, suppliers, processes and systems, ensuring recovery is achievable without significant disruption to the organisation. So that's what the study defines it based on literature.

I believe, based on your definition and this, it's pretty much - what do you - do you think they're pretty similar, what are your impressions of what you'd just recently said and what you've read here?

Interviewee: What I said and this is, concept is the same. Your definition here has included more, like what the stakeholders and whereas I didn't cover that.

PART B

Q2

Facilitator: That's alright, okay. So we're going to go through now, as we said in the agenda. We're going to stage it into two sections and that's exploring how BCM is used within local government. So really within your organisation. These questions are all based about understanding how to use within Hurstville City Council. So are you aware of, and if so please describe, the current BCM programme within your organisation.

Interviewee: Okay. Currently we have a main Hurstville City Council disaster recovery plan which is under the responsibility of the MIS department is the co-ordinator. We are working from that top level to a service or business unit level where the business unit managers are now preparing sub-programmes to link to the main programme. In there we have identified what our critical activities are that should be concentrated on and we have identified what we would determine not so critical activities that can wait. We've
come up with an emergency response team and what will be done, who constitutes that team or be responsible for what in their own process.

Facilitator: So do you perceive any obvious constraints within the current programme?
Interviewee: Constraints?
Facilitator: Any issues at all?
Interviewee: Well when a disaster strikes I guess the constraint for me would be how prepared would the people be.
Facilitator: That's real test.
Interviewee: Yes. We have got a document in place, we plan to test it time and time again but until the disaster strikes you can't really say what the constraints are.
Facilitator: Okay, but you believe there is support in the organisation for it?
Interviewee: Yes. The senior management have bought into the concept and they are aware of it and we are trying to get as ready as we can be.

Q3
Facilitator: Okay, thank you for that. So we're going to move onto question two now. Can you please explain the current documentation that exists within your council concerning business continuity management?
Interviewee: There is a disaster recovery plan that is not only sit on the council's documentation and records management system, but is also on memory sticks for all parties involved so that should a disaster strike and we don't have our system in place they've got back up for that.
Facilitator: I just want to just explore a little bit more there. So is there a business continuity plan?
Interviewee: Yes.
Facilitator: Is there section business continuity plans, so…
Interviewee: They are currently under development. At the moment I can say two of them have been approved and two have been returned subject to confirmation and it's an ongoing process for us.
Facilitator: How about disaster recovery plan?
Interviewee: Yes, it's part of the VCPs disaster recovery plan.
Facilitator: Emergency response?
Interviewee: We have a team in place and we have got lists and telephone numbers of the people in the committee.
Facilitator: A testing - sorry?
Interviewee: There's a committee that meets annually. The emergency response team.
Facilitator: Testing schedule for plans?
Interviewee: Yes, still to be carried out.
Facilitator: Maintenance schedule for plans?
Interviewee: Not sure.
Facilitator: Not sure? That's alright, that's fine. So that's question two. We're going to move on to question three. Describe the risk you…
Interviewee: Can I ask a question?
Facilitator: Yes.
Interviewee: What do you mean by maintain scheduled plans?
Facilitator: So making sure that people keep them up to date.
Interviewee: Oh yeah, that's happening.
Facilitator: Okay. So how often is it?
Interviewee: It's happening as we are developing the individual VC…
Facilitator: So the people that are - for example one of the - what's the oldest plan that's been created?
Interviewee: Oldest?
Facilitator: Like are they maintained annually?
Interviewee: The current VC plan was actually maintained last year.
Facilitator: So there's - you can say at least…
Interviewee: It's current yeah. For now it's current and I'm sure at the annual meeting we'll have an opportunity to look at it as well and update the telephone numbers.
Q4
Facilitator: Yeah and do whatever. So thank you for that. Describe the risks you perceive for your organisation that a business continuity management programme is there to mitigate.

Interviewee: Systems failure, IT systems failure. Because they are so dependent on IT if something should happen to our IT system that would disrupt business and the risks associated [unclear] is loss of information, customer - we would be unable to provide customer services because we are reliant on systems and that could lead to loss of income. Loss of confidence in the organisation and reputation risk might come from that, arise out of that as well.

Facilitator: In your opinion or in your experience how does this organisation determine what risks business continuity was there to manage? So did a process get followed to understand I guess how to…

Interviewee: There is an enterprise risk management framework that has been developed for the organisation as a whole and business continuity plan was identified - lack of business continuity management was identified as one of the major strategic risks for the organisation.

Facilitator: Are you aware that business continuity can be I guess prioritised or developed through I guess prioritising processes? So what are the key processes to council, it can be also focussed on utilities, so working on what utilities are critical to council. It also should be focussed on human resource business continuity scenarios. So are you aware of those different I guess views of business continuity?

Interviewee: Yes. I'm aware of activities, I'm aware of supporting infrastructure.

Facilitator: Yeah, which is utilities.

Interviewee: Talking about computers or internet or telephone systems. I'm aware of key resource people.

Facilitator: So it's really similar language but because you're so - because of risk, your risk management role, that's why it equates to that sort of - do you think this organisation - what has been the priority that has prioritised out of those three views, what has prioritised business continuity for Hurstville, do you know?

Interviewee: In terms of activities, customer service. MIS - maybe if this building was to be [unclear] maybe we would look at some payment functions, some finance function to pay, to make immediate purchases, those kind of things.

Facilitator: So what I'm going to go through now is the most prevalent disaster-ness…

Interviewee: Okay, we didn't finish that.

Facilitator: Okay, sorry.

Interviewee: In terms of utilities it's making sure that our systems are up and running like our telephone system, we would got to the back-up people that we have and our IT will be also using - ensuring that we've got an off-site somewhere where we can start working from. In terms of personnel is to ensure that the members of the ERC are there too to start managing the crisis. Sorry, your next question?

Disruption Scenarios
Facilitator: That's alright, so it's still really relevant to the question we're speaking too, I just want to understand if really your views on the most prevalent disaster scenarios that could affect your organisation, so I'm going to list them and I want to just understand which ones you think are most likely. I'm going to list permanent destruction and loss of building. Are you aware of this disruption scenario?

Interviewee: Yes.

Facilitator: Please rate probability, one as unlikely and five as most likely, to impact your organisation.

Interviewee: Permanent? It's unlikely, well it's possible. So one is unlikely? Maybe I'd said two.

Facilitator: Okay, thank you for that. Temporary denial of access to premises and/or precinct, are you aware of this disruption scenario?

Interviewee: No.

Facilitator: Okay. So I'll explain. It's about basically imagine this whole area gets basically..

Interviewee: A bomb scare?

Facilitator: A bomb scare or basically we can't access the premises because even there could be traffic issues and we can't get here. Those sort of things.
Interviewee: One.
Facilitator: So again probability, one. Thank you. Major disruption or extensive loss of information technology and/or telecommunications infrastructure, are you aware of this scenario?
Interviewee: Yes. I'd put it at maybe four.
Facilitator: Okay, thank you. Unplanned or permanent loss of vital records, are you aware of this disruption scenario?
Interviewee: Yes, four.
Facilitator: Four. Loss of key staff, are you aware of this scenario?
Interviewee: Five.
Facilitator: Yes, five, okay. Loss of key external dependencies, are you aware of this disaster scenario?
Interviewee: Maybe three. It could happen.
Facilitator: So yes you are aware of it?
Interviewee: Yes.
Facilitator: What do you see as those, like what's an example of one like that, an external dependency, loss of an external dependency?
Interviewee: Customer. We are dependent on them for revenue payment.

Q5
Facilitator: Yeah, that's a good one actually. So we're going to move on. Thank you for that. Now we're going to move on to question four. Describe what you consider to have been the business drivers for the development of a BCM programme in your organisation. If not, what factors impeded it? We might have covered a little bit of this before.

Interviewee: Personnel.
Facilitator: Yep.
Interviewee: Business drivers for BCP. Utilities.
Facilitator: Yeah so because you reckon we had that utilities?
Interviewee: Yes, and processes. How do you consider the business drivers? I think - I'll list those for the company.
Facilitator: Do you think - what is - overall is it compliance-driven or is it because the organisation wants to be resilient? What do you think is driving it for Hurstville, is it because DLG tells you you've got to do it or is it because we want to be resilient?
Interviewee: It's a bit of both. To comply and to also we know people who have had the experiences like [leave] or so, we don't want to be caught...
Facilitator: Caught out?
Interviewee: Yes.

Q6
Facilitator: Okay, thank you for that. Describe who is responsible for BCM within your organisation? What business units are involved?

Interviewee: The co-ordinator is [unclear] department. Business units that are involved are all - because it's not - it's a council-wide concept, not just for MIS, some are critical and others not so critical but all business units are involved.

Q7
Facilitator: Good. Yep okay, very good. That's really it. Question six, describe how those responsible for BCM approach and enact business continuity management within your organisation.

Interviewee: Okay, firstly I think there was the development of the plan itself. Then there was education through the annual committee. Then there's continuous consultation with developers of sub-programmes between the co-ordinator and the various business units.
Facilitator: Okay.
Interviewee: I don't know whether that answers your question?

Q8
Facilitator: So for me, yeah that's - the way that you've seen it has given me your perceptions of it, so yes. Describe your organisation's business continuity management communication framework.
The plan is published and it's accessible through the intranet and also through the - what do you call those memory sticks?

Interviewee: The plan is published and it's accessible through the intranet and also through the - what do you call those memory sticks?
Facilitator: Yeah.

