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Continuity of Operations Guidebook and Template for Nonprofit Service Providers

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**Continuity of Operations Guidebook and Template for
Nonprofit Service Providers**

by

James Griffith

A Thesis-Quality
Research Paper Submitted
in Partial Fulfillment of
the Requirements for the
Master's Degree in

**PUBLIC
ADMINISTRATION**

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The Graduate School

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INTRODUCTION

When a disaster occurs, people tend to look at the most visible effects. It is not difficult to understand why; natural and human-caused disasters can be destructive events that put many lives at risk. There is a focus on human elements of disasters such as the death toll, the number of people injured or missing, and the number of people now homeless or stranded by a disaster. A strong enough disaster that strikes at the right time can cause untold destruction that the average citizen is not prepared to handle. The message often sent by media coverage after a disaster is that the people involved need help, and they need it as soon as possible.

Although the human element and physical damage of a disaster are extremely visible, there are a number of large-scale events that occur alongside a disaster that are not quite as easy to see. In every disaster - be it an earthquake, hurricane, or terrorist attack – there is an interruption to the activities of any number of organizations. Private companies, NGOs, and government agencies can all be disrupted. These disruptions can range from mild inconvenience to a complete breakdown of internal processes. Power outages, destruction of physical property, and breakdown of communications are three examples of a myriad of problems that can arise for an organizations during or after a disaster. It is important for organizations to have plans in place to react to these events and be able to continue their most essential functions.

Emergency Response Plans vs. Continuity of Operations Plans

All organizations, regardless of sector, should have two plans in place to deal with disasters. These plans are an Emergency Response Plan, or ERP; and a Continuity of Operations plan, or COOP plan. ERPs describe an entity's immediate, short-term plans for incidents that "will last a

very short period of time and are brought under control rather quickly” (Loyola University Chicago, n.d.). ERPs lay out an entity’s initial response to an incident. An ERP will address issues like putting out small fires, evacuating a building, or sheltering-in-place. The primary goal of an ERP is “...protecting employees, visitors, contractors and anyone else in the facility” at the time of a disaster (Federal Emergency Management Agency, 2012). After the safety of all persons at a site has been assured, the emergency itself is then dealt with. Fires are put out when possible, chemical spills are contained, and so on. Finally, the ERP will also contain “a process for damage assessment, salvage, protection of undamaged property and cleanup following an incident” (Federal Emergency Management Agency, 2012). When successful, an ERP will minimize damage to facilities and operations and allow for a quick return to normal operations.

COOP plans are the long-term plans that an organization uses when their operations will be interrupted for long periods of time. A COOP plan ensures that an agency “is able to perform essential functions no later than 12 hours after activation of the COOP plan [and] is able to maintain essential functions for up to 30 days” (Idaho Bureau of Homeland Security, 2008, p. 6). A COOP plan would be activated in the event that an organization’s activities will be interrupted or hampered for the foreseeable future. For example, if a factory were to be damaged to the point that it would need extensive repairs and could not be restored to normal operations for more than twelve hours, the owner would want to activate the COOP plan associated with the factory. A COOP plan also “reduces and mitigates disruptions to operations” (Edwards, Goodrich, & Medigovich, 2011) so that essential operations can continue – although at a reduced rate - during a crisis. Continuing the above example, if the factory owner’s COOP plan calls for the temporary activation of an alternate site for production, operations can be continued at that location until the original site has been recovered.

ERPs and COOP plans are absolutely critical for any organization to have. They do not need to be complex documents spanning hundreds of pages, but they should have enough detail to guide the organization's employees through a disaster situation. It is also important that the employees who will be implementing these plans, from the janitorial staff to the CEO, be trained and ready to enact the plans should the need immediately arise. It does no good to have plans in place if no one knows about them or has no idea how to implement them. A staff that is trained properly, armed with an ERP or COOP plan that is effectively put together, can quickly and efficiently react to disaster situations.

Problem Statement

In a disaster, it is expected that certain organizations will be present to set up temporary emergency shelters. Nonprofit homeless shelters might be considered "targets" for disaster victims because of their status as a shelter, and they may also be requested to assist disaster victims by local governments that may fund certain shelter operations during normal operations. These shelters are usually already at capacity with their pre-disaster homeless residents and cannot easily accommodate large intakes in a short period of time. Many shelters do not have the supplies to accommodate a large population for even a short period of time. Since shelter workers are not public employees, and therefore not disaster service workers whose presence is required during a disaster, shelters may be unable to operate due to a lack of staff.

Many homeless shelters are located in older buildings that were not originally intended as places for human habitation. For example, Innvision Shelter Network, an organization that provides shelter and housing assistance in the San Francisco Bay Area, has two sites that were an old manufacturing building/warehouse combination and a small office building in the industrial

section of San Jose (Georgia Travis Center and Commercial Street Inn, respectively). Both buildings were converted for service provision and shelter provision by Innvision. Since shelter providers usually must take what buildings they can get, some use older buildings and convert them into shelters. As a result of this, some shelter provision services are not located in buildings that would be resilient to local natural disasters. Few have alternate supplies of power or adequate water storage to support the pre-disaster homeless population after disaster. Therefore, homeless shelters may experience some damage and loss of functionality that may compromise their use after the disaster.

For nonprofit homeless shelters it can be difficult to find or create as thorough a COOP plan as private and government entities can. Many assumptions that can be applied to those sectors do not hold true for nonprofits. For example, the COOP plan for Abode Services, a nonprofit housing and shelter provider in Alameda and Santa Clara Counties, assumes that “Strategies are in place to relocate personnel and processes to alternate sites as necessary” (Allied Business Continuity Consulting, LLC., 2010). This plan was designed by a company specializing in COOP plans for private companies. In general, a nonprofit homeless shelter will not have the resources to relocate an entire homeless shelter to another location. Nonprofits, especially those that are providing short and long-term shelter to homeless individuals or families, should have adequate COOP plans in place in order to continue to provide services to their communities, even in the event of a disaster that affects shelter sites.

While there are effective plan templates available for many private sector industries and for government agencies, there are no plans that take into consideration the limited resources that a nonprofit homeless shelter has access to. The purpose of this paper is to evaluate COOP-creation guidance from both government and private sources and to create a template that can be

used successfully by nonprofit homeless shelters without causing significant strain in resource allocation. This template will also avoid the use of government and BCM “industry” language where possible, instead using simple terminology to ensure that non-experts are able to use the instructions in the template.

LITERATURE REVIEW

Business continuity planning (BCP) and practices do not have to follow the same rules and requirements that government-based plans do. Disaster planning can be time-consuming and expensive, and “such planning may also require organisations to commit to an investment in resources that may not be used and whose ‘value’ or ‘return’ cannot be ascertained with the levels of certainty that accompany other strategic investment decisions...” (Herbane, 2010, p. 978). This can result in private sector organizations being reactive, rather than proactive, when it comes to disaster planning. Although this mindset is changing, it was a long time before businesses saw continuity planning as being advantageous.

Often, businesses would go with the “path of least expense” unless government regulations and laws intervened. It is not surprising that it was not until US Foreign Corrupt Practices Act (FCPA) of 1977 that companies began to keep detailed financial records and backups of those records. The FCPA required that publically traded companies “...make and keep books, records, and accounts, which, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the issuer (15 USC § 78m (b)(2)(A));” (United States Foreign Corrupt Practices Act, 1977). It further required that systems of internal controls be established in order to prevent tampering with the newly required accounting records. Although it was created with the intention of preventing human error and malice from causing

financial crises to publically traded companies, the FCPA essentially created a need for private organizations to have financial “disaster mitigation” plans.

In the past, rather than have mitigation plans ready ahead of time, most private sector entities preferred to have plans in place that only addressed recovering from a crisis or disaster. The only industries that generally had disaster mitigation and recovery plans were those that were required to do so by law. For example, the Office of the Comptroller of Currency released Banking Circular 177 in 1984, which stated that banks in the United States should “...have formal disaster recovery plans that included off-site provisions and testing procedures...” (Herbane, 2010, p. 985). This was later expanded by the Gramm-Leach-Bliley Act in 1999, which mandated that banks “...protect against any anticipated threats or hazards to the security or integrity of [customer] records...” (Gramm-Leach-Bliley Act, 1999). Other industries that were mandated to have continuity plans in place included the health insurance industry with the Health Insurance Portability and Accountability Act in 1996 and the communications industry with the Telecommunications Act of 1996. Both of these laws required “...IT disaster recovery provisions to ensure the availability of systems and the security of customer records...” (Herbane, 2010, p. 985)

Early Business Continuity Planning

Companies recognized the problems with lost data but, rather than focusing on preventing those issues, they preferred to have backup systems available and copies of critical data. By this point, recovery experts in the private sector had already noted that natural disasters could also cause significant problems, but the focus at the time was on protecting data. Early recovery plans in the private sector were not necessarily concerned with people, properties, and other assets. Disaster

recovery was considered an extension of the duties of the employees in charge of data maintenance (Savaiano, 1984). An industry based around providing "...emergency recovery centres, telecommunications, data backup and restoration, salvage services, etc." (Herbane, 2010, p. 982) also appeared in the 1980s, with these companies also helping to develop Disaster Response Plans (DRPs). Unfortunately, it was estimated that "...less than 50% of the Fortune 1000 companies have a plan in place to insure continued availability of... valuable corporate resources." (Savaiano, 1984). Herbane (2010) points out that companies' management failed to see the value in DRPs unless they were compelled to create them by law, which was the case with banks and publicly-traded companies with regard to their financial data and the financial data of their customers.

In 1988, Illinois Bell's Hinsdale switching station caught fire. Despite having two alarms that went off at their headquarters, the company did not alert the local fire department. This fire resulted in the loss of phone service to between ten and forty thousand customers (depending on who is reporting). According to court documents, it took nearly a month to fully restore service (Bilandic, Harrison, Miller, and Harrison, 1994). Assorted lengthy lawsuits followed and "the phone company paid about \$3.8 million in credits to customers for the cost of the service they didn't get, made \$500,000 in grants to a dozen municipalities and government agencies as a gesture of good will and set up a \$1 million fund to compensate businesses for their out-of-pocket expenses in finding temporary service" (Grady, 1993). In 1994, the company was able to avoid paying lost-business amounts after winning an appeal in the Illinois Supreme Court, but the lack of any type of emergency response or disaster recovery was still costly and "...prompted a more outward-looking and strategic approach to crisis management planning along with a move beyond 'technical' recovery..." (Herbane, 2010, p. 982)

Another fire, this one in Los Angeles, occurred in 1988 and is an example of proper disaster planning. The 1st Interstate Bank building caught fire on May 4th and burned until May 5th. “The fire destroyed four floors and damaged a fifth floor of the modern 62 story First Interstate Bank building in downtown L.A., claimed one life, injured approximately 35 occupants and 14 fire personnel, and resulted in a property loss of over \$50 million...” (TriData Corporation, 1998, p. 1) In contrast to the Illinois Bell fire, 1st Interstate Bank had a proper continuity plan in place:

- b. Within two hours of the fire being reported (at approximately 10:20PM), an offsite emergency operations center (EOC) was established and functioning with communications, vital records, plans, and access to data bases.
- c. On the next morning, many of the 2,000 employees were reporting to work at pre-planned spaces in nearby buildings. One hundred telephones were immediately available with computers rapidly to follow.
- d. Within the week, all employees had returned to work, 800 telephones were in use, the bank’s trading center was rebuilt in an alternate building, the main branch was open, and the ATM machines were functioning.
(How to stay in business when disaster strikes, 1992)

Coincidentally, in the same year as these fires, one of the largest contributors to modern continuity research, the Disaster Recovery Institute (DRI, now the Disaster Recovery Institute International) “...was established... with the express mission of educating and certifying business continuity and disaster recovery professionals...” (Disaster Recovery Institute International, 2006).

Control Objectives for Information and Related Technology 4.0 (COBIT) was published in 1992 by the Information Systems Audit and Control Association (ISACA) as a guide for companies that needed to store and protect data. This publication focused on information

technology and data storage and had four phases – Plan and Organize, Acquire and Implement, Deliver and Support, and Monitor and Evaluate. Each of these four phases relies on a number of activities that are similar to those used in modern BCM. COBIT 4.0 also pointed out the importance of continuous service, stating that “The need for providing continuous IT services requires developing, maintaining and testing IT continuity plans, offsite backup storage and periodic continuity plan training. An effective continuous service process minimises the probability and impact of a major IT service interruption on key business functions and processes” (ISACA, n.d.). By this point, more guidance began to appear and organizations began to create “BCM standards” for use in the private sector. “Regulations tend to be mandatory and punitive. Guidances (sic) are produced by professional organizations that provide ‘best practices’ for various operational and control matters. Standards... are formally approved policies, procedures or instructions from a recognized standards body” (Berman, n.d.).

In the early 1990s, the focus of continuity activities shifted from the protection of data storage and facilities to “the need to protect and restore the critical value-generating activities of an organization” (Herbane, 2010, p. 984). Value-generating activities included anything that added value to a company’s product or service and could include, among others, employees, facilities, equipment, and data. In their article in *Computers & Security* in 1995, Smith and Sherwood determined that companies could no longer simply protect their data, but now needed to protect their business activities in such a way that they continued to provide services to their customers (Smith & Sherwood, 1995). DRII, at the time, was one of the first organizations to offer continuity certification and training that focused on this new approach. Another major continuity organization, the United Kingdom-based Business Continuity Institute, opened in 1994 and was another major player in business continuity management practices. The Certified

Recovery Planner (CRP) also emerged in 1994 to “recognize individuals who have demonstrated the specific knowledge of business disaster recovery required to perform as a recovery planning professional” (Green III, 2002)

In 1999, the Financial Reporting Council (FRC) in the United Kingdom released *Internal Control: Guidance for Directors on the Combined Code*. This report, while focused on a company’s internal controls, pointed out that a company’s operations were just as important as its financials when it came to having plans in place to manage risk. The report stated that effective internal controls helped a company manage risk by “enabling it to respond appropriately to significant business, operational, financial, compliance and other risks to achieving the company's objectives” (Financial Reporting Council, 2005). This meant that companies needed to have plans in place to respond to anything that threatened normal operating procedures, external threats as well as internal threats. The report contained many planning concepts that are used today, including the development and approval of plans by management, threat analyses, impact analyses, and the testing and updating of plans over time. The council stated that “A sound system of internal control therefore provides reasonable, but not absolute, assurance that a company will not be hindered in achieving its business objectives, or in the orderly and legitimate conduct of its business, by circumstances which may reasonably be foreseen” (Financial Reporting Council, 2005). It was becoming clearer that companies needed to be prepared for interruptions in their business operations, regardless of the source.

Y2K & COOP

Y2K’s approach in 1999 showed how unprepared many businesses and governments were toward the turn of the century. While the Y2K bug was identified in 1984 by Paul Gillin in an

article in *Computerworld*, it did not come up again until Peter de Jager wrote an article in 1993 for the same publication. In general, the warning that the bug could have far-reaching consequences was ignored. “Many didn't think it was a real problem, and those who did felt no pressure to do anything about it—after all, the year 2000 was a long way away” (Manjoo, 2009). As early as 1996, the event was picking up national attention and its significance becoming clearer to Government officials. In a letter to President Bill Clinton on July 31, 1996, Senator Daniel Patrick Moynihan asked “whether there is time enough to get the job done and, if not, what sort of triage we may need.”

The problem was going to be expensive and require a large, concerted effort. In December of 1998 the world had the first National Y2K Coordinators Meeting. At this meeting it was suggested that “...comprehensive crisis management plans would be necessary on a national level” (Kirsner, 1999). Companies and government agencies alike were scrambling to find solutions and fix the problem before January 1, 2000. Even when the date passed and the world moved on, experts noted that many companies had only implemented lackluster plans at the last minute. “Many organisations... didn't even have a business continuity plan before they started work on the date change problem. Even when the Y2K programme was complete, the business continuity plans were not always tested” (Vowler, 2000). Had the Y2K problem actually caused significant impacts, it seems likely that the businesses of the world would not have been prepared.

