

Prairie View A&M University

Business Continuity Plan

BCP Leadership Team

Confidential

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Annexes: Department Business Continuity Plans

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Annex 2	Provost & Academic Affairs
Annex 3	Research & Development
Annex 4	Affairs & Institutional Relations
Annex 5	Division of Business Affairs
Annex 6	Administration & Auxiliary Services

SECTION ONE

Overview

SECTION ONE – OVERVIEW

1.1 Introduction

The Business Continuity Plan (BCP) has been developed to document the guidelines, support, and resources needed should a disaster or any prolonged outage impact to the services and operations of Prairie View A&M University (PVAMU). The Plan will be activated when an emergency exceeds the scope of standard operating procedures. It is designed to reduce confusion created during a disaster and provide a framework for recovery and restoration of critical business processes and their related resources.

1.2 NIMS / ICS System

1.2.1 National Incident Management System

The National Incident Management System (NIMS) provides a systematic, proactive approach to guide departments and agencies at all levels of government, nongovernmental organizations, and the private sector to work seamlessly to prevent, protect against, respond to, recover from, and mitigate the effects of incidents, regardless of cause, size, location, or complexity, in order to reduce the loss of life and property and harm to the environment. NIMS works hand in hand with the National Response Framework (NRF). NIMS provides the template for the management of incidents, while the NRF provides the structure and mechanisms for national-level policy for incident management.

1.2.2 Incident Command System

The major functional areas of ICS include: (1) Command, (2) Operations, (3) Planning, (4) Logistics, and (5) Finance/Administration. (A sixth functional area, Intelligence/Investigations, may be established if required.)

The ICS organizational structure is modular, extending to incorporate all elements necessary for the type, size, scope, and complexity of an incident. It builds from the top down; responsibility and performance begin with Incident Command.

In an ICS organization, Incident Command consists of the Incident Commander and various Command Staff positions. The Command Staff are specifically designated, report directly to the Incident Commander, and are assigned responsibility for key activities that are not a part of the General Staff functional elements. Three staff positions are typically identified in ICS: Public Information Officer, Safety Officer, and Liaison Officer. Additional positions may be required, such as technical specialists, depending on the nature, scope, complexity, and location(s) of the incident(s), or according to specific requirements established by the IC. The ICS Primary Positions & Functions are listed in Exhibit 14.

1.3 Plan Activation Process

The NIMS/ICS structure will be used to manage the initial incident. The response will be directed by the Incident Commander. Once the initial incident has been brought under control, the President of the University or the designated representative will declare the initial incident management complete and order the University to transition to the BCP. The BCP can be activated while the incident still exists if required to continue the University Business during a crisis.

1.4 BCP Organization Structure

The Business Continuity Plan (BCP) is structured with the following Teams:

1.4.1 BCP Response Team

The BCP Response Team consists of a limited number of key management personnel who will assess the level of damage to critical services and operations in an emergency. The functions this team are to evaluate the event and recommend to the BCP Leadership Team to activate the BCP or not.

1.4.2 BCP Leadership Team

The members of the BCP Leadership Team would be situation dependent but would more than likely include President, VPs, College Heads (or designees) and situational dependent personnel required to complete the task required based on the extent of the incident. The BCP Leadership Team that has the following general responsibilities:

- Communicating University-wide priorities
- Activating the BCPs
- Coordinating restoration efforts
- Reconstituting to normal operations
- Providing strategic direction
- Allocating critical BCP resources
- Monitoring recovery operations

1.4.3 Logistics Recovery Team

The members of the Logistics Recovery Team would be built based on incident parameters and situation. The Logistics Recovery Team that has the following general responsibilities:

- Determining immediate operating needs
- Arranging for alternate facilities, if needed
- Coordinating salvage efforts
- Arranging for basic support services
- Obtaining office equipment as necessary
- Arranging transportation, travel and food
- Verifying personnel status
- Arranging security
- Arranging for temporary personnel
- Notifying postal and courier services
- Analyzing records retention requirements
- Analyzing records salvage requirements
- Coordinating asset removal
- Executing recovery procedures
- Reporting status to the BCP Leadership Team
- Reconstituting to normal operations

1.4.4 Department Recovery Teams

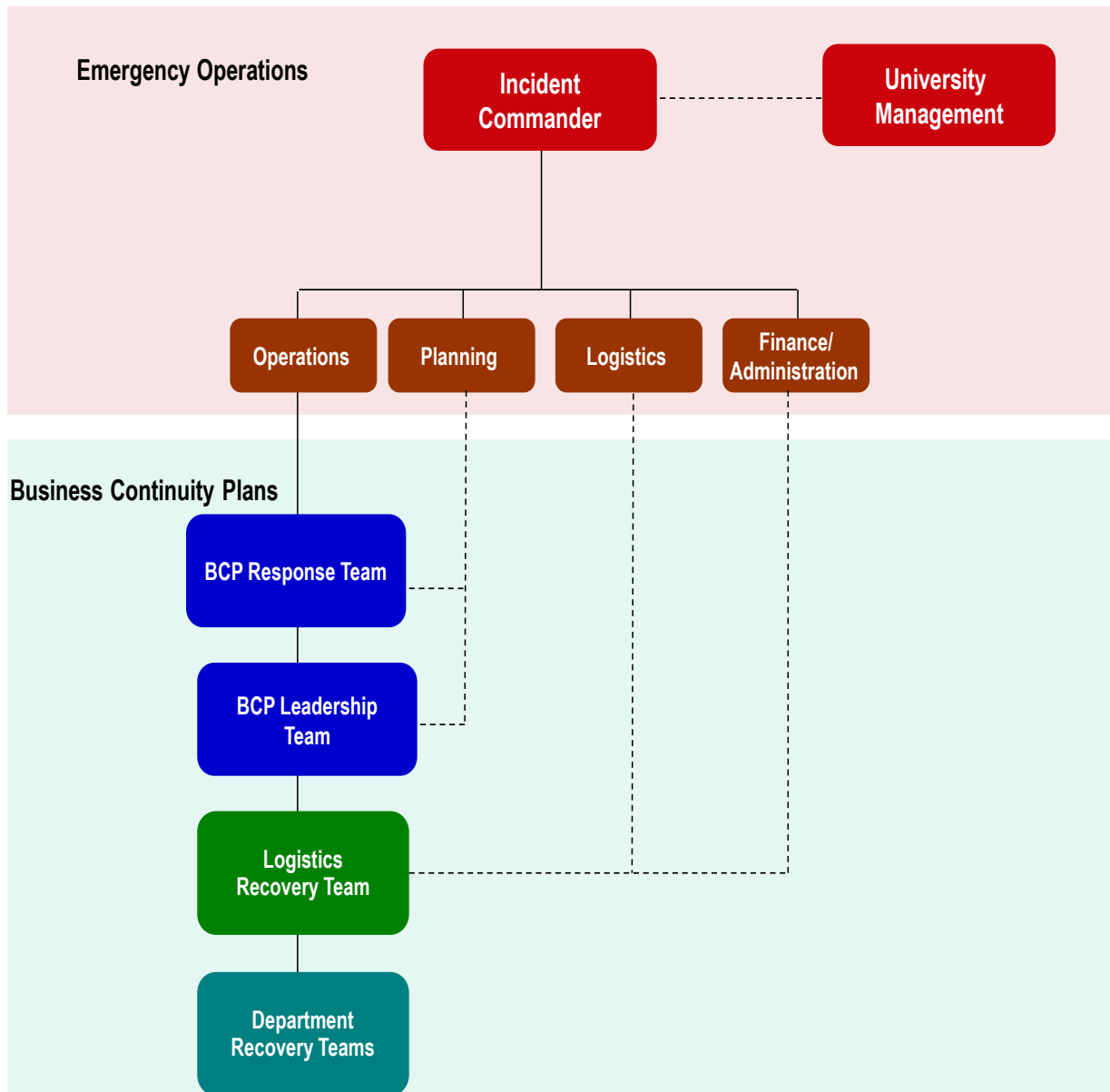
The Department Recovery Teams that have the following general responsibilities:

- Determining immediate needs
- Notifying department staff
- Initiating alternate procedures
- Executing BCP procedures
- Performing critical business processes
- Relocating as necessary
- Reconstructing data
- Reporting status to the BCP Leadership Team
- Reconstituting to normal operations
- Other Department responsibilities

Recovery Teams are operational groups responsible for specific functions. Each Department has a separate Plan, which is written and formatted to use on a stand-alone basis. The Department BCPs include specific responsibilities and procedures to be followed in the event of a disaster, which allows for a rapid and smooth recovery process.

The BCP Organization Chart is attached.

PVAMU BCP Structure



1.5 Plan Objectives

The objectives of this Plan are to formalize and document the business continuity policies and procedures of PVAMU and to provide guidelines to resume time-sensitive business processes, operations, and services. The BCP addresses the logical flow of events in responding to major disruptions in PVAMU operations. Specifically, this Plan includes the activities to:

- Continue/resume time-sensitive business operations for the critical and essential business processes.
- Activate the resumption and support of those services.
- Initiate restoration procedures of critical business processes and their related resources quickly following activation of the BCP.
- Define how PVAMU will communicate and coordinate during the recovery process.
- Identify the staff assigned to implement resumption support (Recovery Teams) and their responsibilities.
- Restore critical business processes and their related resources according to the recovery time objectives.
- Achieve each of the above objectives in a timely, efficient, and cost effective manner.
- Return to a permanent operating environment.

1.6 Plan Assumptions

The Business Continuity Plan is based on the following assumptions:

- Sufficient key staff is available to perform the necessary procedures described in the Plan.
- Sufficient staff can be notified and can report to perform critical recovery and restoration activities.
- Offsite storage media and materials are available, are current, correct and readable.
- The Business Continuity Plans are current and available.
- In the event of a disaster, the Plan can be accessed. Copies of the Plan, both electronically and in paper will be located at the offsite storage facility. Also, Team members may have copies at their homes.
- Subsets of the overall Plan can be used to recover from minor interruptions.
- Recovery services from critical vendors are available.
- Adequate financial and personnel resources will be made available each year to test the recovery plan to assure its continuing viability.

1.7 Policy Statement

It is the policy of PVAMU to maintain a comprehensive Business Continuity Plan to protect its technology infrastructure and information assets, assure staff, faculty, and student safety, and provide continued education services to the students of PVAMU. The Plan will provide for reestablishment of critical and essential operations that may have been disrupted due to the impact of an unforeseen event.

The BCP Leadership Team will assist the Department Recovery Teams to provide a rapid recovery process to assure high availability of critical operations based on the customer needs of PVAMU. The Recovery Teams are charged with maintaining, implementing, and if necessary, updating procedures and plans to:

- Gain control of problem situations early,
- Minimize the impact of an operational outage on PVAMU,
- Reduce risks to critical services and operations,
- Continue critical business processes,
- Make timely decisions before, during, and after a crisis, and
- Train and test periodically.

It is the policy of PVAMU to maintain comprehensive Business Continuity Plans to provide for the continuity of critical services and operations that may be disrupted due to the impact of an unforeseen event.

SECTION TWO

Communications Plan

SECTION TWO – COMMUNICATIONS PLAN

2.1 Overview

The PVAMU President and/or designee in conjunction with the PIO are responsible for all PVAMU communications during an emergency including both external and internal communications. The PIO will therefore approve all emergency and crisis communications both internally and externally with the assistance and input from the BCP Leadership Team as required.

Proper internal, external, and public communications are critical to successful recovery from an outage event. A comprehensive communications strategy is critical for many reasons, including:

- Effectively resolving issues that may arise in the course of recovery
- Maintaining high commitment and motivation of the members of the Department Recovery Teams
- Maintaining efficient exchange of information between the Department Recovery Teams
- Contacting faculty, staff, and students to keep them informed
- Ensuring allocation of sufficient resources to the recovery process
- Facilitating effective teamwork and coordination of activities
- Minimizing the time span of the recovery
- Communicating with the public news media

2.2 BCP Response Team Communications

The BCP Response Team is responsible for contacting, coordinating and communicating with each of their Team members and to provide instructions as to where the Team will meet to begin the evaluation of the emergency event. The BCP Response Team is also responsible for communicating the results of their evaluation to the BCP Leadership Team and recommending activation of the BCPs.

2.3 BCP Leadership Team Communications

The BCP Leadership Team is responsible for contacting, coordinating and communicating with each of their Team members and to provide instructions as to where the Team will meet to begin the recovery process. The BCP Leadership Team is also responsible for directing the recovery efforts and providing guidance and support to the Department Recovery Teams as required during and / or after an emergency event. The BCP Leadership Team has the responsibility for activating the Department BCPs.

2.4 Department Communications

The BCP Leadership Team will contact the affected Departments when their Plan has been activated. Each Department Recovery Team is encouraged to closely coordinate and communicate with the BCP Leadership Team and other Department Recovery Teams during the recovery effort. If a team needs to contact another team regarding the recovery effort and they are unsure who to speak to, they will contact the Team Manager of the desired team and request direction. The Department Recovery Team Manager(s) will contact the BCP Leadership Team as required for specific guidance during the recovery process as required.

2.5 Methods of Communication

In a power outage or network outage, most technology will not be available. Therefore potential methods of communications include:

- Cell phone
- Text messaging

It is also possible that communication may need to be performed verbally in-person.