Interviewee: So the people who are involved have got access to the plan easily, whether it's off-site or on-site.
Facilitator: But how is it - so it's communicated through intranet, that's great.
Interviewee: Also the annual meeting is another tool of communicating.
Facilitator: Having that committee there?
Interviewee: Yeah.
Facilitator: Do you think there's a 'not my job' attitude towards it in your organisation?
Interviewee: It's like risk management. People know it has to be done but resources - it's an issue of resources. If people have the time they concentrate on it, if not they tend to concentrate on their core functions.
Facilitator: Is it a resource here do you think?
Interviewee: Yeah.
Facilitator: Yes, so you find that sometimes…
Interviewee: People are distracted so they concentrate on core business for them, although they are aware of it yes.

Q9
Facilitator: Okay. So describe how your organisation monitors and manages BCM performance. So how does the organisation know that things are getting done within BCM?
Interviewee: There are some action items and the reporting to the governance and risk management committee and to the executive committee.
Facilitator: Very good. Does it get reported to the community do you think?
Interviewee: Community, I don't think so. I'm not aware unless if it's in the community strategic plan and I'm not aware of it.

Q10
Facilitator: Okay. At this moment if you were a customer of this council and a major customer process failed, how would you likely describe your customer experience in this situation?
Interviewee: The customer would be frustrated. I would be frustrated as a customer. I would want to understand when I'd be able to be helped.
Facilitator: So you believe that we wouldn't be able to provide the continuity of service?
Interviewee: We would, maybe not immediately but we have in our plan that within a day or two customer service is one of the areas that we think is critical. So as a customer I would want to know that.

PART C
Facilitator: Thanks for that. We're now going to move on to the Section C of this agenda. So we're going to explore what design elements for a BCM programme are necessary or important from a participant perspective. So I've got - from a research perspective, we've gone out and looked at all the e-literature, but want we want to understand is from a participant perspective, before we give you that influenced we want to understand from your perspective what are key components that you think are necessary for a BCM programme. So that's what we're trying to, I guess, explore.
Interviewee: Do you think it will be different? Know that we have already been influenced.
Facilitator: We don't know, that's part of the research. To understand what we know and then of course what we can learn.
Interviewee: Okay.
Facilitator: Okay, so I'll define what the research has defined as a design element for a BCM programme. So it's a key component process, so it's a process, which are necessary - and processes, so key components/processes, so to be specific I think people relate to processes more than components, but from a design perspective they are components to the programme. So which are necessary to ensure a BCM programme is operating effectively within an organisation? So how do you measure that a BCM programme has been implemented well? That's what we're trying to understand from your perspective, what you think is necessary.
Interviewee: Testing it and [unclear].
Q11
Facilitator: So we'll go through question one. So if you ever experienced a major disruption, please describe what you consider to be the most important factors/elements in maintaining services.

Interviewee: Okay. It would be convening a meeting of the key people. Publication to the community to say what is happening. Ensuring that we have got a site where people are meeting and essential services like the telephone and the computers are, the back-up plans for that are in place. Then communicating with your staff, the rest of the staff members to see who can come to work.

Q12
Facilitator: So that's in a disruption, so when you're in the thick of it. Now we're going to focus on the programmes, BCM programmes. So given all your experience to date, please describe what are the disarmaments you consider, so again key processes, you consider are required to operate an effective BCM programme in your organisation. So how do you know - how do you fit - in your organisation that the BCM programme is healthy, what are the key items that you think, if we're doing right, then the BCM programmes healthy?

Interviewee: The amount of time it takes to be up and running. The response from customers is also a good indicator. They will be a judge of whether this programme is working.

Facilitator: That's if it happens, but the programme - we hopefully don't want it to happen, but yes we'd have to be prepared but this is about the programme itself. So how do you know it's healthy?

Interviewee: Checking it with others. Benchmarking it against other programmes from other councils.

Facilitator: Yeah.
Interviewee: Experience, describe one [unclear].
Facilitator: To run the BCM programme. Not exactly - not really recovery because then we - it's basically - but this is about the programme itself. So what are the…

Interviewee: I think you need the people and are sent the programme.
Facilitator: Yeah, so people are key.
Interviewee: You need the utilities to run it. You need the documented programme also.
Facilitator: So the documentation?
Interviewee: Yes. I think so.

Q13
Facilitator: Okay, so we'll move onto the next one. Out of those listed elements which you consider being most critical for operating a BCM programme in the LG sector, which would you consider - sorry.

Interviewee: They're all critical in my opinion. I guess in the absence of documentation it's the key staff because they can - one would fill in - I'd expect that they will remember what the key elements are even if there's no documentation how to kick-start the whole process.

Q14
Facilitator: Okay, thank you for that. So of those remaining elements which do you perceive to be not as critical for operating a BCM programme in the LG sector and why? So it's about it's trying to focus on our sector itself.

Interviewee: On our sector.
Facilitator: But again, really out of the ones listed which do you think are not as critical and why?
Interviewee: Documentation maybe.
Facilitator: So you don't think it's as critical?
Interviewee: It's critical.
Facilitator: But not as critical.
Interviewee: Not as critical if there's no-one to read the documentation.
Facilitator: I understand.
Interviewee: That's why I said they are critical in the first place.

Q15
Facilitator: Absolutely, okay. I understand. So we'll go through the last question there. From your perspective, do you see any impediments to any of the design elements being used within the LG sector that you've listed.
Interviewee: I guess yes I said before, when you're dealing with the personnel you need to ensure that they have the time, so adequate resourcing.
Facilitator: Yep, and how do you perceive…
Interviewee: Training of that person.
Facilitator: Yep training. So it's all about people for you?
Interviewee: Yes.
Facilitator: Ensuring we invest in them?
Interviewee: Yes.
Facilitator: Okay.
Interviewee: Train them what to do and if they need to know the programme…
Facilitator: How you do think this organisation is doing that, do you think it's doing that well or we need a bit more…
Interviewee: There's room for improvement.
Facilitator: Yes. So again, what that section allows me to do is it allows me to get your existing knowledge and see if there's anything missing from the framework that we've extracted from literature and what we'll do is in the second round, and as you know there's a second focus group, I'll combine both, what I've observed through interviews and what's come out of the literature and we put together a framework which we then present and say does this fit local government? That's the intent.
Interviewee: Okay.
Facilitator: Yeah. I've added this extra question, - what are your thoughts on the imposition of private sector models on public sector entities? - are you aware of any private sector models at all, with respect to business continuity?
Interviewee: No sorry don’t know of any. In relation to Risk Management we do use the private sector models as a guide; they usually drive expertise in this area. We can learn from it but it does not always apply to us as we are different, we have a different focus. The Community are our key stakeholders not share holders. We have public money that we need to spend appropriately. We need to guide the community and we need to always ensure our credibility is secured. So we can reference the models but our organisation’s focus mould the approach on how they are used.
Facilitator: So I just want to thank you because I'm going to close the interview now. I want to thank you for your valued participation. As stated at the start of this interview the information collected is only for research purposes as part of my Master's degree, not for starting any changes to your organisation or providing any feedback to your council. If you feel strongly about any issues that may have come up today, please see your HR manager who can then refer you to the appropriate contact to discuss any concerns you may have. Thank you again for your contribution and time.
Interviewee: Okay.
Facilitator: So how did you find that?
APPENDIX G – FOCUS GROUP TRANSCRIPT
Facilitator: While everyone's getting comfortable, I thought we might as well start. Thank you all for coming here and being part of this final focus group for this study. The intentions of this focus group - as you know in the agenda that I provided - was - I'll just double-check [unclear]. Thank you. The agenda we're going to cover is review maturity of local government - so what we've discovered in the interviews that we've analysed, and just get your feedback through that. We will then go through view current prevalent scenarios for local government, and again go through some questions in regards to do you agree. Again, this - you will add and enrich this focus group, so for me, any opinion is worth its weight in gold, especially when you're doing research study.

So please just be frank and honest and feel free to say whatever's on your mind. Then the final section which is probably - will take the most time will be to go through the design elements for an effective BCM program extracted from interviews. This is where we'll just focus on - you'll have all the lists that was extracted from all the interviews - they're the key design elements we all thought were important to us - but the highlighted in yellow were the ones that were perceived most important. So what we want to understand from your perspectives is - in two situations.

We're going to go through some prevalent scenarios and just get your views through each of how important it is. But for me, it's always about - not about the actual situation but about the program itself and will it help you manage that situation. It'll make sense as we go through it. It's sounding a little bit mumbo jumbo at the moment, but we'll just start now. We'll cover section A.

Overall in local government, what we found was that we, as a whole, have a great understanding of what business continuity is. We know what it is. In regards to maturity of our BCM program - that's how we manage and keep BCM alive within local government - based on this study and on the interviews we took, our sector tends to be at entry level management maturity level. What I want to - for me, it's about understanding how you - is that where you thought we would be? What are your impressions of that first assessment in general for local government? What I want to do is go through the maturity matrix and explain what it means. Then for each level I will also discuss what the interviews told us and then get your feedback on that. Let's start with organisational framework and program.

For that one - so it's made up of four components and the maturity across from ad hoc managed, measured and optimised. That's how we're working. To measure an effective BCM program, it can have an ad hoc approach, which means no program charter exists. There's really no formalisation. It can be managed in the sense that a program charter exists but there's no connection to organisational planning. Then it can be measured, so it's a program chart - a program charter exists and there is connection to organisational planning. Then the optimised one, which is a program charter exists and there is a connection to organisational planning and external audit.