9/11 & COOP

The events of September 11, 2001 “prompted re-evaluations of organisations’ business continuity and disaster preparedness from the perspective of the large human losses, heightening

psychological impacts, and vulnerabilities arising from multi-function sites” (Herbane, 2010, p. 987). 9/11 had a larger immediate impact on government continuity than it did on BCM, but “...it did set up the framework for preparedness, response and recovery improvements since for both the public and private sectors” (Witty, 2011). In response to 9/11 and numerous other events that took place afterwards, more guidance, standards, and government regulations regarding BCM began to emerge. The table in Appendix A-2 shows the increase in these releases prior to and after 9/11. For the period of time shortly after 9/11, “guidelines and regulations emanate strongly from the USA and are focused on the finance, public and utility sectors” (Herbane, 2010, p. 987). This was a reaction to the economic effects of the 9/11 disaster, as well as the local effects on public infrastructure such as utilities. Companies involved in those sectors needed to be able to maintain a minimum level of service.

An example of published guidelines from the post-9/11 period includes the Federal Reserve Board, the Office of the Comptroller of the Currency, and the Securities and Exchange Commission’s *Guidelines for Strengthening the Resilience of US Financial System*, a paper stating “that key organizations in critical financial markets are able to recover clearing and settlement activities in the event of a wide-scale disruption as rapidly as possible” (Board of Governors of the Federal Reserve System, 2003). The North American Electric Reliability Council (NERC) also published *Security Guidelines for the Electricity Sector 1.0* in 2002, which included guidance on performing vulnerability and risk assessment, threat response, and some BCM concepts. It also pointed out that continuity plans needed to be in place to “reduce the impact of significant market or system interruptions and ensure prompt resumption of business and operations” (North American Electricity Reliability Council, 2002). Both of these papers left the actual details up to the individual organizations making up each industry. For example, when

identifying critical sites, NERC stated that “each company is free to define and identify those facilities and functions it believes to be critical, keeping in mind that the ability to mitigate the loss of a facility through redundancies may make that facility less critical than others” (North American Electricity Reliability Council, 2002).

In 2002, DCI and DRII published ten standards of professional competence for individuals working in the field of emergency management. These standards “...have become the de facto standard for BC management professionals and have influenced the development of standards elsewhere internationally” (Elliot, Herbane, & Swartz, 2010, p. 56) These standards include:

- 1) Initiation and Management
- 2) Business Impact Analysis
- 3) Risk Evaluation and Control
- 4) Developing BCM strategies
- 5) Emergency response and operations
- 6) Developing and implementing business continuity and crisis management plans
- 7) Awareness and training programs
- 8) Maintaining and exercising business continuity and crisis management plans
- 9) Crisis communications
- 10) Coordination with external agencies (Elliot, Herbane, & Swartz, 2010, p. 56)

The above standards “...could be seen as a precursor to the development of general business continuity standards in a national context” (Herbane, 2010, p. 989). As more natural and human-caused disasters, such as Hurricane Katrina and the London bombings of 2005, occurred,

BCM became more and more a part of the normal operations planning for the private sector. Over time, the private sector standards for BCM and the government standards for Continuity of Operations became fairly similar. Although early private sector practices were aimed solely at protecting revenues, they later evolved toward helping the public during disasters. During Hurricane Katrina, Wal-Mart supplied people in affected areas with supplies much faster than FEMA was able to. “WalMart's [sic] successful response to Katrina, along with the failure of FEMA and other government agencies, seems to confirm the more general conclusion of modern political economy that private institutions better mobilize resources than do public agencies” (Horwitz, 2009).

FEMA, Private Sector and Disasters

As more disasters occurred throughout the 2000s, it became obvious that private sector entities should be more involved in disaster response. According to Horwitz (2009), private companies tend to have better logistical capabilities, are usually located in the communities where disasters take place, have better knowledge of those communities, are less constrained by law and procedure when deciding how to act, and acting for the benefits of local communities, as a form of public relations, can have long-term financial benefits. In contrast, large government agencies like FEMA are more restricted by their hierarchies and processes, some of those required by statute, and may lack connections to communities where a disaster has taken place that would be helpful in knowing what local resources are available.

Government agencies have two primary tasks in disaster response and continuity- “support the ability of the Federal Government to perform National Essential Functions (NEFs), continue Enduring Constitutional Government, and ensure that essential services are provided to the

Nation's citizens" (Federal Emergency Management Agency, 2009) Despite the differences between the missions of government and private-sector, response plan formats have slowly become more similar as the private-sector becomes more involved in what was previously thought to be the responsibility of government.

The government uses Continuity of Operations/Government (COOP/COG), which was originally developed by the federal government to ensure that government functions could continue in the event of a nuclear attack (National Public Radio, 2011). Continuity of government has different goals from business continuity. Both require the continuous functioning of certain functions in order to ensure that customers, or the public at large, are still receiving essential services. In COG, it is additionally important for government functions to continue unimpeded. This is a requirement for all government agencies at the Federal level. In 2007, President George W. Bush issued the National Security Presidential Directive 51/Homeland Security Presidential Directive 20 (NSPD-51/HSPD-20) in order to "...establish and maintain a comprehensive and effective national continuity capability to ensure the resilience and the preservation of our form of Government... and the continuing performance of National Essential Functions under all conditions" (Federal Emergency Management Agency, 2014c). This is accomplished by ensuring that a set of eight functions, called the National Essential Functions (NEFs), can be continuously performed. The NEFs are located in Appendix A-1. Supporting the NEFs are Primary Mission Essential Functions (PMEFs). Each government organization has a set of PMEFs that needs to be continuously performed during a crisis or restored within twelve hours. PMEFs are identified at the Federal level and are supported by an agency's Mission Essential Functions (MEFs), which "are those functions that enable an

organization to provide vital services, exercise civil authority, maintain the safety of the public, and sustain the industrial/economic base” (Federal Emergency Management Agency, 2013b).

Initially, COG was aimed mostly at the federal level of government. Although FEMA and DHS released publications providing guidance to state, local, and tribal governments there was no real requirement for them to take part in the federal COG requirements. Hurricane Katrina’s botched response was a result of this. Responders from all three levels of government conflicted with one another, there was poor communication between agencies, and there was no clear chain of command for many response activities, resulting in redundancies and conflicting orders. (Block & Cooper, 2006). HSPD-20 addressed this by declaring that plans would now “be appropriately integrated with the emergency plans and capabilities of State, local, territorial, and tribal governments, and private sector owners and operators of critical infrastructure, as appropriate, in order to promote interoperability and to prevent redundancies and conflicting lines of authority” (Bush, 2007).

PPD-8 and Whole Community

In 2011, President Barack Obama issued Presidential Policy Directive 8, which replaces HSPD-8 and expands on the idea that disaster response is not just a government activity. In PPD-8, President Obama stated that “Our national preparedness is the shared responsibility of all levels of government, the private and nonprofit sectors, and individual citizens” (Obama, 2011). This suggests that, in the event of a disaster, the entire community should respond instead of hoping that government agencies will be able to mount an appropriate response. The community should not assume that the government will not be overwhelmed. When this happens, as it did in Katrina, it can be days before an outside entity can respond. The Whole Community (WC)

concept also includes planning. There is no reason why local stakeholders - whether public, private, nonprofit, or individuals - should not be aware of the resource needs of the community, of the local disaster risks and threats, and how they can assist in mitigation, preparation, and response. As was stated by James Lee Witt, the director of FEMA from 1993 to 2001, “all disasters are local” (Edwards, 2007). When local resources are available to assist, regardless of source, disaster response should not be held solely as the responsibility of government. The WC concept is becoming the new standard for government disaster response and business continuity planning.

METHODOLOGY

In order to find a solution to the stated problem, a notional managerial audit was conducted, beginning with a survey of organizations providing homeless shelters in Santa Clara and Alameda Counties in California. This survey revealed a low level of COOP planning in these organizations, sometimes agency-wide and across services. This stems from of a lack of guidance relevant to their work, appropriate to their resources, and accessible to those without formal BCM or COOP/COG training. The problem was identified as a lack of a usable template, with accompanying instructions, for the development of a COOP for a homeless shelter run by a non-profit agency with limited resources available for planning. The solution to the problem, which is embodied in this research, is the development of a guidance package for COOP planning that is designed for use by non-profit homeless shelters and includes a simple template and easily understood directions for completing the plan.

FINDINGS

- 1) Most homeless shelters operated by non-profit organizations in Santa Clara and Alameda Counties have limited COOP plans to support post-disaster service provision to the pre-disaster homeless.

A survey of community service providers in the Santa Clara County and Alameda County areas revealed a lack of adequate COOP planning in most organizations. A summary of the findings is in Table I.

| Org | Do you have a COOP plan? If not, why? | Is your plan complete? If not, why? | Is your plan up-to-date? If not, why? | Is your staff trained on the COOP? If not, why? |
|----------|---------------------------------------|---|---|--|
| A | Yes | No – plan was designed by third-party who only provided an IT plan. No one on staff knows how to revise it | No – plan does not have non-IT services, no staff on hand to revise plan | Staff are trained on placeholder plan, which is only a 7-day extension of their ERPs |
| B | No – “Plan not required.” | Management does not believe that a response continuity plan from any funding source – if there was such a requirement they would probably outsource | | |
| C | Yes | Yes | No – plan has not been updated in several years, no available staff on hand has time to be trained/revise | Yes – staff is trained on existing, out-of-date plan. Some activities not covered under old plan |
| D | Yes | No – Unable to allocate staff time to activity | No – Unable to allocate time/money to activity | No – Unable to allocate time/money to activity |
| E | Yes | No – plan has not been revised to add new activities in several years, employee who designed plan left company | No – Employee who designed plan left company, plan is not a priority for management | No – employee who organized trainings left company, plan training not a priority for management |
| F | Yes | Yes | No – plan has not been updated in several years, is not a priority for management | Yes – staff are trained on out-of-date plan |
| G | Yes | No – no one on staff knew how to properly design plan; some pieces are complete, others are not; no one on staff understands how to create plan | No – All parts of plan are several years out of date, no one on staff knows how to update existing pieces | No – a trainer is present, but management does not believe there is time/money for training |
| H | No – not a management priority | Management understands the need for a plan, but believes that other activities related to service provision are higher priorities and does not want to contract out for a plan, hire new staff, or train a staff person to work on one. | | |
| I | Yes | Yes, but site supervisor noted that senior management is uninvolved | Yes – site supervisor team updates plan on own initiative | Yes- Site supervision team trains staff on own initiative |
| J | Yes | No – needs to add new service, no staff time available | No – not a management priority, no staff/money for dedicated staff | Yes, except where plan is out of date |

Table 1: Responses From Participating Homeless Shelters in Santa Clara and Alameda Counties

Omitted from the survey results are seven organizations that declined to participate, four organizations who did not know what a continuity plan was, and four organizations who did not respond to contact attempts. Initially, the majority of the service providers surveyed were unwilling to answer any questions regarding their disaster preparations. On a later attempt, with a promise of anonymity, service providers were willing to provide answers to some of the questions. It is possible that, given the results from those who participated following a promise of anonymity, these organizations did not wish to have their results publicized due to unmet contractual requirements or other public scrutiny. If service grants (public or private), especially for vital services like shelter and food distribution, require that the organization remain functional regardless of emergencies, having their lack of preparedness on record could very negatively impact them.

Of those organizations who responded there was a common issue – many of the organizations lacked access to a staff member or team who understood how to set up a continuity plan, update it, and train others on it. Those with plans in place have the same issue, but their concerns are updating out-of-date plans. The cause of this problem ranged from the organization lacking time and money to train and assign staff, no money to hire someone or contract the task out, and a lack of involvement by management. FEMA and BCM guidance tends to be complex. A guide aimed at those who have no related training could be very helpful in helping these organizations to create plans.

2) Pre-disaster Homeless Continue to Need Specialized Services After a Disaster

Homelessness is defined differently depending on the government agency doing the defining. For the purposes of this study, the definition from the Department of Housing and

Urban Development (HUD) will be used. Summarized, a person who is homeless is defined by HUD as:

1. A person or family living in a place not meant for human habitation, in an emergency shelter, people living in transitional housing, or people exiting an institution where they temporarily resided such as prison
2. People losing their primary residence within fourteen days
3. Families with children, or unaccompanied youths, who are unstably housed
4. Anyone fleeing a domestic violence situation (National Alliance to End Homelessness, 2012)

These are not populations that should be left to fend for themselves after a major disaster. In addition, the homeless are recognized by the US Department of Health and Human Services as possibly having "...higher risk of adverse physical and psychological reactions following a public health emergency or disaster" (Department of Health and Human Services, 2013). Their issues could be significantly exacerbated by a lack of post-disaster resources. Homeless households are also included in jurisdiction listings of their most vulnerable populations alongside groups such as youths and the elderly. Each of these jurisdictions has acknowledged that the homeless are a special-needs group that requires special assistance. Homeless shelters provide an essential community service in normal times, meeting the sheltering and services needs of homeless families and individuals. Often this population has no other resources for food and shelter in normal times. Many have no source of financial support and may experience long term unemployment. In addition, many long-term homeless individuals have multiple barriers to obtaining housing, including mental health and substance abuse issues.

The San Francisco bay area is susceptible to numerous types of disasters, including earthquakes, fires, and flooding. All of these are capable of negatively impacting the homeless population in a variety of ways. A point-in-time (PIT) count for Santa Clara County in 2013 shows that 7,361 individuals were homeless at that time, with 74% of that number being “unsheltered, living on the street, in parks, encampments, vehicles, or other places not meant for human habitation” (Applied Survey Research, 2013c, p. 9). The remainder reside in shelters, which can include transitional shelters, emergency overnight shelters, and domestic violence shelters. The City of San Jose, which is within Santa Clara County, had 4,770 homeless when their 2013 PIT count was completed. This was an 18% increase from 2011. 76% of those individuals were unsheltered (Applied Survey Research, 2013a, p. 9). To the north, the 2013 PIT count for San Francisco had a total 6,436, with 59% of that number being unsheltered (Applied Survey Research, 2013b, pp. 3-4) It is important to keep in mind that the PIT counts are, for the most part, a head count. Homeless individuals or families who are not visible or are avoiding contact are excluded.

In a non-disaster situation, most of the shelters available in the above jurisdictions will be full every night. 62% of homeless individuals interviewed in the San Jose 2013 PIT count stated that there were no available shelter beds on nights that they went unsheltered (Applied Survey Research, 2013a, p. 13). In the event that a homeless shelter itself is damaged and cannot provide services to its normal users, those individuals would need to seek out other locations for services. This would cause more people to go unsheltered since the individuals or families from the damaged shelter would either have to take spots at other shelters or go unsheltered themselves.

For most people, the Red Cross provides adequate post-disaster shelter to people who have found themselves homeless after a disaster. This is not true for the pre-disaster homeless.

The Red Cross, under normal circumstances, will not provide any assistance to pre-disaster homeless. The organization views this as pre-disaster homeless taking advantage of services meant only for disaster victims and will turn away anyone without the ability to prove that they have a permanent address (Futrell & Small, 2011). In 1994, Red Cross representatives stated that assisting the homeless is not part of their mission and that “We can only return people to their pre-disaster status “ (Hill-Holtzman, 1994). After closing their own shelters, anyone who was not homeless pre-disaster will likely be directed to non-disaster homeless shelters. This means that, if non-disaster shelters are taken out of operations for an extended period time, the amount of homeless individuals going unsheltered will increase and may include pre-disaster housed individuals who cannot prove their residency or who cannot be housed before Red Cross or other local responders close their services down.

- 3) Despite their status as a special-needs group in many jurisdictions, pre-disaster homeless will generally not be eligible for disaster assistance programs, including sheltering and re-housing.