The following communication methods may not be available:

- Intranet (Internal Web Site) Announcements
- Internet (External Web Site) Announcements
- Land line telephone (Internet based VloP system)
- Email Announcements
- Voicemail Announcements

2.6 Faculty and Staff Communications

2.5.1 Overview

Employees will be contacted by various methods depending on the severity of the disaster and the employee's role in the recovery effort. Following are the potential methods of communication.

2.5.2 Employee Calling List

Employee calling lists are directories of employee contact information and include private information (e.g. home phone, work phone, cell phone, etc.). These lists may be used by any of the teams to contact individuals needed for the recovery effort. The teams should only use these lists and log their call activity directly on the list. Providing non-team members with information from these lists should be done with a high degree of discretion and with the knowledge of the related Team Manager.

Traditionally these lists include mechanisms to have one employee call another or group of others such as a call tree or a buddy system. This may or may not be done as decided by the BCP Leadership Team.

2.5.3 Intranet (Internal Web Site) Announcements

This form of communication involves posting information on PVAMU's intranet site. If a minor disaster occurs, this is a likely communication vehicle. If a major disaster occurs, this is not likely to be as useful.

2.5.4 Internet (External Web Site) Announcements

This form of communication involves posting information on PVAMU's Internet website. As an employee communication vehicle, this is not encouraged. This site and its contents are visible to anyone with a browser. The BCP Leadership Team and legal counsel are to be consulted before using this as a means of employee communication.

2.5.5 Email Announcements

This form of communication is the use of the email system to send an electronic message to employees' work email addresses. In the event of a minor disaster, this is a likely communication vehicle. In the event of a major disaster this is not likely to be as useful or even available.

2.5.6 Voicemail Announcements

This form of communication is the use of PVAMU's telephone system to send voice messages to employees via their work phones. If a minor disaster occurs, this is a likely communication vehicle. If a major disaster occurs, this is not likely to be as useful or even available.

2.7 Student Communications

It may be important to contact students regarding a disaster event and the impact on services provided to them. The communication methods described above can also be used for student communications. The PIO and BCP Leadership Team should be consulted for authorization and coordinating the actual communication.

2.8 News Media Communications

The BCP Leadership Team will have a representative from the Public Affairs Department on their Team roster to assist with the release of timely information to the news media in a formal press release. This information will not be released until approved by the PVAMU President or designee through the PIO.

This form of communication can also be used to communicate messages to employees. As an employee communication vehicle this method is discouraged as the messages are available to anyone.

The BCP Leadership Team will communicate to the Department Recovery Teams the importance of complying with these media communications guidelines and that all media inquiries should be directed to the PVAMU President and PIO.

2.9 Vendor Communications

Vendors, from a communications standpoint, are to be placed on a need to know basis. This means, "You tell them what you want them to know." Typically a vendor is contacted because there is a need for the products or services they supply. When speaking with a vendor, provide details that are pertinent to the acquisition only.

All teams have the option to communicate with vendors as necessary. Keep in mind that communications that either imply or are related to purchases or other monetary implications should be reviewed against the emergency procurement policy. The BCP Leadership Team should be included as necessary for authorization and actual acquisition standpoint as needed.

2.10 Other Communications

The BCP Leadership Team is to be consulted regardless of the medium chosen to ensure the accuracy and appropriateness of a chosen communication vehicle and the content of messages to be sent. The PVAMU President and PIO will send communications targeted for the public or likely to be reported in the news unless otherwise noted.

SECTION THREE

BCP Scenarios

SECTION THREE – BCP SCENARIOS

This section describes the guidelines and recovery activities for four types of scenarios. The decision to activate the plan for a specific scenario depends on a number of factors ultimately judged by the person(s) in charge. These factors include:

- The type of disaster incident.
- The effect of the incident including the extent and type of damage.
- How long critical/essential services are unavailable or inaccessible.
- Whether the services are mission critical.
- The anticipated recovery time.

3.1 Scenario #1: IT Disaster Event

Faculty, staff, and students have access to the building(s) but IT has technical difficulties that will require several days to be resolved. In this scenario, the Departments would activate the alternate procedures described in their BCPs. The options for this scenario are listed below:

- Notify the Departments to use the alternate processing procedures described in the Department BCPs
- Determine if repairs to the equipment can be performed on site
- Determine if it is necessary to move the IT Department to another location
- Determine if another agency or university will provide rack space for PVAMU
- Determine if the IT vendors will provide processing capabilities at their location
- Order replacement systems from the IT vendors
- Acquire a mobile facility

Scenario #1 Activity Description	Responsibility
1. Assess the IT problem and / or damage.	IT
2. Determine if it can be fixed on site or if it will be necessary to relocate to a recovery site.	IT
3. Estimate the potential time for restoration of services for the IT services.	IT
4. Contact the BCP Leadership Team to communicate the potential time for restoration of IT services.	IT
5. Communicate the potential time for restoration of IT services to the Department Recovery Teams and advise them to use alternate processing procedures for the duration of the outage.	BCP Leadership Team
6. Prioritize recovery actions and activities.	BCP Leadership Team
7. Provide strategic direction to all Recovery Teams.	BCP Leadership Team
8. If necessary, relocate to the recovery site.	IT
9. Contact vendors as required for necessary hardware and software repairs.	IT

Scenario #1 Activity Description	Responsibility
10. Determine the status of the last backup.	IT
11. Retrieve backup media.	IT
12. Restore application systems to operational status.	IT
13. Execute technical recovery procedures.	IT
14. Test recovered systems.	IT
15. Execute the alternate processing procedures.	Department Recovery Teams
16. Notify the BCP Leadership Team when the systems are operational again.	IT
17. Communicate to the Department Recovery Teams that it systems are operational again.	BCP Leadership Team
18. Test recovered systems.	Department Recovery Teams
19. Update the system for all alternate processing activity as appropriate when the systems are operational again.	Department Recovery Teams
20. Prepare an After Action Report that documents the cause of the disaster event and the remediation procedures performed.	BCP Leadership Team

3.2 Scenario #2: Facility Disaster Event

IT is operational, but some Departments do not have access to their premises for several days due to the disaster event. In this case, the Department faculty, staff, and students would be relocated to another building on campus. The options for this scenario are listed below:

- Relocate the Departments to an alternate location
- Determine if the facility can be repaired quickly
- Cancel classes if necessary
- Determine if facilities off campus are available
- Acquire a mobile facility
- Use online teaching capabilities

In this scenario, the following guidelines should be followed:

Scenario #2 Activity Description	Responsibility
1. Receive notification that there is damage to campus building(s).	BCP Leadership Team
2. Activate the BCP Leadership Team.	BCP Leadership Team
3. Appoint an ad hoc Recovery Team to perform damage assessment.	BCP Leadership Team
4. Based on the damage assessment, estimate the potential time that the building(s) will be unavailable.	BCP Leadership Team

Scenario #2 Activity Description	Responsibility
5. Determine the Departments impacted by the damage to their facility.	BCP Leadership Team
6. If necessary, determine the relocation strategies for the impacted Departments.	BCP Leadership Team
7. If necessary, advise the impacted Departments to activate their BCPs.	BCP Leadership Team
8. Activate the Department Recovery Teams.	Department Recovery Team(s)
9. Prioritize recovery actions and activities.	BCP Leadership Team
10. Provide strategic direction to the impacted Departments.	BCP Leadership Team
11. Provide relocation assistance.	Facilities
12. Relocate to alternate facility.	Department Recovery Team(s)
13. Provide IT assistance at the alternate site(s).	IT
14. Authorize facilitates staff to call vendors to repair the damaged building(s).	BCP Leadership Team
15. Notify impacted Departments when the building has been repaired and is available again.	BCP Leadership Team
16. Determine reconstitution strategies including: <ul style="list-style-type: none"> • Arrange for alternate facilities • Obtain office furnishings and equipment as necessary 	BCP Leadership Team
17. Notify Department Recovery Teams of the reconstitution strategies and procedures.	BCP Leadership Team
18. Provide relocation assistance.	Facilities
19. Reconstitute to normal operations.	Department Recovery Teams
20. Prepare an After Action Report that documents the cause of the disaster event and the remediation procedures performed.	BCP Leadership Team

3.3 Scenario #3: IT and Facilities Disaster Event

All faculty, staff, and students are available, but the Departments do not have access to their premises or IT infrastructure and systems for several days. In this scenario, the BCP Leadership Team would contact IT to activate the recovery strategies for mission critical applications and technology infrastructure. In addition the BCP Leadership Team would contact the affected Departments to relocate to their alternate locations. In this scenario, the Department Recovery Teams would follow the guidelines described in their BCPs. The options for this scenario are listed below:

IT Infrastructure and Systems

- Notify the Departments to use the alternate processing procedures described in the Department BCPs
- Determine if repairs to the equipment can be performed on site
- Determine if it is necessary to move the IT Department to another location
- Determine if another agency or university will provide rack space for PVAMU
- Determine if the IT vendors will provide processing capabilities at their location
- Order replacement systems from the IT vendors
- Acquire a mobile facility

Departments

- Relocate the Departments to an alternate location
- Determine if the facility can be repaired quickly
- Determine if facilities off campus are available
- Cancel classes if necessary
- Acquire a mobile facility
- Use online teaching capabilities

In this scenario, the following guidelines should be followed:

Scenario #3 Activity Description	Responsibility
1. Receive notification that there is damage to campus building(s) and IT.	BCP Leadership Team
2. Activate the BCP Leadership Team.	BCP Leadership Team
3. Appoint an ad hoc Recovery Team to perform damage assessment of the damaged buildings.	BCP Leadership Team
4. Request that IT conduct a damage assessment of the IT infrastructure and system.	BCP Leadership Team
5. Based on the damage assessment, estimate the potential time that the building(s) and IT will be unavailable.	BCP Leadership Team
6. Prioritize recovery actions and activities.	BCP Leadership Team
7. Provide strategic direction to the impacted Departments.	BCP Leadership Team
Department Recovery Activities	

Scenario #3 Activity Description	Responsibility
8. Determine the Departments impacted by the damage to their facility.	BCP Leadership Team
9. If necessary, determine the relocation strategies for the impacted Departments.	BCP Leadership Team
10. If necessary, notify the impacted Departments to activate their BCPs.	BCP Leadership Team
11. Activate the Department Recovery Teams.	Department Recovery Team(s)
12. Provide relocation assistance.	Facilities
13. Execute the following procedures for the Department Recovery Team(s): <ul style="list-style-type: none"> • Relocate to the alternate processing site(s) • Determine immediate operating needs • Execute the alternate processing procedures in the Department BCPs. 	Department Recovery Team(s)
14. Provide IT assistance at the alternate site(s).	IT
IT Recovery Activities	
15. If necessary, work with IT to determine the IT recovery strategies.	BCP Leadership Team
16. If necessary, activate the IT recovery site.	IT
17. Determine the status of the last backup.	IT
18. Retrieve backup media.	IT
19. Restore application systems to operational status.	IT
20. Test recovered systems.	IT
21. Activate the Help-Desk function including the following activities: <ul style="list-style-type: none"> • Assign additional staff (if available) to the Help-Desk function • Request additional personnel as required to assist in Help Desk functions. (Note: The volume of calls to the Help Desk could be significantly higher in this disaster scenario). • Notify users of the phone number(s) for the help desk function • Communicate, prioritize and resolve reported user problems • Document help desk activity 	IT
22. Notify the BCP Leadership Team that the IT systems are available.	IT
23. Notify the Department Recovery Teams that the IT systems are available.	BCP Leadership Team
Restoration Activities	

Scenario #3 Activity Description	Responsibility
24. Update the system for all alternate processing activity as appropriate when the systems are operational again.	Department Recovery Teams
25. Authorize facilitates staff and IT to call vendors to repair the damaged building(s).	BCP Leadership Team
26. Notify impacted Departments when the building has been repaired and is available again.	BCP Leadership Team
27. Determine reconstitution strategies including: <ul style="list-style-type: none"> • Arrange for alternate facilities • Obtain office furnishings and equipment as necessary 	BCP Leadership Team
28. Notify Department Recovery Team(s) of the reconstitution strategies and procedures.	BCP Leadership Team
29. Provide relocation assistance.	Facilities
30. Relocate to primary facility.	Department Recovery Team(s)
31. Reconstitute to normal operations.	All Recovery Teams
32. Prepare an After Action Report that documents the cause of the disaster event and the remediation procedures performed.	BCP Leadership Team

3.4 Scenario #4: Weather Disasters

A severe weather caused disaster event occurs at the PVAMU campus. A severe weather disaster could result in Scenario 1, 2, or 3 described above. It is also possible that PVAMU would close the campus. Actions for potential weather related disasters are described below.

3.4.1 Hurricane

Overview

Hurricanes bring destructive winds, storm surge, torrential rain, flooding, and tornadoes. A hurricane is a type of tropical cyclone, the generic term for a low pressure system that generally forms in the tropics. A typical cyclone is accompanied by thunderstorms, and in the Northern Hemisphere, a counterclockwise circulation of winds near the earth’s surface.

All Atlantic and Gulf of Mexico coastal areas are subject to hurricanes or tropical storms. The Atlantic hurricane season lasts from June to November, with the peak season from mid-August to late October.

Hurricanes can cause catastrophic damage to coastlines and several hundred miles inland. Winds can exceed 155 miles per hour. Hurricanes and tropical storms can also spawn tornadoes and microbursts, create storm surges along the coast, and cause extensive damage from heavy rainfall.