In the overall framework - in the overall local government councils that we - that I interviewed, some were ad hoc, some had programs, but none were optimised. That's why we're coming up and saying that it's really at - we're still at entry level managed. What are your perceptions of that in regards to your experiences?

Male: Maybe go back and ask what was the definition of program charter?

Facilitator: Program charter was just - it's basically an endorsement of saying - by executive and by council in itself - saying that business continuity is important to us and we're going to focus on it, pretty much. It's like - some of us have customer service charters. It's basically a formal commitment.

Male: I would think from our experience, it's somewhere in between managed and measured. I think we've now just moved to including it into our city plan and operational plan. But that's probably the [level] we're at.

Facilitator: Hurstville?
Male: I think at Bankstown we're in a similar boat between managed and measured. It's again a part of our operational plan for this year, so something that will interact with our planning from hereon in. But in the past, it's just - it's been there but it hasn't been really pushed...

Facilitator: Active?

Male: Active, yeah exactly. So I'd say in between the managed and measured as well.

Male: Tamworth would be at the lower end of that, I would think - ad hoc and managed. We've started the process but it's not anywhere in the organisational planning process.

Male: At Hurstville we're in the middle ground, but probably just as an overall comment, I think unless you have been affected by some disaster or something like that - it's like the old adage, it doesn't happen to me - it won't happen to me. It takes low priority. For me, there was a big push when Bankstown had their fire 15 years ago - whenever it was. The GM at the time there did presentations to the [unclear] and so forth because they - their experiences and you should start thinking about it. I think that was the start of it for us, a number of years ago where we just did an overall plan. It's still very basic, but it's trying to get buy-in from the staff as well - commitment from staff to develop a plan.

I suppose we're a lot further down the track now with staff because we're getting some traction, but I'm not too sure if the overall commitment's still there from some staff. [Unclear] might be able to answer that one.

Facilitator: I can't comment. No, for me it's your perceptions. That's what's important, especially from a participant point of view. That's why we like to get the two sides of the coin when we interviewed. We interviewed process owners. Sometimes when you're a process owner you see things differently to the people that are participating in the process, but that can help us process owners learn. I think if anything out of this, it should give you that - for process owners, it should give them the other side of the coin and how to improve how we engage maybe. That's what we can get out of it.

So thank you for that. We're going to move onto the next section: plans and processes. That's another measure. Some plans and processes exist, so that's ad hoc. Manages - all key plans exist. Measured is all key plans exist and are reviewed systematically, and then optimised is all key plans are reviewed and tested systematically. Again, from the study, there was - it was again at entry level managed in the sense that some people had some of the plans but not all of the plans and so on. What's your perceptions with respect to your organisations there?

Male: With the Rockdale, I'd probably agree. We've got a plan. We're missing the IT impact, which is also a significant one. So we could tick that box that we've got the plan. We might talk about some of other issues around that, but certainly we've got most of the key plans.

Female: We've got a plan in some plans. Some key [unclear] plans have been done but we still have [unclear].

Male: Tamworth has a plan and sub-plans in a very infant development stage, but none of that's ever been pushed out to the organisation or implemented in any integrated manner. We've got the framework of all the sub-plans, but it's not - it hasn't been progressed [unclear].

Female: We're pretty much the same. Most of the plans are there but they're quite segmented as well. They're not really talking to each other, so it's [unclear].

Facilitator: What we found, too, from the study is that we tend to focus on business continuity plan - also disaster recovery plans - that's the IT supporting framework. There's things like - there's the evacuation and there's also the wider emergency response. So for me, all those components should be integrated into one if we take - because business continuity is more than just our coms room's burned down. So I'm glad that you agree that's where we're at. For me, this study has enabled us to understand what we have to do to get there and hopefully that's what it'll help you.

Communication - no BCM committee exists, no trainings performed - that's ad hoc. Managed is a BCM committee exists but rarely meets; no training's provided. Measured is a BCM committee exists but rarely meets, senior executive involvements, basic training provided. Then optimised, of course, is a BCM committee meets systematically, a senior executive support program, training and awareness plans exist.
That’s the nirvana. Again from the study, we set - again, it's based on experience, but overall we're between ad hoc and managed - entry level managed to - some of us are very high - we're very focused on plans, but yet there's no communication. So to me, that’s where it ranged, but overall we tended to be in that entry level managed. What are your perceptions?

Male: I think with Rockdale, we're struggling to be classed managed - probably ad hoc. Again we've got the plans but there's a lot about putting them to the test, having them communicated, everyone knowing their roles. All that’s still - hasn’t been done.

Male: We had a committee initially to develop sub-plans in the plan, but by the time it got round to actually implementation, my brain started to hurt something fierce and gave that away. So we've had that sitting in our cupboard for about three or four years and it hasn’t really got off the ground very far.

Male: Other than - I know we get concerned about IT stuff. We try to keep that in the forefront every time.

Facilitator: Yes, that’s the same with us.

Male: I think the areas where you know is a risk and where there's a lot of experienced people, they tend to know what they would do in the scenario, but how much of it's written down is a different story.

Male: First of all, we have a committee, so we meet on an annual basis. Obviously seeing the executive are involved on that committee. I'm not sure about whether we've had training in the business continuity. We've certainly had training on evacuation if it - if something happens - disaster happens during working hours. But if something happened out of hours, other than the IT that - they’ve had regular tests and - over a number of years - the rest of the organisation's pretty much [unclear] in regard to training anyway.

Male: We have a continuity management team within the plan. They met for the first time 12 - 18 months ago when we finalised the first plan - haven’t met since. Obviously no training has been provided so we're in a very early - they're aware of the plans there and they've got a basic knowledge of what they have to do, but in terms of training, no. Some of that will be looked at though.

Facilitator: Then staff engagements - that final measure? How we measured that: ad hoc - no engagement, not my job attitude and it's a technical focus - IT will fix it. Managed is basic engagement - so tick the box, yeah I've done my bit, and the section does have business continuity section plans. So it's focused on their processes. They're - to me, it's all - it's a process of engagement so they understand that if they had thought through it before the situation hit them. Then the third level is BCM is a section manager's accountability, defined in the position description. Optimised is BCM targets set for managers in annual appraisals. That’s optimised; that’s nirvana. For us, it tends to be between ad hoc and managed overall.

Male: All the things in relation to annual appraisals and in our PDs, that’s in our plan. That’s written in there, but the plans haven’t been implemented, as I said. We have very little staff engagement in relation to it. The other day we had a whole city blackout and potentially it was going to be for six or seven hours at one stage. The only thing staff wanted to do was work out if they could go home and it would cost them anything. The only people who actually thought about their business continuity or disaster was our waste treatment plant because they were - they could be...

[Laughter]

Facilitator: It's pretty critical there.

Male: Get the diesel pumps going.

Male: That was what they were looking at, how long were the generators going to go for, how much fuel they had.

Male: Then the IT stuff - how quickly can we shut it all down while the backups go?

Male: By this definition, Rockdale would be measured because BCM is now in mine and the risk manager coordinator's position description. But I'm not sure if that’s really where our position lies. It's there, but it hasn’t - it certainly hasn’t gone through other managers. By this definition, we'd say we were a measured level. It probably doesn’t reflect where we should be.
Male: At Hurstville we've got - certainly got the overall plan number sections plans. We're certainly managed, but measured - I'm not too sure if it's actually in our PDs or not. That's a simple fix.

Facilitator: From a process owner perspective, it's in the process owner's PDs. It's in my PD from a technical infrastructure recovery plan and from a business continuity plan. From a risk perspective, it's not - we're getting there. It's been - with respect to section plans. [Unclear] can share how we are successful in doing that.

Female: I think for the past year we've managed to have six of the [unclear]. We are working to test them this month some time [unclear].

Facilitator: What's helped drive it? Because we're tying it to the insurance.

Female: Yeah, we are tying it over risk management action plans. That is also helping. The plans that we submitted to the insurers was to get a rebate.

Male: You use Statewide?

Female: Yes.

Male: Okay, so that's part of your...

Facilitator: We've tied it to...

Female: Yes, one of our action plans.

Male: We usually do something quite simple - easy.

Male: It's a good way of getting some money back, if you can.

Facilitator: For us, that was the - it's a good trigger. When I [unclear] was very good and we incorporated it. It's helped drive it because there's results. So you all happy with - so overall I think we're at that entry level managed - still got a little bit way to go. It will take - because we're trying to change people's perceptions, I think too. Thank you for that. We'll move to section B now. This is where we wanted to research the current prevalent scenarios that could affect local government. I just wanted to understand if people were aware of them, which ones did they perceive to be most prevalent to local government, which one did they perceive to be least prevalent and so on.

From the study, what I've done is I've listed it in priority order. The first priority for all - for most of us was major disruption or extensive loss of information technology and telecommunications. That was the one we thought we would be impacted by most. Then it was loss of key external dependencies. That was a surprise to a lot of us. We didn’t realise that of course, if we're dependent on key contracts such as - for us, Hurstville is waste. If they go down the gurgler, who's - that's a big issue for us. Do we manage that from a business continuity perspective? Then the third one: temporary denial of access to premises and/or precincts.

That’s when there's - basically you can't get to work for whatever reason - everything's fine here but nobody can get here. Loss of key staff - that was a big one. It's funny people mentioned reorganisations to be part of that - change of GMs. It was interesting to hear that from different perspectives. Then five is permanent destruction and loss of building, which is surprising because that's the one we manage for the most because we're all very - because of the Bankstowns and the Liverpools, that tends to be the scenario we all manage for with respect to continuity.