There are a number of different types of relief available for post-disaster homeless individuals. For example, FEMA has their Individuals and Households Program (IHP) that “provides financial help or direct services to those who have necessary expenses and serious needs if they are unable to meet the needs through other means” (Federal Emergency Management Agency, 2014a). The IHP provides services such as temporary housing, repairs to homes damaged in a disaster not covered by insurance, medical and dental expenses, moving and storage expenses, and the replacement of clothing or some other items damaged in a disaster. In order to qualify for the IHP individuals must be able to provide proof of residency and citizenship, as well as “proof of occupancy, ownership, income loss, and/or information

concerning their housing situation prior to the disaster” (Federal Emergency Management Agency, 2014a). According to Rosa Elaine Garcia, a supervisor at Abode Services in Fremont, CA, most homeless individuals or families do not carry much in the way of identification, certainly not Social Security information or a birth certificate. They may have a state-issued identification card, but they usually prefer to remain as off-the-grid as possible. In addition, a homeless person will not be able to prove occupancy or ownership of a residence since they, by definition, have neither of these (R. E. Garcia, personal communication February 4, 2015).

Homeless individuals will also fail to qualify for assistance under the category FEMA calls “Other Than Housing Needs,” which includes the above medical and dental needs. FEMA requires that households prove that they “have filed for insurance benefits and the damage to [their] property is not covered by [their] insurance or [their] insurance settlement is insufficient to meet your losses” (Federal Emergency Management Agency, 2014b) which disqualifies them for this type of assistance.

Non-FEMA assistance will largely depend on the jurisdiction in which the person is attempting to access services and whether the local government or a local non-profit has factored the homeless into their emergency response and COOP planning. As mentioned previously, the American Red Cross will not provide shelter or other assistance to pre-disaster homeless. Some jurisdictions, recognizing this, have set up their own plans to provide disaster relief services to pre-disaster homeless. The Los Angeles County Mass Care Homelessness Strategy provides guidance to the Red Cross in the event that a pre-disaster homeless individual requires services. When a pre-disaster homeless individual or family attempts to access services through Red Cross, the organization is required to contact the Los Angeles Homeless Services Authority (LAHSA). LAHSA then evaluates the person’s situation to determine which existing homeless

services through their agency the person or family in question qualifies for. In the event that LAHSA is unable to respond, the County Emergency Operations Center (CEOC) is to be notified so that alternate resources can be located. Note that it cannot be assumed that alternate resources are being set aside specifically for pre-disaster homeless by local jurisdictions. For example, the San Francisco Bay Area Regional Emergency Coordination Plan only mentions service provision to post-disaster homeless, and the estimates of shelter usage for local Counties after a major disaster do not include pre-disaster homeless.

4) The need for continuity plans is not understood by organizations' leadership.

Leadership may be reluctant to spend time and money on a continuity plan, especially when resources and staffing are scarce. They may also not fully be aware of the risks to the organization in the event that a disaster occurs and there is no plan in place. In the case of a nonprofit shelter, having a plan could protect clients, visitors, and staff from injury or death; protect the building itself and other assets (such as food, beds, water) that are kept inside; reduce or eliminate any interruption of services for the agency, especially in the event that the shelter functions as a coordinated point-of-entry; and assist in the timely restoration to full operations, whether at the original site or at a new operations site.

A continuity plan, or at least some sort of recovery plan, may also be required by law or by contracts with partner agencies or funders and can protect against lawsuits that may occur if injuries are sustained (Disaster Recovery Institute International, 2006). Management should also be made aware of the costs of not using a continuity plan, which can include monetary loss, significant disruptions to critical functions and impacts to the community, and even the loss of life during a disaster.

ANALYSIS

Need for COOP Plans at Shelters

A review of available resources and literature has revealed very little COOP guidance providing assistance to nonprofits, whose financial and resource limitations do not permit the use of a standard BCM guidance. Homeless shelters and other service providers, especially those in areas with a high risk of a disaster, should have a COOP plan. Homeless shelters provide a valuable service to the communities that they are a part of and to those who need their services.

In a disaster, homeless shelters may need to provide assistance to the community at large, as well as their usual clients. Although the Red Cross often sets up emergency shelters after a disaster, it is always possible that disaster victims will go to a homeless shelter first, especially if it is local to them and they are familiar with it. Local government may also route citizens who have been displaced or who are in need of other services to a local homeless shelter if other sources are unavailable (F. Edwards, personal communication August 15, 2013).

Homeless shelter providers should also be aware that, after a disaster, some victims will seek out aid for reasons other than being displaced. After the Loma Prieta earthquake of 1989, many area residents who were not rendered homeless or injured headed to local and Red Cross shelters due to "...emotional upset, fear of aftershocks and further damage, and concern about the safety of their children" (Tierney, 1994, p. 111).

Furthermore, pre-disaster homeless do not have a fixed address within the disaster area and, as a result, they are not able to access most community disaster services. Many of these services are only available to those with official documentation of a fixed residence in the

disaster area (Federal Emergency Management Agency, 2014d). Because of this, homeless shelters that pre-disaster homeless are used to receiving services from may be the only source of post-disaster housing and assistance for them.

In the event that a disaster occurs in which an unprepared homeless shelter is damaged to the extent that it would be unable to provide services, numerous stakeholders would be affected. These might include the local community, the local pre-disaster homeless population, local law enforcement, and others. In addition, if the shelter is funded by local government, they may have a requirement that, as a condition of receiving funding for shelter operations, the organization operating the shelter maintain a COOP plan and be prepared to assist the community in the event of a disaster. This expectation will remain even in the event that the shelter itself is damaged. The operating organization should be prepared with plans to provide services in whatever way that it can until its normal homeless services operations have been fully restored.

COOP PLAN CREATION

The requirements of continuity planning were ascertained through a literature search and the available models were adapted to the needs of homeless shelters in the nonprofit sector. This adaptation included considering financial limitations, staffing concerns, and government and community expectations. Guidance for the creation of a plan was created to be used alongside a blank plan template. This guidance assumes that the planner has no experience with BCM and is designed to make plan creation instructions as simple and straightforward as possible without losing the intent of the plans.

In order to create this template, the planning guidance from existing publications from respected writers and researchers in the fields of business and government continuity management were adapted to fit the needs of the nonprofit sector. Sources included government publications such as the Continuity Guidance Circulars 1 & 2, the Federal Continuity Directives 1 & 2, and other FEMA publications and independent study courses on COOP. Information from the private sector was drawn from publications and courses from DRII and other organizations with a history of successful BCM implementation.

CONCLUSION

As previously stated, continuity guidance from both business and government sectors assumes that resources are in place to a degree that nonprofits cannot match without assistance. The template that was developed used the best practices from both the government and private sectors and adapted them for use for nonprofit homeless shelters. This template takes into consideration the limitations of nonprofit organizations and developed effective patches for the holes that these limitations can create in their continuity plans. The result of this study and plan development will enable nonprofit organizations to be better equipped to respond to emergency situations and sustain their essential operations for their own viability and the good of the broader community, especially the pre-disaster homeless.

GUIDE INTRODUCTION

This guide was created to simplify the COOP plan creation process for nonprofit agencies and, where possible, identify staffing and monetary alternatives. This guide is aimed primarily toward shelter operations, and the samples and examples almost exclusively use shelter operations. The guidance here should, however, be adaptable to any type of nonprofit environment.

An unfortunate reality of the continuity process is that it is extremely time-consuming and expensive. This guide aims to create a single document that combines the critical tasks required to create a COOP plan, as opposed to existing guidance which is either spread across multiple documents, prohibitively expensive to a nonprofit, or that only touches on the very basics of each task. This COOP plan guide will help facilitate the creation of plans covering the following in the event of a disaster that interferes with company functions for a long period of time:

1) Prevention and Mitigation

- a. Identifying Critical/Mission Essential Functions (MEFs,) or those functions that cannot be interrupted for long periods of time; (Federal Emergency Management Agency, 2009, p. A-1)
- b. Identifying threats to an organization's processes to avoid interruptions by preventing events or minimizing their impacts (Edwards & Goodrich, 2011, p. 17) (Disaster Recovery Institute International, 2006, p. 2.11)

2) Planning

- a. Creating plans to respond to events that cannot be prevented in order to minimize their impacts on functions (Edwards & Goodrich, 2011, p. 20)
- b. Training staff on emergency procedures, testing those procedures periodically, and running exercises to maintain staff preparedness (Federal Emergency Management Agency, 2009, p. K1)

3) Response and Reconstitution

- a. Recovery and resumption of critical operations and systems after an emergency has ended (Federal Emergency Management Agency, 2012, p. M1)

4) Recovery

- a. Restoration or replacement of critical infrastructure and monetary assets lost during an event

PLANNING FOR DISASTER

Identifying the Purpose and Scope of the Plan

The planner first must define the purpose of the plan for leadership and define the scope of the plan. In general, the purpose of the plan will be to ensure that essential functions can be carried out in the event that something occurs that can disrupt their normal operations. The scope of the operation will depend on the approach the planner decides to take in building the plans. The scope of the plan may be a single site, like a shelter. This is more likely if the organization has many scattered sites. In general, though, all of the organization's different departments and sites

will be covered in a single COOP document, making the scope of the plan the entire organization.

Getting Leadership Involved

Before a planner begins the process of setting up his continuity plan, he should start by preparing to “sell” the idea of continuity planning to the agency’s leadership. In the nonprofit sector, depending on the organization, this could include not only C-level leadership and senior management, but the organization’s board of directors as well. As mentioned on page 29, the need for a continuity plan goes beyond just being able to maintain operations. There may be contractual requirements to create and maintain a plan. Failing to do so can lead to the loss of grant funds. Leadership should also be aware that failing to have, at the very least, a basic continuity plan can negatively impact staff, community, and clients as services go unprovided. “Selling” the continuity plan to these decision makers should establish a need for a continuity plan. Organization leadership should understand that it is extremely important that they understand the purpose of the plan, the costs of plan, and the benefits of the plan. They should also understand the impacts to the organization and the community in the event that a continuity plan is not used, should that be their final decision.

Setting Timelines, Budgets, and Teams

Once the project has been approved, it will need a timeline, a budget, and staffing. Since every agency will have different functions, threats, and resources it is not possible to offer accurate guidance on setting a timeline. The planner should try to set a realistic goal that is not so short that work is hurried and becomes inaccurate, but also not so long that management decides that resources are best spent on more immediate needs. The main items that will determine the

timeline will likely be available staffing, number of sites, number of potential threats, and the number of functions that need to be examined in Phase 1.

For a nonprofit with an inflexible budget, it is likely that senior management or the board of directors will assign a certain amount of dollars and request that the planner remain within that assigned budget. In the event that the project will exceed the allotted funds, it never hurts to ask for more from management. It may also be possible to look for Town/City or County grants that specifically address continuity operations. In the event that agency activities are government-funded, especially high-profile sites like shelters or food banks, it may also be possible to use the same “sales” technique used for management with the funder. It is as much in their interest to have an operating shelter in a disaster as it is in the requesting agency’s.

At a nonprofit agency staffing is already limited. Although staff may be willing to assist in creating a COOP plan, they may simply lack the time necessary. Depending on the agency’s size and the number of sites that need to be worked on, it is possible, though time-consuming, for one planner to handle COOP plans for an agency. This will take a long time. Another option is to set up a group of employees, one from each site who is preferably in management for that site, and form a steering committee. The committee can meet however often is deemed necessary and can create teams to help develop the plan at each site, determine how much time is available to work on COOP-related tasks, and can help develop and review plans for improvements. Committee members would present their teams’ work to the planner, who would in turn present it to agency leadership. As needed, it may be possible to fill staffing “holes” in each site’s team with long-term volunteers who have good knowledge of the staff and functions of a site. It may also be possible to recruit volunteers specifically for the purpose of working on the continuity plan. It is also possible for a single person to work on multiple teams where necessary. Appendix

B-1 has a simple form that can be used to keep track of committee members, their sites, and their teams in the event that someone needs the information.

For simplicity, throughout this document the term “planner” will be used to refer to anyone who is working on the COOP plan and can include the planner, the steering committee members, or any teams assigned to perform the assorted tasks involved in creating the COOP plan.

MITIGATION AND PREVENTION

Identifying Mission-Essential Functions

Once the planner is ready, he should begin researching what the critical functions, infrastructure, and records are for each site that the agency operates. Every site, even administrative sites that only handle back-end functions, should participate in this process. Critical functions are activities that will significantly impact operation of the organization if they are interrupted for more than a few days (Disaster Recovery Institute International, 2006, p. 1.26). Critical infrastructure is defined by the Department of Homeland Security as “... the assets, systems, and networks, whether physical or virtual, so vital... that their incapacitation or destruction would have a debilitating effect...” (Department of Homeland Security, 2013). For a shelter, this might include utilities, the IT system for client info, food donation intake, or the building itself. Finally, critical records include things like client files, Policy and Procedure manuals, or system backups. The full list of functions that drive the operations at each site are called the Basic Operating Functions, or BOFs. The planner will then identify in that list the Mission Essential Functions, or MEFs.

MEFs are “those essential functions directly related to accomplishing the *mission* of the organization” (Federal Emergency Management Agency, 2013c, p. A1). These functions cannot be deferred for long during a disaster. Depending on organizational, community, and legal needs some functions may need to be restored to activity in a very short period of time. Others can be deferred longer, but not indefinitely. Non-essential tasks that can be deferred during a disaster are called Non-Essential Functions (NEFs). It is important to ensure that the organization does not label too many functions as essential. If too many functions are considered as essential during planning, it is possible that not enough resources will be available to perform them and other, more important functions during an emergency (Federal Emergency Management Agency, 2013c, p. B1). Also important are each MEF’s essential supporting activities (ESAs). As defined in FCD-2, “ESAs are facilitating activities that enable the organization to perform MEFs; they are important and urgent, but accomplishing the ESA does not complete the mission or deliver the services the [agency] was created to accomplish” (Federal Emergency Management Agency, 2013c, p. A1). If a MEF cannot be completed without its associated ESAs, then the ESAs will need to be recovered first. FCD-2 provides the following guidance on differentiating a MEF from an ESA –

If the function results in the delivery of service to the public or another agency, it probably performs a function that is essential to the mission of the agency. If the function results in a service being delivered to another part of the same agency, it likely is a supporting activity. Supporting activities are typically enablers that make it possible for an agency to accomplish its Mission.

(Federal Emergency Management Agency, 2013c, p. B3)

Identifying BOFs and determining which of those are MEFs and ESAs is a very involved process that will take a lot of time. Unless the agency creating the plan can dedicate a single person to working on the task, it is best to take a team approach and assign several individuals

the task of identifying, researching, and then expanding on each BOF. In the event that an agency has multiple sites, a team or individual should create a list of BOFs for each site. This remains true even if each site performs similar activities or provides similar services. The following table gives an example of the differences between the MEFs, ESAs, and NEFs.

| Essential- vs. Non-Essential Functions | Essential | Non-Essential |
|---|---|--|
| Mission | <u>Mission-Essential Function</u> <i>Subsidy payments to landlords</i> Regardless of circumstance, landlords will expect rent payments to be made on time | <u>Non-Essential Functions</u> <i>Community Education</i> During a disaster, staff time and resources could be better used focusing on recovery activities |
| Non-Mission | <u>Essential Supporting Activity</u> <i>Accepting Food Donations or Deliveries</i> During a disaster, if food deliveries are not being properly handled they could be stolen, lost, spoil, etc. | <i>Planning Client Social Activities</i> While nice for clients to have, this activity is not essential during a disaster, nor is it usually part of a shelter organization's mission |

Table 2: Organization Functions

Once all of the BOFs have been separated into MEFs and their supporting ESAs, the list should be further broken down into essential and non-essential functions. If a function does not need to be performed without interruption and can afford to be deferred during a disaster, it is a NEF. For example, during a disaster a shelter should not worry about performing audits or having staff attend meetings. These would not assist with the performance of MEFs in any way and can be safely excluded from the list of functions. All functions identified as MEF and ESA candidates should be examined to determine whether they can be deferred during a disaster.

The MEFs at each site will then be prioritized. Depending on circumstances and the size of the organization, it may be possible that MEFs from multiple sites can be affected at the same time. For this reason, MEFs should be prioritized not only within each site, but also from site to site. For example, an earthquake may damage both a shelter and a food distribution center at the same time. The agency will need to decide which of their MEFs is higher in priority as part of the planning process. It should never be assumed that a disaster will only affect one site.

