

Small Business Continuity Planning  
Integrated with Fire Department Pre-Plans  
Derik Minard  
City of Westminster Fire Department  
Westminster, Colorado

### Abstract

Business continuity planning is essential to business survival and often overlooked by the owner or management. The plan contains critical information to aid in recovery after natural, man-made, or technological disasters. The fire department is often first on-scene to disasters and many have pre-plans to aid in mitigating an emergency. The business continuity plan has pieces that can be incorporated in a fire department pre-plan to expedite recovery; set priorities when multiple businesses are impacted, and help a business set their recovery in motion. The problem is that existing pre-plan practices with the Westminster Fire Department limit critical information that help business continuity and could provide critical information to the Emergency Operations Center. The purpose of this research is to look into pre-plan practices to serve a broader purpose in assisting businesses in disaster recovery. Descriptive research was used to answer the following four questions:

1. What are the best practices for small businesses in regards for business continuity planning?
2. What information from a small business continuity plan should be incorporated into the fire department pre-plans to support local decision making during a disaster?
3. How would the data collected be used in the fire department, emergency management, and with overall recovery planning by the City of Westminster?
4. What is the impact on fire personnel to address these additional fire pre-plan requirements?

The procedures used for this research include literature review and two questionnaires administered to the business community and fire department operations personnel. This research

revealed components of business continuity plans, what elements may be included in a fire pre-plan, how this information will be gathered, and how this program will impact fire department operations. The results demonstrate a correlation between these two plans and the fire department can be pro-active in a helping businesses recover.

## Table of Contents

Abstract	2
Table of Contents	4
Introduction	5
Background and Significance	7
Literature Review	11
Procedures	18
Results	21
Discussion	26
Recommendations	32
References	36
Appendix A City of Westminster Emergency Preparedness Questionnaire Parameters	40
Appendix B City of Westminster Emergency Preparedness Questionnaire	41
Appendix C City of Westminster Emergency Preparedness Questionnaire Results	46
Appendix D Fire Department Questionnaire Parameters	52
Appendix E Fire Department Questionnaire	53
Appendix F Fire Department Questionnaire Results	54

Small businesses are the essence of any community and their survival is vital for a sustainable economic environment. Across the country, each community should have diverse businesses representing the community and be able to serve a dynamic municipality. When a small business is developed, many people do not consider what would happen in the event of a disaster whether man-made, natural or technological and do not create a business continuity plan (Blackwell, 2010). More than 60% of U.S. small businesses do not have formal emergency-response plan and do not back-up their data off-site. Therefore, these businesses are vulnerable to catastrophic loss (Drew, 2012, para. 1). Statistics show that 25% of businesses do not reopen after a natural disaster and 43% do not re-open after catastrophic data loss ("Impact on U.S. Small Business," 2007, p. 4). More staggering is that 75% of businesses fail within three years of a natural disaster that do not have business continuity plans ("Impact on U.S. Small Business," 2007, p. 4).

Small businesses invest a tremendous amount of time, money, and resources into their venture yet many do not plan for disasters ("Disaster Planning," n.d.). It is imperative small business owners take this piece of their planning seriously and prepare for events that can interrupt their business. "Good business continuity plans will keep your company up and running through interruptions of any kind..." (Slater, 2012, p. 1). When a business comes to a community, it is important that the community leaders work with the small business to reflect on the types of hazards they may face (Hurtado, 2012). Working together to ensure business continuance is a vital function for small business survival in any community. Experts agree:

"A Company that experiences a computer outage lasting more than 10 days will never fully recover financially. 50 percent will be out of business within five years."

An estimated 25 percent of businesses do not reopen following a major disaster

70 percent of small firms that experience a major data loss go out of business within a year. Of companies experiencing catastrophic data loss:

- 43% of companies never reopened
- 51% of companies closed within 2 years
- 80% of companies that do not recover from a disaster within one month are likely to go out of business.
- 75% of companies without business continuity plans fail within three years of a disaster
- Companies that aren't able to resume operations within ten days (of a disaster hit) are not likely to survive.
- Of those businesses that experience a disaster and have no emergency plan, 43 percent never reopen; of those that do reopen, only 29 percent are still operating two years later. ("Impact on U.S. Small Business," 2007, p. 4).

The City of Westminster Fire Department realizes its role in working with the business community to ensure their survival. Community outreach and community risk reduction programs have come to the forefront of the fire service and should be a priority (Crawford, 2012). The Westminster Fire Department employees are ambassadors to the community as they reach all businesses through company business inspections. The fire department employee group can take an active role in helping businesses plan for disasters and recovery. The problem is that existing pre-plan practices with the Westminster Fire Department limit critical information that help business continuity and could provide critical information to the Emergency Operations Center during natural, man-made, or technological disasters. The purpose of this research is to look into pre-plan and business inspection practices to serve a broader purpose in assisting

businesses in short and long-term disaster recovery. The type of research used is descriptive and the following questions will be researched and discussed:

5. What are the best practices for small businesses in regards for business continuity planning?
6. What information from a small business continuity plan should be incorporated into the fire department pre-plans to support local decision making during a disaster?
7. How would the data collected be used in the fire department, emergency management, and with overall recovery planning by the City of Westminster?
8. What is the impact on fire personnel to address these additional fire pre-plan requirements?

#### Background and Significance

The City of Westminster is a thriving community that is nestled between Denver and Boulder, Colorado. The City is 33.7 square miles and is the home to over 109,000 residents and 4,000 businesses. The City of Westminster relies on its generation of sales tax, as it is 63% of the General Fund. The revenue keeps the community sustainable and moving forward. The majority of the 4,000 businesses that are located in the city meet the definition of a small business (City of Westminster, n.d). According to the Small Business Administration (SBA):

A small business is defined as one that is independently owned and operated, is organized for profit, and is not dominant in its field. Depending on the industry, size standard eligibility is based on the average number of employees for the preceding twelve months or on sales volume averaged over a three-year period. Examples of SBA general size standards include the following:

- Manufacturing: Maximum number of employees may range from 500 to 1500, depending on the type of product manufactured;
- Wholesaling: Maximum number of employees may range from 100 to 500 depending on the particular product being provided;
- Services: Annual receipts may not exceed \$2.5 to \$21.5 million, depending on the particular service being provided;
- Retailing: Annual receipts may not exceed \$5.0 to \$21.0 million, depending on the particular product being provided;
- General and Heavy Construction: general construction annual receipts may not exceed \$13.5 to \$17 million, depending on the type of construction;
- Special Trade Construction: Annual receipts may not exceed \$7 million; and
- Agriculture: Annual receipts may not exceed \$0.5 to \$9.0 million, depending on the agricultural product.

("What is SBA's definition," n.d., p. 1)

Since its inception in 1911, Westminster has not been hit by any significant natural, man-made, or technological disasters ("2010 City of Westminster Natural Hazards," 2010).

According to the State of Colorado Hazards Mitigation Plan, the only significant natural disaster Westminster has experienced since 1980 are blizzards, hail, lightening, and windstorms. On July 11, 1990, a hail storm struck the Denver-Metro area, to include Westminster, and caused \$600 million in damages ("State of Colorado Hazards," 2011). With these types of events, Colorado is well prepared and Westminster has planned to recover in a quick fashion ("2010 City of Westminster Natural Hazards," 2010). Due to planning, business is not disrupted for any significant period of time and these events are viewed as minor inconveniences and the price for



living in Colorado. For the period 1984 to 2012, Westminster averages 42.9 inches of snowfall a year and has had blizzards that have crippled the City although short-term ("Period of Record Climate," 2012). Since the year 2000, Westminster has had two Presidential Disaster Declarations in 2003 and 2009 that were both snowstorms ("2010 City of Westminster Natural Hazards," 2010).

Colorado infrequently has events that cripple an entire community such as Westminster and it develops a sense of complacency among business owners and residents. The largest events in the State are wildfires that typically affect rural communities or areas that are not populated. The effects can be felt in Westminster even though it is located in the Front Range valley as the after-effects reach water supply, flooding, and other resources (Kodas, 2012). The residents look to more immediate consequences from a disaster such as a winter storm and do not see they truly are affected by these events. In addition to these occurrences, there have been man-made incidences such as train derailments and collisions that have impacted a business. Tornadoes have touched down near Westminster and created significant damage such as in Windsor, Colorado that nearly wiped out an entire community ("Mile-wide tornado," 2008). Events go beyond natural disasters or man-made and can be technological in nature. Preparing for all disasters takes time and work to develop a concrete continuance plan takes time and effort. According to Drew (2012), when businesses are asked why they don't have a formal disaster or emergency preparedness plan in place, one-third of the respondents chose this answer: "I've never had an issue before/disasters are rare in my area." (para. 5)

Research has been conducted to stretch out to the business community to evaluate their preparedness in the event for most types of interruptions. These findings will be discussed later in detail. Forty-six percent of Westminster businesses that answered the questionnaire stated they

are prepared to operate off-site if needed and have a continuance plan in place (Appendix C).