The sixth one, which was unplanned or permanent loss of vital records, which is really all about electronic record management. A lot of us felt - I don’t know if it's - it would have been interesting to do this five years ago because - but I found a lot of people were confident that their electronic - their records were being saved to the electronic system - that they weren’t going to have these key documents burnt down and then not available forever because we hadn’t basically put them in the system. People seem to be very secure with that.

I just wanted to ask - because in my interview questions no one - I just wanted to ask firstly, any prevalent scenarios missing from your perspective today? We've gone through those six. They’ve come from literature, but is anything missing that affects us? Is there anything missing there from a prevalent scenario point of view?

Female: If there was a bad wave of flu in the organisation - that'd be part of loss of key staff?

Male: It also affects - also staff for that particular period, but also can the business still operate with those staff away as well? If you’ve only got a small section - three staff out of three go down with the flu, what happens?
Male: A lot of that will come back to what really is an essential service. If it's three staff and they don't speak to the community a lot, it's more an internal function and those three going down probably isn't going to make a big difference. If it's - if you only have three staff doing customer service, you'd have a different story on your hands.

Male: It was a very interesting exercise - we went through our sub-plans. We identified people - we asked them to identify their critical areas and how long that could be down or out of service. A lot of people it was in with hours or days. But then I said to them, well we shut down for 10 days over Christmas and no one notices any difference. Why isn't it 10 days is the day? So it's the people's perception of how critical is really is.

Female: What about reputational scenario - scandal or something like that? Internally staff might be not able to do their normal work because they will handle all this…

Facilitator: Media.
Female: Yeah.
Male: It's probably in - corruption is a big issue. It not only has an effect on the community, but also on the staff from a morale point of view because then everyone starts saying, you're corrupt, you're corrupt. There's probably a few councils that have had that happen to their staff. It is quite devastating.

Facilitator: [Supporting] corruption. Is there anything else missing? Are you happy with that incorporating into media? I'll just write down - is there anything else missing?
Male: I think they're fairly major issues.
Facilitator: We tried to be broad.
Male: The example we had where literally power for 200 kilometres went down.
Facilitator: That's temporary.
Male: I'd say that’s loss of external - key external dependencies, but that impacted literally every business in town.

Facilitator: How did that happen?
Male: Somebody cut through a TransGrid line - the main feeder into the city.
Male: I heard it was from [unclear]. It was a big area.
Facilitator: What are your perceptions and views on the priority order? Do you agree with it?
Male: I'd put loss of key staff higher if it was me, but that’s - in regional areas we get - some resources are easier to get than others. Every council's going to have its own issues and order of priority when it comes to these things.

Male: Maybe after loss of key staff, maybe you say - just put in brackets, also for regional areas.
Male: If you're in Sydney and you lose a particular resource, there's often another one walking around the corner.
Female: [Unclear] that is talking about loss of key services. [Unclear].
Facilitator: Yep, external dependencies.
Male: I think it depends whether you order it based on high likely it is to happen as well.
Facilitator: That’s what we're trying to say, is listing in priority in order from most prevalent that will affect us to least prevalent.

Male: Because I'd say the loss of external dependencies, whilst they're critical - if you asked how often would we have a power outage of that magnitude, I'd say once every five years. A [unclear] going bust or something like that is probably likely to be - it may happen but it's not going to be often, whereas you will get staff turnover because they'll get better offers, they'll get different industries.

Facilitator: So move that to second place, do you think? Is that what you…
Female: I think external dependencies are very broad for what you are saying. If there's - even a utility supplier's - they've got hiccups, it affects us, or Telstra's [unclear]. Even though it's probably unlikely that trucks were all down, they'd just hire backups. So because it's a very broad category, it's difficult to prioritise it in terms of prevalence.

Male: Because your external dependencies - okay, you had your power outage, but then that brings into play the temporary denial of access to premises because you could say, well sorry it's now a WHS issue. Everyone's out, we shut the doors. But it's going to be the same - when you’ve got that major thing, everyone's in the same boat so no one's going to come in and pay their DA. They're all worried about what's happening in their own home or business anyway.
Male: Yeah, priorities get put on the backburner.
Female: In terms of prevalence, I wasn’t surprised that IT was one. It just seems most people...
Facilitator: I think loss of key external dependencies was a higher priority in the interviews because people hadn’t thought of it, so they thought, oh no, maybe that’s - I need to think about it now.
Male: I was just wondering whether people have got confused about prevalent and criticality because lots of external dependency is probably a lot more critical than even loss of key staff because you can find somebody. The division will find you an administrator or somebody if you get into that bigger issue, whereas the other thing - [unclear] goes down or you lose a major contractor, that’s very critical to the operation.
Male: Probably the loss of vital records, whether unplanned or a permanent loss - I think that varies, too, to the state of the council and whether you're city or regional or country because, say, for minutes of council meetings, how many country councils would have had those micro-filmed and/or now scanned and have got those in an electronic format. They have a fire in there - the old council building hall or something that’s been closed down for 50 years - have they really got those backed up? I really - whether you guys can think because you're more [au fait] with councils.
Male: We do electronic now and probably for the last 12 to 18 months have we used a microfiche before that. Sometimes it's good to lose records.
[Laughter]
Facilitator: That’s what our records manager tells us.
Male: We did go through that. We've - actually we've only just relocated most of our records to a storage facility because it - you go from hall to hall to hall and it would have been very easy to - but things like minutes we left in the safe - in the large walk-in safe. But there's a lot of old records that weren’t in that scenario.
Male: That’s right, and particularly in the country towns, because they're short of dollars they probably don’t spend it on...
Male: It goes on roads. We've got 3000 kilometres worth of roads. Most city councils wouldn’t have.
Male: Whether you had two tables - one on a critical, maybe, and one on...
Facilitator: Most prevalent?
Male: Yeah.
Male: [Unclear].
Male: Because if you could find - they probably do shift. I think number one - I think that’s it because I think that is one and probably both scenarios because it doesn’t have to be an Ausgrid problem or TransGrid problem.
Male: Yeah that’s right, it could be anything.
Male: It could just be a local thing. Something happens in-house and someone turns the power off or whatever. That’s more likely to happen than some of the other ones.
Male: I think in terms of criticalness, I think that’s right for how critical. I think just the prevalent might change a few because you're more likely to lose key staff than you are to have that big outage or that big one-off scenario.
Facilitator: Thank you for that. I just thought we'd also ask, why are we focusing on permanent destruction and loss of building?
Female: Exciting.
Male: It's the amount of downtime if it happens.
Facilitator: Because it's just interesting to see - to understand your views of why that’s driven our business continuity plans. Why do you think that’s the case?
Male: In our particular case it didn’t really drive it because we have - we're an amalgamation of five councils. One of them was actually a [unclear] council, so its head office is just down the street. So we've got two virtual head offices in the one street and then we've got branches in all the others that were former council offices - plus loss of a particular premise or building wasn’t a major issue because we had so many other areas we could go to and can continue. I guess it's different if you have a specific building.
Female: I feel historically if you lost your main building, without IT you lose nearly all of - you lose everything. You lose all your information and history to some degree. I think for - I know for us, we move away from that a little bit now. So that’s probably not the
most prevalent one until these other things that we look at - the building itself because we have the IT infrastructure will ensure [unclear] can regain. It's a pain but you don't lose history and information.

Male: I suppose people probably looked at the worst case scenario. Does your kitchen on the first floor burn down or once there's a fire there, it then starts to impact on the rest of the building or something like that. Like Bankstown, fire in the roof and the whole building's gone because there's no fire sprinkler system and things like that. So again, it depends on the age of the building whether you've got sufficient other securities in place to minimise fire. I suppose that's the most common one rather than, say, someone blowing the place up or something like that.

Male: One of the biggest issues - and this is where we are lucky but I guess a lot of other councils aren't - where do you put the bodies even if you've put the IT backed up and you've got a DR site and you can get remote access and all the rest of it?

Female: Where's your backup place for work?

Male: Yeah, you've still got to have somewhere for bodies to sit. If you do lose a building, you're not losing it for a day or a month. As a rule, you're losing it for a pretty significant period of time.

Male: What did it take Liverpool to get another building [unclear]?

Female: It took about - it took them about five, six weeks. Most people were just told to stay home.

Female: For me, Bankstown are in a similar...

Male: Those demountable buildings around - a guy that went out just to source the accommodation around in close buildings - close to the area. I think our customer service team was up and running within 24 to 48 hours. Our demountables in car parks - we haven't had to find some space. So that would've been interesting.

Female: [Unclear].

Facilitator: Thank you for that. I also wanted to understand if understanding criticality and also prevalent scenarios, would this shift your priorities for your organisation when developing BCM? Will it change, do you think, how you would approach understanding?

Male: I don't understand the question.

Facilitator: Now - because we've gone through a process of understanding what are the most prevalent and most critical, will it change your approach, do you think? It's just your...

Male: I suppose it's like if you were at entry level and you haven't got an IT plan, would you put more focus on IT rather than, say, governance or footpath repairs.

Male: I'm not sure. I'm not sure if that would change the organisational priorities.

Female: To me, I think it would. I think the more information that people have in relation to these areas - because as you said, people do generally focus on just what would happen if we lose our building - and that's why we have business continuity - and not consider these other areas. It's not in the forefront, so I think it would influence people who have had no dealings with this, to understand what are these other areas that - this is why we do this and this is what we need to consider in this plan.