At the end of this process, the completed package should be submitted to agency leadership. It will be up to them to review the list of MEFs and determine whether the prioritization suggested by the team or individual is appropriate and, where necessary, make changes or suggestions.

In order to help identify MEF and ESA candidates, the reasons why each function is being performed should be identified. Some examples of questions to ask when determining whether an activity needs to be performed during, or shortly after, a disaster may include—

- a. Are there laws in place that require the activity to be performed, or quickly restored, in the event of a disaster?
- b. Are there contract requirements, usually from a funding source, that require that the activity be performed, or quickly restored, in the event of a disaster?
- c. Is this activity related to the primary mission of the agency? For example, an organization dedicated to providing emergency overnight shelter to single mothers should be able to provide that service regardless of any disasters that occur;
- d. Does agency leadership require that certain tasks be performed regardless of disruptions to agency functions?
- e. Will there be significant impact to external stakeholders?

When identifying MEFs and their ESAs, the agency should “describe each function in basic terms and should identify products or services delivered or actions each function accomplishes” (Federal Emergency Management Agency, 2013c, p. B3). This will help avoid wasting time describing activities that may be NEFs. In this early phase, a single sentence should

be sufficient. When selecting MEFs and ESAs, it is important not to confuse the two. ESAs only enable the MEFs to be accomplished; they do not provide any services or products on their own. Table 2 shows an example of the differences between MEFs and ESAs. Appendix B-2 contains a blank form for use when identifying MEFs and ESAs.

| Mission vs. Supporting Functions | |
|--|--|
| Mission Function | Supporting Functions |
| Provision of food to shelter visitors | Accepting food deliveries/donations; Preparation of food; Cleaning of kitchen and dishes |
| Subsidy payments to landlords | Creation of payments lists; writing of subsidy checks |
| Educating community on homelessness | Creation of “lesson plans;” organization of community members |
| Client referral to required services | Performing client assessments; providing information packets; |

Table 3: Mission vs. Supporting Functions

Creation of Data Sheets

Once the organization’s MEFs and associated ESAs have been identified, the planner should perform “...a detailed review of each MEF to more fully describe each function that enables [an agency] to accomplish its mission and then document the review” (Federal Emergency Management Agency, 2013c, p. B5). Each MEF should have its own data sheet, as these will be reviewed later for prioritization. During these reviews it may also be possible to identify ESAs that may have been missed during the initial examination of performed functions. Data sheets for each function should be created by people who are familiar with the MEFs. A shelter manager or monitor will probably know more about shelter operations than the shelter’s check-in/checkout volunteer. In the event that this is not possible due to time constraints, questionnaires can be filled out by relevant staff. That information can be transferred to the data sheets by other staff or by volunteers.

A completed data sheet should have all of the following information –

- 1) The name of the site or department the MEF is performed by. For example, subsidy payments might be paid by the Finance department, while emergency overnight shelter services are provided by the entire shelter site.
- 2) The name of the MEF, along with a short statement describing what the MEF does. For example, “Food distribution services provide food to our clients.”
- 3) A narrative describing the following:
 - a. Why this function has been identified as a MEF;
 - b. What service or services this function provides. Names of ESAs should be included to help determine how much effort will be needed to restore the function;
 - c. Impacts to the organization, community, or other stakeholders if the function is not performed;
 - d. The function’s Recovery Time Objective (RTO);
 - i. DRII defines the RTO as “...a deadline for pre-defined systems, applications, processes, functions, or operations to be restored and available... to prevent severe or fatal impact to the organization, its business or missions” (Disaster Recovery Institute International, 2006, p. 3.15). In short, the RTO is the maximum amount of time, from the point that it is interrupted, that a function may be out of commission. It should be noted if a function requires continuous performance regardless of a disruption – these functions will have an RTO of zero or close to zero.

- e. Any partners, external or internal, that provide a product or service that is needed to perform the MEF. For example, some shelter providers receive food from a local food bank in addition to donations. Donations may or may not come in during the aftermath of a disaster, so the organization may wish to request emergency food deliveries from the food bank. Internal groups should also be included. If a second shelter exists, it may be able to share resources with that affected site;
- f. The contact information for the person who would be capable of answering any follow-up questions about the above.

A blank MEF data sheet can be found in Appendix B-4.

Prioritization of MEFs

Once a data sheet has been completed for each identified MEF, they need to be compared and prioritized. This will establish which MEFs need to be put first in the “queue” in the event that resources are stretched thin and the organization has to choose which functions to focus on first. Prioritizing MEFs can be done as the agency sees fit. Some examples of ways to prioritize MEFs may include:

- 1) RTO
 - a. MEF recovery priorities could be based on the acceptable downtime for the function. For example, continuous functions with a zero RTO would need to be restored as soon as possible, with functions with higher RTOs following.

2) Impacts

- a. Priorities could be set based on the impact they will have on the organization, clients, or community if they are not performed for a long period of time. An inability to provide food provision services for a long period of time can lead to clients getting sick due to stress and malnourishment, more panhandling or crimes like shoplifting, or an increase in the number of people waiting around the site for food, making it difficult for responders to perform their tasks. MEFs that would have a larger negative impact could be prioritized over others.

3) Management preferences

- a. Agency leadership may want some functions restored before others.

4) Legal or contract requirements

- a. Funders may require that certain tasks be restored faster than others.

Priorities may be a combination of factors and there is no single, correct way to set them. Planners should use their best judgment and remember that the point of identifying the MEFs is to minimize the impacts caused by any sort of disruption. If there are a large number of MEFs and ESAs to be prioritized, FEMA suggests that “It may be most efficient to group the MEFs into priority categories rather than attempting to establish a comprehensive linear list” (Federal Emergency Management Agency, 2013c, p. B8). For example, in *Generic Continuity of Operations/Continuity of Government Plan for State-Level Transportation Agencies*, Dr. Frances Edwards, Daniel Goodrich, and William Medigovich break their priorities into three priority categories: A – to be restored within twelve hours; B – to be restored within seventy-two hours; and C – to be restored within thirty days of the interruption (Edwards, Goodrich, & Medigovich, 2011, pp. 6.11-6.12). If the list of MEFs is relatively short, it is acceptable to make an ordered

list with the RTO of each function next to it, so long as MEFs with the same priority are indicated somehow so that it can be determined which of those are the priority. A worksheet to help assign priorities is located on Appendix B-5.

Business Process Analysis

The Business Process Analysis (BPA) documents each component that needs to be in place in order for the MEF to be performed. The BPA will identify the exact steps and inputs required to perform the MEF for later planning stages. FEMA recommends that organizations “...perform a BPA to ensure that the right people, equipment, capabilities, records, and supplies are identified and available where needed during a disruption so that MEFs can be resumed quickly and performed as required” (Federal Emergency Management Agency, 2013c, p. C1). If processes are already mapped in detail elsewhere, it may be possible to use those process details to assist with this step. Since this process is concerned with actual MEF processes and not MEF outputs, it can be helpful in locating any ESAs that have been missed up to this point. BPAs have nine steps, detailed below. A blank BPA worksheet can be found on Appendix B-6.

Detailing MEF Output

At this stage, the details of what the MEF produces or provides in non-emergency circumstances will be determined. In FCD-2, FEMA recommends that specific metrics be identified. In addition, any time-sensitive tasks that must be done before the MEF can be initiated should be noted. Outputs should be described as briefly as possible (Federal Emergency Management Agency, 2013c, p. B6). Some sample outputs might include –

- 1) Provide use of an average of ninety (out of one hundred) shelter beds to individuals who need them from 8pm to 8am.
- 2) Provide breakfast, lunch, and dinner meals to individuals at the following intervals:
8AM – 9AM, 12PM – 1PM, 6PM – 7PM.
- 3) Provide case management/crisis management services between 9am and 5pm on weekdays.

Identify Operational Requirements

The next step is to examine the output of each MEF and determine the required inputs to support it. FEMA states that inputs are “required to accomplish the MEF outputs, which includes the information, guidance, and coordination from both internal (within the agency) and external (outside of the agency) partners” (Federal Emergency Management Agency, 2013c, p. C3). Inputs should be listed in the order that they are performed. If an input is provided by a third party, internal or external, it should be indicated. Each input should also provide the amount of time normally allotted to complete the task involved. Below is a simplified sample outline of MEF inputs –

1. MEF – Provide shelter beds to individuals between 8pm and 8am
 - a. Collect pillows, blankets, and sheets for cleaning – 9am – 10am
 - b. Clean collected bedding (wash, dry, replace damaged) - 10am – 1pm
 - i. Items needing replacement can be obtained in the supply closet
 1. Replacement supplies are obtained through donations or ordered through the Admin department
 - c. Prepare beds with cleaned/replaced bedding – 1pm – 3pm

- d. Prepare cones/dividers for intake line for individuals - 3pm – 4pm
- e. Prepare shelter bed intake forms for individuals - 3pm – 4pm
- f. Assign staff and volunteers for shelter intake - 3pm – 4pm
- g. Shelter bed assignments, intake completion - 4pm – 7pm
- h. Prepare shelter for nighttime activities - 7pm – 8pm
- i. Nighttime activities, i.e.: monitoring site, ensuring security - 8pm – 8am

Note that the above list is a very simplified sample and does not reflect the daily inputs of every shelter.

In the above example, the amount of time that each task requires is provided. In the instance that other parties must be relied upon for a replacement item, each source of that item has been provided. In this example, replacement supplies may not be immediately available. In this case, the source for new supplies would either be from donations, an external party, or from an internal order of supplies.

Identify Leadership Requirements

If a MEF requires input from agency leadership it must be noted in this step. This does not include the supervision of tasks by a supervisor – this step is to identify tasks that must be performed by, or require direct input from, a high-level manager at the organization. For example, some shelters require that the day’s food supplies be inspected by senior management before they are used. If an agency pays rental subsidies, requiring a signature from a member of senior management on the checks would count as a necessary input. It should be noted whether it

is possible for this task to be performed remotely in the event that senior management is unable to reach the site. If no senior management input is required, skip this step.

Identify Personnel Requirements

This step will identify the skills needed to perform MEFs and ESAs, as well as the number of personnel with those skills that are needed to perform the task. In the event that the task must be performed 24/7, as is sometimes the case with monitoring shelter occupants, it should be made clear how many shifts are required, how long those shifts are, and how many personnel are required for each shift. The list of personnel should be simple, showing only the optimal number of personnel with each skill needed. For example, to check people into a shelter for the night the following personnel may be needed during operations–

- 2 people who can swipe ID or resident cards on the check-in system

- 2 people to issue ID cards to new residents for use in future check-ins

- 2 people on outdoor line control

- 2 people manning the information desk

- 1 person to give verbal directions to shelter facilities and to shelter beds

For nonprofit organizations, this may be a difficult step. Many tasks at a shelter or other sites may be performed normally by volunteers who are overseen by agency staff. Volunteers may not be available in the event that a site has suffered enough damage to require the activation of its COOP plan. This can be solved in a number of different ways. One way to solve this issue is to fill holes left by volunteer vacancies with existing staff, assuming that the skills necessary to perform volunteer tasks do not require any special, in-depth knowledge or training. Staff or volunteers may be drawn from other agency sites as needed to fill holes. If this is not practical,

due to conflicts with scheduling or multiple-site activations, it may be possible to fill the holes with temporary employees hired specifically to cover for volunteer vacancies. These temporary employees can be dismissed after the site has been restored.

If temporary employees would cost too much, or would take too long to hire, a third option might be to recruit volunteers specifically with the skills necessary who are asked to be present specifically when the COOP plan needs to be activated. These volunteers can be trained specifically for these situations, cross-trained between different tasks, and used to fill staff and volunteer vacancies where needed. Another option may be to simply fold tasks into one another or remove tasks that are only “nice to have.” For example, in the above sample list of necessary staff, it may be easier to have the person doing check-ins also give verbal instructions as to where the person needing shelter needs to go next, or where facilities are, as opposed to having a “greeter” position.

Each MEF and ESA should have a list of staff and skill requirements, as well as a plan to perform these tasks in the event of a staffing shortage during a disaster. In addition, FEMA states that “For agencies with multiple MEFs, give consideration to identifying personnel who may support more than one MEF; this will help to avoid unnecessary duplication of resources (Federal Emergency Management Agency, 2013c, p. C5). If four MEFs at a site require that someone inventory supplies and handle purchase orders, it may be best to have one person handle that task instead of designating a person to each different MEF to perform the same task.

Identify IT and Communication Needs

In this step the planner must identify the communication and computer systems needed to perform MEFs. For example, if a computer and network connection are needed for shelter check-in, those would be listed. Other things that might be listed include landline phones, cellphones, fax machines, photocopiers, radios, and printers. If the item is necessary for any part of an essential task it should be listed. The planner should also identify ways to provide communication and IT equipment in the event that existing equipment is damaged or otherwise unavailable (Federal Emergency Management Agency, 2013c, p. H1).

Identify Alternate Site Requirements

Alternate sites for services should be established in the event that the primary site sustains so much damage that it is not possible to perform MEFs at all. For example, a shelter site may still be able to provide food and shelter services if the intake area is severely damaged in a fire; alternate sites only need to be identified for intake functions. If half of the building collapses in an earthquake, however, one or both of those functions could be severely impacted or disabled entirely. Alternate sites do not need to be permanent, but should allow agency staff to perform MEFs and ESAs until original sites have been restored or replaced. FEMA suggests using alternate sites to replace only those functions deemed essential, not to replace every function performed by the agency (Federal Emergency Management Agency, 2013c, p. C6). Alternate sites can be anything, so long as the MEF can be performed from them. If the room where shelter beds are kept is damaged or destroyed, something as simple as setting up emergency folding beds in an open space like a storage warehouse or, weather permitting, the parking lot can suffice

in an extreme case. If the agency has an alternate site used for seasonal purposes, like the use of a winter shelter to handle overflow in heavy-use months, it may be beneficial to activate the site early for use during a disaster.

Planners should keep in mind the minimum requirements needed in order for them to use an alternate site. Alternate sites should have the following capabilities (Edwards, Goodrich, & Medigovich, 2011, p. 10.1)–

- Enough space for supplies, equipment, and staff
- Ability to perform functions by the RTO requirement of each MEF and for up to thirty days
- Reliable logistical support, infrastructure, and service systems
- Communications and IT equipment
- Be safe enough for incoming clients and staff.

Identify Relocation Process Options (Devolution)

“A continuity plan’s devolution option addresses how an organization will identify and transfer responsibility for the performance of essential functions to personnel at a location that offers a safe and secure environment in which essential functions can continue” (Federal Emergency Management Agency, 2013a, p. L1). The planner should identify how MEF operations will be transferred to alternate sites in the event that the primary site is rendered unusable. For each MEF, list the available options to quickly transfer equipment, staff, records, supplies, and anything else needed for MEF performance to identified alternate sites.

Identify Resources Needed for MEF

In this step, the planner must identify everything that is needed to perform related ESAs or MEFs. For example, equipment would include things like stoves for a kitchen, the beds in a shelter, or even the van for a mobile clinic. Supplies would be smaller things like utensils, bedding, or fuel for the van. This section can also include any critical infrastructure needed to perform the MEF. If a MEF's output is food delivery to other shelter sites, and it relies on the use of a particular freeway, that information should be on the data sheet. Should that freeway become damaged or otherwise unavailable, alternate routes would need to be set.

Identify Vital Records

Vital records are "...information systems technology, applications, and infrastructure, electronic and hardcopy documents, references, and records needed to support the continued performance of essential functions during a continuity activation" (Federal Emergency Management Agency, 2013c, p. 11). This includes any vital records and databases needed to perform ESA or MEF duties. These can include client files, emergency plans, payroll records, donor information, program manuals, and anything else that supports the performance of the MEF.

Identify Funding Sources

This step involves "...identifying funding sources to sustain the continuity capability throughout the disruption and to continue performance of the MEF and essential supporting activities" (Federal Emergency Management Agency, 2013c, p. 11). The planner should identify all funding sources needed to continue site operations during a disaster. Funding sources should be included

for items normally replaced through donations, as it may be necessary to purchase supplies with short notice. Any costs that can be reimbursed through a private or government funder should also be noted, as well as potential donations if it can be safely assumed that those funds will exist. Nonprofits should also leverage their donor networks in extreme situations and request assistance from the community and local businesses where possible.