This number is slightly higher than national statistical data provided and demonstrates Westminster businesses are not prepared much more than any other community. This is an area that needs to improve as the survival of the City, its services, and the ability to provide amenities are dependent on a business, or businesses, to be able to recover from a natural, man-made, or technological disaster. The City of Westminster has many resources available to assist the business community in becoming prepared and preparing for recovery from a disaster. The City has gone through a difficult economic recession and it appears its recovery is in progress (City of Westminster, n.d). It is imperative a collaborative approach is taken by all stakeholders to ensure the Westminster community can survive a catastrophic event.

This applied research will evaluate the preparedness of the business community in Westminster and look into methods that the fire department can help them prepare for disasters and recovery by developing an unyielding continuity plan. Researching the components required will help make for an expedited recovery process. The results of the research will determine the Fire Department's role in assisting with these plans and incorporating them into the Department pre-plan system. It will determine if pre-plans are the means to collect critical information to assist the Emergency Operations Center or Business Development to focus on the nuances of a business and their immediate needs.

As an Executive Fire Officer, this research is fundamental to the success of Westminster and communities across the country. It is apparent disaster preparedness is lacking in the small business community and an effort needs to be made to correct this deficiency. There are two goals of the United States Administration this research will support. First, it "improves local

planning and preparedness” and second, it “improves the fire and emergency services capability for response and recovery from all hazards.” (“USFA Strategic Plan,” n.d., p. 1).

### Literature Review

When starting a business, many people are excited about the immediate future and starting their dream. Many do not look into the future and plan for potential issues that could disrupt their business. It is imperative that businesses develop business continuity plans that address issues a company could face. Derek Slater (2012) states, “Good continuity plans will keep your company up and running through interruptions of any kind: power failures, IT system crashes, natural disasters, supply chain problems and more.”(para. 1). Disasters often cause small business to relocate or temporarily cease operation that can lead to economic and personal hardship (“Disaster-Preparing Your Small,” n.d., p. 1). Since business are susceptible to lack of recovery and continuity planning, the question must be asked, what are the best practices in regards for business continuity planning?

NFPA 1600 begins by stating a company needs to conduct a business impact analysis that identifies the impacts of losing a business’s resources (*NFPA 1600*, 2010, Chapter 3). It is important to identify the business’s most crucial systems and the effect an outage would have. It is central to identify what items the company should spend more time on to restore quickly (Slater, 2012, p. 2). When evaluating the companies hazards, the company should list they types of disasters that can affect their business, evaluate potential for cyber attack, and conduct a business impact analysis for the potential emergency scenarios (“Disaster Planning,” n.d., p. 2). It is important to evaluate these scenarios and a person can seek the help from their local Emergency Management Agency. For example, the City of Westminster has developed a Natural Hazards Mitigation plan that has evaluated the potential disasters for the community, the

frequency, likelihood of occurring, and the impact it could have on the community. This is a comprehensive study performed by the Emergency Management Office and contains information for Westminster and Colorado. It identifies four key areas: identifying hazards, profile of hazard events, inventory assets, and estimated loss ("2010 City of Westminster Natural Hazards," 2010). A business needs to be able to identify their blind spots and it is often wise to have another person look for these issues (McKeever, 2010, p. 186).

Once a company has evaluated the potential hazards whether natural, man-made, or technological, a business continuity plan can be formed. NFPA 1600 (2010) states, "Business continuity is an ongoing process supported by senior management and funded to ensure that the necessary steps are taken to identify the impact of potential losses, maintain viable recovery strategies, recovery plans, and continuity of services." (Chapter 3) In order to accomplish this goal, a team or group must be formed to evaluate the firm. A collaborative effort from a dynamic group is essential to cover all aspects of the business (Vanden Bos, 20120). The plan needs to be made clear, concise, and simple to follow and includes all back-up information such as contacts, suppliers, and major client information. It is imperative to have emergency back-up sites identified and lines of succession clear (Vanden Bos, 2012). NFPA 1600 defines other common items that should be listed in the plan:

- Identify lines of authority
- Identify lines of succession planning
- Identify interfaces to external organizations
- Identify the process for delegation of authority
- Identify logistics and support requirements
- Address the safety and health for all personnel

*(NFPA 1600, 2010)*

When a plan is developed, it must be able to adapt to the various emergencies a company may face. The plan must be written so recovery procedures and processes can be switched instantly from one scenario to the other (Moore, 1996). Other items to consider are relocating the business to a sufficient location, proper security, fire protection, environmental controls, production areas, parking and transportation, ADA compliance and employee needs (Moore, 1996). These items become complex and take the effort of an entire team to work through, train and support.

Information Technology (IT) is a key component of any continuity plan. IT items such as networks, servers, desktop and laptop computers, data storage, and the ability to communicate have to be evaluated and a back-up plan such as off-site storage is critical ("Business Continuity Plan," n.d.). Many businesses fall short in this area and store their data on-site. IT functions are critical in today's business world and incorporate a large piece of the business continuity plan (Slater, 2012).

Once the plan is in place, it is important to practice the plan by performing training exercises that include all employees. The training exercises must be realistic and work within the confines of the disasters outlined. Companies can contact their local emergency response groups whether fire, police, or emergency management and seek help to coordinate the training. Once the training is complete, the company must objectively evaluate their performance and adjust the plan if problems were identified (Krauss, 2009)

Businesses vary and have unique characteristics and elements that are important to their survival. When disaster strikes, it is imperative to react and move quickly in getting the business back in service. Fire departments plan for disaster through developing pre-plans that show the

nuances of a business and include important items such as the gas meter shut off, electrical panels, fire alarm and sprinkler systems, hazardous material storage and other items that affect the safety of the occupants, fire personnel, and the community (*NFPA 1620*, 2010). Since a pre-plan is in place, and a community needs to be working together in recovery, the question is raised as to what information from a small business continuity plan should be incorporated into the fire department pre-plans to support local decision making during a disaster?

The City of Westminster incorporates diverse business group that have needs in the time of a disaster. For example, Tri-State Generation is a company that manages the power grid for a large portion of the western United States. If this business is compromised, this affects a large portion of the United States population. Tri-State has a back up facility in a city north of Westminster and it is critical they relocate as soon as possible. Fire and police services may be needed to help make this happen and if this information were in the building's pre-plan, crews would be aware of the significance help make this occur ("2010 City of Westminster Natural Hazards," 2010). According to the American Planning Association (2005), "business and local jurisdictions need to develop a concrete relationship and work together to plan and recover from natural or man-made disasters." (para. 3) Local resources understand the disasters they may encounter and can help them prepare and recover.

Other items from a business continuity plan that would be beneficial could include back-up power requirements and the mode that it is achieved. Medical facilities or facilities that house medical equipment that need power are of vital importance. Fire departments can be made aware of this issue and be prepared to help keep them in service. Contact information and succession planning is critical if the disaster strikes a single or few businesses. Having the ability to contact the appropriate authority and a person that can make decisions is vital. If a person is contacted

and cannot provide critical information or make the decision on relocation, power issues, bringing out a restoration company, and then it slows the process for expedited recovery. In addition, these personnel can identify critical logistic and support information to support relocating or getting the business back in service (Anderson, 2011). These elements are vital since rapid recovery or a temporary solution is necessary. A small business typically does not think through these disasters and how the information they hold closely, and shared with the fire department, can benefit them in the recovery process (Brooks, 2012).

Business recovery plans are a document many businesses are not comfortable sharing. The plan contains sensitive information regarding finances, off-site storage, personnel information, and other delicate items. Giving this information to a fire department could be difficult and relationship need to be built to develop trust (Horsager, 2011). With so many businesses in a city such as Westminster, how would the data collected be used in the fire department, emergency management, and with overall recovery planning by the City of Westminster?

Business need to apply for a license and go through a plan review process to seek approval to build a new building, fit the zoning requirements, or complete a tenant improvement request. The Community Development department collects information regarding the business and information pertaining to the business can be shared. Policy can be developed to require a business provide a continuity plan prior to its inception into a city or jurisdiction ("Planning Services," n.d.). At this point, rules can be made to enforce such requests.