Hurricane Categories

Hurricanes are classified into five categories based on their wind speed, central pressure, and damage potential. Category Three and higher hurricanes are considered major hurricanes, though Categories One and Two are still extremely dangerous and warrant full attention. Hurricane categories are determined by the Saffir-Simpson Hurricane Scale as listed below:

Category	Wind	Damage	Storm Surge
Category 1	74-95 mph	Minimal: Unanchored mobile homes, vegetation and signs.	4-5 feet
Category 2	96-110 mph	Moderate: All mobile homes, roofs, small crafts, flooding.	6-8 feet
Category 3	111-130 mph	Extensive: Small buildings, low-lying roads cut off.	9-12 feet
Category 4	131-155 mph	Extreme: Roofs destroyed, trees down, roads cut off, mobile homes destroyed. Beach homes flooded.	13-19 feet
Category 5	greater than 155 mph	Catastrophic: Most buildings destroyed. Vegetation destroyed. Major roads cut off. Homes flooded.	greater than 19 feet

Hurricane Terms

The terms "hurricane" and "typhoon" are regionally specific names for a strong "tropical cyclone". A tropical cyclone is the generic term for a non-frontal synoptic scale low-pressure system over tropical or sub-tropical waters with organized convection (i.e. thunderstorm activity) and definite cyclonic surface wind circulation. The wind speed mentioned here are for those measured or estimated as the top speed sustained for one minute at 10 meters above the surface. Peak gusts would be on the order of 10-25% higher.

Tropical cyclones with maximum sustained surface winds of less than 17 m/s (34 kt, 39 mph) are called "tropical depressions" Once the tropical cyclone reaches winds of at least 17 m/s (34 kt, 39 mph) they are typically called a "tropical storm" and assigned a name. If winds reach 33 m/s (64 kt, 74 mph), then they are called:

- "hurricane" (the North Atlantic Ocean, the Northeast Pacific Ocean east of the dateline, or the South Pacific Ocean east of 160E)
- "typhoon" (the Northwest Pacific Ocean west of the dateline)
- "severe tropical cyclone" (the Southwest Pacific Ocean west of 160E or Southeast Indian Ocean east of 90E)
- "severe cyclonic storm" (the North Indian Ocean)
- "tropical cyclone" (the Southwest Indian Ocean)

Other hurricane terminology is listed below:

Tropical Disturbance

A discrete tropical weather system of apparently organized convection - generally 200 to 600 km (100 to 300 nmi) in diameter - originating in the tropics or subtropics, having a nonfrontal migratory character, and maintaining its identity for 24 hours or more. It may or may not be associated with a detectable perturbation of the wind field. Disturbances associated with perturbations in the wind field and progressing through the tropics from east to west are also known as easterly waves.

Tropical Depression

A tropical cyclone in which the maximum sustained wind speed (using the U.S. 1 minute average standard) is 33 kt (38 mph, 17 m/s). Depressions have a closed circulation.

Tropical Storm

A tropical cyclone in which the maximum sustained surface wind speed (using the U.S. 1 minute average standard) ranges from 34 kt (39 mph, 17.5 m/s) to 63 kt (73 mph, 32.5 m/s). The convection in tropical storms is usually more concentrated near the center with outer rainfall organizing into distinct bands.

Hurricane

When winds in a tropical cyclone equal or exceed 64 kt (74 mph, 33 m/s) it is called a hurricane (in the Atlantic and eastern and central Pacific Oceans). Hurricanes are further designated by categories on the Saffir-Simpson scale. Hurricanes in categories 3, 4, 5 are known as Major Hurricanes or Intense Hurricanes.

Hurricane Watch

Normally issued 36 hours before the storm is expected to strike, it is the first warning by the National Weather Service that a hurricane reaches a position which constitutes an appreciable threat to a specific area. This designation does not indicate immediate danger but serves to caution residents in the area that they should listen to radio or television for further advisories. Safety precautions taking more than 18 or 24 hours to fulfill should be started. Landfall is uncertain and broad geographic areas area alerted. This is the time for preliminary storm preparation.

Hurricane Warning

Normally issued 24 hours before the storm is expected to strike; more accurate landfall is predicted, with narrower geographic boundaries. It is expected that the area will feel the dangerous effects of the hurricane (i.e., winds of 74 mph and higher or a combination of dangerously high water, very rough seas, and winds 60 mph and higher). All precautions should be taken immediately. It should be noted

that the high winds, heavy rain, and high waves can occur 200-300 miles outward from the center of the hurricane. In the event of a Hurricane Warning, all non-essential personnel should be advised, if possible, to evacuate the facilities.

Hurricane Alert

The strike of Hurricane Force Winds is imminent.

Before a Hurricane

- To prepare for a hurricane, you should take the following measures:
- Make plans to secure your property. Permanent storm shutters offer the best protection for windows. A second option is to board up windows with 5/8" marine plywood, cut to fit and ready to install. Tape does not prevent windows from breaking.
- Install straps or additional clips to securely fasten your roof to the frame structure. This will reduce roof damage.
- Be sure trees and shrubs around your home are well trimmed.
- Clear loose and clogged rain gutters and downspouts.
- Determine how and where to secure your boat.
- Consider building a safe room.

During a Hurricane

- If a hurricane is likely in your area, you should:
- Listen to the radio or TV for information.
- Secure your home, close storm shutters, and secure outdoor objects or bring them indoors.
- Turn off utilities if instructed to do so. Otherwise, turn the refrigerator thermostat to its coldest setting and keep its doors closed.
- Turn off propane tanks. Avoid using the phone, except for serious emergencies.
- Moor your boat if time permits.
- Ensure a supply of water for sanitary purposes such as cleaning and flushing toilets. Fill the bathtub and other large containers with water.
- You should evacuate under the following conditions:
- If you are directed by local authorities to do so. Be sure to follow their instructions.
- If you live in a mobile home or temporary structure—such shelters are particularly hazardous during hurricanes no matter how well fastened to the ground.
- If you live in a high-rise building—hurricane winds are stronger at higher elevations.
- If you live on the coast, on a floodplain, near a river, or on an inland waterway.
- If you feel you are in danger.
- If you are unable to evacuate, go to your safe room. If you do not have one, follow these guidelines:
- Stay indoors during the hurricane and away from windows and glass doors.
- Close all interior doors—secure and brace external doors.
- Keep curtains and blinds closed. Do not be fooled if there is a lull; it could be the eye of the storm - winds will pick up again.

- Take refuge in a small interior room, closet, or hallway on the lowest level.
- Lie on the floor under a table or another sturdy object.

After a Hurricane

- Returning home can be both physically and mentally challenging. Above all, use caution. Check for injuries. Do not attempt to move seriously injured persons unless they are in immediate danger of death or further injury. If you must move an unconscious person, first stabilize the neck and back, then call for help immediately.
- Keep a battery-powered radio with you so you can listen for emergency updates and news reports.
- Use a battery-powered flash light to inspect a damaged home. Note: The flashlight should be turned on outside before entering - the battery may produce a spark that could ignite leaking gas, if present.
- Watch out for animals, especially poisonous snakes. Use a stick to poke through debris.
- Be wary of wildlife and other animals
- Use the phone only to report life-threatening emergencies.
- Stay off the streets. If you must go out, watch for fallen objects; downed electrical wires; and weakened walls, bridges, roads, and sidewalks.
- Before You Enter Your Home, walk carefully around the outside and check for loose power lines, gas leaks, and structural damage. If you have any doubts about safety, have your residence inspected by a qualified building inspector or structural engineer before entering.

Do not enter if:

- You smell gas.
- Floodwaters remain around the building.
- Your home was damaged by fire and the authorities have not declared it safe.
- When you go inside your home, there are certain things you should and should not do. Enter the home carefully and check for damage. Be aware of loose boards and slippery floors. The following items are other things to check inside your home:
 - Natural gas. If you smell gas or hear a hissing or blowing sound, open a window and leave immediately. Turn off the main gas valve from the outside, if you can. Call the gas company from a neighbor's residence. If you shut off the gas supply at the main valve, you will need a professional to turn it back on. Do not smoke or use oil, gas lanterns, candles, or torches for lighting inside a damaged home until you are sure there is no leaking gas or other flammable materials present.
 - Sparks, broken or frayed wires. Check the electrical system unless you are wet, standing in water, or unsure of your safety. If possible, turn off the electricity at the main fuse box or circuit breaker. If the situation is unsafe, leave the building and call for help. Do not turn on the lights until you are sure they're safe to use. You may want to have an electrician inspect your wiring.
 - Roof, foundation, and chimney cracks. If it looks like the building may collapse, leave immediately.
 - Appliances. If appliances are wet, turn off the electricity at the main fuse box or circuit breaker. Then, unplug appliances and let them dry out. Have appliances checked by a professional before using them again. Also, have the electrical system checked by an electrician before turning the power back on.

- Water and sewage systems. If pipes are damaged, turn off the main water valve. Check with local authorities before using any water; the water could be contaminated. Pump out wells and have the water tested by authorities before drinking. Do not flush toilets until you know that sewage lines are intact.
- Food and other supplies. Throw out all food and other supplies that you suspect may have become contaminated or come in to contact with floodwater. Your basement. If your basement has flooded, pump it out gradually (about one third of the water per day) to avoid damage. The walls may collapse and the floor may buckle if the basement is pumped out while the surrounding ground is still waterlogged.
- Open cabinets. Be alert for objects that may fall.
- Clean up household chemical spills. Disinfect items that may have been contaminated by raw sewage, bacteria, or chemicals. Also clean salvageable items.
- **Call your insurance agent.** Take pictures of damages. Keep good records of repair and cleaning costs.

3.4.2 Thunderstorm

Overview

All thunderstorms are dangerous. Every thunderstorm produces lightning. In the United States, an average of 300 people are injured and 80 people are killed each year by lightning. Although most lightning victims survive, people struck by lightning often report a variety of long-term, debilitating symptoms. Other associated dangers of thunderstorms include tornadoes, strong winds, hail, and flash flooding. Flash flooding is responsible for more fatalities - more than 140 annually - than any other thunderstorm-associated hazard.

A thunderstorm is a rain shower during which you hear thunder. Since thunder comes from lightning, all thunderstorms have lightning. A thunderstorm is classified as "severe" when it contains one or more of the following: hail three-quarter inch or greater, winds gusting in excess of 50 knots (57.5 mph).

An average thunderstorm is 15 miles in diameter and lasts an average of 30 minutes. At any given moment, there are roughly 2,000 thunderstorms in progress around the world. It is estimated that there are 100,000 thunderstorms each year. About 10% of these reach severe levels.

Lightning

Lightning's unpredictability increases the risk to individuals and property. Lightning often strikes outside of heavy rain and may occur as far as 10 miles away from any rainfall. "Heat lightning" is actually lightning from a thunderstorm too far away for thunder to be heard. However, the storm may be moving in your direction! Most lightning deaths and injuries occur when people are caught outdoors in the summer months during the afternoon and evening.

Thunderstorm Terms

Severe Thunderstorm Watch

Tells you when and where severe thunderstorms are likely to occur. Watch the sky and stay tuned to NOAA Weather Radio, commercial radio, or television for information.

Severe Thunderstorm Warning

Issued when severe weather has been reported by spotters or indicated by radar. Warnings indicate imminent danger to life and property to those in the path of the storm.

Thunderstorm Formation

Three basic ingredients are required for a thunderstorm to form: moisture, rising unstable air (air that keeps rising when given a nudge), and a lifting mechanism to provide the "nudge."

The sun heats the surface of the earth, which warms the air above it. If this warm surface air is forced to rise -- hills or mountains, or areas where warm/cold or wet/dry air bump together can cause rising motion - it will continue to rise as long as it weighs less and stays warmer than the air around it. As the air rises, it transfers heat from the surface of the earth to the upper levels of the atmosphere (the process of convection). The water vapor it contains begins to cool, releasing the heat, and it condenses into a cloud. The cloud eventually grows upward into areas where the temperature is below freezing. Some of the water vapor turns to ice and some of it turns into water droplets. Both have electrical charges. Ice particles usually have positive charges, and rain droplets usually have negative charges. When the charges build up enough, they are discharged in a bolt of lightning, which causes the sound waves we hear as thunder.

Thunderstorm Life Cycle

Thunderstorms have a life cycle of three stages: The developing stage, the mature stage, and the dissipating stage. The developing stage of a thunderstorm is marked by a cumulus cloud that is being pushed upward by a rising column of air (updraft). The cumulus cloud soon looks like a tower (called towering cumulus) as the updraft continues to develop. There is little to no rain during this stage but occasional lightning. The developing stage lasts about 10 minutes.

The thunderstorm enters the mature stage when the updraft continues to feed the storm, but precipitation begins to fall out of the storm, and a downdraft begins (a column of air pushing downward). When the downdraft and rain-cooled air spreads out along the ground it forms a gust front, or a line of gusty winds. The mature stage is the most likely time for hail, heavy rain, frequent lightning, strong winds, and tornadoes. The storm occasionally has a black or dark green appearance.

Eventually, a large amount of precipitation is produced and the updraft is overcome by the downdraft beginning the dissipating stage. At the ground, the gust front moves out a long distance from the storm and cuts off the warm moist air that was feeding the thunderstorm. Rainfall decreases in intensity, but lightning remains a danger.

The Single Cell Storm

Single cell thunderstorms usually last between 20-30 minutes. A true single cell storm is actually quite rare because often the gust front of one cell triggers the growth of another.