Identify Interdependencies

For this step, the planner should determine what external or internal parties provide goods or perform services that are required to perform the MEF. The name of the party, its contact information, what they provide, when they provide it, and whether they can provide it during a disaster are all important information to record. This should be done for internal and external parties.

“Map” the Process

After all of the above information has been collected for the MEF, the final step is to map the entire process out from beginning to end. This can either be a narrative description or a diagram. The purpose of this “map” is to put all of the gathered information into an easy-to-understand document that can be understood by someone who is not intimately familiar with the process. The map may even be a simple numbered list of tasks, with each task’s inputs and outputs detailed in outline format. Once this step has been completed for each identified MEF, it is time to perform the Business Impact Analysis, or BIA.

Risk Assessment

A risk assessment should be performed in order to determine what events could occur that will cause a disruption to MEF operations. These events could be internal or external and may not necessarily be natural disasters. Conducting a risk assessment helps to “...identify, assess, and then mitigate the risk” (Disaster Recovery Institute International, 2006, p. 2.5). This task is important because it will always be better to minimize, or prevent entirely, disruptions to essential functions during a disaster. Through this assessment the planner will identify –

1. Potential external and internal events that could threaten site operations;
2. The probability that these events will occur;
3. The impact to each MEF should an identified event occur;
4. Processes and procedures already in place that eliminate or control events to prevent or minimize the effects of a disaster.

It is suggested that the planner use a worksheet during this process to keep track of identified information. A blank worksheet is provided on Appendix B-7.

Identify Risks to MEF Operations

Identifying potential threats will require that time be spent looking into the background of the area and the site. Since states are required to create Disaster Mitigation Plans (Disaster Mitigation Act, 2000), and many local governments have Emergency Operations Plans with a risk analysis, such plans can be a good resource for developing an organization’s risk

assessment. Risks can be broken into three categories: naturally occurring events, technological events, and human-caused events. Naturally occurring events are things like earthquakes, wildfires, or tsunamis. An important point when examining natural disasters is the potential for some to cascade into other types of disasters. “Natural hazards that cascade are clearly more difficult to manage, and their consequences may continue to build...” (Edwards & Goodrich, 2011, p. 2.10). For example, a hurricane can cause wind damage and severe flooding, both of which can cause other problems. When planning for a disaster with the potential to cascade into other problems, the planner should account for each possible problem that the event will bring.

Technological events “...result from the technology used in modern communities” (Edwards & Goodrich, 2011, p. 2.11). Technological events include power outages, releases of hazardous materials into the environment, or damaged water pipes that prevent the use of a site’s normal water supply. Human-caused events include are those that can be caused either through intent or by accident. A fire could be started on-site by either an accident in the kitchen or by a disgruntled client intending to damage the building. A human-caused event may not even seem like it would be a long-term event at first. A violent incident on-site, such as a shooting or sexual assault, may appear to be something that could be handled quickly by local police so that normal operations can resume. The planner should remember that human-caused and technological events can also cascade. For example, “...workplace violence has led to buildings being declared crime scenes and becoming inaccessible for days to weeks” (Edwards, Goodrich, & Medigovich, 2011, p. 6.7).

When all risks have been identified, the planner should have a list of natural, technological, or human-caused events that have occurred, or could occur, in the area or on the site. This list should be further broken down so that each event is applied to each site, or

department on-site, that can be affected. For example, the planner could have “Fire” as a natural event, which is broken down into “Fire in Kitchen,” “Fire in Sleeping Area” and “External Fires.”

Determine the Likelihood of Events

In the *Threat and Hazard Identification Guide* developed by FEMA it is noted that planners should only select risks that could reasonably occur (Federal Emergency Management Agency, 2013d, p. 7). Hurricanes do not occur in the San Francisco bay area so they can be safely discounted in that area. FEMA further states that “Communities should take care to not over-rely on historical averages or patterns that may give a false sense of likelihood” (Federal Emergency Management Agency, 2013d, p. 8). Earthquakes are a regular occurrence in California, but there are rarely any large ones capable of causing severe damage. The 2014 South Napa earthquake was the largest earthquake in the bay area since Loma Prieta, which occurred in 1989, and there were twenty-five years between them (Berlinger, Levs, & Capelouto, 2014). Simply using historical data could mean that a planner might conclude that his organization is safe from major earthquakes in the bay area for another 25 years, however there are other active faults that could rupture at any time. This principle can be applied to human-caused and technological threats as well.

Items to consider in determining the probability of a specific disaster should include, but not be limited to: geographic location, topography of the area, proximity to major sources of power, bodies of water and airports, degree of accessibility to facilities within the organization, history of local utility companies in providing uninterrupted services, history of the area’s susceptibility to natural threats, proximity to major highways which transport hazardous waste and combustible products. (Shriver & Wold, 2007)

DRII suggests using the following as guidelines for setting probabilities (Disaster Recovery Institute International, 2006, p. 2.18). The planner should assign a value to the likelihood of each event occurring. Wold and Shriver (2010) recommend using the following values: Low = 1, Medium = 5, High = 10-

- Low Probability of Exposure - 1
 - Occurs less than once every twenty-five years
 - Major earthquakes in the Bay Area
- Medium Probability of Exposure - 5
 - Occurs once every five to twenty-five years
 - Tornados in Santa Clara County
- High Probability of Exposure - 10
 - Occurs more than once every five years
 - Fires in California

Aside from the probability of the event actually occurring, the planner should take into consideration whether or not an event will actually affect MEF performance.

Identify Impacts

After the likelihood of an occurrence has been determined, the impact of those events on different MEFs should be evaluated. Each event-MEF combination will be assigned a numeric impact rating. When determining the impact on a function from an event, the planner should examine how vulnerable each MEF is to each identified threat. Vulnerabilities are the likelihood that an event will have a negative effect on MEFs. Determining how vulnerable a function is will

be mostly subjective. “The agency must look separately at how vulnerable its people, facilities, communications, resources, interdependencies, and processes are to the effects of each threat...” (Federal Emergency Management Agency, 2013c, p. D7). MEFs that will be minimally affected by an event would be considered low-vulnerability and, as a result, would have a lower impact rating. For example, if there are multiple shelter sites available, and other sites can easily take on extra clients, a single shelter site could be considered as having a low vulnerability to certain events and would have a low impact rating.

It is possible for one MEF to be completely disrupted for a long period of time while another MEF in the same building can resume functions almost immediately. For example, a fire that destroys the kitchen will probably completely disrupt the “Provide food to clients” MEF. However, if the fire is contained before it spreads, the “Provide overnight shelter” MEF may go completely unhampered. For that reason, it is important to make sure that each identified event is applied to each MEF and that the impact that the event would have on each MEF is rated. Wold and Shriver suggest using a three-point scale for rating the MEF impact:

The impact can be rated as: 0= No impact or interruption in operations, 1= Noticeable impact, interruption in operations for up to 8 hours, 2= Damage to equipment and/or facilities, interruption in operations for 8 - 48 hours, 3= Major damage to the equipment and/or facilities, interruption in operations for more than 48 hours. All main... functions must be relocated

(Shriver & Wold, 2007).

Other factors aside from MEF operations at a particular site should be considered when rating MEF impacts. If, as previously mentioned, impacted services can be provided at an alternate site without much interruption, the impact may result in a rating of 0 or 1. If only a single person can perform a MEF function, and that person will be needed at a different site for

an extended period of time, it may result in an impact rating of 2 since the function will have to wait for that person to arrive. Any ratings given should be justified by the planner when they are assigned so that anyone who reads the ratings will understand how they were determined.

After the likelihood of an event and the impact it will have on each affected function have been determined, a risk analysis matrix can be created that can identify where the planner’s organization’s greatest exposures to risk are. The following is a sample matrix.

| Risk Matrix | | Estimated Impact to Function | | |
|-------------------|------------|------------------------------|------------|-----------|
| | | LOW = 1 | MEDIUM = 2 | HIGH = 3 |
| Event Probability | LOW = 1 | 1x1 = 1 | 1x2 = 2 | 1x3 = 3 |
| | MEDIUM = 5 | 5x1 = 5 | 5x2 = 10 | 5x3 = 15 |
| | HIGH = 10 | 10x1 = 1 | 10x2 = 20 | 10x3 = 30 |

Table 4: Sample Risk Matrix - Adapted from DRII 2006, p. 2.20

Using this matrix, it will be possible to estimate how at-risk each identified MEF is from different types of events. By multiplying the probability rating by the impact rating, the planner will have a numeric representation of risk. The following table shows some possible effects of each risk rating.

| Risk Effects | LOW RISK 1 - 3 | MEDIUM RISK 4 - 14 | HIGH RISK 15 - 30 |
|----------------------|--------------------------------|---|--------------------------|
| MEF Availability | Periodic reductions in service | Intermittent total loss or serious reduction in service | No service available |
| Duration of Outage | Less than .5 days | Between .5 and 3 days | More than 3 days |
| Affected Individuals | Impacts staff or volunteers | Impacts clients | Impacts entire community |

Table 5: Identifying Impact Ratings - Adapted from DRII 2006, p. 2.21

As an example, assume that a fire breaking out in the kitchen area of a shelter site has a probability of “Medium.” Now assume that a kitchen fire has an impact of “Low” on the MEF “Provide overnight shelter,” an impact of “Medium” on the MEF “Provide shower/cleaning facilities” due to kitchen/shower proximity, and an impact of “High” on the MEF “Provide

lunches and dinners to clients.” Using the matrix, each MEF would be assigned a different risk rating for the same event. In this case, a fire in the kitchen would result in risks of 5, 10, and 20 for the shelter, showers, and food distribution functions. The shelter area’s risk from a kitchen fire is low, the shower facility’s risk is medium, and the kitchen’s risk is high. This example is displayed below.

| Kitchen Fire Effects on | Likelihood of Fire | Impact to MEF | Risk Level |
|--------------------------------|---------------------------|----------------------|-------------------|
| Kitchen Services | Medium (5) | High (3) | =15 – High Risk |
| Shelter Services | Medium (5) | Low (1) | =5 – Low Risk |
| Shower Services | Medium (5) | Medium (2) | =10 – Medium Risk |

Table 6: Visualization of "Kitchen Fire" Example

Controls

Whenever possible, it is always better to prevent a disruption from occurring than to have to react to the disruption. Prevention and mitigation measures may not always be able to prevent an event, but they can stop the impact to MEF operations (Disaster Recovery Institute International, 2006, p. 2.24). “Mitigation strategies are those actions taken by an organization to reduce risks resulting from threats and hazards and to ensure the continued performance of MEFs” (Federal Emergency Management Agency, 2013b, p. E1). Prevention, which is preferable but not always possible, will block all impacts to a MEF. If an event cannot be fully prevented, it is better to control the risk and reduce its impact. Both of these are accomplished through controls.

Controls “...lessen the chance of a risk causing a disaster or will mitigate the impact or damage if the disaster occurs” (Disaster Recovery Institute International, 2006, p. 2.24). Controls are absolutely essential for functions that are at risk of interruption, and can also help low-risk operations continue smoothly in the event that they are also interrupted. DRII has identified two

types of controls that should be examined: physical controls such as fire suppression systems or access control systems, and procedural controls like document receipting or making certain that all of the stove burners in the kitchen have been turned off (Disaster Recovery Institute International, 2006, p. 2.25). Controls of either type can be used to prevent or mitigate impacts. Controls can also be used to protect vital records required for each MEF, though they might take different forms. Controls for vital records might include physical or online backups, off-site copies, or scans saved to a compact disc.

Keep in mind that not all “events” will be large, obvious disasters. If something is capable of halting MEF performance, no matter how small it is, it is a concern that needs to be controlled for. If an overnight shelter has twenty wooden beds for overnight use, and a termite infestation from a nearby woodland area occurs and destroys most of the beds, the planner had better have replacement alternatives on-hand or readily available by the RTO requirement.

In the prevention and mitigation phase, the planner will attempt to address areas identified in the BIA as high-risk by finding feasible prevention and mitigation options for each one. A blank worksheet for use during this process can be found on Appendix B-8.

Examining Potential Prevention/Mitigation Options

The planner should first review the results of the BIA and determine where the greatest operational risks are. This is easily done by reviewing the Impact Ratings for each essential function, although things like contract needs or management requests may make some a higher review priority than others. The planner should start by examining what controls are already in place and evaluating each one according to its costs to the organization and how well they can

deter an event or mitigate impact. A shelter kitchen may have nothing more than a smoke detector inside of it to warn others of fire. While this will give enough warning to evacuate and allow staff to call the fire department, it would not actually do anything to prevent the fire from starting. Note that while some controls have a small effect, none is completely useless. In the case of the smoke detector it can help mitigate the fire's impact by safeguarding lives and allowing someone to summon the fire department or locate an extinguisher. It is always better, though, to do as much impact mitigation as possible. When examining controls, the planner should make sure he is looking into both physical and procedural controls.

After existing controls have been identified, the planner can proceed in two ways. First, if the planner has determined that the existing controls are sufficient, he should document the existing controls that are already in place, how the controls are effectively preventing or will effectively mitigate an impact, the existing costs for the controls, and how it was concluded that no further controls are needed. If it is determined that the existing controls are insufficient and that more are needed, the planner will need to determine what kinds of controls are needed to sufficiently prevent an event or mitigate its impact after it occurs. There are a large number of potential controls for events and the planner will need to research them thoroughly to determine what will work best for them. Some criteria might include control costs to start up and maintain, controls that prevent an event vs. controls that only mitigate impacts, ease of use, or whether a control can handle multiple types of events. Additional controls will need to be presented to, and approved by, agency leadership. Any approved changes that are implemented should be reflected in the plan and the impact rating should be updated.

Continuing the kitchen fire example, it is clearly unacceptable to rely solely on a smoke detector in the event that there is a fire. It does not address possible procedural issues that could

cause a fire, it ignores that there are manual or automated options to extinguish the fire available, and it puts lives and property at risk in the event that the detector fails. Possible physical controls could be an automated sprinkler system, placing a fire extinguisher in (or very close to) the kitchen, or the installation of fire-dampers to prevent fire spread. Procedural controls could be a nightly check that stoves are turned off, or making sure that staff and volunteers are adequately trained on fire safety and kitchen equipment. The planner should also examine insurance options to mitigate monetary impacts, such as replacement costs for equipment. If an agency has to spend too much money replacing equipment it will be unable to perform one or more MEFs at all, defeating the purpose of the COOP plan.

Another type of control to be aware of is the establishment of succession lines for leadership. If critical leadership is unavailable for any reason their authority needs to be moved to another employee, especially if leadership is essential to MEF operations. “It is critical to have a clear line of succession established in the event an organization’s leadership becomes debilitated or incapable of performing its legal and authorized duties, roles, and responsibilities” (Federal Emergency Management Agency, 2013a, p. E1). Any leadership position should have at least three alternates. If necessary, leadership from other sites can be brought in to cover for the missing leader. The planner should create a list of staff who can take on these responsibilities. Where possible, staff who work at different sites should be selected to avoid losing all leadership staff in a disaster. This list should list position titles, not names (Federal Emergency Management Agency, 2013a, p. E1). This will make keeping the plan updated easier in the event of staff turnover.

Finally, while controls are very good at preventing and mitigating events, it should never be assumed that they are foolproof. There may be an event that shuts down a MEF entirely

regardless of controls. The planner should prepare for the possibility that certain key pieces of equipment, infrastructure, or processes will fail during an event. Equipment can include things like stoves for the kitchen, beds for the shelter, computers for the administrative staff, or trucks for food delivery staff. It is possible that any of these pieces of equipment can be damaged beyond use during a disaster, and controls should exist to mitigate the results. Regular maintenance and replacing old or obsolete equipment are good controls to put into place, but the planner should determine where different equipment can be quickly obtained, rented, or borrowed if a failure occurs. For example, delivery trucks can be rented if necessary.