Fire departments are one agency within a city that has access to all businesses provided a business inspection program is in place. Many jurisdictions use fire department personnel to conduct the inspection or members of the Fire Prevention Bureau (Frangiamore, 2009).

Relationships can be easily developed and information shared from the City to the business owner or manager. While performing an inspection or developing a pre-plan, information is already being gathered. This could be another step in the process of annual duties that would require minimal work (Galvin, 2012).

City departments such as Economic Development ensure the well being of a business in a City. Other jurisdictions may use another form of this type of department associated with a city or cities they serve. Information is shared between the City and business and a relationship is formed. For example, the City of Westminster conducts business wellness check on an annual basis. Members of the management team visit determined businesses to visit with them and share programs the City offers. They inquire if there are needs of the business, how the City may help, and let the business know it is a valued member of the community. During these visits it can be asked if the business has a plan in place and if not, give information to stress the importance and help them develop a plan. A central collection point to gather information can be developed whether through the fire department, economic development, or community development ("The Mutually Beneficial Relationship," 2010).

An organization would need to develop a team to decide what information is important to gather in the time of an emergency. It is important to determine what relevant information from the business continuity plan will help the fire department or emergency management team expedite their recovery. Once this information is determined, a plan can be put into place how to harness it. Business owners need to take responsibility for their recovery and become engaged with the entity that they serve. Working together, the correct information placed in a pre-plan can help move their recovery in an expedited fashion.



Modern fire departments continue to redefine themselves and the services they offer to a community. This is another form of community risk reduction and community outreach that expands the service to help the business community. Many departments are stretched thin and this service will increase the workload of fire personnel. With this service, it is important to understand the impact on fire personnel to address these additional fire pre-plan requirements.

Developing pre-plans is an arduous task that takes time. For example, Westminster has 4,000 businesses and to pre-plan each and every business takes a considerable amount of effort (City of Westminster, n.d). If a fire company is asked to engage a business regarding their disaster recovery, the workload will be increased. There are several avenues to consider and whom it falls to within the organization.

Inspectors from the Fire Prevention Bureau or on-line crews perform business inspections. On-line crews see their role as emergency response and inspections are often an aspect they do not care to perform. According to Sherman (n.d.), "A good working relationship with firefighters, police, and EMTs, could be important in a crisis. Contact rescue professionals and make sure they have up-to-date blueprints of your facilities and the number of people working there." (para. 7) When another administrative item is presented, it is met with resistance or many feel they are too busy to add to their duties. By using the department personnel to hand out information or visit with a business owner or manager about a program that is in place, the time they take will be minimal. It is imperative a proper plan is in place to gather this information and an avenue to channel it will minimize the affect on crews that are responsible for emergency response.

It is difficult to state the amount of time it will take to gather the information. There are several factors that come into play such as community development responsibilities prior to a

business going into service, the information that is determined essential for a pre-plan, and the critical pieces that need to be gathered. There are many facets that need to be considered and a plan for narrowed information should be put into place. Business continuity plans are extensive but not all of the information would be relevant to a fire department pre-plan (Glenn, n.d). Determining the pieces that would be beneficial will vary from business to business and their needs to recover.

### Procedures

Several procedures were utilized to help answer the four questions posed for this descriptive research. Businesses in the city play an integral role in the sustainability of the community and their relationship with the fire department can help set their recovery into motion. In order for a business to recover, it is vital several key factors are in place and a collaborative effort is developed to ensure their prosperity. In order to answer these questions, a process had to be put into place to research the status of business planning, the view of the Westminster community on recovery, and the information needed for the fire department to help move things forward after a disaster and the impact on the fire department personnel to incorporate a new process.

First, research was started at the National Fire Academy in Emmitsburg, Maryland at the learning resource center. Key words were entered into the database such as “small business continuity planning”, “fire department pre-planning”, “disaster recovery”, and “collaborative efforts in disaster recovery” were researched. The small business administration was found and other items through the NFPA and FEMA were uncovered. This led to other research on the Internet and a wealth of information that other groups have compiled, or articles and papers that have been written on small business continuity planning. However, this research led to the fact

this is a narrow topic when fire departments become involved. This research led to other components when returning to Colorado.

Second, extensive literature review was performed to look into various concepts of business continuity planning. In order for a proper plan to be implemented, the key elements need to be identified. Literature was sought to investigate fire department interaction with businesses and how they can help them recover in the time of crisis. A wealth of information was uncovered regarding business continuity planning and fire department pre-planning but not interaction with the two. Several items were deduced by the research that led to discussions that could incorporate the two processes.

Third, a questionnaire was developed on-line through Survey Monkey titled “City of Westminster Emergency Preparedness Questionnaire” (Appendix A). This survey was developed and sent to businesses June 1, 2012 and had two months to respond. Fifty-eight businesses that fall into the definition of a small business were contacted and asked to take the questionnaire. The business represented manufacturing, retail, office, warehouse, and other diverse commerce. The businesses were randomly chosen to deliver a diverse cross-section. The response received was encouraging as all of the companies answered the questionnaire. This data is relevant to the entire city organization as departments such as Community Development, Economic Development, the Fire Department, and Emergency Management have a baseline to determine where these businesses stand in preparedness and recovery. A second questionnaire titled, “Expanding Westminster Fire Community Outreach Program” (Appendix D) was sent to 108 personnel who work in operations on June 1, 2012 to gain their prospective on becoming involved with business continuity planning. At the time the survey was sent, there were 108 on-line personnel. The Department is focused on increasing its community outreach

while minimizing an increase on workload. The perception of the employee group is important, as they could become key members in helping businesses plan.

An interview was conducted with Westminster's Emergency Management Coordinator Captain Mike Reddy. Captain Reddy developed the 2010 City of Westminster Natural Hazards Mitigation Plan. He understands the potential disasters the community is faced with and has developed a hazard mitigation plan to prepare the community for recovery. His references and answers are in the 2010 City of Westminster Hazards Mitigation Plan.

### *Statistical Analysis*

The data collected from the questionnaires were reviewed to determine the percentage that fall into various categories. For example, a question was asked whether a business has a continuity plan or not. The questions were straightforward and simple to analyze. The data was reviewed and will be discussed in the appropriate sections of the research document.

### *Limitations and Assumptions*

Literature review was limited by the information available on this topic. There are many articles, books, and other resources that address small business continuity planning and fire department pre-planning. However, the literature tying these two together was limited. The items had to be reviewed and conclusions made based on separate information. These two items can be correlated and concrete research performed based on the review.

The data collected through the questionnaire is assumed to be accurate and answered by an appropriate employee, manager, or owner. Their knowledge of the intricacies of their business is assumed to be true. It is also assumed they can make decisions in their business operations in mitigation and recovery. Several questions were not answered by all 58 businesses

but the data collected is assumed to be accurate and used for reaching conclusions in this research.

The procedures used for this applied research answered the four questions posed. It is an uncharted concept to assist with business continuity planning and integrating it with fire department pre-plans. Through the research, it was determined this could be a beneficial service to the community as complacency is prevalent and all stake holders must work together to ensure a community can survive after a disaster.

### Results

The topic chosen for this applied research uncovered a wealth of information regarding business continuity planning. There are many Web sites, books, journals and other sources of information a business owner can go to in order to prepare for disasters, plan for them, and recover. There is research available for fire departments to formulate adequate pre-plans for their community. The ability to tie the two together comes from vast sources and deducing what is needed and what is not immediately important to a fire department when a disaster occurs. Using the literature review, questionnaires, and data collected through on-line resources, the four questions formulated a direction for helping a small business recover from a disaster.

Literature review was crucial to answer the questions posed in this research. In order for a business to develop a continuity plan, whether large or small, business need to understand the best practices for developing the plan and the key components. Businesses need to identify hazards that threaten their business whether natural, man-made, or technological. It is essential to understand the likelihood they can affect a company and set a priorities based on these disasters yet be dynamic and adaptable. Key components of their business must be clarified and what it takes to remain operational have to be placed in the plan. Key people, operational

decisions, location, back-up locations, suppliers, key clients, and who can make the decisions in a time of crisis need to be incorporated in the plan. Technological considerations need to be evaluated as well. Data storage on-site must be reviewed with an off-site back up for emergencies. Technological failures can happen without any type of disaster and businesses rely on computers and the information they contain.