Male: I think your focus would change on your sub-plans. You might say, let's do this one in the next six months and put something else behind it.

Male: The other thing is cost. People will also put in cost stuff that's quick and easy versus - it's time. There's still a lot of places around that, even from a technology side, not everyone has a DR facility. They might have their information backed up, but that doesn't mean they've got a DR facility. The biggest reason for not having one of those is generally cost.

Male: I probably agree with [Warren] that you'd probably focus on some of the sub-plans. We're focusing on the IT recovery.

Facilitator: The next one is a very broad one - how do we intend to incorporate what we've learned with respect to disruption scenarios in our business continuity plans? Will we or we can just shift our priorities?

Female: Sorry, what was the question again?
Facilitator: If we - it's what should we do and how will we do it? Now that we've got this information, how will it change - or how will it influence how we implement BCM? Will it?

Male: From our perspective, once you've done this exercise it will help us - we're obviously in the ad hoc area, so it'll help us focus on where we should be going and steps we should be taking to get [unclear]. I'm more than happy to use this as a tool to progress our organisation.

Facilitator: How long do you think you'll target to get - what will your target be from a maturity point of view? Nirvana's great, but do we want to get there? I'm just asking you because it's all about funding and it's all about resources. Do you think we should have the aim to be nirvana or managed will be good enough for us? What do you think our organisations want, from your perspective?

Male: That'll be part of our risk assessment as to what our appetite's going to be as to where we want to end up at. I know initially when we did our initial plans and sub-plans, that was extremely resource hungry because it actually affects every section, division, directorate within the whole of the organisation. By the end of that period - because we Statewide [unclear] helped us develop those initial plans. That just took ages and ages, so it's a lot of work.

Male: It depends on the organisation's priorities and what's coming down from the council, because the GM will drive those probably at a higher priority even than something like this. But I think you'd probably cover yourself if you were managed. I think measured is probably a better scenario. Unless you've got a heap of money and time, you probably wouldn't go for optimised, although it's probably only another small step. But they're big steps, getting people to managed or measured from a resource point of view.

Male: If you got to managed across the board, that'd probably be a big step forward for most. Then as you say, you can then work out what's the effort to go from managed to measured and so on after that. It could be certain areas you determine you want to be further along the curve, but as a rule you're happy with managed as a baseline. For those areas in particular, you may want the other.

Male: I can't remember what the question was in the divisions audit, because they do ask whether...

Facilitator: Yes they do.

Male: I'm not too sure what their level of requirement is. So whether you can just tick the box and say, yes I've got one of those or whether you...

Facilitator: I think that’s the approach for state. It's a tick the box, yes we've got a BCP plan. But a BCP plan is not business continuity management. That's one - Wollongong couldn’t be with us but he's - the risk manager - he had very strong ideas in the sense that he thinks that state government really don’t give us any direction. He believes there should be more momentum coming from state as to what prevalent disaster scenarios local government should be managing. But it's basically - his views are tick the box and that’s the approach the local government takes. He thinks there should be more leadership coming from there. What do you think of that - of his ideas?

Male: Yeah, but the DLG - they're in a position [unclear] probably comment on this that they have to cater for a very broad range of councils, from the small country to the largest metropolitan. They can't dictate...

Facilitator: Thank you again. We'll start with the last section of this focus group, and that's focusing on the design element for an effective BCM program. I just wanted to go through the definition of a key design element that we shared with you at the interviews, but just to remind everybody again. We define a design element as a key component/process or processes which are necessary to ensure that a BCM program is operating effectively within an organisation. So that's the definition. So when we defined it, we came up with these as the most important to us. They were accountability, access to information, access to resources, alternative worksites, ask for feedback audits, so independent reviews, automation and standardisation, backup plans, business plans, step by step process; a lot of people said business plans, but they needed to be easy. Everyone kept saying it's got to be easy. Budget, communication, contact information, so having the people that we need
contactable and available, delegations, documentation, governance, identify critical services and resources, interaction with Council, so integration with other emergency plans, job descriptions, leadership, ownership relevance ensures buy-in, so like, telling people the why. I guess that's that one.

Prioritisation of critical services, simplicity; again that was a common one; stakeholder engagement; that includes staff and community, so I think there was a lot of people focused on our community. So [unclear] steps in process, again making it simple and a step by step process, surveillance, and I think that came out of Liverpool, because as you know, they lost the … the person that … down there, their civic centre. Technology and backups, testing continuous improvement, training and education was big. So I thought I'd highlight it. Of course it's not yellow; for you of course it's grey, but the ones in grey, or on the screen in yellow, were the most important to us.

So access to information, access to resources, alternative working sites, backup plans, business plans, step by step process, again making it simple. Communication was a big one. That to me was the highest priority - was the most common one that came up. Documentation, interaction with Council, leadership; that was a common one too, so ownership relevance ensures buy-in, prioritisation of critical services, stakeholder engagement, staff community, technology and backups, and training and education. For the purposes of this, we're going to be focusing on the highlighted design elements, because we can't go through them all.

But first I just want to go through, are you comfortable with the ones that are highlighted? Do you think they are? Are we missing any that aren't - that are in the wider list that should be in the prioritised list?

Male: I would have thought accountability. It's like ownership, that ensures that someone is responsible for the BCM.

Male: The other one is, and maybe it's because you should have done it before, but we've said prioritisation of critical services is, but we haven't said identifying critical services and resources. If you've already done that identification process then it's not as important, but if you haven't or you've got to choose…

Female: Also, some of these are - the intention is the same, like job description also goes to accountability.

Male: The only other one is contact information.

Facilitator: You didn't think it was that important?

Male: No, it's not [unclear] I would have - because I would have thought a common thing will be, once you go there who do I speak to, who do I…

Male: Are you talking externally or…

Male: That was about to be my next question.

Male: We're just talking about within the organisation I guess. Is that…

Facilitator: So it's those key people. So when the event occurs, who are those people, how do we get hold of them.

Male: Say if this is the BCM people on the committee…

Male: But you'd also want your suppliers and all that information as well.

Facilitator: Yes, so it's contact information that's critical at that time, which really should be your BCM plan.

Male: Yeah, what you're saying, there seems to be a lot of overlap with the…

Facilitator: Yes, there is, but I wanted to just show you all of it. There are going to be merging themes. This is just the first cut. Then we merge a few, and then we get a consolidated theme. You're helping me do that.

Male: See, even the testing and continuous improvement, you need to review - you plan and test it, otherwise it's out of date or if something is not working, you've changed a critical component in the whole thing.

Facilitator: So we've added a few.

Female: I would have thought resources and budget would be a key design element, because isn't that one of the constraints, or otherwise - that will allow to what depth and prevalence [unclear].

Facilitator: We've gone and added a few. Is there any in the list that you don't think is important, shouldn't be there?

Female: When you say interaction with Council, do you mean with councillors?
Facilitator: Yes. Well, that's what they meant. So how do we keep them informed, do we still need to?
Male: Training and education, is that in relation to the BCM?
Facilitator: Yes.
Female: Audits and independent reviews - also auditing the process, the BCM?
Facilitator: Yes, and getting an external pair of eyes to just measure. How we're doing it. I guess DLG do that, but they just look at a plan, they tick it, but getting someone else - we go through a network penetration [unclear] as you know. Maybe include someone to come in, audit business continuity. But a second pair of eyes always helps.
Male: I suppose delegation goes with accountability.
Facilitator: Yes. So none to take out?
Male: I suppose the surveillance. What was - so Liverpool put that one in just because they couldn't find out who burned their building down?
Facilitator: I don't know why. I'm only telling you what.
Male: You're probably right.
Facilitator: I think that's why it's come up, because even with us, as you know, [Warren], the minute that happened we had to set up a redundant store for our surveillance off-site. We finished that project. Now we've got it, but for Liverpool, they'd never envisaged that scenario, that someone would come in, burn the building down, and the surveillance that would have captured the footage would be burnt down with it.
Male: How is that relevant to the BCM?
Facilitator: In this situation, it just came up because it's at the forefront of their minds. In the interviews they just brought it up. It doesn't mean it is.
Male: It didn't help the police because they didn't have the information, but from a business thing...
Male: In how many scenarios would you have a video camera in that scenario, in that position?
Male: What if it was an electrical fire?
Male: The other one - I didn't see this one mind, is this one before - I mean, contact information and access to information. Whether you want to count those as one and the same would be an option as well.
Female: I suppose interaction with Council and stakeholder engagement could be merged.
Male: Communication.
Facilitator: Yeah, that could be moved into communication.
Male: I think that identifying critical services and prioritisation of critical services could probably be one and the same.
Facilitator: These weren't listed in priority order at all. They're just listed.
Male: What was automation and standardisation? What was that referring to?
Facilitator: I think that was in relation to the fact that they felt that, from the technology point of view, standardisation of how we build environments, because it came from a technical perspective. But I think standardisation also on how - there was also the relevance on business continuity, section plans. So I want it to be simple, I want it to be a step by step, so it's almost prescriptive to me so I can help, because I don't know about business continuity. What am I supposed to look at? Make it simple for me from our participant point of view.
Male: Inclusive if that's telling you to go home.
Facilitator: That's right. Inclusive of...
Male: Sometimes the simplest thing to do is to send most people home.
Male: Yeah, I think that's what Liverpool found.
Male: You've just got to know you sent them home so you know they're safe.
Facilitator: What we're finding is, we're having this discussion early, so they're not surprised. That's why the section plans are there. It's like, the manager gets to think through, say, well, you know, these guys, they can stay home. I need these three coordinators, we'll contact them, and then they discuss that with their teams. So it's not a surprise.
Male: Is budget a big...
Facilitator: Well, we've added budget as something.
Male: I guess it depends [unclear]. If you're talking about - you've got to take it into account in terms of when you're doing your planning, and I think it can fit into a few of those.
Facilitator: So really it's funding for the whole program, and can be meant to the whole program. Without funding, you'll do the best you can, but - training will require funding. So are there any key design elements not listed here that - I think we have done that, so we'll move on now. What we want to do now is focus on those yellow, so we're going to do a one by one, and we will finish by 12:30. This design element, if it was in place, would it assist in managing the following prevalent disaster scenario? So we're going to look at those, and the reason we picked these three are because scenario 1 is the most prevalent, scenario 2 is - I guess was the most surprising and currently not managed, and scenario 3, which is loss of building, which is the least prevalent, which most of us are planning for at the moment. So those first three, what do you think from a scenario point of view? Would it help you manage scenario 1? You've got - scenario 1 has occurred, so if you had access to information and access to the key resources, and an alternative worksite, would it enable you to continue business as usual for Council?

