

# Planning for Natural Disasters

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In recent years, we have had our share of natural and man-made disasters. These events have included Category IV hurricanes, devastating floods, and severe winter storms.

In 2008 Hurricane Ike caused widespread damage from Galveston, Texas, to Windsor, Ontario, making it the third most destructive hurricane and resulting in \$32 billion in property damage. The Great Midwest floods of 2008 which lasted from June 8 to July 1, caused thirteen deaths and \$8 billion in property damages. In December 2008, severe winter storms left 1.2 million residents of the Northeast without power for days.

These events are unpredictable, can strike with minimal warning, and often may not afford any means to protect facilities. There are steps companies can take to help mitigate the risk of a disaster.

## Grim Statistics

Many companies are vulnerable to disasters. Current economic conditions have resulted in companies centralizing their production capacity to a single location. In addition, most small to mid-sized firms lack an effective business continuity plan. The statistics can be grim when little or no planning is completed. Studies have found 40% to 80% of unprepared firms may fail soon after a "major" event.

With effective planning, recovery rates improve dramatically, with losses reduced by up to 75% to 85%, for those firms with a business continuity plan. The return on investment is estimated to be \$681 of reduced property damage for every dollar spent on planning.

## Take a Planned Approach

A business continuity plan offers firms a systematic approach to prepare for disasters. The scope of the firm's business continuity plan should be based on the "worst case" scenario. In addition, the plan should be broad enough to respond to any foreseeable event. This method of planning is referred to as the "all hazards" approach as defined in National Fire Protection Association *NFPA 1600: Standard on Disaster/Emergency Management and Business Continuity Programs 2010 Edition*. This approach can address "a full range of threats and hazards."

The steps for developing an effective business continuity plan are:

- Assess the risk
- Sell management and build your team
- Analyze the business impact
- Document the plan
- Test the plan

## Risk Assessment

A risk is defined as a "negative outcome." The risk may impact people, facilities, or sales. It can be categorized as internal or external, and naturally occurring or man-made.

A loss of utilities (water, power, gas) is a risk that exists within all facilities. The magnitude or severity of the risk depends on the operation's vulnerability, and the probability of this risk varies based on the reliability of the power utility. To reduce the impact of this risk, a firm may choose to install a transfer switch so that a portable electrical generator can be installed a few hours after a power outage.

The risk assessment will help guide your planning by helping you understand where the firm is vulnerable and the relative probability of these events happening to your firm.

## Selling Management, Building the Team

By identifying what can go wrong, you will be able to "sell" the need for a business continuity plan to top management. The potential loss of profits can be weighed objectively against the time needed to create a plan. An executive sponsor (an individual who supports the planning effort within top management) is essential for the plan to be completed in a timely manner.

The development of a business continuity plan is not a one-person job. Representation from across the company is needed to create a useful document. For mid-sized companies it is recommended the plan development team range from three to eight members. These members should represent various departments within the company (i.e., IT, manufacturing, finance, facilities, human resources, etc.). Input from IT is particularly important with the ever increasing reliance on computer applications and Web access.

## Analyze the Business Impact

The goal of the business continuity plan is to develop steps to recover critical business functions. Loss of these functions will result in a loss of profits, market segment, or company image.

The method to identify critical business functions (CBF) is known as the business impact analysis (BIA). The BIA notes all the useful business functions and refines the list to the top ten to fifteen critical business functions that must be recovered soon after a disaster. Each critical business function will be assigned a recovery time objective. This recovery time objective is the maximum amount of time the firm can be without the CBF before incurring a loss.

## Developing Effective Recovery Strategies

The success of the plan hinges on how the CBFs will be recovered within the recovery time objective timeframes. Thus, recovery strategies for each CBF must be developed, funded, and tested.

Recovery strategies need to be cost effective, easily implemented, and reliable. Multiple options should be weighed and discussed during this process. Internal strategies can include using alternate work sites, duplicate/spare equipment, or working multiple/extended shifts. External strategies could include reciprocal agreements with other firms, service level agreements with vendors, or hiring of supplemental staff from temporary agencies.

When considering the recovery of IT operations, the solutions range widely in cost and complexity. The firm may rely on redundant sites owned by the company or simply just store data tapes off site. One vendor-provided solution is a “hot site” where commercial data centers are provided during a disaster for an annual subscription fee. It may be possible to recover the majority of the IT functions within the hot site in an eight-hour timeframe.

## Emergency Response—The First 24 Hours

In the early stages of a disaster (the first 24 hours), emergency response steps are needed to protect staff first and, in turn, the facilities and equipment. The plan must spell out where the business continuity plan team will go and how they will communicate.

Command centers or sites where the business continuity plan team meets to direct recovery efforts should be local and remote since the disaster may impact a large geographic area. Virtual command centers work if travel is difficult and phone lines are still available.

At least two means of communications should be considered. A severe storm can easily knock out landline and cell phone service

for days. Alternatives such as websites or two-way radios should be considered based on your firm’s available resources.

## Plan Documentation and Testing

Special business continuity planning software is available to help document the plan. Fortune 500 companies with dedicated business continuity staff may use these software applications due to the complexity of their operations. For most small and mid-sized companies, the use of simple word processing software is acceptable (such as Microsoft Word). Planning templates are also available from insurance companies and outside vendors.

No plan can be effective without testing, which will assist in determining if plan assumptions are valid and if the plan is updated to the current operations. The test will exercise the staff’s knowledge of the plan and will demonstrate that the plan is considered important by top management. The typical tabletop test involves the business continuity plan team simulating a disaster and completing a walkthrough to assure all staff is familiar with their roles.

## Summary

The completion of these steps will help companies develop a business continuity plan. The plan must be updated at least annually to ensure it is current and reflects any changes within the firm.

Resources are available from a variety of sources. Helpful websites are provided by the Disaster Recovery Institute and Continuity Insights. Firms should also check out the many government sites that provide a wealth of information. The Federal Emergency Management Agency website ([www.fema.gov](http://www.fema.gov)) offers tips for planning for natural disasters, while [Flu.gov](http://Flu.gov) addresses concerns related to pandemic planning. Standards offered by the National Fire Protection Association and ASIS International will also help provide direction regarding the required elements of a business continuity plan.

A business continuity plan will help protect your firm from unpredictable events that could cause irreparable harm. Although the development of an effective plan is neither quick nor easy, the resultant plan will help assure your leadership and staff that the firm’s operations will continue even after Mother Nature tries to put us at her mercy.

*To learn more about planning for natural disasters attend Scott’s session at the Offset & Beyond Conference to be held May 17–19 in Baltimore, Maryland. For more info visit [www.printing.org/offsetandbeyond](http://www.printing.org/offsetandbeyond). Scott Nicoll is a risk specialist for the loss control division of the Chubb Group of Insurance Companies. He can be contacted at [snicoll@chubb.com](mailto:snicoll@chubb.com).*