The literature review also identified it is critical to practice the continuance plan. Each employee from the top executive to the newest member must understand how the plan works and be able to activate it. Each person needs to practice his or her role and scenarios can be set up to practice each disaster they may encounter. The plan can be adjusted with the lessons learned through rehearsing these catastrophes.

Through extensive research on small business continuity plan development and developing fire department pre-plans, it was concluded several key items could be incorporated so a fire department can assist in starting the disaster recovery. It is important to document the key members and contacts of an organization. These people must have the authority to make decisions for the company and be able to start the recovery process. Other items such as re-location needs, power requirements, or people who may not be able to help themselves should be in the pre-plan. This will start the process moving when disaster strikes.

The literature demonstrated the data collected by the City would allow for other departments to be informed for crucial businesses that exist. Streets, public works and utilities, community development, the police and fire departments have different abilities to help after a disaster. The data collected can be shared and these groups can be informed and priorities set based on this information. Disasters can strike one business, multiple, or an entire community

and the ability to understand what each business needs to recover, is a collaborative effort to a sustainable community.

The literature review did not address the impact these additional requirements would have on fire personnel. The organization will determine the best method to collect the data and the fire departments role in this process. The best source of information regarding this question was answered in the questionnaire that was distributed to all operational personnel on the Westminster Fire Department.

The first questionnaire distributed was to the business community and contained twenty-nine questions. It was a collaborative effort between the author of this research and the City of Westminster Emergency Management Coordinator Captain Mike Reddy. Since businesses were going to be contacted regarding planning, other information was sought for the City's hazard mitigation plan update. This questionnaire was used to gain an understanding of the preparedness of the business community. The first series of questions were used to ascertain information about the businesses. The entire business group of 58 (100%) submitted information regarding their company name, address, phone number, contact information, and company size. There were 22 companies (37.9%) with five or less employees; 27, (46.6%) had six-30 employees; one (1.7%) had 51-80 employees; four (6.9%) had 101-250 employees; one (1.7%) had 251-500 employees; one (1.7%) had 501 to 1,000 employees; and two companies (3.4%) had more than 1,000 employees. In addition, the square footage of the business was asked to understand what type of occupancy they inhabit.

The next set of questions evaluated the company's preparedness for a disaster or significant event. There were 26 (46.4%) companies stated they have an alternate place to conduct business if they were displaced. Two companies skipped this question. When asked if

they had performed a risk evaluation, 14 (30.4%) said yes. Fourteen companies have performed a site threat assessment. Finally, they were asked if they have performed a Business Impact Analysis – thirteen (28.9%) have completed an analysis.

The next sets of questions were asked about planning. Twenty-six (54%) have developed a fire response plan; 24 (51%) had developed an emergency medical plan; 22 (45.8%) developed a emergency communication plan; 22 (45.8%) developed an information technology disaster recovery plan; 15 (34%) have developed a business recovery and resumption plan, and 12 (27.9%) had developed a crisis management plan. The plans were put into place and very few have tested them:

- Fire response plan – 4 (20%)
- Emergency Medical Plan – 3 (16.7%)
- Emergency Communications Plan – 1 (5%)
- Information Technology Disaster Recovery Plan – 4 (19%)
- Business Recovery and Resumption Plan – 2 (11.2%)
- Crisis Management Plan – 3 (18%)

In the survey, it was asked if the Fire Department or City offered assistance in helping to develop business continuity plan and then practice it, would they use the service? If a mock fire or disaster drill was performed, 10 (20.2%) said they would, 13 (26.5%) may use the service, and 26 (53%) would definitely not use the service (nine companies skipped this question). If the City provided on-site visits to assist in planning, 13 (27%) would use the service, 13 (27%) may, and 22 (45%) definitely would not use he service (ten companies skipped this question). If the City provided on-site damage assessment after a disaster, would they use the service, 13 (27%) said they would, 21 (43%) stated they may, and 14 (29%) said they definitely would not use the



service (10 skipped this question). The survey wanted to know if the City identified resources to take advantage of, 12 (25%) would use this service, 24 (50%) may use the service, and 12 (25%) definitely would not use the service (ten companies skipped this question). And finally, if the City would provide information on evacuation planning, 10 (21%) would use the service, 17 (35%) may use the service, and 21 (44%) definitely would not use the service.

Another important question asked was how long can your company function without employees gaining access before it is a major impediment conducting business. 10 (20%) stated less than four hours; seven (14%) four to eight hours; three (6%) eight to 24 hours; and 30 (60%) 24-72 hours (eight companies did not answer this question).

Many other questions were asked in the survey to help understand the needs of the responding businesses. A question regarding knowledge of snow routes was asked; is there an employee notification system in place; and are you equipped or have the knowledge to handle a hazardous material spill and understand the risks. The answers to these questions can be found in Appendix C.

A second questionnaire was sent to all operational members the Westminster Fire Department who work in the fire station. 108 received the survey to ensure a 95% confidence level. Eighty-three (76%) members of the Fire Department feel the Department does have a role in assisting small businesses prepare for disasters. Only 26 (24%) feel the Department currently does enough to help them prepare. Seventy-three (67%) see a direct correlation between the Department and disaster preparedness. This is a significant finding as it demonstrates the firefighters feel the Department can do more.

The next set of questions related to a willingness to add additional duties or become more involved in the preparedness process. Of those who responded, 80 (74%) see this as an

opportunity to help them prepare while 28 (26%) will view it as an inconvenience. A question was posed to gain an understanding how much additional time a person would be willing to spend if there were additional duties performed during a company business inspection without compromising the rest of their work day. Twenty-six (24%) felt five minutes was all they could add to their inspection time; 28 (25%) felt ten minutes could be added to each inspection; 33 (30%) felt that 15 minutes could be added; and 21 (19%) felt they could add 20 minutes to each inspection. A question was then asked if all the firefighters had to do was disseminate information during the inspection, would they be willing to participate. An overwhelming 89 (83%) stated they feel this project would be worth moving forward. Finally, a question was solicited asking if they felt other programs would have to be cut in order to add this to the Department's core services. Eighty-two (76%) felt other programs would need to be cut out in order to increase this workload.

The questionnaires helped answer the research questions and obtain information that could be helpful to the Fire Department. Many of the questions directly related to the best practices for continuity planning and covered the essential elements. The questions also fell into important items that would be beneficial to a fire department pre-plan such as business size, contact information, how long a company can be shut down without impact, ability to have an alternate site, and the employees preparedness and awareness of disasters. This also lends to the information that can be transmitted to the Emergency Operations Center so sections such as planning and logistics can help obtain resources for recovery. Finally, the second questionnaire addressed the impact a program such as this would have on line operations and how those administering it would perceive it.

## Discussion

Business continuity planning is essential for the survival of a business during the time of a disaster whether natural, man-made, or technological. It is well documented that businesses that do not prepare often do not recover (Slater, 2012). There are many books, Web sites, resources such as FEMA, and other organizations to help a business develop a business continuity plan. Businesses in a community have local resources that have most often evaluated the potential hazards of a community, potential to occur, effects they can have on a business, and the overall impact on a community (Kodas, 2012). Fire departments take this a step further at the micro level and evaluate each business and develop a fire department pre-plan. These two planning items involve each other but often do not communicate each other's findings. Through answering the research questions, it has been determined there is value to connect the two plans or portions of each.

When addressing the first research question, what are the best practices for small businesses in regards for business continuity planning, there were many common themes. First, developing a plan is imperative. The fact that roughly 40% of the small businesses have a plan in place demonstrates complacency among business owners. Jeff Drew's (2012) research illustrates this fact, "Another 30% chose this response: "I haven't really thought about it," while 27% indicated that they don't believe it's important to their business and 20% said that they haven't had time to develop and institute a plan." (para. 6) This staggering statistic demonstrates that a business community such as Westminster needs to become actively involved in the business continuity planning and leads to what best practices mean.

Business owners need to be given direction to incorporate a business continuity plan in their start up process. Businesses that are currently in place can be identified for those that do have a plan in place and those who do not. The questionnaire that was given to the businesses in

Westminster was slightly higher than the national statistic at 46% for having a plan in place.

These business owners can be given guidance to address their plan and develop a recovery plan to ensure their survival.

The research clearly states there are many common items that need to be in the plan. First, a business analysis needs to be performed. The company needs to identify the impact of potential losses, develop viable recovery, and develop a recovery plan for expedited revival. The business needs to identify the potential hazards and how they can impact their company.