Most single cell storms are not usually severe. However, it is possible for a single cell storm to produce a brief severe weather event. When this happens, it is called a pulse severe storm. Their updrafts and downdrafts are slightly stronger, and typically produce hail that barely reaches severe limits and/or brief microbursts (a strong downdraft of air that hits the ground and spreads out). Brief heavy rainfall and occasionally a weak tornado are possible. Though pulse severe storms tend to form in more unstable environments than a non-severe single cell storm, they are usually poorly organized and seem to occur at random times and locations, making them difficult to forecast.

The Multicell Cluster Storm

The multicell cluster is the most common type of thunderstorm. The multicell cluster consists of a group of cells, moving along as one unit, with each cell in a different phase of the thunderstorm life cycle. Mature cells are usually found at the center of the cluster with dissipating cells at the downwind edge of the cluster. Multicell Cluster storms can produce moderate size hail, flash floods and weak tornadoes.

Each cell in a multicell cluster lasts only about 20 minutes; the multicell cluster itself may persist for several hours. This type of storm is usually more intense than a single cell storm, but is much weaker than a supercell storm.

The Multicell Line Storm (Squall Line)

The multicell line storm, or squall line, consists of a long line of storms with a continuous well-developed gust front at the leading edge of the line. The line of storms can be solid, or there can be gaps and breaks in the line.

Squall lines can produce hail up to golf-ball size, heavy rainfall, and weak tornadoes, but they are best known as the producers of strong downdrafts. Occasionally, a strong downburst will accelerate a portion of the squall line ahead of the rest of the line. This produces what is called a bow echo. Bow echoes can develop with isolated cells as well as squall lines. Bow echoes are easily detected on radar but are difficult to observe visually.

The Supercell Storm

The supercell is a highly organized thunderstorm. Supercells are rare, but pose a high threat to life and property. A supercell is similar to the single-cell storm because they both have one main updraft. The difference in the updraft of a supercell is that the updraft is extremely strong, reaching estimated speeds of 150-175 miles per hour. The main characteristic which sets the supercell apart from the other thunderstorm types is the presence of rotation. The rotating updraft of a supercell (called a mesocyclone when visible on radar) helps the supercell to produce extreme severe weather events, such as giant hail (more than 2 inches in diameter, strong downbursts of 80 miles an hour or more, and strong to violent tornadoes.

The surrounding environment is a big factor in the organization of a supercell. Winds are coming from different directions to cause the rotation. And, as precipitation is produced in the updraft, the strong upper-level winds blow the precipitation downwind. Hardly any precipitation falls back down through the updraft, so the storm can survive for long periods of time.

The leading edge of the precipitation from a supercell is usually light rain. Heavier rain falls closer to the updraft with torrential rain and/or large hail immediately north and east of the main updraft. The area near the main updraft (typically towards the rear of the storm) is the preferred area for severe weather formation.

Along the Gulf Coast and across the southeastern and western states, most thunderstorms occur during the afternoon. Thunder and lightning can occasionally accompany snow or freezing rain!

Before a Thunderstorm

To prepare for a thunderstorm, you should do the following:

- Remove dead or rotting trees and branches that could fall and cause injury or damage during a severe thunderstorm.
- Remember the 30/30 lightning safety rule: Go indoors if, after seeing lightning, you cannot count to 30 before hearing thunder. Stay indoors for 30 minutes after hearing the last clap of thunder.
- The following are guidelines for what you should do if a thunderstorm is likely in your area:
- Postpone outdoor activities.
- Get inside a home, building, or hard top automobile (not a convertible). Although you may be injured if lightning strikes your car, you are much safer inside a vehicle than outside.

- Remember, rubber-soled shoes and rubber tires provide NO protection from lightning. However, the steel frame of a hard-topped vehicle provides increased protection if you are not touching metal.
- Secure outdoor objects that could blow away or cause damage.
- Shutter windows and secure outside doors. If shutters are not available, close window blinds, shades, or curtains.
- Avoid showering or bathing. Plumbing and bathroom fixtures can conduct electricity.
- Use a corded telephone only for emergencies. Cordless and cellular telephones are safe to use.
- Unplug appliances and other electrical items such as computers and turn off air conditioners. Power surges from lightning can cause serious damage.
- Use your battery-operated NOAA Weather Radio for updates from local officials.

Avoid the following:

- Natural lightning rods such as a tall, isolated tree in an open area.
- Hilltops, open fields, the beach, or a boat on the water.
- Isolated sheds or other small structures in open areas.
- Anything metal—equipment, motorcycles, golf carts, golf clubs, and bicycles.

During a Thunderstorm

If you are:	Then:
In a forest	Seek shelter in a low area under a thick growth of small trees.
In an open area	Go to a low place such as a ravine or valley. Be alert for flash floods.
On open water	Get to land and find shelter immediately.
Anywhere you feel your hair stand on end (which indicates that lightning is about to strike)	Squat low to the ground on the balls of your feet. Place your hands over your ears and your head between your knees. Make yourself the smallest target possible and minimize your contact with the ground. DO NOT lie flat on the ground.

After a Thunderstorm

- Call 9-1-1 for medical assistance as soon as possible. The following are things you should check when you attempt to give aid to a victim of lightning:
- Breathing - if breathing has stopped, begin mouth-to-mouth resuscitation.
- Heartbeat - if the heart has stopped, administer CPR.
- Pulse - if the victim has a pulse and is breathing, look for other possible injuries. Check for burns where the lightning entered and left the body. Also be alert for nervous system damage, broken bones, and loss of hearing and eyesight.

3.4.3 Tornado

Overview

Tornadoes are one of nature's most violent storms. In an average year, about 1,000 tornadoes are reported across the United States, resulting in 80 deaths and more than 1,500 injuries. A tornado is a

violently rotating column of air extending from a thunderstorm to the ground. The most violent tornadoes are capable of tremendous destruction with wind speeds of 250 mph or more. Damage paths can be in excess of one mile wide and 50 miles long.

Tornadoes come in all shapes and sizes and can occur anywhere in the U.S. at any time of the year. In the southern states, peak tornado season is March through May, while peak months in the northern states are during the summer.

Causes of Tornadoes

Thunderstorms develop in warm, moist air in advance of eastward-moving cold fronts. These thunderstorms often produce large hail, strong winds, and tornadoes. Tornadoes in the winter and early spring are often associated with strong, frontal systems that form in the Central States and move east. Occasionally, large outbreaks of tornadoes occur with this type of weather pattern. Several states may be affected by numerous severe thunderstorms and tornadoes.

During the spring in the Central Plains, thunderstorms frequently develop along a "dryline," which separates very warm, moist air to the east from hot, dry air to the west. Tornado-producing thunderstorms may form as the dryline moves east during the afternoon hours.

Along the front range of the Rocky Mountains, in the Texas panhandle, and in the southern High Plains, thunderstorms frequently form as air near the ground flows "upslope" toward higher terrain. If other favorable conditions exist, these thunderstorms can produce tornadoes.

Tornadoes occasionally accompany tropical storms and hurricanes that move over land. Tornadoes are most common to the right and ahead of the path of the storm center as it comes onshore.

Waterspouts

Waterspouts are weak tornadoes that form over warm water. Waterspouts are most common along the Gulf Coast and southeastern states. In the western United States, they occur with cold late fall or late winter storms, during a time when you least expect tornado development. Waterspouts occasionally move inland becoming tornadoes causing damage and injuries.

Fujita Tornado Damage Scale

The Fujita Tornado Damage Scale (F-scale) is used to measure the severity of a tornado as described below. The F-scale winds should not be used literally. These wind speed numbers are estimates and have never been scientifically verified. Different wind speeds may cause similar-looking damage from place to place—even from building to building. Without a thorough engineering analysis of tornado damage in any event, the actual wind speeds needed to cause that damage are unknown.

- Category F0: Light Damage (<73 mph); Some damage to chimneys; branches broken off trees; shallow-rooted trees pushed over; sign boards damaged.
- Category F1: Moderate Damage (73-112 mph); Peels surface off roofs; mobile homes pushed off foundations or overturned; moving autos blown off road.
- Category F2: Considerable Damage (113-157 mph); Roofs torn off frame houses; mobile homes demolished; boxcars overturned; large trees snapped or uprooted; light-object missiles generated; cars lifted off ground.
- Category F3: Severe Damage (158- 206 mph); Roofs and some walls torn off well-constructed houses, trains overturned; most trees in forest uprooted; heavy cars lifted off ground and thrown.
- Category F4: Devastating Damage (207- 260 mph); Well-constructed houses leveled; structure with weak foundations blown off some distance; cars thrown and large missiles generated.

- Category F5: Incredible Damage (261- 318 mph); Strong frame houses lifted off foundations and swept away; automobile sized missiles fly through the air in excess of 100 meters (109 yards); trees debarked; incredible phenomena will occur.

Tornado Terms

- Tornado Watch: Tornadoes are possible in your area. Remain alert for approaching storms.
- Tornado Warning: A tornado has been sighted or indicated by weather radar. If a tornado warning is issued for your area and the sky becomes threatening, move to your pre-designated place of safety.
- Severe Thunderstorm Watch: Severe thunderstorms are possible in your area.
- Severe Thunderstorm Warning: Severe thunderstorms are occurring.

Before a Tornado

- Be alert to changing weather conditions.
- Listen to NOAA Weather Radio or to commercial radio or television newscasts for the latest information.
- Look for approaching storms

Look for the following danger signs:

- Dark, often greenish sky
- Large hail
- A large, dark, low-lying cloud (particularly if rotating)
- Loud roar, similar to a freight train.
- If you see approaching storms or any of the danger signs, be prepared to take shelter immediately.

During a Tornado

If you are under a tornado WARNING, seek shelter immediately!

If you are in:	Then:
A structure (e.g. residence, small building, school, nursing home, hospital, factory, shopping center, high-rise building)	Go to a pre-designated shelter area such as a safe room, basement, storm cellar, or the lowest building level. If there is no basement, go to the center of an interior room on the lowest level (closet, interior hallway) away from corners, windows, doors, and outside walls. Put as many walls as possible between you and the outside. Get under a sturdy table and use your arms to protect your head and neck. Do not open windows.
A vehicle, trailer, or mobile home	Get out immediately and go to the lowest floor of a sturdy, nearby building or a storm shelter. Mobile homes, even if tied down, offer little protection from tornadoes.
The outside with no shelter	Lie flat in a nearby ditch or depression and cover your head with your hands. Be aware of the potential for flooding. Do not get under an overpass or bridge. You are safer in a low, flat location. Never try to outrun a tornado in urban or congested areas in

If you are in:	Then:
	<p>a car or truck. Instead, leave the vehicle immediately for safe shelter.</p> <p>Watch out for flying debris. Flying debris from tornadoes causes most fatalities and injuries.</p>

After a Tornado

After a tornado, follow the same procedures as a hurricane. Recovering from a disaster is usually a gradual process. Safety is a primary issue, as are mental and physical well-being. If assistance is available, knowing how to access it makes the process faster and less stressful.

3.4.4 Winter Storm

Overview

Ice and extreme cold can immobilize an entire region. Even areas that normally experience mild winters can be hit with a major snowstorm or extreme cold. Winter storms can result in flooding, storm surge, closed highways, blocked roads, downed power lines and hypothermia.

Just like any other storm at other times of the year, just the right combination of ingredients is necessary for a winter storm to develop. Three basic ingredients are necessary to make a winter storm.

- Cold air – below freezing temperatures in the clouds and near the ground are necessary to make snow and/or ice.
- Lift – something to raise the moist air to form the clouds and cause precipitation. An example of lift is warm air colliding with cold air and being forced to rise over the cold dome. The boundary between the warm and cold air masses is called a front. Another example of lift is air flowing up a mountainside.
- Moisture – to form clouds and precipitation. Air blowing across a body of water, such as a large lake or the ocean, is an excellent source of moisture.

Snow Terms

Various snow terms are described below:

- Snow Flurries – Light snow falling for short durations. No accumulation or light dusting is all that is expected.
- Snow Showers – Snow falling at varying intensities for brief periods of time. Some accumulation is possible.
- Snow Squalls – Brief, intense snow showers accompanied by strong, gusty winds. Accumulation may be significant. Snow squalls are best known in the Great Lakes Region.
- Blowing Snow – Wind-driven snow that reduces visibility and causes significant drifting. Blowing snow may be snow that is falling and/or loose snow on the ground picked up by the wind.
- Blizzard – Winds over 35mph with snow and blowing snow, reducing visibility to 1/4 mile or less for at least 3 hours.
- Sleet - occurs when snowflakes only partially melt when they fall through a shallow layer of warm air. These slushy drops refreeze as they next fall through a deep layer of freezing air above the surface, and eventually reach the ground as frozen rain drops that bounce on impact.
- Freezing Rain - occurs when snowflakes descend into a warmer layer of air and melt completely. When these liquid water drops fall through another thin layer of freezing air just above the surface,

they don't have enough time to refreeze before reaching the ground. Because they are "supercooled," they instantly refreeze upon contact with anything that is at or below 0 degrees C, creating a glaze of ice on the ground, trees, power lines, or other objects. A significant accumulation of freezing rain lasting several hours or more is called an ice storm.

- Thundersnow - Although thunderstorms are less common in the winter, sometimes lightning can occur within snowstorms and is called thundersnow. Thundersnow can be found where there is relatively strong instability and abundant moisture above the surface, such as above a warm front. Thundersnow is sometimes observed downstream of the Great Salt Lake and the Great Lakes during lake-effect snowstorms too.