Male: For some services I would say yes.
Male: If you had the [DR] site, you'd just switch it over.
Facilitator: Backup plans? Business plans, step by step process, again it's about having a program to help you manage the disaster, because a lot of people think it's about the program itself that makes you healthy to then be able to be ready for that situation. So yes, backup plans.
Female: Yes, all three will help.
Facilitator: Communication?
Male: When people know what's happened...
Male: The big thing with communication is how you do it. We had a scenario recently; we provide support for another council, and we had a scenario recently where none of their - overnight all their boxes went down, and basically, because everyone relies on e-mail to mass communicate, so it was interesting from that point of view, as getting out the information, how, when the thing they couldn't do was log in, and obviously you just end up with this - everyone tried to call up to see what's going on, so then it became an issue around how you got the communication out there. So not just, yes we need to do it, but how we need to do it based on the different scenarios.
Male: E-mail and then SMS or something.
Male: Yes. I mean, we were fortunate. We have multiple sites so we're able to do mass SMS or bulk SMS from a different site, so we could get the information out there to those who we had mobile numbers recorded for, which then comes back to your, do you have all the information and contact details for everyone you've got to get information to.
Facilitator: So documentation, you think that sort of merges with - yes. So interaction with Council? Would we manage councillors in this situation?
Male: Because they've got access to our portal, you know, it all depends if the phones go down as well. They'll want to know what's going on, and they'll get calls from members of the public. So they need to be in a position to be able to respond as well.
Facilitator: Leadership, ownership?
Male: Yes. Who does what.
Male: Stop the panic, depending on the scenario.
Facilitator: So prioritisation of critical services, is that necessary for scenario 1?
Male: Yes.
Facilitator: Why?
Male: What services come back up...
Male: First, yeah, it will be the order.
Facilitator: Stakeholder engagement?
Male: Yes.
Facilitator: Do we want to say staff community/councillors in there? It was very focused on...
Male: I'm not sure what engagement is. Is it merely communication, letting people know? I'm not sure what's the engagement there.
Male: [Unclear] engagement with staff but it would be just communication externally.
Male: Informing - engaging.
Male: If there's something major, it's going to be on the news. So your community is going to be aware of it one way or another, and the radio, but through your plan, you've got the media - you've got a media section there to push out messages. That's the engagement with the community, just, don't worry, we'll have a customer service centre up tomorrow morning and come down to the depot or something. Like, here's our new phone number, or divert your phones.

Female: I think the engagement part is relevant [unclear] staff … in building and understanding the program, but when you're talking about in the event of a scenario, in the middle of a disaster, then I think it's about … would you like to …

Facilitator: So technology backups and training and education. Would it have assisted in scenario 1?

Male: Yes.

Facilitator: Scenario 2. I guess to be clear here, key dependency, I think we're going to be very focused on key contracts. I don't know if it impacts all of us. Things like electricity, that's where some of it can fall into telecommunications infrastructure, because it's really part of that telecommunications infrastructure failure. So when we talk about this scenario, it's a key contract. So for us it would be waste.

Male: We've got waste in the aquatic centre and golf course, because they affect obviously the community as well.

Facilitator: How about for Bankstown?

Female: We were just talking about it there. [Unclear] saying some of the waste …

Facilitator: From a program perspective, again, we're going through the same sort of discussion around that scenario. So access to information, resources and alternative worksites, would it be relevant?

Male: Probably [unclear] just your communication and … maybe not as - even though it's very high in…

Facilitator: It's all about communication this one.

Female: Backup plan.

Female: Yeah, and to know what the backup plan is.

Facilitator: Knowing the backup plan of the [unclear] scenario. IT has got nothing to do with it.

Female: The community will contact the council, not the external provider, so yeah, communication and so our offices know what the plan of action is, to reassure the community or staff. That would include councillors as well.

Male: I suppose you'd still need access to resources, but [unclear] backup plan is.

Facilitator: [Unclear] those resources are, would be relevant to the service. We'll go through now scenario 3 if everyone is happy, because I think we've covered that one, which is really the one we're very used to, and that's our building burns down. What from a program perspective, are critical?

Female: I think an alternative worksite, backup plan.

Male: I think it would be the same as the first one. It will be for different reasons, but I think it…

Facilitator: So really we're using our program to its full capacity.

Male: I think you just end up with a bit of higher priority. I mean, you're unlikely to have an alternative site that's got the same capabilities, but it's just how you manage that process.

Female: I suppose the prioritisation kicks in.

Facilitator: So the questions we were going to - so we've gone through the scenarios, thank you very much. We've been working through the two sides of the coin, so that's do you consider it critical in operating an effective BCM program, and I think most of you have been answering as we go through it, but also, will it help you react well in that event. For me it's about the program itself; is it healthy, but then, will it help to react spontaneously when the event occurs. So I think we've been answering both. I think we're comfortable with that.

Male: Testing - at [unclear] when you have a couple of trial evacuations a year, so if there's an emergency during the working hours, and I think staff have become used to knowing what to do. There's less … . You've got a person saying, oh, it's only a trial,
I'll stay at my desk or whatever, but at least the wardens become more [inaudible] with what to do. They're not as anxious, and staff, they know the procedure. So it's probably the same with a BCM, although you probably can't keep shutting the place down and whatever, but the practice of maybe doing some desktop scenarios, or something that doesn't disrupt the organisation a lot, but making sure of the committee at least has got some role playing and scenarios.

So they become comfortable over a few years, so if something did happen, they're not flustered, what do I do, what do I do. They might have the manual, they might have all the instructions, but I think practicalities come into play. So I think that's very important.

Male: A lot of that comes down to how detailed - look, I used to work for a fairly big bank, and everybody had a card when you worked for them, and in the event of an emergency, you had to call the phone number on it and type in your staff number. Then they knew automatically that you're safe, and anyone who hadn't responded within a particular period of time, they then started looking at some of those types of mechanisms. You were saying at the same time on your first day you started you were given a folder that you took home, of the BCP, and that had a contact list of everybody who worked, and every 12 months you ripped the old one out and you were given a new one.

So that way, in the worst case, people knew if I went home I still had a list of what I had to do, those types of things, which was just preparation. Then the practice, I mean, twice a year they'd shut the network down and you would go to the alternate site and they'd bring it back. Everyone knew whether you were on the list of whether you were one of the critical staff members or not. But that's an expensive exercise.

Facilitator: From your perspective, do you see any impediments to any of the design elements, or the prioritised ones being used to operate our BCM programs within our councils? Do you see any issues, and I think we've talked about a few just now. But do you see any impediments with respect to implementing any of the things we've talked about?

Male: Yes, priority, organisation of priorities and resourcing, even for alternate sites, training and education.

Male: The other one is, I don't know how you'd keep it simple, like, it's one thing to say you're going to keep it simple, but it's another thing to actually keep it simple. So you'd have to have pretty clear-cut processes around how you could keep those steps to a manageable size.

Male: There's a lot of resource in converting things to plain English.

Male: Yeah, the dot points, and trying not to over-engineer. I mean, in the scenario of an emergency, you do want to keep it simple.

Male: The testing too; you've got to put that into a routine schedule, and that means you've got to allocate staff time to it. It's where the organisation wants to spend its resources.

Male: I think you said before, it will come down to priorities, and the council has different priorities than the GM, and you have a risk register, and you're aware of risk, because if it's not being driven from the top, you might be able to do some of the things, but as soon as you [inaudible] resources or money or something like that, it's going nowhere.

Male: The other one I guess, loss of building; correct me if anyone disagrees, but I mean, most people when they talk about loss of building, they assume it's the admin building as well. Like what if it's the depot, not the admin building, how does that change your scenarios? Because if you lose the admin building, in terms of works, from the [unclear] that may go un-impacted or minimal impact. What happens if it's the other way around?

Male: Find an office space.

Male: Yes. So what does that then mean for all the works that aren't getting done?

Male: That has a bigger impact probably on the community, where you've got no road repairs, no [unclear] repairs.

Male: They're happy not to pay their rates for an extra week.

Male: So those sub plans are probably important. Have they raised [unclear] or just the actual work? Have we focused on that?

Facilitator: In our plan?