Next, contact lists need to be established along with the hierarchy of the company. The contacts need to state who the personnel are they must have authority to make decisions during a disaster or emergency situation. The plan needs to incorporate back-up data storage and where it is located, and identify alternate sites to conduct business. The plan needs to be adaptive to the different disasters they can encounter and has to be flexible as the emergency can be unpredictable. It would be beneficial for the company to develop a relationship with the local emergency agencies such as police, fire, and emergency management. These groups can help identify hazards for the plan and review the plan to ensure it is thorough (Jennings, 2005).

Finally, it is important to review the plan with the entire work force. Each person needs to be familiar with the plan, its versatility, components for medical, fire, and disaster recovery. The plan needs to be practiced with realistic scenarios and test the system in place. The exercise needs to be evaluated and then the plan can be adjusted where deficiencies are discovered.

Business continuity plans contain valuable information regarding the business recovery and can be beneficial to the fire department and their pre-plans to assist with post-disaster events. The second research question sought to discover what information from a small business continuity plan should be incorporated into the fire department pre-plans to support local

decision making during a disaster. This question is important as the fire department is often first on scene and has immediate data in their pre-plans. Often times, fire departments focus on the common pre-plan items such as electrical panels, gas valves, fire alarm panel locations, sprinkler risers, and hazardous material locations. The pre-plans can incorporate vast information that is beneficial to recovery.

Stepping up the pre-plan process to include valuable information will take work to determine and disseminate what is valuable to include. Crucial information such as contact information, hierarchy, and special needs a business may have should be included. Not only contact information but a person that can make important operational decisions regarding the business and one that is critical to the operation or are considered monetary decisions.

Incorporating business continuity plans and fire department pre-plans is a concept that does not appear to be the normal concept in most jurisdictions. The research did not reveal this as a common practice. It would take a collaborative effort between the stakeholders to determine what constitutes valuable information and how to use it in a disaster. This leads to the third research question that investigates how the data collected could be used in the fire department, emergency management, and with overall recovery planning by the City of Westminster.

In the case of a wide scale disaster, an emergency operations center is often enacted and is a complicated process to manage. The information contained in the pre-plan can be valuable to help guide the decisions of the staff that work in operations, planning, logistics, and finance. Decisions such as an immediate need to help relocate operations, clear debris from the streets to allow for resource movement, move people from a location to another like a medical facility, and critical information that could allow a particular business assist another, will play a part in how

resources are allocated. Understanding the business needs can streamline the ordering process or help establish priorities in where to concentrate recovery efforts.

The Emergency Operations Center (EOC) can have access to the pre-plans and the information is also accessible to the operations staff working in disaster zones. This allows several people to view the data and influence the decision making process. Those working in an area can use the plans to decide where to start when setting their priorities in their immediate vicinity. The personnel on the EOC are looking at the global view while the operations staff is using the data for a micro view.

Disasters can mean many things to a business. Most people consider a disaster caused by nature or an event that affects multiple businesses, neighborhoods, or entire communities. As research has demonstrated these types of disasters do not often strike Westminster or Colorado. Disasters that strike are often caused by fires, flooding from broken water lines, fire sprinkler systems, or rain, or lightening strikes that affect a single business. This can also mean a loss of data or communication breakdown within their system. To the business owner any event that interferes with their operation can be considered a disaster. The on-scene crew to make operational decisions or place certain pieces of the continuity plan into motion can use the information contained in a pre-plan. It may be a simple phone call to a person who has the authority to make crucial decisions; it could be information informing the crew of sensitive items within the building; it may lead the crew to help relocate displaced patients who need critical care; or it could be a variety of other items discussed throughout this research.

Finally, gathering this data takes resources that can mean the use of personnel to put the initial plan into place. Gaining access to all of the businesses in a community can be difficult and trying to start a new program such as this takes a group of employees who often visit the

businesses. Firefighters are considered ambassadors of a city or jurisdiction and have access to these businesses through company business inspections or developing pre-plans. Firefighters have a working knowledge of what to look for to help mitigate hazards, can disseminate information to business owners or management, can gather data to incorporate in a pre-plan, and can help enhance community risk reduction. Performing this task whether it is incorporating the data into their pre-plans or helping start a new program takes time. This leads to the final question of this research that investigated the impact on fire personnel to address these additional fire pre-plan requirements.

This question was difficult to answer as there was not any concrete information discovered directly related to this topic. Many fire departments have pre-plans in place and this information can be added to existing plans. Gathering the information can be arduous and with the help of community development, information technology, or other city departments, a method can be put into place to gather the information. The fire department role can take place in several fashions. First, give information to the business on how they can develop a business continuity plan. This can be a packet of information placed on a portable data storage device. The business owner takes ownership of developing the plan. The impact of firefighters would be minimal. Second, firefighters can be pro-active and more involved with the process. Appointments can be scheduled for the fire department personnel to walk the business with the management or owners and discuss hazards, business impacts, developing a plan, and other items crucial to the plan. Finally, the program can be developed with another City department such as community development and they can collect the data when a business starts and through mail or electronic mail for those that exist. The questionnaire can be developed, set out, collected and

placed into a database that is shared with the departments that would find the information useful. Security of this system would be vital and ensure the integrity of each business is in tact.

Another factor that needs to be considered is the schedule and responsibilities the on-line staff currently have. When evaluating core services, each item needs to be given a priority and a decision needs to be made if this new program can be added to the services. If it is determined to be of value other programs may be discontinued. Another option is to add the program and ensure the impact is minimal. The questionnaire given to the on-line staff indicates that 49% feel 15-20 minutes can be added to each inspection without compromising current services. This needs to be considered when developing a plan to ensure its success.

Developing business continuity plans for a community that has approximately 4,000 businesses is an arduous task to ensure it is completed. There are many aspects to developing a plan as each business has their own nuances and gathering their information can be difficult. A gathering of the stakeholders needs to take place to determine what information is beneficial to share with the City and Fire Department, how to put it into pre-plans, how the information can be used during a disaster, and the impact on fire personnel. Through answering the four questions, several options have surfaced and bringing these two distinct plans together can help business recover in the time of a disaster whether natural, man-made, or technological.

#### Recommendations

Westminster is a community that relies on business revenue for its survival. Sixty-three percent of the City's general Fund comes from sales tax revenue and the survival of the business community is essential to Westminster's sustainability (City of Westminster, n.d.). Business continuity planning has been relevant to nearly 46% of the Westminster businesses but the other



53% have not taken steps to plan for a disaster or their recovery. If Westminster lost half of its revenue, the City could not provide the services deemed essential to the community.

When looking into this issue, it is important to look at the relationship between the City and the businesses and how the City can influence the community to develop these essential plans. It is imperative to understand what department can reach all of the businesses in an efficient manner, with current resources, and help them be successful in recovery planning. The City has business retention visits that are conducted by the City Management Team that contact a small percentage of the businesses on an annual basis (City of Westminster, n.d.). However, the only department in the City that visits each business on an annual basis, or is in contact with them through a self-inspection program, is the Fire Department. This coupled with the fact that the Emergency Management Coordinator is part of the Fire Department it is the logical group to assist the community in this endeavor.

The program can be implemented in several phases. First, the stakeholders need to meet to define what information is important to develop a business continuity plan. The research has demonstrated there are several documents available that outline the essential component. FEMA, the Small Business Administration, and NFPA 1600 can be used to develop a document. The City can hand this out through the pre-development phase of a business in the community development process. Community Development can develop a database, or a system to place this information that would allow all interested departments to have access. This information can be pulled for pre-plans or emergency management planning. This would channel all new businesses to the City and centralize the information.

Second, the fire department employees can educate the business community that currently exists during business inspections. The same information packet can be handed out to

a business when they received their company inspection. The firefighters can visit with the owner or manager and stress the importance for developing the plan. An on-line database can be enacted to store the critical information identified and the business owner can go on-line and add the information. Another option would be to have the information sent to the City and have staff enter the essential information into the database.

Third, the fire department personnel can access this information when developing or updating a pre-plan. The personnel can enter this information into the plan that would be in the database and accessible by all fire department employees while on scene. Currently, the pre-plans are being converted to an electronic format for the mobile data terminals in the fire apparatus. This would allow for all personnel to have access to the same information.

Fourth, the City can offer services to assist the business with their plan development. Fire personnel can be contacted to schedule a walk-through of the business and assist with the business analysis. Hazards can be identified and evacuation plans can be reviewed. Community Development can be available to assist in this endeavor. It is a collaborative effort and the City personnel need to work with the business owners and managers to ensure the plans are complete and contain the critical information necessary to be effective. The City personnel can help address issues such as hazards or disasters the City is prone to, where to store data off-site, and look for other items of importance. The fire department would be available to assist the companies practice their plans, help evaluate the company's performance, and assist in adjusting the plans as necessary. This allows for the business employees to be familiar with the plan and fire department personnel become familiar with the business and their emergency plans.