Climatology: Gulf Coast and Southeast

This region is generally not used to snow, ice, and freezing temperatures. Once in a while, cold air penetrates south across Texas and Florida, into the Gulf of Mexico. Temperatures fall below freezing killing tender vegetation, such as flowering plants and the citrus fruit crop. Wet snow and ice rapidly accumulate on trees with leaves, causing the branches to snap under the load. Motorists are generally unaccustomed to driving on slick roads and traffic accidents increase. Some buildings are poorly insulated or lack heat altogether. Local municipalities may not have available snow removal equipment or treatments, such as sand or salt for icy roads.

Ice Storms

Heavy accumulations of ice can bring down trees, electrical wires, telephone poles and lines, and communication towers. Communications and power can be disrupted for days while utility companies work to repair the extensive damage. Even small accumulations of ice may cause extreme hazards to motorists and pedestrians. Bridges and overpasses are particularly dangerous because they freeze before other surfaces.

Before a Winter Storm

Add the following supplies to your disaster supplies kit:

- Rock salt to melt ice on walkways
- Sand to improve traction
- Snow shovels and other snow removal equipment
- Prepare for possible isolation in your home by having sufficient heating fuel; regular fuel sources may be cut off. For example, store a good supply of dry, seasoned wood for your fireplace or wood-burning stove.
- Winterize your home to extend the life of your fuel supply by insulating walls and attics, caulking and weather-stripping doors and windows, and installing storm windows or covering windows with plastic.
- Winterize your house, barn, shed or any other structure that may provide shelter for your family, neighbors, livestock or equipment. Clear rain gutters; repair roof leaks and cut away tree branches that could fall on a house or other structure during a storm.
- Insulate pipes with insulation or newspapers and plastic and allow faucets to drip a little during cold weather to avoid freezing.
- Keep fire extinguishers on hand, and make sure everyone in your house knows how to use them. House fires pose an additional risk, as more people turn to alternate heating sources without taking the necessary safety precautions.

- Learn how to shut off water valves (in case a pipe bursts).
- Know ahead of time what you should do to help elderly or disabled friends, neighbors or employees.
- Hire a contractor to check the structural ability of the roof to sustain unusually heavy weight from the accumulation of snow - or water, if drains on flat roofs do not work.

During a Winter Storm

- Listen to your radio, television, or NOAA Weather Radio for weather reports and emergency information.
- Eat regularly and drink ample fluids, but avoid caffeine and alcohol.
- Conserve fuel, if necessary, by keeping your residence cooler than normal. Temporarily close off heat to some rooms.
- If the pipes freeze, remove any insulation or layers of newspapers and wrap pipes in rags. Completely open all faucets and pour hot water over the pipes, starting where they were most exposed to the cold (or where the cold was most likely to penetrate).
- Maintain ventilation when using kerosene heaters to avoid build-up of toxic fumes. Refuel kerosene heaters outside and keep them at least three feet from flammable objects.

If you are outdoors

- Avoid overexertion when shoveling snow. Overexertion can bring on a heart attack—a major cause of death in the winter. If you must shovel snow, stretch before going outside.
- Cover your mouth. Protect your lungs from extremely cold air by covering your mouth when outdoors. Try not to speak unless absolutely necessary.
- Keep dry. Change wet clothing frequently to prevent a loss of body heat. Wet clothing loses all of its insulating value and transmits heat rapidly.
- Watch for signs of frostbite. These include loss of feeling and white or pale appearance in extremities such as fingers, toes, ear lobes, and the tip of the nose. If symptoms are detected, get medical help immediately.
- Watch for signs of hypothermia. These include uncontrollable shivering, memory loss, disorientation, incoherence, slurred speech, drowsiness, and apparent exhaustion.

After a Winter Storm

Recovering from a disaster is usually a gradual process. Safety is a primary issue, as are mental and physical well-being. If assistance is available, knowing how to access it makes the process faster and less stressful.

SECTION FOUR

Recovery Operations

SECTION FOUR – RECOVERY OPERATIONS

4.1 Overview

In the event of disaster it is important that to continue to perform the critical business processes identified in this Business Continuity Plan. The BCP Leadership Team will provide organization-wide oversight, direction and guidance during a disaster to the Department Recovery Teams. The Department Recovery Teams provide direction and monitoring of critical business processes including the alternate processing methods and restoration procedures.

The following information contains the information needed during the recovery. The BCP Leadership Team will use this information to ensure that PVAMU recovers from an outage in a timely manner.

4.2 BCP Response Team Procedures

#	Guideline Description	Responsible Party	Date/Time
	<p>Plan Procedure Documentation</p> <p>Use the “Responsible Party” Column and the “Date/Time” Column at the time of the disaster event to record the activities performed as follows:</p> <ul style="list-style-type: none"> • “Responsible Party” Column - Document the person responsible for completing the procedure. • “Date/Time” Column - Record the date and time the procedure is completed. <p>Use the Ad-hoc area, located at the end of the section to document additional procedures performed during the recovery efforts that were unexpected and unplanned.</p>		
1	DISASTER VERIFICATION		
1.1 1	<p>Receive initial notification of disaster. Notification may come from various sources, including:</p> <ul style="list-style-type: none"> • Other Recovery Teams • Department of Public Safety • Police or fire departments • Utility companies • PVAMU faculty and staff 		
1.2	Record date and time of disaster notification.		
1.3	Verify the disaster event.		
1.4	Obtain access to or a copy of the Business Continuity Plan.		
1.5	Notify BCP Response Team members of the current situation (refer to Exhibit 1A).		

#	Guideline Description	Responsible Party	Date/Time
1.6	Direct the BCP Response Team members to report to the Emergency Operations Center as necessary.		
2	DAMAGE ASSESSMENT		
2.1	Obtain clearance to enter the damaged facility from local authorities (EHS, DPS, Fire Dept, Physical Plant/Facilities Management), if appropriate. This may involve contacting local authorities to examine the structure of the facility to ensure that there are no safety problems that could affect the Recovery Team members. Additionally, local authorities may need to be involved to investigate the cause of the disaster. If the cause was suspected to be intentional, the facility could be sealed as a crime scene and admittance of University staff may not be allowed for an unknown period of time.		
2.2	Coordinate an investigation of the cause of the disaster with the local authorities to determine whether it was intentional or accidental and whether it could happen again.		
2.3	Identify and evaluate any potential health hazards.		
2.4	Use the Disaster Assessment Report to initially document the extent of physical damage (refer to Exhibit 8 – Disaster Assessment Report). <ul style="list-style-type: none"> • Date/time disaster reported • Name of person submitting initial alert • General description of the disaster • External support requirements • Damage magnitude, extent of damage to and estimated recovery time for: <ul style="list-style-type: none"> ▪ Personnel injuries ▪ Utilities ▪ Computer hardware ▪ Vital records ▪ Building structure ▪ Computer hardware ▪ Communications ▪ Other resources 		
2.5	Determine the extent of interruption caused by the event.		
2.6	Work with IT to determine the disaster's impact on various systems and network and the feasibility of performing normal operations in the facility.		

#	Guideline Description	Responsible Party	Date/ Time
2.7	After more information is available, use the Disaster Assessment Report as a tool to determine the extent of physical damage at the facility (refer to Exhibit 8).		
2.8	<p>Use the following guidelines to determine the extent of interruption and damage caused by the event:</p> <p>Most Serious</p> <ul style="list-style-type: none"> • Extended loss of critical business systems (e.g. hardware or software failure(s)) • Extended loss of utilities • Extended loss of facilities • Significant impact to critical operations • Event mitigation is expected to require more than 48 hours and will require relocation to an alternate facility <p>Moderately serious</p> <ul style="list-style-type: none"> • Limited loss of critical business systems (e.g. hardware of software failure(s)). • Limited loss of utilities • Limited loss of facilities • Some impact to critical operations • Event mitigation is expected to require less than 48 hours and will not require relocation to an alternate facility <p>Inconvenient</p> <ul style="list-style-type: none"> • Minor loss of critical business systems (e.g. hardware of software failure(s)). • Minor loss of utilities • Minor loss of facilities • No significant impact to critical operations • Event mitigation is expected to require less than 8 hours and will not require relocation to an alternate facility 		
2.9	Using the initial Disaster Assessment Report (refer to Exhibit 8), determine if it is necessary to relocate to an alternate site.		
3	DISASTER EVALUATION		
3.1	Evaluate the disaster event and determine if it is short term or longer term in duration.		

#	Guideline Description	Responsible Party	Date/Time
3.2	Determine the impact of the disaster event on the critical operations of the University.		
3.3	Recommend to the BCP Leadership Team if the BCP should be activated or not.		
4	AD HOC PROCEDURES		
	It is difficult to plan for all unforeseen disaster events. Therefore, this Section can be used to document additional activities performed during the recovery effort that were unexpected and unplanned.		
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4.3 BCP Leadership Team Procedures

#	Guideline Description	Responsible Party	Date/Time
	<p>Plan Procedure Documentation</p> <p>Use the “Responsible Party” Column and the “Date/Time” Column at the time of the disaster event to record the activities performed as follows:</p> <ul style="list-style-type: none"> • “Responsible Party” Column - Document the person responsible for completing the procedure. • “Date/Time” Column - Record the date and time the procedure is completed. <p>Use the Ad-hoc area, located at the end of the section to document additional procedures performed during the recovery efforts that were unexpected and unplanned.</p>		
1	INITIAL ACTIVITIES		
1.1	Receive initial notification of disaster.		
1.2	Obtain access to or a copy of the Business Continuity Plan.		
1.3	Notify BCP Leadership Team members of the current situation (refer to Exhibit 1B).		
1.4	Direct the BCP Leadership Team members to report to the Emergency Operations Center as necessary.		
1.5	Notify the Department Recovery Team Managers or Alternates of the current situation (refer to Exhibit 3).		
1.6	Direct the Department Recovery Team Managers to report to the Emergency Operations Center as necessary.		
1.7	Upon arrival at the Emergency Operations Center, meet with the Department Recovery Team Managers to brief them of the situation.		
1.8	Inform the Department Recovery Team Managers of the goals, objectives and immediate priorities for emergency response and recovery.		
1.9	Inform the Department Recovery Team Managers of the expectations and time frames necessary for the recovery effort.		
2	COORDINATION		
2.1	Using the initial Disaster Assessment Report (refer to Exhibit 8), determine if it is necessary to relocate to an alternate site.		

#	Guideline Description	Responsible Party	Date/ Time
2.2	Monitor all repairs in coordination with the Logistics Recovery Team.		
2.3	Direct the Logistics Recovery Team to work with equipment salvage vendors if necessary, and assess which equipment, supplies, data and forms are salvageable.		
2.4	Direct the Logistics Recovery Team to order replacement equipment, if necessary. Salvageable equipment, forms, and supplies should be cleaned and repaired and transported to the recovery center if immediate need is necessary. Undamaged equipment should be removed from the damaged facility or covered with plastic to prevent exposure to water, smoke, soot, or dust.		
2.5	Direct IT to determine the disaster's impact on various critical and essential applications and the feasibility of performing normal processing and operations in the affected facility.		
2.6	Direct the Logistics Team to determine personnel safety, status, and availability of employees to commence recovery operations through the Department Recovery Teams.		
2.7	Receive recovery progress reports from the Recovery Teams (refer to Exhibit 9).		
3	BUSINESS CONTINUITY PLAN ACTIVATION		
3.1	With the input from the various Recovery Teams, determine whether the plan should be activated and the extent of activation.		
3.2	Work with the Recovery Teams to tailor the Business Continuity Plan to existing circumstances.		
3.3	<p>Activate the Plan. The decision to activate the plan in full or in part depends on a number of factors ultimately judged by the person(s) in charge. These factors include:</p> <ul style="list-style-type: none"> • The type of event/incident. • The effect of the incident including the extent and type of damage. • How long critical/essential operations are unavailable or inaccessible. • Whether the operations are mission critical. • The anticipated recovery time. 		

#	Guideline Description	Responsible Party	Date/ Time
3.4	Provide managerial direction to Recovery Teams.		
4	EMERGENCY OPERATIONS CENTER ACTIVATION		
4.1	If the existing facilities are not available, select the Emergency Operations Center or alternate site, as appropriate (refer to Exhibit 10).		
4.2	If necessary, activate the Emergency Operations Center.		
4.3	Establish and open the Emergency Operations Center.		
4.4	Direct the Recovery Team Managers to contact Recovery Team Members and ask them to meet at the Emergency Operations Center.		
4.5	Establish communications with necessary external parties and emergency management organizations as needed. A list of emergency external telephone numbers is included in Exhibit 6.		
4.6	Request the Logistics Recovery Team to furnish the Emergency Operations Center as necessary (refer to Exhibit 11).		
4.7	Request the Logistics Recovery Team to arrange for any necessary food, supplies, accommodations and services at the Emergency Operations Center as needed for 24-hour operations (refer to Exhibit 10).		
4.8	Ascertain that basic Emergency Operations Center equipment and supplies are available, or can be acquired immediately (refer to Exhibit 11).		
4.9	Determine the most appropriate actions to be taken regarding the implementation of the specific activities outlined in the BCP.		
4.10	Document all activities as they occur.		
4.11	Advise all Recovery Team personnel to log in and out as they report to and leave the Emergency Operations Center.		
4.12	Direct the Recovery Team Members to log all incoming and outgoing telephone calls at the Emergency Operations Center, time, parties involved, and results.		
4.13	Monitor weather and environmental status.		
4.14	Monitor critical supply deliveries and follow-up.		