Male: Yes.
Facilitator: No, it's mainly loss of…
Male: Mainly for work, not so much the [unclear]?
Facilitator: Yes. Well, it's process focus.
Male: I'm sure the biggest, most critical area for us, because we [develop] supply as well, … if those buildings went down, we would be in a shitload of trouble.
Male: Well if we lost the water treatment, no one would really care what else was happening.
Facilitator: We're going to go through now, and I think what we'll do is we'll list them from your perceptions, the key design elements that we've highlighted there plus the new ones we've added. I just want to understand from your perspectives, which, from a process order you would do first? What would you tackle first from a process perspective, and then we'll focus on priority, because sometimes there's a difference. From an approach, which ones should we do first to get things in a consecutive framework, and then which ones are most important and least important to us of those highlighted items?
Male: I guess we've got to identify, prioritise your critical services first to find out what you're actually - what are the things that are going to be driving the whole process.
Facilitator: So that's number 1 from a process order.
Male: That's only me.
Female: I was going to suggest leadership first.
Male: Communication as well, just to buy yourself the time to figure out what's actually happened.
Facilitator: So again this is from a program perspective, not a disaster scenario perspective. This is about…
Male: Developing the program [unclear]. You have to know what your critical … identify them first. The rest will flow from that.
Facilitator: So what do we think?
Male: Are you saying you're assuming that you've got a BCM in place?
Facilitator: No.
Male: There's got to be an organisational will to have one, and that comes from leadership. Then someone has got to be accountable, so we make sure we'll get [someone], irrespective of what happens once a disaster goes - to get the ball rolling.
Female: So do we need the organisational will?
Facilitator: The program.
Female: Yeah, to commence developing the program [unclear] there needs to be that leadership. You won't get a program if you don't have the leadership accountability to take it that next step further.
Female: I think the first step is there needs to be a desire to want to do something, and then the next step is, well what is that something you want to do.
Facilitator: Which then would mean this?
Female: Yeah, identifying…
Male: Do we know what the critical services are, so [unclear].
Facilitator: Yes, which I've added.
Male: Identification.
Female: I think stakeholder engagement comes closely with identifying and prioritising, because if we don't know what the end program looks like, everyone's got involved at the start, to have a process.
Female: When we're talking engagement, what does it mean by engagement?
Facilitator: When we talked in the interviews, there were two views. You've got staff engagement, getting them to understand, getting them involved in the process, getting them to understand what BCM is from a program perspective, but then in an event of disaster, engagement with community, this is what we're doing, this is how we're doing it, communication; that's all part of that. Again it's two sides of the coin; program, boring stuff, but we've got to get people engaged so when the event…
Female: [Unclear] development and if we're looking at engagement in terms of consultation as well, then I see that as coming second to leadership, because that will help us to identify what are our critical services, so using that feedback, especially from a community perspective as well, what they see as critical to them.
Facilitator: Would we ask the community? Has anybody asked the community?
Male: My only concern is the community will say it's all critical.
Female: I think it depends how you do a consultation [inaudible] consultation about what is the ... they see as critical.
Female: I imagine, if there was only one truck left in the LGA, would the community vote for that truck to pick up the bins or fix the [unclear]?
Male: It's too big an issue for the community. If you've got a community of 200,000, you're going to have 200,000 different responses.
Male: I haven't heard of a council that's gone to community consultation over a BCP, but we could be the first.
Male: You'd have to guide them a fair bit.
Facilitator: We're all comfortable that leadership stay at one? Then we were saying that engagement at staff, and then we're extending it to community. We're saying at the first instance we need that staff engagement once we have that leadership. We then follow from that. Now that the staff know that business continuity is important then we can prioritise and identify our critical services. So that's where we're up to. What would number 4 be in that process, in your view?
Male: Who is driving it, so who is - generally someone that's...
Facilitator: So ownership?
Male: Well ownership is really for all the managers to take ownership I would think, so that, if you're in IT, then you know how you're part of it.
Facilitator: So that would be part of two, staff engagement?
Male: I think that falls out of the...
Female: [Plan too]?
Male: Yeah, getting people involved, just trying to get them to own it. I still think you need a driver...
Facilitator: Accountability?
Male: Yeah, accountability.
Female: Are we only doing the yellow ones or are we doing all of them?
Facilitator: No, we're only doing the yellow ones. The bottom ones were the ones that we thought were missing from - I added them in as we were talking, because there were missing ones according to our - from our perspective. So should accountability follow leadership? Is it part of leadership?
Male: Just from experience from our organisation, if you haven't got someone that drives it, you're not going to - it will go all over the place, and you might get bits and pieces, but you won't get...
Female: I agree. I think if accountability is one of the ones we can categorise, then it would be accountability as opposed to ownership. Ownership potentially is [inaudible] this is our final product, who owns this, and looks after it, whereas accountability of the entire thing, so who is accountable to get this started and running.
Facilitator: So then accountability would be second, then stakeholder engagement would be third.
Female: I think still accountability may be still four, because I think first off we've got to identify what is it, what are we...
Female: [Unclear] person who is accountable. I still think accountability should be two, and then that person would drive the identification process.
Facilitator: What do you think?
Female: I agree with both of us. I just think you'd probably have to go back to accountability again once you prioritise what your critical services are, to then further review - I mean you could do a high level accountability, [unclear] implementing, but once you know what your critical service centre wants, then you need to … responsible again.
Male: Because there'd be accountability at various levels.
Facilitator: Yes. I've got your notes, but I'll say iterative. So we've now got up to step 4, stakeholder engagement, which is staff engagement really from a program perspective. Out of the highlighted ones, which are identify critical resources and prioritisation, so that's fitted into here, number 3, contact information - we had that one. It's further up here, but where does that one sit? Is that when we're actually building the plans?
Male: Yes.
Facilitator: What's after four?
Male: You've sort of got a baseline there. You are starting to get into your plans at that stage.
Facilitator: Start building on plans.
Female: What does it mean by business plan?
Facilitator: There was a perception that there's a difference between a backup plan and then a business continuity plan, so that's why I differentiated the two. Backups can be very technical in their approach in the sense that we are just backing up what was done, while business continuity is about keeping services going no matter what. I don't have any systems, but hey, I can still talk to customers, like the Bankstown situation. You guys put up the…

[Over speaking]
Female: Yeah, I think business plan.
Female: So then would a backup plan be like a sub plan?
Male: Same as your IT backup plan.
Female: Yeah, those technical plans; what exactly you're doing.
Male: Same for the technology of backups, that would be the same.
Facilitator: So would documentation be part of five do you think?
Female: Yeah, and I think technology and backups would be part of that as well.
Female: Six could be training and education.
Male: I'd say those top three are part of your sub plans.
Female: It could also be part of the training and education.
Male: The training and education to me is almost - like it's one of the things you do last, because once you build your plan, you've identified what you're going to do, you then go through that process.
Facilitator: So you're happy [unclear] part of five?
Male: They're just part of how you make the business plan.
Male: If you put a number under the staff and community...
Facilitator: Not here?
Female: Communication?
Facilitator: Where would that sit?
Female: That underlies the whole…
Male: Throughout all of those.
Female: Interaction with Council is last.
Facilitator: That would underlie the whole process too?
Male: Practically, yes.
Facilitator: This is again - because you get sort of confused because we're thinking we're managing a disruption, but this is a program. The program itself, the boring stuff that we'll forget about, and when an event occurs, we go, oh, I wish we had done that.
Male: [Unclear] council sign-off on the BCP, the actual … meeting?
Male: Yes, they've approved ours.
Male: Have they?
Facilitator: Yes.
Female: So maybe that has to go before the training and education...
Facilitator: So it would be part of…
Female: Communication or engagement.
Male: Or the approval of…
Female: Stakeholder engagement.
Male: Well there's two parts. I mean, it's a number of parts; (1) you've got your original support with the [unclear] altogether, but then in that scenario, if there's an incident, then the board of management - it's the same staff you need to get …
Facilitator: So are we saying it's again [your will]?
Female: I think it's part of one because I don't think - I mean if you go to Council and say, we want a business continuity plan, they'll say great, I think we need one. But in order to get - you have to develop it, take it to them for their endorsement, and once it's endorsed, then you work on the education you need.
Facilitator: So it would be part of five? So once you've created your plan…
Female: I'd say it's more of a six.
Facilitator: That's what we're saying - a second endorsement once we've got all the plans together. We then start training, which would be...

Male: It would be interesting if they decide a difference in the critical services or the timeframe.

Facilitator: They didn't do that with ours.

Male: That's going to just come back to time and money though. If they say, we want this, okay it's going to cost you that...

Female: But part of that stakeholder engagement - the councils are there too, so you get their feedback.

Male: It's all about BCM more of an operational type, so my definition of interaction with Council would be to keep you involved once something happened, not to actually get their endorsement to do it, otherwise you would get into, is this [unclear] bigger than this … or whatever. To me it's operational, so … would be doing that.

Facilitator: So we've got two opinions on that one.

Male: How many councils would actually want to know about it? They'd want to know that services would be up and going.

Female: That's right, yeah. So they'd just want to know - but they'd still like to know what happens in that [unclear].

Male: … agree that they'd want - you know, we should tell them what their role is, how it's going to work. I'm not sure…

Male: So customer services will be up in four hours or 24, or whatever it is.

Male: When we had our - I'd have to go back and check, but I thought when we had our DLG review, that was one of the questions, whether Council had approved the…

Facilitator: BCP plan?

Male: I'm pretty sure that was [unclear] one of the questions.

Facilitator: It's not about being right or wrong.

Male: I just [unclear].