In order to bring the City of Westminster business community into a state of readiness for disaster recovery, it is going to take a collaborative effort. The business community will need to

be educated as to the importance of their plan and the fact they are essential members of the community. It will take an effort from the Mayor, City Council, department heads, employees, and each member in the organization to get on board with the necessity of this program. The City's survival is at stake as well as the livelihood of each business, their employees, and those they serve. Through education, giving the businesses a means to work through plan development, and being partners in their process, all businesses in Westminster can have a business continuity plan and have it integrated with fire department pre-plans to expedite the recovery process in the event of a disaster.

## References

- 2010 City of Westminster Natural Hazards Mitigation Plan. (2010). Retrieved from <http://www.ci.westminster.co.us/Safety/EmergencyManagement.aspx>
- American Planning Association Policy Guide On Security. (2005). Retrieved from <http://www.planning.org/policy/guides/adopted/security.htm>
- Anderson, J. (2011). The Importance of Business Continuity Planning for Small Businesses. Retrieved September 15, 2012, from <http://www.padgett-cpa.com/insights/articles/importance-business-continuity-planning-small-businesses>
- Blackwell, G. (2010). Disaster Recovery For Small Business. Retrieved from <http://www.smallbusinesscomputing.com/biztools/article.php/3884076/Disaster-Recovery-For-Small-Business.htm>
- Brooks, C. (2012). How a Disaster Recovery Plan Can Help Save Your Business. Retrieved from <http://www.businessnewsdaily.com/2882-disaster-recovery-plans-keeps-businesses-alive.html>
- Business Continuity Plan. (n.d.). Retrieved from <http://www.ready.gov/business/implementation/continuity>
- City of Westminster. (n.d.). Retrieved from <http://www.ci.westminster.co.us/Business/DataCenter/Demographics.aspx>
- Crawford, J. (2012). Engaging Firefighters in Community Risk Reduction. Retrieved from <http://www.firefighternation.com/article/fire-prevention-and-education/engaging-firefighters-community-risk-reduction>
- Disaster Planning. (n.d.). Retrieved from <http://www.sba.gov/content/disaster-planning>

Disaster-Preparing Your Small Business For Disaster. (n.d.). Retrieved from

[www.bomasf.org/pdf/news/smallbizdisaster.pdf](http://www.bomasf.org/pdf/news/smallbizdisaster.pdf)

Drew, J. (2012, August 2, 2012). Most U.S. small businesses lack disaster-recovery plans.

*Journal of Accountancy*. Retrieved from

<http://www.journalofaccountancy.com/News/20126135.htm>

Frangiamore, K. (2009). How to Comply with Your Annual Fire Inspection. Retrieved from

<http://www.buildings.com/tabid/3334/ArticleID/8139/Default.aspx>

Galvin, B. (August 22, 2012). Small Pennsylvania Fire Department Creates Extensive Pre-Fire

Plan Database. *Fire-Rescue Magazine*. Retrieved from

<http://www.firefighternation.com/article/firefighting-operations/small-pennsylvania-fire-department-creates-extensive-pre-fire-plan-database>

Glenn, J. (n.d). Ostrich Syndrome. Retrieved September 1, 2012, from

<http://www.disasterrecoveryworld.com/paper1.htm>

Horsager, D. (2011). How to Build Trust in the Fire Service Through Compassion. Retrieved

from <http://firechief.com/blog/how-build-trust-fire-service-through-compassion>

Hurtado, A. (2012). Helping small businesses in the economic recovery. Retrieved September 4,

2012, from [http://www.ahwatukee.com/money/article\\_614f0d78-bfae-11e1-8229-0019bb2963f4.html](http://www.ahwatukee.com/money/article_614f0d78-bfae-11e1-8229-0019bb2963f4.html)

Impact on U.S. Small Business of Natural & Man-Made Disasters. (2007). Retrieved from

[www.edwardsinformation.com/content/ImpactofDisaster.pdf](http://www.edwardsinformation.com/content/ImpactofDisaster.pdf)

Jennings, J. (2005). The Research: Eating an Elephant. In *Think Big Act Small* (pp. 205-219).

New York, New York: Penguin Group.

Kodas, M. (July 13, 2012). First Fire, Then Flood: Why Colorado Can't Catch A Break

[Newsgroup comment]. Retrieved from

<http://thinkprogress.org/climate/2012/07/13/516196/first-the-fire-then-the-flood-why-colorado-cant-catch-a-break/?mobile=nc>

Krauss, B. (2009). Fire Planning Associate's, Inc., Blazemark Software Integral To The Success Of Recent UICDS Information Sharing Demonstration. Retrieved from

<http://www.fireplanningassociates.com/testimonials/>

McKeever, M. (2010). How to Write a Business Plan. Berkeley, CA : Delta Printing Solutions.

Mile-wide tornado hits Windsor, Weld County. (2008, May 22, 2008). *Denver Post*. Retrieved from [http://www.denverpost.com/breakingnews/ci\\_9344925](http://www.denverpost.com/breakingnews/ci_9344925)

Moore, P. (1996). Critical Elements Of A Disaster Recovery & Business/Service Continuity

Plan. Retrieved from <http://www.disaster->

[resource.com/index.php?option=com\\_content&view=article&Itemid=1230&id=56:critical-elements-of-a-disaster-recovery-a-businessservice-continuity-plan&catid=3](http://www.disaster-resource.com/index.php?option=com_content&view=article&Itemid=1230&id=56:critical-elements-of-a-disaster-recovery-a-businessservice-continuity-plan&catid=3):

*NFPA 1600, Standard On Disaster/Emergency Management And Business Continuity Programs*

(2010 ed.) [Codes Online]. (2010). Retrieved from

<http://codesonline.nfpa.org/NFPA/a/fulltoc/CurrentNFCSS>

*NFPA 1620, Standard For Pre-Incident Planning* (2010 ed.). [Codes Online]. (2010). Retrieved

from [http://codesonline.nfpa.org/NFPA/a/c.html/nfpa\\_1620\\_2010](http://codesonline.nfpa.org/NFPA/a/c.html/nfpa_1620_2010)

Period of Record Climate Summary. (2012). Retrieved from [http://www.wrcc.dri.edu/cgi-](http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?co5984)

[bin/cliMAIN.pl?co5984](http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?co5984)

Planning Services. (n.d.). Retrieved September 5, 2012, from

<http://www.durangogov.org/planning/index.cfm>

Sherman, F. (n.d). The Ten Key Components of a Business Continuity PlanThe Ten Key Components of a Business Continuity Plan. Retrieved from

[http://www.ehow.com/info\\_8087525\\_ten-components-business-continuity-plan.html](http://www.ehow.com/info_8087525_ten-components-business-continuity-plan.html)

Slater, D. (2012). Business Continuity and Disaster Recovery Planning: The Basics. Retrieved September 1, 2012, from <http://www.csoonline.com/article/print/204450>

State of Colorado Hazards Mitigation Plan. (2011). Retrieved September 4, 2012, from <http://www.colorado.gov/cs/Satellite/DOLA-Main/CBON/1251595686517>

The Mutually Beneficial Relationship Between Small Businesses and Economic Development Groups. (2010). Retrieved from <http://www.moderndcbusiness.com/symbiotic-success-the-mutually-beneficial-relationship-between-small-businesses-and-economic-development-groups.html>

USFA Strategic Plan. (n.d.). Retrieved from <http://www.usfa.fema.gov/about/strategic/>

Vanden Bos, P. (2010). How to Build a Business Continuity Plan. Retrieved from [http://www.inc.com/guides/2010/05/business-continuity-plan\\_pagen2.html](http://www.inc.com/guides/2010/05/business-continuity-plan_pagen2.html)

What is SBA's definition of a small business concern? (n.d.). Retrieved from <http://www.sba.gov/content/what-sbas-definition-small-business-concer>

## Appendix A

### City of Westminster Emergency Preparedness Questionnaire Parameters

**Questionnaire Focus:** A questionnaire was sent to a cross-section of small businesses to determine their preparedness for disaster recovery. This was designed through Emergency Management and the author of this research to determine the level of planning for multiple disasters, interruptions, and to gain demographics of the business community.