#	Guideline Description	Responsible Party	Date/ Time
5	COMMUNICATIONS		
5.1	Maintain regular communications with the Recovery Teams.		
5.2	Monitor recovery progress frequently. Hourly on the first day and monitor minimally daily thereafter.		
5.3	Receive daily progress report from the Recovery Teams (refer to Exhibit 9.).		
5.4	Work with the Logistics Recovery Team to determine and relay appropriate instructions to various personnel not on Recovery Teams.		
5.5	Request the Logistics Recovery Team to post faculty, staff, and student instructions and other information on the internal website (if available).		
5.6	<p>Work with Public Relations to prepare information releases to inform the news media regarding student education. The BCP Leadership Team will have the responsibility to review this information before release. The following information may be needed:</p> <ul style="list-style-type: none"> • Description of emergency situation • Amount of damage • Approximate status of the recovery • Approximate time frame in which the affected systems will be operating sufficiently to support the business • Instructions to faculty, staff, and students • Instructions to suppliers • Assurance that the crisis is under control 		
6	LEGAL CONSIDERATIONS		
6.1	<p>Work with the Legal Counsel as necessary to advise the Recovery Teams on existing contract terms and conditions:</p> <ul style="list-style-type: none"> • Equipment contracts • Services contracts • Other contracts 		

#	Guideline Description	Responsible Party	Date/ Time
6.2	Advise the Logistics Recovery Team to work with Legal Counsel as needed to assist the Recovery Teams with the review and approval of new contracts: <ul style="list-style-type: none"> • Equipment contracts • Services contracts • Major supplies • Office equipment 		
6.3	Advise the Recovery Teams on legal, statutory, or regulatory requirements that may affect recovery schedules or priorities.		
6.4	Request legal assistance and advice related to liability issues and other matters of legal importance as required.		
7	SECURITY ACTIVITIES		
7.1	Advise the Logistics Recovery Team to coordinate with local, state, and federal law enforcement, incident commanders and emergency management agencies, as needed.		
7.2	Advise the Logistics Recovery Team to contact alarm vendors to report impaired alarms and arrange for vendor support to repair alarms.		
7.3	If the building is a leased facility, advise the Logistics Recovery Team to contact and work with the leaser to coordinate building repairs and impaired security systems.		
7.4	Advise the Logistics Recovery Team to coordinate with the facilities manager and arrange for building security at the affected site(s).		
8	MONITORING RECOVERY ACTIVITIES		
8.1	Receive updates from Recovery Teams periodically.		
8.2	Monitor weather and environmental status.		
8.3	Monitor personnel activities – hours, stress levels, etc.		
9	STATUS REPORTING		

#	Guideline Description	Responsible Party	Date/ Time
9.1	Request the Recovery Teams to prepare and submit Recovery Progress Reports (refer to Exhibit 9) including: <ul style="list-style-type: none"> • Progress being made regarding processing using the temporary operating procedures. • Significant issues being encountered by the Recovery Team Managers that requires Management review and approval. • Request for additional expenditures beyond those outlined in the plan. • Requests for additional support as needed. 		
9.2	Review the Recovery Progress Reports and allocate additional resources as necessary.		
10	ADMINISTRATION		
10.1	Maintain careful written records throughout the recovery process. Experience shows thorough and complete records are invaluable in reducing confusion during the recovery and in reconciling material acquisition and expenses.		
10.2	Maintain good written documentation of any changes or modifications to standard operating procedures. Make sure temporary changes or modifications do not carry over to normal operations following the recovery operation shutdown.		
10.3	Maintain a record of all personal expenses incurred during the recovery operation (receipts should be attached). Any claims for reimbursement must be filed using the appropriate Expense Forms.		
11	RECONSTITUTION AND TERMINATION		
11.1	Plan for the restoration of the permanent facility. Work with damage evaluation personnel, engineers, architects, and building managers. Estimates of the restoration time frames should be obtained early on in this process.		
11.2	Develop a detailed relocation "Restoration Plan of Action" to return to the restored facility. Then, coordinate the return to the permanent (new or repaired) facility at the conclusion of the business recovery operation.		

#	Guideline Description	Responsible Party	Date/ Time
11.3	Conduct a site restoration-planning meeting. The purpose of this meeting will be to discuss the general return strategies. The BCP Leadership Team will define and develop the following guidelines: <ul style="list-style-type: none"> • Date and time each department will be available for return; • Status of support services (e.g. telephone, computer services, etc.); • Any special logistical requirements or support that will be available (e.g. transportation for equipment and records; assistance with packing records, etc.). 		
11.4	Conduct a planning session to review and update the disaster recovery procedures to reflect moving back to the permanent facility from the alternate site.		
11.5	Review each recovery procedure step, modifying it as appropriate to the circumstances. Note that the recovery procedures may be used to provide a contingency plan during the actual move.		
11.6	Consider adding special backups for all electronic media to reduce chance of information loss.		
11.7	Identify any open issues, requirements or recommendations from the Recovery Teams.		
11.8	Develop a final updated Consolidated Action Plan.		
11.9	Develop a final approved schedule and review with all participating Recovery Teams.		
11.10	Implement the modified Business Continuity Plan, returning operations to the permanent site.		
11.11	Direct all teams to prepare to return to home base according to the restoration schedule at the permanent facility. When the permanent facility is ready for use, the same Recovery Teams will perform similar recovery procedures in reverse direction. This would include a final backup to move data back to home base.		
11.12	Each Team will complete the move to home base by transporting materials and Team members based on the schedule from the BCP Leadership Team. Normal operations will then be resumed at the permanent facility.		

#	Guideline Description	Responsible Party	Date/ Time
11.13	When normal operations at the permanent facility have been running smoothly and the off-site backup rotations have been put into place, the alternate work sites will be cleared of all materials.		
11.14	Direct the Recovery Teams to inventory and arrange to send electronic media back to the permanent facility and/or off-site storage.		
11.15	Direct the Recovery Teams to check out from the alternate work sites.		
11.16	After all materials have been returned from the alternate work sites and the normal operations have resumed at the permanent facility, an evaluation of the recovery plan should be performed. Each Team will provide a written evaluation of the recovery procedures and the completed Business Continuity logs to the BCP Administrator. The primary purpose of the evaluation is to identify potential weaknesses in the plan, and recommend potential solutions. The BCP Leadership Team will review the evaluation and work with Recovery Team members to formulate appropriate changes.		
11.17	Prepare an After Action Report.		
12	AD HOC PROCEDURES		
	It is difficult to plan for all unforeseen disaster events. Therefore, this Section can be used to document additional activities performed during the recovery effort that were unexpected and unplanned.		
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4.4 Logistics Recovery Team Procedures

#	Guideline Description	Responsible Party	Date/ Time
	<p>Plan Procedure Documentation</p> <p>Use the “Responsible Party” Column and the “Date/Time” Column at the time of the disaster event to record the activities performed as follows:</p> <ul style="list-style-type: none"> • “Responsible Party” Column - Document the person responsible for completing the procedure. • “Date/Time” Column - Record the date and time the procedure is completed. <p>Use the Ad-hoc area, located at the end of each Team section to document additional procedures performed during the recovery efforts that were unexpected and unplanned.</p>		
1	INITIAL PROCEDURES		
1.1	Receive notification of disaster from the BCP Leadership Team.		
1.2	Obtain access to or a copy of the Plan.		
1.3	Notify Logistics Recovery Team members and instruct them to report to the Emergency Operations Center specified by the BCP Leadership Team (Refer to Exhibit 2).		
1.4	Upon arrival at the Emergency Operations Center meet with the BCP Leadership Team and obtain a briefing of the situation.		
1.5	Identify the BCP Leadership Team’s expectations and time frames for the Logistics Recovery Team.		
1.6	Activate the other staff and resources as necessary.		
1.7	Assume roles and responsibilities of the team position(s) assigned in the plan. In addition, include other duties and responsibilities assigned at time of incident.		
1.8	Establish communications if necessary with emergency organizations and critical external parties (Refer to Exhibit 6).		
1.9	Coordinate with facilities management for the repair of the facility.		
1.10	Request facilities management to establish security at the damaged site.		
1.11	Contact utility carriers, vendors, or contractors to aid in damage assessment (Refer to Exhibit 6).		
1.12	Coordinate the facility damage assessment and restoration activities.		

#	Guideline Description	Responsible Party	Date/Time
1.13	Coordinate the equipment damage assessment and salvage activities.		
1.14	Receive direction from the BCP Leadership Team to replace equipment, if necessary. Request the appropriate Recovery Team to salvage equipment, forms, and supplies as necessary. The items should be cleaned and repaired and transported to the appropriate backup sites if immediate need is necessary. Undamaged equipment should be removed from the damaged facility or covered with plastic to prevent exposure to water, smoke, soot, or dust.		
1.15	Order additional materials and supplies for recovery needs that were not anticipated.		
1.16	Assist the BCP Leadership Team to prepare the initial Disaster Assessment Report (Refer to Exhibit 8), including: <ul style="list-style-type: none"> • Date/time disaster reported • Name of person submitting initial alert • General description of the disaster • External support requirements • Damage magnitude, extent of damage to and estimated recovery time for: <ul style="list-style-type: none"> ▪ Personnel injuries ▪ Utilities ▪ Computer hardware ▪ Vital records ▪ Building structure ▪ Computer hardware ▪ Communications ▪ Other resources 		
2	BCP ACTIVATION		
2.1	Assist the BCP Leadership Team in the determination as to whether the plan should be activated and the extent of activation.		
2.2	Tailor the Business Continuity Plan to existing circumstances as directed by the BCP Leadership Team.		
2.3	Use the Team Assignment Forms (Refer to Exhibits 1 through 3) to verify and monitor status and progress of the notification process.		
2.4	Arrange for any necessary food, supplies, accommodations and services at the Emergency Operations Center as needed for 24-hour operations as directed by the BCP Leadership Team (Refer to Exhibit 11).		

#	Guideline Description	Responsible Party	Date/ Time
2.5	Support and monitor the recovery operations for the duration of the situation.		
2.6	Document problems encountered, corrective actions taken and variations from plan noted.		
2.7	Maintain records and receipts of all recovery related costs and expenses incurred by the team.		
2.8	Report recovery progress to the BCP Leadership Team as required.		
2.9	Advise all Team personnel to log in and out as they report to and leave the Emergency Operations Center.		
2.10	Verify the status of all personnel using the Employee Calling List (Refer to Exhibit 4).		
2.11	Determine the need for relocation by functional area.		
2.12	Analyze the need to use other temporary locations.		
2.13	Arrange for phone service at all necessary locations.		
2.14	Evaluate the need to notify outside contacts of alternate site operations.		
2.15	Instruct all personnel to carry IDs for verification.		
2.16	Provide directions to the alternate sites to the Recovery Teams.		
2.17	Determine the status of vital records.		
2.18	Coordinate all salvage efforts related to the facility, equipment, and vital records as soon as practicable.		
2.19	<p>Coordinate the transportation for electronic media, office equipment, and supplies as required. Establish a method to ship on weekends.</p> <p>The shipping cases should be sent with a tracking label. Prior to shipment, the cases should be 1) examined by someone other than the immediate person responsible for shipping preparation; and 2) separately by a second person to ensure the proper labels are securely attached.</p>		
2.20	Assure that all necessary forms are transported to the appropriate location and/or ordered from vendors. Identify all special forms related to critical systems and establish source from agencies.		
2.21	Ensure that all permanent IT records and archives are collected and taken to a suitable site for storage.		

#	Guideline Description	Responsible Party	Date/ Time
2.22	Arrange for personnel transportation, any housing and food that are required. Establish a method to secure air travel direct with airlines, if required.		
2.23	Provide administrative support at alternate sites, including insurance, purchasing, telephones, maintaining time records, personnel activities, and establishing courier service.		
3	NOTIFICATION PROCEDURES		
3.1	Following the activation of the BCP, notify the appropriate Department Recovery Team members to report to the Emergency Operations Center (Refer to Exhibit 3).		
3.2	Notify additional support personnel as necessary and have them report to the Emergency Operations Center (Refer to Exhibit 4).		
3.3	Assume roles and responsibilities of the team position(s) assigned in the Plan. In addition, include other duties and responsibilities at the time of incident.		
4	RECOVERY TEAM SCHEDULING		
4.1	Establish a master schedule for staffing the Emergency Operations Center.		
4.2	Establish work and rotation schedules based on workload, available resources, and available personnel.		
4.3	Assign personnel, based on availability, to participate in recovery activities.		
4.4	Determine which employees will be required at the Emergency Operations Center and which will be assigned to other locations.		
4.5	Relocate staff to other locations if appropriate.		
4.6	Re-assign unscheduled staff to assist with salvage activities and other time sensitive areas.		
4.7	Monitor the assignment of staff throughout the recovery.		
4.8	Provide the following information to the BCP Leadership Team: <ul style="list-style-type: none"> • The assigned alternate work site location(s) • Contact information, alternate work sites, and relocated staff 		
5	POSTAL AND COURIER SERVICE		
5.1	Re-route incoming mail as appropriate.		