Once the controls have been evaluated for each event, and each MEF affected by each event, the planner should present his findings to agency leadership. The planner will need to show how each MEF can be impacted by each event, how well (or poorly) existing controls will prevent or manage the impacts and how they can be improved, and what controls need to be added in order to improve mitigation and prevention. As part of the last piece, the planner should include how much it will cost to implement the control, as well as how much it will cost to maintain over time and the costs to the agency and the community in the event that the MEF is interrupted due to a lack of appropriate controls.

CONTINUITY OPERATIONS

Response

An emergency response plan handles the immediate response in the seconds and minutes after an event, such as performing an evacuation or dialing 9-1-1. During the event itself the agency should not be focused on performing MEFs – if the building is burning or collapsing it is not the time to worry about services! An organization should have a comprehensive emergency response plan that focuses on saving lives and preventing further damage. FEMA provides free guidance on designing ERPs on their website at

<http://www.ready.gov/business/implementation/emergency>

Damage Assessment

After the response phase ends and the emergency is over, a team will be needed to examine the situation to determine whether or not to activate continuity operations. The planner should create a team consisting of site leadership and any other staff who are capable of identifying serious problems with MEF functions. This team will examine critical infrastructure, equipment, supplies, and so on, and determine whether to activate the COOP plan and, if so, where efforts need to be focused. If the team finds that there are no significant impacts to MEFs the agency can return to normal operations. The team will need to determine the following:

1. Is the building damaged such that it is unsafe to use or otherwise inaccessible?
2. Has any critical equipment been damaged or destroyed?
3. Have critical supplies been damaged or destroyed to the point of insufficiency?
4. Have vital records been damaged or made otherwise unavailable?

5. Have any critical staff or leadership been made unavailable?
6. Have any critical partners been made unavailable?

If the answer to any of the above is “yes,” the continuity plan should be activated.

Depending on the situation, operations may be moved to alternate sites, replacement equipment and supplies should be obtained, authority and tasks should be delegated, and so on. Alternative sites, equipment, suppliers, and any other alternatives should have been identified in the “controls” section as mitigating measures for total failure. A blank form that can be used for assessing damage is included on Appendix B-9.

Plan and EOC Activation

If the decision to activate the COOP plan is made, the first thing that should happen is the establishment of an Emergency Operations Center, or EOC. The EOC is “...a physical or virtual location from which coordination and support of incident management activities is directed” (Federal Emergency Management Agency, 2012). Event response and continuity operations are managed from the EOC. FEMA defines an EOC as

- A physical location.
 - Staffed with personnel trained for and authorized to represent their agency/discipline.
 - Equipped with mechanisms for communicating with the incident site and obtaining resources and potential resources
- (Federal Emergency Management Agency, 2010).

In short, the EOC will function as the “nerve center” for staff during continuity operations. The EOC needs to be close to the affected site, but should be far enough away to be safe from any cascading events that may occur. If there is a major gas leak, for example, the EOC should not be established in the parking lot of the building. During an event, staff at the EOC will be the ones who take care of tasks like ordering equipment and supplies,

communicating with internal and external partners, communicating with the media, ensuring site safety and security, and necessary administrative tasks. The EOC will be the main point of communication and instruction for staff and any external parties, so it should consist of agency leadership and a member of as many outward-facing departments, like development or media-relations, as possible. In the event that a task, like interacting with the public, can primarily be done via phone or email the team member may be able to telecommute.

FEMA suggests dividing EOC staff into the following sections,

1. Management Section Chief – Leads the response to the emergency
 - a. Safety Officer – Leads site safety efforts
 - b. Agency Liaison Officer – Communicates with outside partners/funders
 - c. Public Information Officer – Communicates with media/public
2. Operations Section– Manages operations throughout event
3. Planning Section – Documents plans, makes maps and files reports
4. Logistics Section – Responsible for obtaining resources, equipment, and related plans
5. Finance/Admin Section – Responsible for financial aspects of response and recovery

(Federal Emergency Management Agency, 2012)

The following graphic shows the EOC and how it relates to COOP.

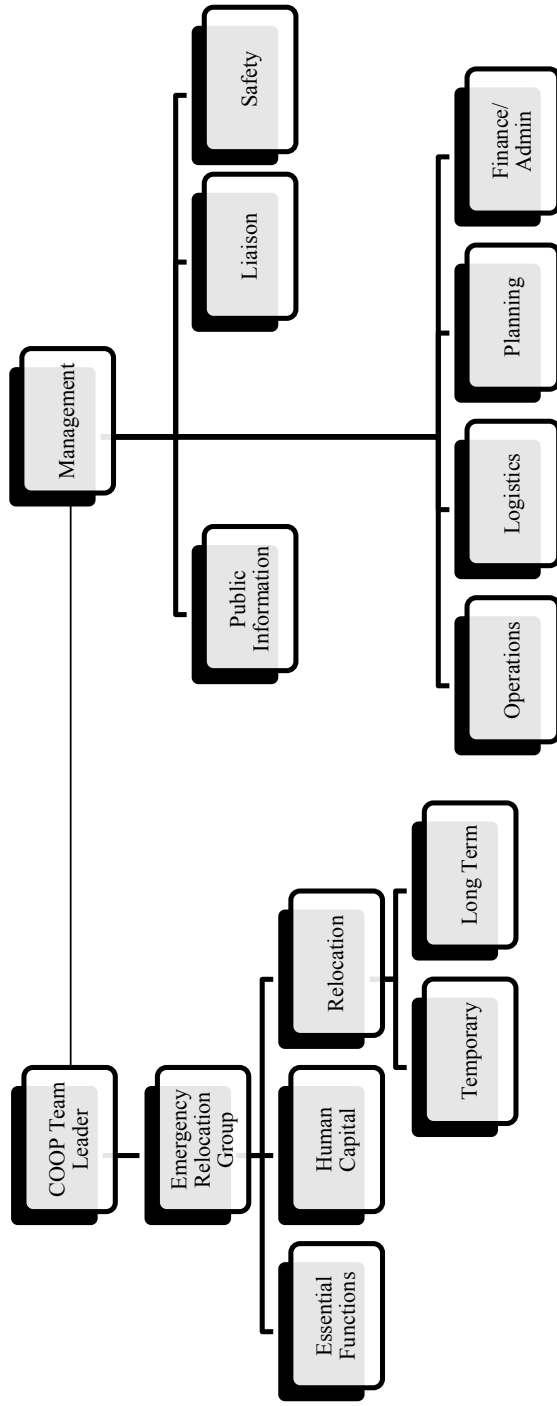


Table 7: EOC and COOP Interaction

EOC staffing is flexible and driven by the size and complexity of the event. Ideally, at least one person should be assigned to each task. If the agency is particularly small, it may be necessary to double-up on tasks. If necessary, similar tasks should be combined, like the Public Information Officer position and the Liaison Officer position. Each position should be granted the necessary authorities to act on behalf of the agency for continuity-related tasks during the event.

As can be seen above, COOP is a branch of the EOC's management section. The COOP Branch includes the COOP branch director, a Human Capital Unit that deals with staffing and personnel issues, an Essential Functions Unit that ensures that MEFs are being performed, and an Emergency Relocation Unit that facilitates facility relocation as needed. The COOP branch director oversees these units, ensuring that MEF operations continue, that staff are being managed, and that any relocation requirements are met. (Edwards & Goodrich, 2011, p. 2.52) The COOP Branch Director, along with the officers and section chiefs in the EOC, will report to the Management Section Chief, whose job is to oversee the response to the emergency event. The EOC, and the COOP branch, will remain active until the event has ended and the Management Section Chief can give an all-clear. At that time the EOC may be closed while the COOP functions may continue through Recovery.

Incident response, emergency operation centers, and the continuity branch are all part of the National Incident Management System (NIMS), which contains a large amount of information on the development of teams, plans, EOCs, and other incident management-related topics. Although this guide will not cover the full depth of the subject, there is enough to set up teams and give them assignments. For more information on incident management, FEMA provides a number of free, online training courses, as well as a full introductory manual located

at

https://training.fema.gov/emiweb/is/is700a/student%20manual/is0700a_studentmanual_combine_d.pdf. In addition, FEMA provides a free, online training course on EOC design and operations. This course can be found at <http://emilms.fema.gov/IS775/EOC0101000.htm>. Finally, several jurisdictions have created guidance on the subject and provide it for free on their websites. In California, all state agencies must use the Standardized Emergency Management System (SEMS) for organizing the EOC and local response, and local governments, voluntary agencies and the private sector are encouraged to use SEMS. The California Office of Emergency Services provides guidance documents at its website, www.oes.ca.gov/plans.

Continuity Plan Creation

The planner will need to compile all of the information necessary to perform the agency's MEFs. The planner will need the following information from the MEF datasheets and the risk analysis:

1. A list of all identified hazard events
 - a. This information should include the events, the probability of their occurrence, and their impacts on each essential function
2. All identified MEFs and their related BPA worksheets
3. The established priorities for function restoration
4. A list of any leadership needed at the site and their assigned alternates
5. A list of staff who perform functions and their assigned alternates

The planner will put together a worksheet, or set of worksheets, for each possible event and describe the actions to be taken after the immediate response is complete. All of the

information needed will be found in the MEF and BPA worksheets or the risk analysis. During continuity operations, the organization needs to focus on restoring functions in priority order. Priorities were established earlier and, unless there are circumstances preventing it, functions should be restored according plan. The planner will now need to create a list of actions that need to be taken for each event. In order to do this, the planner needs to know:

1. Required staff
 - a. Members of agency leadership required for MEF performance
 - b. Staff who normally perform the MEF
 - c. Any long-term volunteers who normally perform or support the MEF
 - i. Include contact information for all of the above
 - ii. Identify any personnel who can telecommute and still perform their job functions
 - iii. Identify any personnel who would be considered “key” and must either be present, be telecommuting, or have their tasks or authority delegated.
2. Alternate staff who can perform MEF tasks
 - a. Each position should have at least one alternate
 - b. Multiple tasks may be assigned to one staff member
 - c. Ensure that leadership has clear lines of delegation in case management becomes unavailable.
3. The critical supplies and equipment for the MEF
 - a. Equipment needed for on-site tasks, such as computers, stoves, or beds
 - b. Supplies needed to perform MEFs

- c. Mobile equipment like laptops, cellphones, or radios
- 4. Sources for replacements of damaged equipment
 - a. Regular vendors and their contact information
 - b. Alternate vendors for one-time use in an emergency if regular vendors are unable to deliver and may affect the ability to restore a function by the RTO requirement.
- 5. Sources for alternate supplies
- 6. Vital records for each MEF
 - a. What are they, where are they kept, where the backups are kept, is a key or password needed, and related details.
- 7. Critical infrastructure for each MEF
 - a. Include all buildings and roads that are needed to perform the MEF under normal conditions
 - i. If the MEF relies on travelling on local roads or freeways, include a map showing the normal routes
- 8. Alternate infrastructure for each MEF
 - a. All identified alternate sites for use during continuity operations
 - i. Ensure that sites meet all MEF requirements before committing to use
 - b. A list or map of alternate routes will be needed for any transportation-related MEFs
- 9. A list of external partners for each MEF that includes
 - a. The organization they represent
 - b. The contact names and numbers/emails for each partner

10. The “process map” from the BPA process, detailing what needs to be done in order to actually accomplish the tasks involved in completing the MEF

After all of the above information has been gathered from the source documents, the planner can begin creating continuity worksheets that will give specific instructions regarding what needs to be done in order to successfully restore and perform MEFs, who needs to perform which tasks, what equipment and supplies are needed, and so on. There will be one worksheet for each event describing the continuity processes for each affected MEF. Note that a single worksheet may go longer than one page, depending on the amount of information that needs to be on it. It is recommended that worksheets be printed on both sides of a page to minimize the number of papers a person may have to look at.

A sample sheet will be provided here that demonstrates a variety of worksheet inputs with no particular event in mind. The purpose of the sample is to show what each component will look like when combined into the plan worksheet. This worksheet can be found in Appendix B-1.

Sample Continuity Worksheet

| | |
|---|--|
| Site: Event: | Probability: Impact: |
| MEFs Affected (Includes associated ESAs) | <p>Overnight Shelter – Priority A – Restore within 4 hours Food Distribution – Priority A – Restore within 12 hours Shower/Restroom Facilities – Priority B = Restore within 24 hours Case Management Services – Priority B = Restore within 36 hours Service Referrals – Priority C – Restore within 15 days Mobile Clinic Use – Priority C – Restore within 30 days</p> <p>List all MEFs that can be affected by the event</p> |
| Staff Responsible | <p>Site Leadership – (XXX) XXX-XXXX Alternate : (XXX) XXX-XXXX</p> <p>For each MEF, list the names and contact information for all related staff, all related volunteers, and all of their assigned alternates</p> |
| Communication Needs | <p>Phones – Land Lines, Cellphones Two-Way radios Email</p> <p>List all means of communication necessary to perform affected MEFs</p> |
| Necessary Actions and Alternatives | <p>Contact all external partners who may rely on, or provide services for, affected MEFs</p> <p>Shelter Activities (Shift times) Prepare beds – Performed by X VOLUNTEER(S)– supervised by STAFF MEMBER <i>If event has damaged supplies and more are needed, refer to replacement section</i> <i>If event has damaged beds or rendered them inaccessible, activate alternate site</i> Perform intakes – Performed by X STAFF MEMBER(S) <i>If event shuts down intake computers – Switch to paper intakes, store at front desk</i> <i>If event blocks main entrance – Redirect clients to entrance on DIRECTION side</i></p> <p>Kitchen Activities (Shift times) Prepare food – Performed by X VOLUNTEER(S) and Y STAFF MEMBER(S) <i>If event has damaged stoves, prepare no-cook meals from refrigerator</i> <i>If event has damaged stoves and ruined supplies, activate alternate site</i> Distribute food – Performed by X VOLUNTEER(S) and Y STAFF MEMBER(S) <i>If event has blocked access to dining area, activate alternate site</i> <i>If event has damaged dining supplies, refer to replacement section</i></p> <p>List the functions, alternatives, and staff/volunteer requirements for each affected MEF</p> |
| Alternate Site Activations | <p>Overnight Shelter Activities – Activate winter shelter site early OR Redirect shelter users to shelter site 2 OR Contact shelter partner agencies and request assistance OR Request emergency hotel vouchers from funder (Extreme weather only)</p> <p>Food Distribution Activities – Set up outdoor cooking equipment/tables if available OR Distribute food using only non-cook supplies OR Redirect clients to shelter site 2 OR Redirect clients to other distribution centers</p> <p>List the alternate site options for each affected MEF</p> |
| Devolution Procedures | <p>Shelter Operations – Activate Winter Shelter Contact winter shelter site owners to request permission to use site for emergency</p> <p>If permission is granted – Inform shelter team of transition requirement Instruct front desk to inform incoming clients of location change Inform existing clients of need to transfer to winter shelter site Once shelter operations at primary site have ceased, relocate staff/supplies to winter site</p> <p>If permission is denied – Contact shelter site 2 and request beds</p> <p>For each alternate site/MEF, describe the devolution process</p> |
| Critical Equipment & Existing Replacement Inventory | <p>Shelter Beds (25) – located at winter shelter</p> |

| | |
|--|--|
| | <p>Fold-out Beds (20) – located in warehouse <i>Kitchen</i> Portable Stove – located in warehouse Small microwaves (2) – located in warehouse List the replacement options for all critical equipment that is unusable</p> |
| Critical Supplies & Existing Replacement Inventory | <p><i>Shelter</i> Sheets (50) – located in warehouse AND winter shelter Blankets (50) located in warehouse AND winter shelter <i>Kitchen</i> Cooking utensils – located in warehouse List the replacement options for all critical supplies that are unavailable</p> |
| Vital Records & Backup Locations | <p>If needed, records are to be transported to ALTERNATE SITE by STAFF MEMBER Client Files – Located on second floor office area – requires cabinet keys File scans are uploaded to agency servers located at SITE Intake Records – Located at front desk on first floor – requires cabinet keys Record scans are uploaded to agency servers located at SITE List the records and their backup locations for all vital records</p> |
| Locations and Contacts for Replacements | <p>Shelter Beds – VENDOR NAME – (XXX) XXX-XXXX Stoves – VENDOR NAME – (XXX) XXX-XXXX Computers – VENDOR NAME – (XXX) XXX-XXXX Vital Record Backups – CONTACT NAME – (XXX) XXX-XXXX Dining Room Tables – CONTACT NAME – (XXX) XXX-XXXX Dining Utensils – STORE NAME – STORE LOCATION – (XXX) XXX-XXXX Non-Cook Food – STORE NAME – STORE LOCATION – (XXX) XXX-XXXX List the names, contact information, and locations of all vendors who can be contacted regarding the replacement of unusable equipment and supplies. If a third-party manages databases, IT, and digital records, include their information.</p> |
| External Partner Contacts | <p>CITY – CONTACT NAME – (XXX) XXX-XXXX COUNTY – CONTACT NAME – (XXX) XXX-XXXX PARTNER AGENCY – CONTACT NAME – (XXX) XXX-XXXX WINTER SHELTER SITE OWNER – CONTACT NAME – (XXX) XXX-XXXX List the agencies, contact names, and contact information of any external partners who fund or may rely on MEF performance</p> |
| Other Contacts | <p>UTILITY PROVIDER – (XXX) XXX-XXXX PHONE PROVIDER – (XXX) XXX-XXXX INTERNET PROVIDER – (XXX) XXX-XXXX</p> |

Table 8: Sample Continuity Worksheet

The planner will need one sheet for each event. The following explains how to put the sheet together.