**Target Audience:** A cross section of small businesses was used to answer this questionnaire. The cross section represents the various types of small businesses in the community.

**Timeline:** The questionnaire was sent to the group on June 1, 2012 and a deadline to have them completed and returned was August 1, 2012.

**Dissemination Method:** The questionnaires were sent through electronic mail from the Survey Monkey Website.

**Collection Method:** The participants were asked to respond to the questionnaire through the invitation they received from Survey Monkey.



## Appendix B

### City of Westminster Emergency Preparedness Questionnaire

#### Section I: About Your Company

Q1. Please tell us your company contact information:

Company Name  
 Company Address  
 City, State Zip  
 CEO/President  
 Name - Person completing survey  
 Work Phone  
 e-mail

Q2. Please estimate the number of employees (FTEs) your company has at its Westminster location(s).

< 5  
 6 to 30  
 31 to 50  
 51 to 80  
 81 to 100  
 101 to 250  
 251 to 500  
 501 to 1,000  
 >1,000

Q3. Please indicate what type of space and how much you have at your current Westminster location(s)

	OFFICE	RETAIL	WAREHOUSE
<500 Sq Ft			
501 to 1,000 Sq Ft			
1,001 to 2,500 Sq Ft			
2,501 to 5,000 Sq Ft			
5,001 to 10,000 Sq Ft			
10,001 to 20,000 Sq Ft			
20,001 to 40,000 Sq Ft			
>40,000 Sq Ft			

Q4. During a community-wide disaster (fire, tornado, etc), your company could be displaced from its normal work environment. Does your company have arrangements in place for alternate office/work space should this need arise?

YES  
 NO

#### Section II: Business Continuity Planning

Does your company have a business continuity program in place or in the process of being built?  
If so, please answer as much of following that applies to your company's situation.

Q5. Has your company completed any of the following?

Complete?

If yes, when?

Risk Evaluation

Site Threat Assessment

Business Impact Analysis (BIA)

Q6. Has your company completed any of the following action plans?

Complete?

Last Tested?

Fire Response Plan

Emergency Medical Plan

Emergency Communications Plan

Information Technology Disaster Recovery Plan

Business Recovery / Resumption Plan

Crisis Management Plan

### Section III: Risk Mitigation

The City of Westminster is prepared to provide the following risk mitigation and disaster related assistance/services. Please identify the value of each service to your company.

Q7. On-site visits to help assess fire drills, mock disaster exercises, etc.

Will use this service

May use this service

Will not use

Q8. On-site plan reviews to help assess and improve company preparedness.

Will use this service

May use this service

Will not use

Q9. During a disaster recovery, provide initial damage assessment (on-site) by city officials (basic structural analysis, etc.)

Will use this service

May use this service

Will not use

Q10. Identify available resources for businesses to take advantage of i.e. - Local, State and/or Federal).

Will use this service

May use this service

Will not use

Q11. Provide information on evacuation planning.

Will use this service

May use this service  
Will not use

Q12. The City of Westminster is considering providing an emergency blog - A website where business could browse current information and request specific updates to their situations. Please rate the following:

This would be very helpful   We might use this   Not really needed

Current information regarding  
City's response to emergency

Area to request specific  
assistance and/or information

Area to apply for temporary permits,  
licenses, etc (either on-line or directed to an address)

#### Section IV: Large Scale Regional Emergency Scenarios

##### *MAJOR SNOWSTORMS*

Q13. Assume your employees have no access to your company facilities due to a major snowstorm. How long can your company function before this situation becomes a major impediment to doing business?

Less than 4 hours  
4 to 8 hour  
8 to 24 hours  
24 to 72 hours

Q14. Are you aware of the City's snow route plan?

YES  
NO

Q15. As part of your company's emergency response plan, can your company feed and shelter its employees for up to 72 hours?

YES  
NO

##### *TORNADOES*

Q16. Do you have a Weather Radio on-site (provides National weather service warnings, etc.)

YES  
NO

Q17. As part of your company's emergency response plan, do you make use of the updated information from City of Westminster channel 8?

YES

NO

Q18. As part of your employee safety planning, has your company designated the safe areas within your building for people to go to during a tornado warning?

YES

NO

Q19. Would your company like to have City of Westminster assistance reviewing your severe weather plans?

YES

NO

#### *OPEN SPACE FIRES/CHEMICAL SPILLS*

Q20. Does the reverse 911 notification system work with your company's PBX phone system (i.e. - notify all extensions)?

YES

NO

Q21. Does your company have an employee notification system in place?

YES

NO

Q22. Are there open space areas around your company's facilities?

YES

NO

Q23. Does your company / property management have an HVAC plan in place designed to assist with fighting a fire inside your facility?

YES

NO

Q24. Does your company / property management have an HVAC plan in place that mitigates against a toxic chemical spill outside your facility?

YES

NO

#### *FLOODING*

Q25. Is your business located in a 100 hundred year or less flood plain?

YES

NO

Don't Know

Q26. Are you aware of recovery / reconstruction service companies that can assist with recovery of business assets?

YES

NO

Don't Know

Q27. Does your company have dangerous or hazardous materials on-site that (if spilled) could require an evacuation of your facility?

YES

NO

Q28. Do your neighboring businesses have dangerous or hazardous materials on their site(s) that could pose an evacuation threat to your facility?

YES

NO

Q29. Does transportation of hazardous materials (via road, rail, etc.) pose a risk to your business location?

YES

NO

## Appendix C

### City of Westminster Emergency Preparedness Questionnaire Results

#### Section I: About Your Company

Q1. Please tell us your company contact information:

Company Name	100%
Company Address	100%
City, State Zip	100%
CEO/President	84%
Name - Person completing survey	98%
Work Phone	100%
E-Mail	94%

Skipped Question - 0

Q2. Please estimate the number of employees (FTEs) your company has at its Westminster location(s).

< 5	22 – 37.9%
6 to 30	27 – 46.6%
31 to 50	0 – 0%
51 to 80	1 – 1.7%
81 to 100	0 – 0%
101 to 250	4 – 6.9%
251 to 500	1 – 1.7%
501 to 1,000	1 – 1.7%
>1,000	2 – 3.4%

Skipped Question – 0

Q3. Please indicate what type of space and how much you have at your current Westminster location(s)

	OFFICE	RETAIL	WAREHOUSE
<500 Sq Ft	7	2	3
501 to 1,000 Sq Ft	7	0	0
1,001 to 2,500 Sq Ft	16	5	3
2,501 to 5,000 Sq Ft	13	2	5
5,001 to 10,000 Sq Ft	1	0	1
10,001 to 20,000 Sq Ft	2	1	2
20,001 to 40,000 Sq Ft	1	0	0
>40,000 Sq Ft	5	2	1

Skipped Question – 3

Q4. During a community-wide disaster (fire, tornado, etc), your company could be displaced from its normal work environment. Does your company have arrangements in place for alternate office/work space should this need arise?

YES	26 – 46.4%
NO	30 – 53.6%

Skipped Question - 2

## Section II: Business Continuity Planning

Does your company have a business continuity program in place or in the process of being built? If so, please answer as much of following that applies to your company's situation.

Q5. Has your company completed any of the following?

	YES	NO
Risk Evaluation	14 - 34%	32 – 69.6%
Site Threat Assessment	14 – 34%	33 – 70.2%
Business Impact Analysis (BIA)	13 - 28.8%	32 – 71.1%

Skipped Question - 13

Q6. Has your company completed any of the following action plans?

	YES	NO
Fire Response Plan	26 – 54.2%	22 – 45.8%
Emergency Medical Plan	24 – 51.1%	22 – 45.8%
Emergency Communications Plan	22 – 45.8%	25 – 52.1%
Information Technology Disaster Recovery Plan	22 – 48.9%	20 – 44.4%
Business Recovery / Resumption Plan	15 – 34.1%	29 – 65.9%
Crisis Management Plan	12 – 27.9%	29 – 67.4%

Skipped Question – 10

## Section III: Risk Mitigation

The City of Westminster is prepared to provide the following risk mitigation and disaster related assistance/services. Please identify the value of each service to your company.

Q7. On-site visits to help assess fire drills, mock disaster exercises, etc.

Will use this service	10 – 20.4%
May use this service	13 – 26.5%
Will not use	26 – 53.1%

Skipped Question - 9

Q8. On-site plan reviews to help assess and improve company preparedness.

Will use this service	13 – 27.1%
-----------------------	------------

May use this service 13 – 27.1%  
 Will not use 22 – 45.8%

Skipped Question - 10

Q9. During a disaster recovery, provide initial damage assessment (on-site) by city officials (basic structural analysis, etc.)