Male: I'd probably agree it's more operational, yes, that they have knowledge of it.

Male: It is an operational thing under the GM, but I think it's just, like a lot of things, you put up for Council endorsement.

Male: Free information.

Facilitator: Yes, that's a good one.

Male: [Unclear].

Facilitator: We're still missing budget. Where does budget sit, because budget we said was important to us. Would that be part…

Male: It's part of five - access to resources.

Male: [Unclear] do a first cut and find … cuts.

Male: Do a second cut.

Facilitator: Just checking, and testing we said we'd add because it wasn't highlighted? Where would that sit?

Female: It would come after training.

Facilitator: So eight?

Male: Yeah.

Facilitator: So if we process them out, I'll just go through it again. So we've started with leadership, we then moved to accountability, so spelling out accountability, and we said ownership is part of that. We would then identify and prioritise the critical services. We'd then get staff engagement. We would then move to creating the plans. I think that's what we're saying, so all our plans; business - from a business perspective that would be our priority. Then sub plans would then follow, which would be the technical plans and so on. Documentation - there is a lot of supporting things that need to occur as part of that backup plan development, and we would then get access to information that's necessary for the plans.

Access to resources, alternative worksites, we need to think through all those things when we're creating those plans. So we've done all the work. We then go and present it to Council, and again, it's just seeking - it's almost like a rite of passage maybe, for your information Council, this is where we're at, this is our plan. We then move into training and education. So now it's been endorsed and everybody is ready to then train our people, invest a bit of effort. Then finally we test it every year, continually review
it rather than an ad hoc project that we then leave [inaudible] for the next five years, and then we … it again. Does that sound like a story? Happy?

Male: Just with the testing, there might be some - a test done prior to approval, just to make sure things are - but in terms of continuous improvement, yes, that's [unclear].

Facilitator: Thank you for that. We are now going to move to priorities. So we've done process, and it might marry. I just wanted to look at both perspectives. So again, it's like disruptions for criticality versus prevalence. We'll go through them from a priority order. Do you want to go through process, or how do you want to go through it? Just go through it in order now? So access to information, is that high priority in our mindset?

Female: Are we talking when we're using the program, disaster's hit?

Male: So what are you going to do, high, medium and low or something?

Facilitator: Yes, we'll do high, medium, low.

Female: I thought we just prioritised them. So how…

Facilitator: What we did was from a process sort up through building a plan, how would we build it. That's what we've just done. Now what's most important to us.

Female: To do what?

Facilitator: In a disaster scenario.

Female: So the disaster has happened. I think communication.

Facilitator: Is the number 1?

Male: Yes.

Facilitator: What's your view - how well do we do this now?

Male: It depends on the scenario.

Facilitator: But have we planned for it at all?

Male: If our phones went down, I'm not sure how we would go.

Male: If our handsets went down, it wouldn't be an issue. Like when we had this power outage, everybody knew within five minutes because of Facebook. Everybody had a Smartphone, people were being told via Facebook that there was a TransGrid main line going down quicker than anybody else could find out any information. That was around the building in less than 15 minutes I reckon, because when we had a power outage, the only things that had power were things that had their own internal battery. Because Telstra wasn't down, so then it becomes a…

Female: Does Tamworth actually use social media - does the council use social media?

Male: We do, but not for - not [unclear].

Facilitator: But should we?

Male: Not as a rule, so we do have Facebook pages but more focused around the festival and social or events as opposed to general [unclear]. Our website is based in Canberra, so even though everything went down, we still had iPad access to the website, so we could still get things up on the Web to say this was happening and that was happening. So we used the Internet to get a lot of stuff out. Social media was still quicker than anything else. We do use some stuff for Twitter, some Facebook, but predominantly [unclear].

Male: The main staff were on Facebook and on their own [personal websites].

Male: Yeah, and a lot of the times trying to contact people because - sending texts to people, looking at what's on Facebook and then all of a sudden it doesn't take long and it gets around.

Facilitator: So that's a good one, should we utilise that new way of communication now, but from the study, and what a lot of - came out from the interviews was that we all thought communication was very poor. That was our biggest gap. I think when we did our health - when we went through the BCM maturity model, I think we all reflected on that.

Male: I don't think it matters what survey you do, whether it's customer survey or staff survey, communication…

Facilitator: Communication is always…

Female: You can never have enough communication.

Facilitator: So it's true. So we've got to focus on that one. So what would be the next priority? Again we can combine a few.

Male: To me the next one is the access to information.
Male: Access to information, have all your documents and plans, and all of that because...
Female: What do we do now.
Male: Yeah.
Male: Included in that is that contact information around...
Facilitator: Yeah. Would that be part of two too? It's like what do we do now? Do we have - hopefully our plan will spell that out.
Female: I was wondering if our training and education ranks higher somewhere, because if we've been trained and educated then [unclear] and all these access to - you know, we know where to go and what we can use and what information is where.
Male: In the lead-up to a disaster I'd say that's high, but in the disaster itself I'd say you can almost throw that out the window.
Female: I was wondering if our training and education ranks higher somewhere, because if we've been trained and educated then [unclear] and all these access to - you know, we know where to go and what we can use and what information is where.
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Male: In the lead-up to a disaster I'd say that's high, but in the disaster itself I'd say you can almost throw that out the window.
Female: I was wondering if our training and education ranks higher somewhere, because if we've been trained and educated then [unclear] and all these access to - you know, we know where to go and what we can use and what information is where. 
Male: The training and education is critical up to the point of a disaster, but once you've had the disaster, you're just hoping it's kicked in, and if not - like, you're not going to sit there and train people.
Male: You might rely on your education and training, but you're still going to go to that manual, so your access to your document, whether electronically, hardcopy, whatever, so, okay, I've got to do one, two, three, four, five in this order. Your training and that will support that. I think that's probably [unclear].
Male: Leadership will be part of your communication [strategy] anyway.
Facilitator: This will make sense to me. So documents again, five is part of two?
Male: Yeah.
Facilitator: This one?
Male: It's a bit like the training and education.
Male: Part of two because it's [unclear] what you're going to do.
Male: I was going to say it's the same as training. If you haven't done your homework by then, you've got issues.
Male: I don't think it's relevant. I think that's probably the same. It's important before to set up your plan, but once you're in disaster mode, whatever is in your plan is what you're going [unclear].
Facilitator: So it's critical to the program but not to the situation.
Male: But there'll always be judgment calls being made based through a process. You're still going to be reverting back to what you regard - what you've already said is your priority.
Male: Ownership is probably in the same boat.
Facilitator: As not critical?
Male: Well, it's not as relevant as...
Facilitator: Because everyone is just following the plan, if you've done your homework?
Male: Where you're going to have the issue is if you've added a service since you did your last BCP, and where does that fit into the criteria.
Male: You've got a 12-month [unclear] if you're doing … backups, regular reviews.
Male: Then it becomes a case, is that service you've added really critical? If you're not already doing it, how critical is it?
Facilitator: So stakeholder engagement, this is again - so now it's not the program, it's the actual situation, so this is from a community point of view.
Male: It's communication.
Facilitator: Is it part of communication?
Male: Yes.
Facilitator: Training and education.
Female: Not relevant.
Facilitator: Because you should have done your homework.
Male: If you haven't you'll know in a hurry.
Male: Will be part of your debrief.
Male: It's like anything. The biggest part of that sort of stuff is someone you've trained on holidays and who is the backup, and did you give them...
Female: We had a fire alarm go off on a Friday afternoon at three o'clock the day before the weekend and most of the fire wardens had taken the day off, so...
Male: Where are your deputies?
Female: Yeah.
Male: They were with them on the coast.
Facilitator: How about accountability? We said it was part of - we haven't really prioritised that one.
Male: It's part of two, I think.
Male: It's part of your plan.
Facilitator: So it's part of five?
Male: Whoever you've assigned ownership of it during the planning.
Male: That's a valid point though, that example, where, just before a long weekend you've got no one there. We had a false alarm at two or three o'clock - no, was it half past four in the afternoon, and everyone, instead of going to the evacuation point, they're just all off to their cars.
Facilitator: So contact information is part of the plans, is that correct?
Male: Yes.
Facilitator: Then testing and continuous improvement?
Male: It's after the event.
Facilitator: So again that's not relevant?
Male: No. It's part of your debrief.
Facilitator: Budget?
Male: It's not relevant. You've got to do what you've got to do. It's part of the insurance.
Male: Make sure you've got a job number to put it all in.
Male: That's all you need so you can lodge your insurance claim.
Facilitator: But from a program point of view, budget is pretty high up. So we've done both. Does anybody have any questions of the overall process?
Male: You're putting together the BCP [unclear]?
Facilitator: I'll share mine. What I want to do though is, I do want to hand out - because I just want to thank you all for your participation. I think it will just enrich what we build together, because that's what we're doing, but I wanted to share an extract from my literature review. This extract is basically listing the design elements for BCM source from an expansive literature review, that are most relevant in building a BCM program. So it will give you references and it's also my analysis, so a lot of this is my analysis, also the maturity model that I built has been based on my analysis. There's many maturity models out there, but I built this from this research study, for this research study, because I thought it would be most suitable to us. I'll hand these out, and hopefully that's enough of a thank you for participating. My research study is due at the end - well I'm supposed to have completed all the write-up by June next year, so when we have that completed, and it's publicly released, I think I will also send you all a copy of it for your reference. But hopefully this will help you in your endeavours of setting up strong BCM programs within councils. So thank you again for participating.
Male: Thank you.