1. Identify the site affected, the event occurring, the probability of the event, and the impact of the event
2. Identify all MEFs that will be affected by the event and list them in priority order. Include their RTOs for clarification
3. Identify necessary site leadership and all staff and any regular volunteers who are required to perform each affected MEF. For leadership and staff, identify all alternates and lines of authority.

4. Identify all tools needed to communicate internally or externally.
5. Identify all actions required to perform each MEF and who will perform them.
Identify staffing and volunteer needs for each action. For each potential interruption, like site inaccessibility, technology failures, or damaged equipment, include all identified alternative actions. Functions that have more than one shift should identify how many shifts are needed and how many staff and volunteers are needed for each
6. Identify the alternate sites for each function and all of the processes necessary to relocate to those sites if necessary.
7. Identify the critical equipment (stoves, beds, computers) for each MEF. List the location and amount of all on-site replacements
8. Identify the critical supplies (food, bedding, utensils) for each MEF. List the location and amount of all on-site replacements
9. Identify all records required in the performance of each MEF. List the location of any digital backups, paper copies, and media backups like CDs or tape drives.
Also, determine how records will get to alternate sites and who is responsible for transporting them.
10. Identify vendors and stores where replacement equipment and supplies can be quickly obtained in an emergency. Include the names of vendor contacts and their contact information. Also include any local stores that could be used to purchase any equipment or supplies directly, their contact information, and their locations.

11. List all partner agencies and government entities who may be impacted by MEF failures. Include the name of the organization, the primary contact, and their contact information.
12. List any other parties who may need to be contacted. Include the organization, the contact name (if available), and their contact information

In order to help facilitate smooth continuity operations, a few items, specifically those that might be shared across all events (meaning those items equally applicable for, say, a fire and an earthquake,) need to be documented in one place so that anyone who needs the information can find it. The following items should be included with the plan:

1. A list of all people who should be contacted regarding an event who will not actually contribute to continuity operations. This will mostly be agency leadership.
2. A call tree showing who needs to be contacted and in what order when continuity operations begin
3. A list of authority delegations
4. A list of any keys or passwords and where to find them or their copies. For passwords, the name of the person who can reset them should be included here
5. A list of established disaster response teams (Damage Assessment Team, Continuity Branch staff or EOC staff, for example) and what their tasks are
6. A list of emergency numbers for local police, fire, medical, public utilities, and so on
7. A list of pre-approved vendors to be contacted first regarding replacement or repair of damaged equipment and supplies

8. EOC locations, staff members, and contact information
9. Locations and counts of current replacement inventories

No specific format for these items needs to be followed, but they should be in each site's COOP plan.

Reconstitution and Return to Normal Operations

“Reconstitution requirements address the need for organizations to identify, develop, and coordinate a plan to return to normal operations once leadership determines that the actual emergency, or the threat of an emergency, is over” (Federal Emergency Management Agency, 2013a, p. M1). Agency leadership will determine that the need for continuity operations has passed and inform the Continuity Branch. The damage assessment team will determine whether the original site or affected facilities can still be used. After that determination is made, the Emergency Relocation Group will need to begin whatever actions are necessary to resume operations at the original site, at a temporary location until the original site is available, or at a new site.

Reconstitution will include:

- 1) Transitioning functions to a temporary site or to a new permanent site
- 2) Addressing damage to critical infrastructure
- 3) Recovering any salvageable equipment, supplies, or records.
- 4) Replacing or repairing damaged equipment and supplies
- 5) Replenishing supplies to their normal operating levels
- 6) Determining if any vital records were lost and how they can be recovered

- 7) Determining whether it is time to return to normal operations
- 8) Communicating to agency leadership and non-Continuity staff when the situation has ended

The planner and the Emergency Relocation Group (ERG) will need to determine how reconstitution efforts will be focused and, as necessary, how to transition organizational operations to a permanent or temporary operations site. The planner should plan to restore operations in priority order and, if services are being transitioned to a new site, they should be moved in that order. After MEFs have been fully restored the ERG should then begin focusing on restoring any deferrable essential functions, followed by any functions that were deemed non-essential. After all functions have been successfully restored or fully relocated, the ERG should begin cessation of all continuity activities at the temporary continuity site(s). Once continuity operations have been completed, the ERG should inform agency leadership, who can deactivate the continuity plan and inform relevant staff and partners that operations have been restored.

Once normal operations have resumed, the ERG should create an after-action report (AAR). After-action reports are used in “identifying lessons learned, best practices, and improvement needs and documenting those findings” (Federal Emergency Management Agency, 2011, pp. 2-3). The AAR “...will offer insight into the strengths and weaknesses of the agency’s COOP program (Edwards, Goodrich, & Medigovich, 2011, p. B42). The ERG staff will meet and document the performance of the plan and what needs to be improved in order to make future continuity operations more successful. Possible topics could be what supplies or equipment were missing, the ease of using the continuity plan, or reviews of anything that went wrong. This information should be documented and incorporated into the existing continuity plan, or used to create an improvement matrix for COOP plan elements.

Recovery

In the recovery phase, site staff and agency leadership will determine how much equipment and infrastructure was damaged or destroyed. Once that has been determined, insurance companies and, if they are funding replacements, funders can be contacted regarding replacing items or reimbursing the agency for any payments that were made during continuity operations to restore MEF functionality. Recovery relies heavily on business processes the organization should already have in place for replacing items via vendors, insurance, and funders. Planners are encouraged to rely on the existing processes, which should be used after the event has passed.

TESTING, TRAINING, AND EXERCISING

Testing, training, and exercising, or TT&E, helps ensure “...that an agency’s COOP plan is *capable* of supporting the continued execution of its essential functions throughout the duration of the COOP situation” (Edwards & Goodrich, 2011, p. B44). TT&E is, obviously, broken into three equally important pieces.

Tests

Testing is the easiest of the three components. The planner should arrange to have a variety of drills based around potential hazards performed. Fire, earthquake, and flood drills that test staff’s ability to manage the initial response to an event will aid them greatly when an actual event occurs. IT, electronic backup, and communication functions should also be tested, which may be

as simple as “cutting the cord” on internet capabilities. These drills should be performed at least annually. Any equipment or supplies that may fail, possibly due to going unused before use as a replacement, should be tested annually to ensure that it is still capable of functioning during a continuity event. Ideally, and where possible, equipment and supplies should be rotated occasionally to keep them “warm.” Any records that are stored on physical media should be checked annually to make sure that they are still functioning. Finally, any mitigating or preventive controls should be tested in order to ensure that they are doing their jobs.

After each test, the staff members in charge of administering it should create an AAR using their observations of events during the drill and any input from participating staff. If there are weaknesses in the plan, it needs to be adjusted in order to eliminate the problem. If any equipment or backups are not working, replace them. If controls are not adequately mitigating risk, re-examine them and find alternatives. If leadership feels it is necessary, drills should be run regularly throughout the year until staff members are comfortable with the response and continuity plans and plan weaknesses have been eliminated.

Training

“Training familiarizes continuity personnel with their roles and responsibilities in support of the performance of an organization’s essential functions during a continuity event” (Federal Emergency Management Agency, 2013a, p. K1). Agency leadership should ensure that all staff, regardless of position and whether they are temporary workers or contractors, know their roles in an emergency or continuity situation. Staff at different sites should know what their site’s essential functions are and the plans in place to protect them, like relocation plans and response plans. Training should also include proper use of equipment in order to prevent accidents,

locations of supplies, and anything else that staff members may need to know if they suddenly need to handle a function not normally tied to their positions. Staff members should also know where emergency keys are and the location of vital records.

Exercises

Exercises are extremely important and will help leadership and planners determine where the weaknesses in their continuity plans are before an event occurs. Exercises give the Continuity team the opportunity to “demonstrate their familiarity with continuity plans and procedures and to demonstrate the organization’s capability to continue its essential functions” (Federal Emergency Management Agency, 2013a, p. K3). They also give site staff the opportunity to practice their tasks in a simulated continuity situation, rather than waiting until an actual emergency to find out if they are unprepared. Through exercises, staff are also given a chance to perform the response, continuity, and reconstitution plans and give their input regarding the plans during in the AAR. Exercises will also let planners find out how suitable their identified alternate sites are. It would be a serious setback if an event occurred that necessitated the transferring of operations to an alternate site, and traffic (which may be worse in certain events) and distance make it unfeasible to set up operations before RTO.

Continuity exercises can range in scope from a single function, such as the kitchen, to the entire organization. Wherever possible, the organization should try to include all staff who will be responding and any external partners who would be affected by a MEF failure. It may even be possible to involve members of the local community and volunteers in the exercise. Exercises should be planned out as far in advance as possible and should test realistic situations that will actually occur. During exercises, the entire continuity plan should be worked through in order to

find particular strengths and weaknesses. At the end of any exercise, as with actual events and drills, an AAR should be completed to determine where plan weaknesses exist and where improvements can be made.

Continuity exercises are a complex undertaking that require a lot of planning and preparation. Development of exercises is beyond the scope of this guide, but some basic guidance has been provided above so that the planner can get started and hold his own exercises. For a thorough look at how to design continuity exercises, consult the Department of Homeland Security's *Homeland Security Exercise and Evaluation Program*, located at http://www.fema.gov/media-library-data/20130726-1914-25045-8890/hseep_apr13_.pdf. FEMA also provides pre-made exercises for a variety of events at <http://www.fema.gov/emergency-planning-exercises>. A guide for using the project management approach to exercise development is available at <http://transweb.sjsu.edu/project/1103.html>.

Assembling the Plan

This concludes the guide portion of this document. At this point, the planner should have all of the information that he needs to put the plan on paper and present it to leadership for final approval. Appendix C contains a sample template that can be used as a guide in completing the final product. Once the plan is assembled, presented, and approved, copies should be made for each site. The plans should be kept in binders that are clearly labelled as the continuity plan so as to avoid confusing the plan with either the emergency response plan or other documents. Staff

should know where the binder is and should be able to easily access it in an emergency. The plan should have an update history in it that briefly describes changes.

Conclusions and Recommendations

As mentioned at the beginning, this guide combines COOP guidance into a single document that will be simple enough for a planner to pick up and use without needing other manuals.

Unfortunately for nonprofits, more documentation that covers many aspects of this guide exists, but is often spread across multiple manuals, behind paywalls, or is insufficient for any real plan development. Unfortunately, aside from Red Cross guidance, little exists on continuity for nonprofits and most Red Cross guidance addresses temporary shelters and not a full-scale continuity event.

FEMA has excellent guides, such as the FCD series and the CGC series cited in this document, but they are very much aimed at government agencies, not small community service providers. They are written in such a way that the average non-government user may find them too complex to use. FEMA guidance also requires some knowledge of government terminology and, often, requires outside knowledge. Business continuity guidance, aside from being expensive, is aimed mostly at continuity for the private sector and assumes the presence of extensive resources for all aspects of the planning process. Like FEMA's guidance, private sector guidance is often scattered. Resources will be broken up over multiple training courses and manuals, each having its own "entry fee." Many organizations sell continuity solutions in the form of consultancy and templates, but this is still expensive and does not teach organization staff to create their own plans.

It is recommended that more work be done on creating simple, easy-to-follow, and inexpensive COOP plans for use by nonprofit organizations. There are countless sources available online for free or through private-sector companies that would be excellent tools for nonprofits, but most of it is too complex on its own without some kind of additional training. Governments and private enterprises should consider including local non-profits in their training events, remembering that the nonprofit agencies – shelters, food banks, clinics, and so on – provide the communities where they govern and do their business with indispensable services.

This is not to put the entire burden on government and private businesses. FEMA offers many free training courses online that provide the necessary background knowledge to effectively maneuver their manuals. Organizations like the International Association of Emergency Managers (IAEM) (www.iaem.com) and the California Emergency Services Association (CESA) (www.cesa.net) provide many workshops, trainings, events, and resources for a low membership fee. Organizations like Collaborating Agencies Responding to Disasters (CARD) (www.cardcanhelp.org), a non-profit agency based in Oakland, CA, can help provide training and materials related to COOP and emergency response. Collaborating Agencies Disasters Response Efforts (CADRE) (<http://www.cadresv.org/about-us/>), based in the Silicon Valley Red Cross chapter, offers free and low cost training on aspects of emergency management for voluntary agencies. National and local chapters of Voluntary Organizations Active in Disasters (VOAD) (<http://www.nvoad.org/>) also provide some emergency preparedness and response guidance aimed at non-profits. COOP-specific training, however, is seldom available.

Disasters affect all parties in the affected area, not just private businesses and government agencies. Nonprofits and the people they serve are an important part of their communities, and

they should have access to the same preparation and response tools as other groups. Non-profits should include COOP planning in their annual work plans and budgets, and governmental and other funders should pay for COOP as an important administrative role.