#	Guideline Description	Responsible Party	Date/Time
5.2	Assist in setting up temporary mail pickup and delivery schedules and operations.		
5.3	Maintain temporary mail pickup and delivery schedules and locations for the duration of the recovery operation.		
5.4	Communicate and distribute mail as appropriate.		
5.5	Contact the local post office (Refer to Exhibit 6) and instruct them as to where mail should be delivered or whether mail should be held at the post office facility. Unless otherwise determined, mail should be delivered to the Emergency Operations Center (Refer to Exhibit 20).		
5.6	Instruct the mail carrier of any change in the pick-up location for outgoing mail. The local post office and courier telephone numbers are located in Exhibit 6.		
5.7	Set up required internal mail and delivery systems.		
5.8	Establish courier services as needed for the movement of equipment, material, and supplies to and from the Emergency Operations Center or alternate work site(s).		
6	FACILITY PROCEDURES		
6.1	Obtain all Disaster Assessment Reports (Refer to Exhibit 8).		
6.2	Arrange for photographing the damage to the building, property, equipment, records, and supplies.		
6.3	Arrange for retrieval of vital records from the building.		
6.4	Obtain and retain receipts for replacement supplies and equipment, repairs and all salvage costs.		
6.5	Provide guidance on how to obtain and document repairs, equipment purchases and rentals.		
6.6	Obtain a cash advance if needed.		
6.7	Document recovery operations using the Team Recovery Progress Report (Refer to Exhibit 9). The form includes progress to date and remaining tasks for the property, structure, utilities/services, hardware, software, and personnel.		
6.8	Work with the BCP Leadership Team to determine alternate work site locations to be used by department personnel. Various staff may have to be temporarily located in several different locations depending on space requirements and availability (Refer to Exhibit 12).		

#	Guideline Description	Responsible Party	Date/ Time
6.9	Acquire appropriate furniture, equipment, and supplies as needed.		
6.10	If the facility telephone lines are out of service, request that calls to reroute to the alternate work site locations (Refer to Exhibit 12).		
7	SALVAGE PROCEDURES		
7.1	Using the Disaster Assessment Report (Refer to Exhibit 8), and the help of equipment salvage vendors if necessary, assess which equipment, supplies, data and forms are salvageable.		
7.2	Arrange for the general salvage of any property damaged in the disaster. This includes any equipment, office furniture, record media, supplies, and personal effects remaining after the disaster.		
7.3	Monitor the salvage procedures for vital records as a result of a disaster. The type of salvage procedures implemented depends upon the record storage media.		
7.4	Hire outside contractors where necessary.		
7.5	Inventory vacant space for use by the Departments that were impacted by the disaster event.		
7.6	Implement cleanup and restoration of impacted buildings as required minimizing service disruption.		
7.7	Contact restoration companies as necessary (Refer to Exhibit 6).		
7.8	Coordinate efforts of contracted restoration companies.		
7.9	Determine recovery supply needs.		
7.10	Consolidate capital and expense information for the BCP Leadership Team.		
8	SECURITY PROCEDURES		
8.1	Coordinate with local, state, and federal law enforcement and emergency management agencies, as needed.		
8.2	Assess the facility in the affected area for damage to security systems/other risks.		
8.3	Identify security issues/risks in affected area.		
8.4	Coordinate damage assessments with the BCP Leadership Team.		

#	Guideline Description	Responsible Party	Date/ Time
8.5	Contact alarm vendors to report impaired alarms and arrange for vendor to repair alarms (Refer to Exhibit 5).		
8.6	Obtain guards as needed or as requested by the BCP Leadership Team.		
8.7	Establish security at the disaster site.		
8.8	Obtain additional assistance from a security agency or off-duty police officer(s) as necessary. Telephone numbers for these agencies are listed in Exhibit 6.		
8.9	Establish security at the Emergency Operations Center and alternate work sites, as required.		
8.10	Obtain additional external security personnel as required.		
9	PERSONNEL PROCEDURES		
9.1	Advise the BCP Leadership Team on all critical personnel matters.		
9.2	Maintain the status of the injured and fatalities.		
9.3	Coordinate additional staff needs with Human Resources.		
9.4	Identify secondary personnel for backup positions as needed.		
9.5	Arrange for personnel to support recovery efforts and the BCP Leadership Team.		
9.6	Fill the critical positions identified by the functional areas.		
10	VITAL RECORDS		
10.1	Determine the damage magnitude, extent of damage, and estimated recovery time for vital records.		
10.2	Arrange for retrieval of vital records from the facility.		
10.3	Arrange and monitor salvage activities for vital records as a result of a disaster. The type of salvage activities implemented depends upon the record storage media.		
10.4	Inform the BCP Leadership Team regarding the status of vital records and the results of the salvage efforts.		
11	TRANSPORTATION, LODGING AND FOOD		
11.1	Provide transportation for critical staff to and from Emergency Operations Center and alternate work site locations, if necessary.		

#	Guideline Description	Responsible Party	Date/Time
11.2	Coordinate transportation requirements to ensure that all necessary individuals can travel to the alternate work site(s).		
11.3	Arrange with a moving company or vendor for the relocation of large equipment or sensitive information.		
11.4	Arrange for meal accommodations as necessary for the Recovery Teams (Refer to Exhibit 10).		
12	PERSONAL PREPAREDNESS		
12.1	Determine the types of disasters that are most likely to happen at home.		
12.2	Determine how you will receive warning and how to prepare for each type of disaster.		
12.3	Determine if schools, work, and other places your staff spends time have emergency plans and how they will communicate with each other during an emergency.		
12.4	Document the activities you are expected to follow in the event of a disaster.		
12.5	Keep a copy of the BCP with you. Be aware of your responsibilities as it relates to the Plan.		
12.6	Keep a list of important telephone numbers and contacts available at all times. Keep an emergency telephone numbers list by every telephone.		
12.7	Develop emergency evacuation plans and escape routes for areas of your office and discuss and practice these with your staff.		
12.8	Discuss emergency evacuation plans and determine a designated rendezvous point to meet outside your building in the event of a disaster.		
12.9	Make sure that smoke detectors are in place in your office/department. Test periodically to ensure they are functional and in working order.		
12.10	Examine your office for hazards (anything that can move, fall, break or cause a fire) and remove them or repair them.		
12.11	Make an inventory of valuable office items documenting dates purchased and prices paid for each item.		
12.12	Keep the originals of important documents in a safe deposit box.		
12.13	Learn first aid and CPR.		

#	Guideline Description	Responsible Party	Date/ Time
12.14	Prepare a personal preparedness supplies kit. This kit should include: <ul style="list-style-type: none"> • Water • First aid supplies • Sanitation supplies • Important documents • Food • Tools • Clothing and bedding • Other items Keep the kit in a convenient place in your office.		
12.15	Review the contents of the kit at least once a year – be sure to replace missing items or those that have become outdated.		
12.16	Keep the high priority or essential items in a smaller kit so it can be moved to a car.		
12.17	Change the stored water and food supply every 6 months.		
12.18	Review and practice the Plan at least once a year. This will accommodate any changes and keep everyone up-to-date on the Plan.		
13	EMPLOYEE WELL BEING		
	Overview It is not uncommon to undergo a period of psychological re-adjustment involving feelings of loss or helplessness in the aftermath of a disaster event. Employees may need support in dealing with the shock and stress of the circumstances.		

#	Guideline Description	Responsible Party	Date/ Time
	<p>Psychological After-Effects Psychological after-effects usually occur in three distinct stages:</p> <ul style="list-style-type: none"> • The first 24 hours. During this period, some employees may feel numb, experience anxiety, or withdraw from contact with others. Other employees may suppress their anxiety in order to deal with the demands of the immediate crisis. • The first week. After initial reactions wear off, some employees may begin to feel isolated, alienated, anxious about the future, or angry at the situation. They may also become withdrawn or exhibit demanding behavior. • Long-term effects. Long-term psychological effects depend a great deal on the coping skills of the employees and their feelings about how the company handled the disaster. Employees who feel that the company responded well to both the disaster and their individual needs will show more commitment to the challenges of the recovery process. 		
	<p>Dependent Care The care dependents such as children can be especially important during a disaster event. There is an increase in the number of one-parent families, the number of families, which have both parents working, and the current travel requirements of parents. Natural disaster can hinder day-to-day management of childcare and family relationships straining existing care systems.</p>		
13.1	Closely monitor employee work schedules, ensuring the "well being" of employees participating in the recovery effort.		
13.2	Monitor and address personnel concerns – hours, stress levels, etc.		

#	Guideline Description	Responsible Party	Date/ Time
13.3	Use the following techniques to allow employees to better accept changes brought about by a disaster: <ul style="list-style-type: none"> • Provide the most up-to-date information possible about the disaster and recovery. • Empathize with concerns of employees. • Find ways to bring employees together to encourage support of the group. • Assigning concrete, specific tasks to employees to provide a sense of order. 		
13.4	During emergency situations, personnel will be required to work extended hours; however, they should be strongly urged to get proper rest to minimize stress and maximize efficiency.		
13.5	Experience indicates that morale problems frequently arise several days to weeks following a disaster.		
13.6	The BCP Leadership Team will address special compensation issues; therefore care should be taken to coordinate any special efforts through the BCP Leadership Team, since any inequities will exacerbate these problems.		
13.7	Personnel should wear comfortable clothing, appropriate for weather conditions.		
13.8	Employees are encouraged to create personal “survival kits” as well to keep at the office. Personal survival kits should include: <ul style="list-style-type: none"> • Critical medication and personal hygiene items • Extra clothing, sturdy shoes, warm jacket • Extra pair of glasses 		
13.9	In the immediate time after a disaster, the first priority of employees will be to provide for the safety of their loved ones. The more quickly and efficiently they can accomplish this, the more effective they will be to the recovery efforts. The Red Cross and the Federal Emergency Management Agency (FEMA) can assist employees in developing personal disaster recovery plans.		
13.10	Communicate the company’s commitment to continuing employee salaries and benefits for a period of time following a disaster.		

#	Guideline Description	Responsible Party	Date/ Time
14	EMERGENCY PROCUREMENT		
14.1	Work with the BCP Leadership Team and Finance to coordinate purchasing support during the damage assessment, salvage and restoration phases of the recovery operation.		
14.2	Work with Finance to replace equipment, forms, and computer supplies on an emergency basis during the recovery operation.		
14.3	Contract for repair services or replacements for damaged furniture or fixtures. Work with the Legal Counsel on any contract issues.		
14.4	Work with the BCP Leadership Team to obtain authorization for paying for emergency related expenses, as required.		
14.5	Work with the BCP Leadership Team and Finance to ensure that adequate funds, resources, etc., are available for necessary purchases and expenditures.		
14.6	Monitor expenses during recovery. Work with the BCP Leadership Team to control extra expenses.		
15	STATUS REPORTING		
15.1	Monitor the recovery progress frequently (hourly the first day - minimally daily thereafter).		
15.2	Submit verbal and written progress report to the BCP Leadership Team on a daily basis and as required (Refer to Exhibit 9).		
16	ADMINISTRATION		
16.1	Maintain careful written records throughout the recovery process. Experience shows thorough and complete records are invaluable in reducing confusion during the recovery and in reconciling material acquisition and expenses.		
16.2	Maintain good written documentation of any changes or modifications to standard operating procedures. Make sure temporary changes or modifications do not carry over to normal operations following the recovery operation shutdown.		

#	Guideline Description	Responsible Party	Date/ Time
16.3	Collect, review and approve all completed time sheets. Normal timesheet procedures should be adhered to if possible.		
16.4	Maintain a record of all personal expenses incurred during the recovery operation. Claims for reimbursement must be filed using Expense Reimbursement Forms (receipts should be attached).		
17	RECONSTITUTION AND TERMINATION		
17.1	Participate in a site restoration-planning meeting, conducted by the BCP Leadership Team. The purpose of this meeting will be to discuss the general return strategies. The BCP Leadership Team will define and develop the following guidelines: <ul style="list-style-type: none"> • Date and time each office area will be available for return; • Status of support services (e.g. telephone, computer services, etc.); • Any special logistical requirements or support that will be available (e.g. transportation for equipment and records; assistance with packing records, etc.). 		
17.2	At the direction of the BCP Leadership Team, all Recovery Teams will prepare to return to home base according to the restoration schedule at the permanent facility. When the Logistics Recovery Team declares the permanent facility ready for use, the same Recovery Teams will perform the same recovery activities in reverse direction. This would include a final backup to move data back to home base.		
17.3	Each team will complete the move to home base by transporting materials and team members based on the schedule from the BCP Leadership Team. Normal operations will then be resumed at the permanent facility.		
17.4	Migrate and resume normal operations at the primary site as directed by the BCP Leadership Team.		
17.5	At the end of the recovery operation, shut down the Logistics Recovery Team’s operations at the alternate location, as directed by the BCP Leadership Team.		
17.6	Participate in post recovery meetings as required by the BCP Leadership Team.		