Will use this service 13 – 27.1%  
 May use this service 21 – 43.8%  
 Will not use 14 – 29.2%

Skipped Question - 10

Q10. Identify available resources for businesses to take advantage of i.e. - Local, State and/or Federal).

Will use this service 12 – 25%  
 May use this service 24 – 50%  
 Will not use 12 – 25%

Skipped Question - 10

Q11. Provide information on evacuation planning.

Will use this service 10 – 20.38%  
 May use this service 17 – 35.4%  
 Will not use 21 – 43.8%

Skipped Question - 10

Q12. The City of Westminster is considering providing an emergency blog - A website where business could browse current information and request specific updates to their situations. Please rate the following:

	This would be very helpful	We might use this	Not really needed
Current information regarding City's response to emergency	21 – 43.8%	19 – 39.6%	8 – 16.7%
Area to request specific assistance and/or information	21 – 43.8%	17 – 35.4%	10 – 20.8%
Area to apply for temporary permits, licenses, etc	17 – 35.4%	21 – 43.8%	10 – 20.8%

Skipped Question - 10

#### Section IV: Large Scale Regional Emergency Scenarios



*MAJOR SNOWSTORMS*

Q13. Assume your employees have no access to your company facilities due to a major snow storm. How long can your company function before this situation becomes a major impediment to doing business?

Less than 4 hours	10 – 20%
4 to 8 hour	7 – 14%
8 to 24 hours	3 – 6%
24 to 72 hours	30 – 60%

Skipped Question - 8

Q14. Are you aware of the City's snow route plan?

YES	12 – 24%
NO	38 – 86%

Skipped Question - 8

Q15. As part of your company's emergency response plan, can your company feed and shelter its employees for up to 72 hours?

YES	20 – 40%
NO	30 – 60%

Skipped Question - 8

*TORNADOES*

Q16. Do you have a Weather Radio on-site (provides National weather service warnings, etc.)

YES	17 – 34.7%
NO	32 – 65.3%

Skipped Question - 9

Q17. As part of your company's emergency response plan, do you make use of the updated information from City of Westminster channel 8?

YES	3 – 6.1%
NO	46 – 93.9%

Skipped Question - 9

Q18. As part of your employee safety planning, has your company designated the safe areas within your building for people to go to during a tornado warning?

YES	37 – 75.5%
NO	12 – 24.5%

Skipped Question - 9

Q19. Would your company like to have City of Westminster assistance reviewing your severe weather plans?

YES 13 – 26.5%

NO 36 – 73.5%

Skipped Question - 9

#### *OPEN SPACE FIRES/CHEMICAL SPILLS*

Q20. Does the reverse 911 notification system work with your company's PBX phone system (i.e. - notify all extensions)?

YES 23 – 60.5%

NO 15 – 39.5%

Skipped Question - 20

Q21. Does your company have an employee notification system in place?

YES 30 – 65.2%

NO 16 – 34.8%

Skipped Question - 12

Q22. Are there open space areas around your company's facilities?

YES 30 – 65.2%

NO 16 – 34.8%

Skipped Question - 12

Q23. Does your company / property management have an HVAC plan in place designed to assist with fighting a fire inside your facility?

YES 17 – 40.5%

NO 25 – 59.5%

Skipped Question - 16

Q24. Does your company / property management have an HVAC plan in place that mitigates against a toxic chemical spill outside your facility?

YES 10 – 23.8%

NO 32 – 76.2%

Skipped Question - 16

#### *FLOODING*

Q25. Is your business located in a 100 hundred year or less flood plain?

YES	4 – 8.7%
NO	16 – 34.8%
Don't Know	26 – 56.5%

Skipped Question - 12

Q26. Are you aware of recovery / reconstruction service companies that can assist with recovery of business assets?

YES	15 – 31.3%
NO	14 – 29.2%
Don't Know	19 – 39.6%

Skipped Question - 10

Q27. Does your company have dangerous or hazardous materials on-site that (if spilled) could require an evacuation of your facility?

YES	2 – 4.3%
NO	45 – 95.7%

Skipped Question - 11

Q28. Do your neighboring businesses have dangerous or hazardous materials on their site(s) that could pose an evacuation threat to your facility?

YES	4 – 9.5%
NO	38 – 90.5%

Skipped Question - 16

Q29. Does transportation of hazardous materials (via road, rail, etc.) pose a risk to your business location?

YES	9 – 19.6%
NO	37 – 80.4%

Skipped Question - 12

## Appendix D

### Fire Department Questionnaire Parameters

**Questionnaire Focus:** A questionnaire was sent to the operations personnel of the Westminster Fire Department to determine their view on the implementation of a community risk reduction program that combines business continuity planning and fire pre-plans.

**Target Audience:** Fire department line operation personnel were used to fill out the questionnaire. This includes all personnel who work in a fire station and respond on emergency and non-emergency calls for service, and perform company business inspections. At the time the questionnaire was sent to the employee group, 108 personnel comprised the line staff.

**Timeline:** The questionnaire was sent to the group on June 1, 2012 and a deadline to have them completed and returned was August 1, 2012.

**Dissemination Method:** The questionnaires were sent through electronic mail with a read receipt attached.

**Collection Method:** The participants were asked to send the results back through electronic mail.

## Appendix E

### Fire Department Questionnaire

#### Westminster Fire Department Community Outreach Questionnaire

You have received this questionnaire to help evaluate the impact of proposed community outreach program offered by the Fire Department. Recently, you attended a hazard mitigation class that gave an overview of all City Department's role in disaster preparedness. The small business community in Westminster is being reviewed to determine their preparedness for a disaster whether man-made, natural, or technological. The Department is seeking an opportunity integrate business continuity plans with the Fire Department pre-plans.

Please answer the following questions and send the response back to Battalion Chief Derik Minard no later than August 15<sup>th</sup>, 2012. Your information will be confidential and assist in evaluating the potential for a new program.

1. Do you see a role with in the fire department to assist the business community prepare for natural, man-made, or technological disasters?  
Yes ☐ No ☐
2. Do you feel the fire department does enough to help business prepare for natural, man-made, or technological disasters? Yes ☐ No ☐
3. Do you see a correlation between the fire department and disaster preparedness for small businesses? Yes ☐ No ☐
4. The Department is considering adding additional business information to the pre-plans to assist with disaster recovery. Do you see an opportunity to assist with disaster recovery or would it be an inconvenience during your inspection?  
Opportunity ☐  
Inconvenience ☐
5. Think about the time you spend on an AVERAGE business inspection. If you were asked to disseminate information regarding disaster preparedness during company business inspections, what additional time do you feel would not compromise your work schedule in accomplishing your daily duties?  
5 minutes ☐ 10 minutes ☐ 15 minutes ☐ 20 minutes ☐
6. If the role of fire department personnel is to disseminate information and give and overview of the program, do you think it would be beneficial to participate?  
Yes ☐ No ☐
7. Do you feel other programs would have to be compromised in order to add this to our core service programs? Yes ☐ No ☐

## Appendix F

### Fire Department Questionnaire Results

#### Westminster Fire Department Community Outreach Questionnaire

1. Do you see a role with in the fire department to assist the business community prepare for natural, man-made, or technological disasters?  
  
Yes     83 – 76%  
No     25 – 24%
2. Do you feel the fire department does enough to help business prepare for natural, man-made, or technological disasters?  
  
Yes     26 – 24%  
No     82 – 76%
3. Do you see a correlation between the fire department and disaster preparedness for small businesses?  
  
Yes     73 – 67%  
No     35 – 33%
4. The Department is considering adding additional business information to the pre-plans to assist with disaster recovery. Do you see an opportunity to assist with disaster recovery or would it be an inconvenience during your inspection?  
  
Opportunity     80 – 74%  
Inconvenience     28 – 26%
5. Think about the time you spend on an AVERAGE business inspection. If you were asked to disseminate information regarding disaster preparedness during company business inspections, what additional time do you feel would not compromise your work schedule in accomplishing your daily duties?  
5 minutes: 26 – 24%   10 minutes: 28 – 25%   15 minutes: 33 – 30%   20 minutes: 21 – 9%
6. If the role of fire department personnel is to disseminate information and give and overview of the program, do you think it would be beneficial to participate?  
  
Yes     89 – 83%  
No     19 – 17%
7. Do you feel other programs would have to be compromised in order to add this to our core service programs?  
  
Yes     82 – 76%  
No     26 – 24%