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Appendix A
A-1: National Essential Functions

1. Ensuring the continued functioning of our form of government under the Constitution, including the functioning of the three separate branches of government;
2. Providing leadership visible to the Nation and the world and maintaining the trust and confidence of the American people;
3. Defending the Constitution of the United States against all enemies, foreign and domestic, and preventing or interdicting attacks against the United States or its people, property, or interests;
4. Maintaining and fostering effective relationships with foreign nations;
5. Protecting against threats to the homeland and bringing to justice perpetrators of crimes or attacks against the United States or its people, property, or interests;
6. Providing rapid and effective response to and recovery from the domestic consequences of an attack or other incident;
7. Protecting and stabilizing the Nation's economy and ensuring public confidence in its financial systems; and
8. Providing for critical Federal Government services that address the national health, safety, and welfare needs of the United States (Bush 2007)

A-2: BCM/COOP Laws and Regulations Pre- and Post- 9/11

| BC STANDARDS AND REGULATIONS: PRIOR TO AND POST 9/11 | | | | |
|--|--|-------------|---|--|
| 1991 – 2001 | <ul style="list-style-type: none"> Consumer Credit Protection Act OMB Circular A-130 FEMA Guidance Document Paperwork Reduction Act FFIEC BCP Handbook Computer Security Act 12 CFR Part 18 Presidential Decision Directive 67 FDA Guidance on Computerized Systems used in Clinical Trials ANSI/NFPA Standard 1600 Turnbull Report (UK) ANAO Best Practice Guide (Australia) SEC Rule 17 a-4 FEMA FPC 65 CAR | 2002 – 2008 | <ul style="list-style-type: none"> Sarbanes-Oxley Act of 2002 HIPAA, Final Security Rule FFIEC BCP Handbook Fair Credit Reporting Act NASD Rule 3510 NERC Security Guidelines FERC Security Standards NAIC Standard on BCP NIST Contingency Planning Guide FRB-OCC-SEC Guidelines for Strengthening the Resilience of US Financial System NYSE Rule 446 California SB 1386 Australia Standards BCM Handbook GAO Potential Terrorist Attacks Guideline Federal and Legislative BC Requirements for IRS Basel Capital Accord MAS Proposed BCP Guidelines (Singapore) | <ul style="list-style-type: none"> NFA Compliance Rule 2-38 FSA Handbook (UK) BCI Standard, PAS 56 (UK) Civil Contingencies Bill (UK) FPC 65 NYS Circular Letter 7 ASIS State of NY FIRM White Paper on CP NISCC Good Practices (Telecomm) Australian Prudential Standard on BCM HB221 HB292 BS25999 SS507 TR19 CA Z1600 ISO/PAS 22399 DRII Title IX – 110-53 |

Source: Disaster Resource GUIDE, n.d., p. 15

B-2:MEF + ESA Identification Worksheet

| Mission vs. Supporting Functions | |
|---|-----------------------------|
| Mission Functions | Supporting Functions |
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| Prepared by: | Date: |

B-3: Mission vs. Non-Mission Functions Worksheet

| Function vs. Support | Essential | Non-Essential |
|----------------------|-----------|---------------|
| Function | | |
| Support Activity | | |
| Prepared by: | | Date: |

B-4: Mission Essential Function Datasheet

| | |
|--|--------------|
| <u>Organization Name:</u> | <u>Date:</u> |
| <u>Name of Function:</u> | |
| <u>Description of Function:</u> | |
| <u>Impacts If Not Performed:</u> | |
| <u>Recovery Time Objective:</u> | |
| <u>Interdependencies with Internal or External Partners:</u> | |
| <u>Contact Information for Responsible Staff:</u> | |

B-5: MEF Prioritization Worksheet

| MEF | Impacts if Not Performed | Legal/Contract Requirement? | Maximum RTO | Number of Staff Needed | Interdependencies | Priority Rating |
|--------------|--------------------------|-----------------------------|-------------|------------------------|-------------------|-----------------|
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| Prepared by: | | | | | | Date: |

B-6: Business Process Analysis Worksheet

| | |
|------------------------------------|-------|
| Organization Name: | Date: |
| Function Analyzed: | |
| Function Outputs: | |
| Inputs Needed to Perform Function: | |
| Mandatory Leadership Presence: | |
| Staff/Volunteer Requirements: | |
| IT/Communication Requirements: | |
| Alternate Site Requirements: | |
| Indirect Resource Requirements: | |
| Budgets: | |
| Interdependencies with Partners: | |
| Process Details: | |

B-7: Risk Assessment Worksheet

| MEF Analyzed: | | | | Date: | |
|---------------------|--------------------------------------|---------------------|--------------------|------------|----------|
| Description of MEF: | | | | | |
| Type of Event | Description of Event & Impact on MEF | Likelihood of Event | Impact on Function | Risk Level | Comments |
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B-8: Mitigation Worksheet – Existing Controls

| Type of Event: | | | Date: |
|--|------------------------|------------------------------|------------------------------|
| Affected MEF: | | | Risk Level: |
| Description of Impact on MEF: | | | |
| Control | Description of Control | Mitigating Effect of Control | Costs to Maintain or Operate |
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| Are the existing controls sufficient to prevent or significantly mitigate impacts: | | | |

Mitigation Worksheet – Proposed Controls

| Type of Event: | | | Date: |
|------------------|---------------------------------|--------------------------------|----------------------------|
| Affected MEF: | | | Risk Level: |
| Proposed Control | Description of Proposed Control | Advantages of Proposed Control | Cost to Obtain and Operate |
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B-9: Damage Assessment Worksheet

Damage Assessment Team: _____

Date: _____

| Equipment/Infrastructure | Condition | Salvageable | Notes |
|--------------------------|-----------|-------------|-------|
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B-10: Continuity Worksheet

| | |
|---|---|
| Site: Event: | Probability: Impact: |
| MEFs Affected (Includes associated ESAs) | <i>List all MEFs that are affected by the event</i> |
| Staff Responsible | <i>For each MEF, list the names and contact information for all related staff, all related volunteers, and all of their assigned alternates</i> |
| Communication Needs | <i>List all means of communication necessary to perform affected MEFs</i> |
| Necessary Actions and Alternatives | <i>List the functions, alternatives, and staff/volunteer requirements for each affected MEF</i> |
| Alternate Site Activations | <i>List the alternate site options for each affected MEF</i> |
| Critical Equipment & Existing Replacement Inventory | <i>List the replacement options for all critical equipment that is unusable</i> |

| | |
|---|--|
| <p>Critical Supplies & Existing Replacement Inventory</p> | <p><i>List the replacement options for all critical supplies that are unavailable</i></p> |
| <p>Vital Records & Backup Locations</p> | <p><i>List the records and their backup locations for all vital records</i></p> |
| <p>Locations and Contacts for Replacements</p> | <p><i>List the names, contact information, and locations of all vendors who can be contacted regarding the replacement of unusable equipment and supplies. If a third-party manages databases, IT, and digital records, include their information.</i></p> |
| <p>External Partner Contacts</p> | <p><i>List the agencies, contact names, and contact information of any external partners who fund or may rely on MEF performance</i></p> |
| <p>Other Contacts</p> | <p><i>List any other parties that should be contacted if continuity operations begin</i></p> |

Appendix C

ORGANIZATION NAME

Continuity of Operations Plan

SITE NAME

Version #

Last Updated On XX/XX/XXXX by PLANNER

Purpose

The purpose of this plan is to have plans on-hand in the event that essential functions are disrupted by factors beyond our control. This plan will facilitate the restoration of essential services to the widest extent possible in a minimum time frame. ORGANIZATION is committed to identifying options to prevent disrupting events and to mitigate the effects of events that occur to the lowest amount possible. This plan identifies impacts and recommends necessary measures to prevent extended outages. The scope of this plan is limited to [name the organization or the site covered by this plan]. This is a business continuity plan, not a daily problem resolution procedures document.

[If this plan covers all sites or is a master plan for reference use, list all sites here in the order most appropriate]

Assumptions

- All necessary staff and volunteers needed to perform essential functions will be present or able to reach their assigned locations
- Initial disaster effects (active fires, evacuations) will be handled by local responders (Police, fire)
- Equipment and supplies will be obtainable by staff or volunteers and made available as needed
- At least one identified alternate site will be available if needed and for the duration of operations
- [Planner should list any other assumptions being made during the creation of the plan]

Prepared by NAME on XX/XX/XXXX
(XXX)XXX-XXXX
XXXX@XXXX.org

Summary of Essential Functions

Mission-Essential Functions (MEFs) are those functions that ORGANIZATION must perform with no or little interruption. This can be because of impacts to the community, legal or funder requirements, or management instruction. The following is a list of MEFs for SITE. MEFs listed here assume the performance of all associated functions needed to complete the MEF.

[List all MEFs here – If this plan is for multiple sites, list by site]

MEF Priorities

Due to constraints on financial resources and staffing, MEFs have been prioritized according to a number of different considerations in order to ensure that appropriate resources are put toward restoring the most important functions in a timely manner.

[List each MEF in priority order, along with the justification for each MEF's ranking on the list and their RTO. Sort by site first if this plan includes all sites]

Example:

- *Shelter Overnight Operations – RTO: 12 hours – Priority A*
 - *Provision of overnight shelter to homeless persons is the primary mission of SITE. Failure to provide this service will have an impact on shelters users, the community, and other partner shelters who may receive anyone we must turn away. In addition, our funding contract with FUNDER allows us only one overnight period of closure, at which point we are expected to have solved the problem or established alternative service provision capabilities.*

MEF Details

The following pages provide detail on the equipment, supply, staffing, time, facility, and other needs necessary to fulfill each MEF. The worksheet for each MEF will identify:

- MEF Processes
- MEF Outputs
- MEF Inputs
- Leadership Needs
- Staffing Needs
- IT/Communication Needs
- Alternate Site Requirements
- MEF Relocation Process
- Equipment and Supply needs
- Critical Records required for the MEF
- Funding Sources for MEF continuity operations
- Internal and External interdependencies

[Insert the Business Process Analysis worksheets after this page – sort them by site and then priority order if this plan encompasses the entire organization]

Risk Assessment

ORGANIZATION has thoroughly researched the natural, technological, and human-caused threats to operations at SITE. In summary, SITE is at risk from the following:

[List identified site threats here in order of highest risk to lowest risk. Include the risk rating and reason for that rating for each MEF. Make sure to include the estimated impact to each site MEF that will be affected.]

SAMPLE:

Major Earthquake (6.0+) – High Risk: Although there is a low probability of an earthquake rating 6.0 or above at SITE, we cannot predict the event and it would cause significant damage to infrastructure and equipment needed to perform MEFs. It would also damage local roads, making relocation of services difficult as well. Estimated downtime for overnight shelter operations is a minimum of 4 hours to allow for a full damage assessment. Especially damaging events may require more time. Estimated damage costs are \$XXXXXX

ORGANIZATION has developed controls in an effort to mitigate and, where possible, wholly prevent the causation and impacts of disrupting events. The following measures are in place to accomplish this goal”

[List all of the controls that are in place here – procedural and physical. Any controls that are disabled, being installed, or otherwise unavailable should be noted with the date they were disabled. Update the list when they are enabled again. For backups of vital records, include each type of backup.]

SAMPLE:

SITE NAME

Access card entry to office area – prevents general public /clients from entering admin

Smoke/CO detectors – Installed throughout site

Sprinkler System – DOWN FOR MAINTENANCE EFFECTIVE XX/XX/XXX

CD backups of client files – CD backups are done once per week and are stored in the site manager’s office

Cloud-based backup of computer – System backups are uploaded automatically at 8am.

EVENT RESPONSE PLANS

During an event, its related response plan should be used. For emergency response procedures, please consult the emergency response plans. ORGANIZATION has a number of emergency response plans in place for SITE. These plans are located in a binder at SITE’S INTERNAL LOCATION. The master copies of these plans are located at ORGANIZATION’S INTERNAL LOCATION.

DAMAGE ASSESSMENT

After the immediate effects of an event have ended or been contained, SITE’S damage assessment team will examine the building, equipment, and supplies for each MEF to determine site capabilities. If necessary, a member or members of the team will determine whether critical transportation routes are damaged or heavily impaired by traffic. SITE’S damage assessment team consists of:

Damage Assessment Team

| Name | Contact Info (All) | Assignment |
|-------------------------|---------------------------|--------------------------------------|
| <i>Team member name</i> | <i>Office/Cell/Email</i> | <i>Supplies/Equipment/Bldg/Roads</i> |
| | | |
| | | |

If the damage assessment team determines that SITE is incapable of performing any MEFs in its current condition, that function will be relocated to one of its alternate sites. If an alternate site must be activated, the continuity plan should be activated immediately.

If a MEF’s operations are interrupted but can be restored on site before their associated RTO, staff should do so in priority order. Only MEFs that cannot be continued on site should be relocated. If any MEF will be out of commission for longer than its RTO, the continuity plan should be activated immediately.

If the plan must be activated, contact [staff responsible for COOP operations for SITE] immediately at XXX-XXX-XXXX. In the event that the COOP plan is activated, an emergency operations center should be set up at [SITE’s location for its EOC.] The following staff, or their alternates, should be contacted to inform them that the EOC has been activated:

Emergency Operations Staff

| Position | Name | Contact Info (all) | Alternates | Alternates’ Contact Info |
|--------------------|-------------|---------------------------|-------------------|---------------------------------|
| Incident Leader | | | | |
| Safety | | | | |
| Liaison | | | | |
| Public Information | | | | |
| Operations | | | | |

(Note: the above list of positions is a sample – a real position list may combine positions, add positions, or eliminate them as needed. It is suggested that all positions be used where possible to reduce workload)

Continuity Operations

Continuity operations continue until MEF operations have been fully restored at either an alternate site or the primary site. The following pages show the existing procedures, staff, resource needs, and relevant contacts, for each type of event if it occurs at SITE.

[At this point, the planner can insert the Continuity worksheets after this page in whatever order is preferred. If this plan is for multiple sites, sort by site first. Most of the worksheet information can be

broken down into tables for easier usage. Appendix B-12 - 19 contain blank worksheets if the planner wishes to divide the processes from the lists in that manner.]

Reconstitution

Once it is determined that functions may resume at the original site or at an alternate facility, reconstitution begins. If SITE has been repaired or was not significantly damaged, any alternate sites will be shut down by staff and their functions will be transitioned back to the original site. If the original site is deemed unsuitable for continued operations, all operations will be transitioned to a new site.

[Here the planner will insert the organization's step-by-step transition plans]

In the event that a suitable permanent site is not immediately available, a temporary site will be used until a new permanent location can be found.

In either case, once MEFs have been transitioned and are fully operational at their original or new site, work will begin on the restoration of any deferred essential functions or unessential functions. Once all functions have been restored, and any alternate site has been shut down, continuity operations will end. The Emergency Relocation Group will be disbanded and create an after-action report for upper management detailing the performance of the continuity plan in action.

Recovery

In the event that infrastructure or supplies are damaged and must be replaced, ORGANIZATION has the following plans in place:

[The planner should insert their organization's plan for recovering funds spent on repairs and replacements here. This can include insurance, funder reimbursement, donations, etc.]

After Action Report

After an event, the ERG will meet to discuss the event and examine how well the plan worked. This plan will address:

- Staff performance and an analysis of staff training effectiveness
- Equipment or supply problems
- Problems in the plan processes
- [Add any items that leadership wants as part of the AAR]

This report will be delivered by the incident commander to agency leadership for review.

Tests, Training, and Exercises

ORGANIZATION plans to keep its employees and volunteers prepared to respond to events and perform their essential tasks under any circumstances. To facilitate this, ORGANIZATION has the current drills, training sessions, and exercises planned in YEAR:

| Date | Type | Subject | Attendees | Length |
|----------|---------------------|---------------------|----------------------|--------|
| 1/1/2015 | Drill | Fire Response Test | SITE staff | 1hr |
| 2/1/2015 | Training | First Aid/CPR | All staff | 4hrs |
| 3/1/2015 | Exercise (On-site) | Earthquake Exercise | SITE staff, partners | 8hrs |
| 4/1/2015 | Exercise (tabletop) | Tornado Exercise | ERG Only | 5hrs |
| | | | | |

[At this point, the planner should feel free to add any other important information they feel is needed for the plan. This can include lists of contact numbers for staff, locations of other staff, contact numbers for staff throughout the agency not mentioned here, and so on.]

Appendix D: Worksheets for Use with Appendix C

D-1: Staff Listing – Include Regular Volunteers

| Position | Name | Contact Information | Alternates | Alternates Contact Info |
|-----------------|-------------|----------------------------|-------------------|--------------------------------|
| Site Manager | | | | |
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D-2: Site Communication Needs

| Item | Current Inventory | Options for Replacements |
|------|-------------------|--------------------------|
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D-3: Alternate Sites

| Location | MEF(s) Applicable | Site Contact Name | Site Contact Number | Site Address | Setup Time |
|----------|----------------------|----------------------|------------------------|--------------|------------|
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D-4: Site Critical Equipment

| Equipment | MEFs Applicable | Replacement Inventory | Replacement Options |
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D-5: Site Critical Supplies

| Equipment | MEFs Applicable | Replacement Inventory | Replacement Options |
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D-6: Critical Records and Backups

| Record | Applicable MEF | Record Type (Phys/Digi) | Record Location | Backup Type (Phys/Digi) | Backup Location | Backup Frequency |
|--------|----------------|-------------------------|-----------------|-------------------------|-----------------|------------------|
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D-7: Approved Vendors/Stores

| Company | Contact Name | Contact Information | Item Supplied | Address for Pickups |
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D-8: Funders/Partners/Other Contacts

| Organization | Contact Name | Contact Information | Type of Contact |
|--------------|--------------|---------------------|-----------------|
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