#	Guideline Description	Responsible Party	Date/ Time
18	AD HOC PROCEDURES		
	It is difficult to plan for all unforeseen disaster events. Therefore, this Section can be used to document additional procedures performed during the recovery effort that were unexpected and unplanned.		
18.1			
18.2			
18.3			
18.4			
18.5			
18.6			
18.7			
18.8			
18.9			
18.10			

SECTION FIVE

Training and Testing

SECTION FIVE – TRAINING AND TESTING

5.1 BCP Training

5.1.1 Training Overview

Training is an important aspect of developing and maintaining the BCP. All continuity personnel must know their specific roles in the Plan and how to fulfill their responsibilities. Specific training is necessary to maintain, implement, and test the BCP. Education and training of recovery personnel in multiple skills can weigh significantly on the success of the plan and the time required to execute it. An awareness program should be used to initiate staff training efforts related to BCP and included in employee orientation training and related materials. EHS will provide general instructions and guidance as the administrator of the BCP program for PVAMU but the workplace supervisors need to provide the job site specific knowledge and understanding of how the BCP is carried out by each work center. See the Recovery Operations explanations in Section Four as well as the specific checklists in the Department BCP Annexes for more details.

Successful execution of the BCP will largely depend on how well participants accept the importance of the Plan, the credibility of the Plan, and the degree and quality of the training provided. Training on special and critical skills that may be required in an emergency situation is an important part of the process. These special skills include fire extinguishing; evacuation of visitors, assets, and sensitive resources; emergency communications methods; and shutdown procedures for equipment, electricity, water, gas, and other concerns.

All continuity personnel should understand the BCP and be trained to perform their roles in the recovery process and their particular duties.

The Training Program should include:

1. Annual continuity awareness briefings (or other means of orientation) for the entire workforce.
2. Annual training for continuity personnel who are assigned to activate, support, and sustain continuity operations.
3. Annual training on how each critical business process will be performed during an outage.
4. Annual training for all restoration procedures.

As part of its training program, the Department should document the training conducted, the date of training, those completing the training, and by whom.

5.1.2 Training Objectives

The objectives of the training are to:

- Inform continuity personnel of the structure of the Plan
- Educate continuity personnel on their roles and responsibilities
- Inform continuity personnel of their specific recovery procedures
- Educate continuity personnel on the testing process
- Identify areas of the Plan that need modification or enhancement
- Instruct continuity personnel on procedures for maintaining and updating the BCP.

The training should be conducted in a comprehensive manner so that the PVAMU staff becomes familiar with all aspects of the recovery process.

5.2 BCP Testing

5.2.1 Testing Overview

The BCP should be tested periodically. Time has a way of eroding a Plan's effectiveness for these reasons:

- Environmental changes occur as organizations change, new services are introduced, and new policies and procedures are developed. Such changes can render a Plan incomplete, or inadequate.
- Hardware, software, and other critical equipment change.
- The organization may experience personnel turnover.
- Personnel may lose interest or forget critical parts of the Plan.

Therefore, periodic testing of the BCP is necessary. It is important that as much time be exercised in testing the Plan as in developing it.

The authenticity of each test may vary, depending on some of the following factors:

- Sensitivity of the organization to information processing services
- Level of IT service required by the organization
- Time deemed acceptable for recovery
- Number of locations involved
- Number of applications involved
- Number of staff involved
- Number of external contacts, vendors, or agencies involved
- Cost to perform the test

5.2.2 Testing Objectives

The objectives of testing the BCP are:

- Determining the feasibility of the recovery process
- Ensuring the adequacy of alternate processing procedures and restoration procedures
- Identifying deficiencies in BCP
- Identifying areas of the Plan that need modification or enhancement
- Training of various continuity personnel
- Demonstrating the ability of the organization to recover
- Providing a mechanism for maintaining and updating the BCP

5.3 BCP Exercises

5.3.1 Types of Exercises

A carefully tested Plan provides the organization with the confidence and experience necessary to respond to a real emergency. Testing of the Plan can be accomplished using different methods as described below:

1. Tabletop Exercise

During a tabletop exercise, BCP team members meet to verbally walk through the specific steps of each component of the recovery process as documented in the BCP. The purpose of the structured walk-through test is to confirm the effectiveness of the Plan and to identify gaps, bottlenecks, or other Plan weaknesses. Participants in this test should include continuity personnel as directed by the BCP Leadership Team.

2. Alert and Notification Exercise

During an alert and notification exercise, continuity personnel determine whether the calling list and contact lists are current and accurate. The purpose of the alert and notification test is to confirm that the lists are up-to-date, the participants know how to use the lists, and the lists can be used in the event of a disaster. This test should be conducted with the continuity personnel that are responsible for the alert and notification functions.

3. Functional Exercise

A functional exercise validates the all or a component of the plan by actually performing some of the functions described in the BCP.

5.3.2 Testing Approach

The testing of the BCP should be efficient and cost-effective. The testing approach should be to obtain as much coverage as possible in a cost-effective manner. Testing provides a means of continually increasing the level of performance and quality of the Plan and the people who execute it.

PVAMU will use a combination of testing methods to assure that the BCP is workable.

Testing Method	Frequency	Number of Tests	Participants
Tabletop Tests	Annually	1 per year	Continuity Personnel
Alert and Notification Tests	Annually	1 per year	Continuity Personnel
Relocation	Optional	Optional	Continuity Personnel
Functional Exercise	Optional	Optional	Continuity Personnel

5.3.3 Test Schedule

In order to assure organized testing, procedures of how a test is to be performed as well as the purpose of the test should be thoroughly developed. The procedures include when the test will be performed, where the test will be performed, who will be involved, affect on other areas within and outside the organization and anticipated outcome. The objectives of the tests should be specified to assure the extent of the test.

Attachment A contains a BCP Test Schedule. Ideally, testing should not be scheduled at critical times in PVAMU operations. Where possible, testing should provide minimal disruption to normal operations and critical operations and services. The duration of each test should be estimated to ensure adequate time is scheduled by test participants.

To effectively utilize resources, Tabletop Exercises should also be performed on a periodic basis. The frequency of testing should be evaluated annually by the BCP Leadership Team. More frequent tests should be performed when major changes in personnel, equipment, systems, operating software or recovery strategies and arrangements have occurred. Less frequent tests may be appropriate when few personnel, equipment, and system changes have occurred.

5.3.4 Exercise Forms

Attachment B - Exercise Problem Form is used during an exercise to document any problems that were recognized during the exercise including:

- Date/Time of the Problem
- Problem Description
- Recommended Action
- Recommendation for Next Test

Attachment C – Exercise Problem Log is used to compile and track the status of any problems documented on the Attachment B - Exercise Problem Form. It is used to record the following information:

- Problem Number
- Exercise Name
- Exercise Date/Time
- Responsible Party
- Resolution Status

5.3.5 After Action Report

An After Action Report/Improvement Plan (AAR/IP) is the final product of an exercise. The AAR/IP has two components: an AAR, which captures observations and recommendations based on the exercise objectives as associated with the capabilities and tasks; and an IP, which identifies specific corrective actions, assigns them to responsible parties, and establishes targets for their completion.

5.4 Testing Forms

Attachment A: BCP Test Schedule

Attachment B: Test Problem Form

Attachment C: Test Problem Log

ATTACHMENT B: TEST PROBLEM FORM

Team Name: _____ Problem No.: _____
Date: _____ Completed by: _____

Date/Time of the problem: _____

Problem Description: _____

Recommended Team Action: _____

Recommendation for Next Test: _____

SECTION SIX

Distribution and Maintenance

SECTION SIX – DISTRIBUTION AND MAINTENANCE

6.1 BCP Distribution

6.1.1 Overview

It is important to monitor and track each copy of the plan. The BCP contains information that is confidential to PVAMU. Accordingly, the BCP is a restricted document and classified as confidential given the nature of the contents. Even though Prairie View A&M University is subject to Open Records requests as a State agency and therefore must provide these documents to any requesting individual or agency, all precautions should be made to protect this data from non-officially requested access. Each individual with a copy of the plan is responsible for security and control of the document in accordance with policies for the protection of confidential information. Full copies of the plan (hard, soft, or both) should be provided to all BCP Leadership Team Members. Additionally, the BCP Leadership Team should maintain master copies on site and copies at the off-site storage location, both printed and electronic versions.

6.1.2 BCP Distribution Responsibilities and Procedures

The BCP Administrator and BCP Coordinator have the following BCP distribution responsibilities:

1. Provide access to the BCP to all BCP Leadership Team Members as recommended and approved by Management.
2. Issue update announcements to the BCP identifying which of the sections have changed.
3. Maintain a current hard copy and copy on CD of the Plan.
4. Retrieve Plan copies if employees with copies of the BCP leave the organization or their responsibilities change.
5. Advise BCP Plan holders of updates to the BCP when significant changes occur, or if requested, provide a hard copy of the revised section(s).
6. Maintain a BCP Distribution Register to record and control all copies of the BCP issued to various personnel (Refer to Exhibit 16).

6.1.3 BCP Distribution Register

The BCP Administrator is responsible for the authorized distribution of the document. The BCP Administrator should maintain a master distribution list (Refer to Exhibit 16). Each authorized copy of the Plan should contain a version identification number and the recipient should be recorded on the BCP Distribution Register. The purpose of the BCP Distribution Register is to record and control all copies of the BCP Plan issued to various personnel. The BCP contains information that is confidential to PVAMU; therefore all copies of the document should be closely controlled. The BCP Distribution Register contains the following information:

Column Reference	Explanation
Employee Name / Title	Names / Titles of individuals having a copy of the BCP.
Location	Location of each copy of the plan (e.g., building, offsite storage, home, etc.).
Control Number	Department BCP Plan document control number.
Name Plan	Name of the Plan assigned to personnel.
Section Number(s)	Plan sections assigned to personnel.

6.2 BCP Maintenance

6.2.1 Overview

It is important that the BCP document be continually maintained and updated. The major considerations in this process include:

- Change factors
- Maintenance frequency
- Maintenance responsibilities

It is important to recognize the factors that may change the BCP, such as:

- Procedural changes
- Organizational structure changes
- Personnel changes/turnover
- Physical changes (e.g., facilities)
- Technology changes
- Recovery requirements changes
- Testing issues

The BCP should be updated at minimum on a yearly basis and should also be performed following major organizational changes. Telephone lists should be updated at least semiannually. The BCP should also be reviewed and updated when there are major changes in technology.

The BCP Administrator has overall maintenance responsibilities for the BCP.

6.2.2 Maintenance Procedures

After printing the changed documents, the following update methods can be used:

- Page replacement
- Section replacement
- Plan replacement

Old materials should be returned and destroyed.

The following are sample responsibilities of the BCP Administrator:

1. Monitor changes that could impact the BCP such as:
 - Procedural changes
 - Organizational structure changes
 - Personnel changes/turnover
 - Physical changes (e.g., facilities)
 - Technology changes
 - Recovery requirements changes
 - Testing issues
2. As changes are identified, organize and evaluate the information for their impact on the BCP.
3. Update the BCP as changes occur for the most important components. Changes may involve improvements, corrections, clarifications, or additions.

4. For scheduled BCP maintenance, arrange for responsible individuals to modify specific plan documents according to the BCP Maintenance Schedule.
5. Enter all changes into the BCP.
6. Obtain approval to make substantive changes to the BCP, such as changes to format or structure.
7. Record all changes in the BCP Maintenance Log (Refer to Exhibit 17), including:
 - The date that the update was made
 - Plan Name
 - Number and Description of the Section that was updated
 - Specific reason for the update to the Plan
 - Any comments relating to the update
 - The person who approved the update change
8. Provide replacement hard copy sections as needed.
9. Distribute plan modifications according to the distribution procedures.

6.2.3 BCP Maintenance Log

The purpose of the BCP Maintenance Log is to record and document all updates to the Plan (Refer to Exhibit 17). It contains the following information:

Column Reference	Explanation
Maintenance Date	Date that the update was made.
Plan Name	Name of the Plan that was updated.
Section Number / Description	Section Number / Description that was updated.
Reason for Update	Specific Reason for the update to the Plan.
Comments	Any Comments relating to the Plan.
Approved By	Person who approved the update change.

SECTION SEVEN

Exhibits

SECTION SEVEN – EXHIBITS

This section contains the following exhibits:

7.1 Notification Forms

- Exhibit 1: BCP Leadership Team Assignment Form
- Exhibit 2: Logistics Recovery Team Assignment Form
- Exhibit 3: Department Contact List
- Exhibit 4: Employee / Faculty Calling List
- Exhibit 5: Vendor Calling List
- Exhibit 6: Emergency Contact List
- Exhibit 7: Unused

7.2 Recovery Forms

- Exhibit 8: Disaster Assessment Report
- Exhibit 9: Team Recovery Progress Report
- Exhibit 10: Emergency Operations Center Locations
- Exhibit 11: Emergency Operations Center Equipment and Supplies
- Exhibit 12: Alternate Work Sites
- Exhibit 13: Application and System Recovery Priorities
- Exhibit 14: ICS Primary Positions and Functions
- Exhibit 15: Unused

7.3 Maintenance Forms

- Exhibit 16: Plan Control List
- Exhibit 17: Plan Maintenance Log
- Exhibit 18: Glossary of Terms

7.1 NOTIFICATION FORMS

Exhibit 1A: BCP Response Team Assignment Form

Name/Email	Home/Office	Cell/Pager	Team Position	Contact Date/Time
			BCP Administrator	
			Alternate BCP Administrator	
			Team Member	
			Team Member	
			Team Member	
			Team Member	
			Team Member	
			Team Member	
			Team Member	
			Team Member	
			Team Member	
			Team Member	

Exhibit 1B: BCP Leadership Team Assignment Form

Name/Email	Home/Office	Cell/Pager	Team Position	Contact Date/Time
			Team Leader	
			Alternate Team Leader	
			President/CEO	
			PIO	
			Team Member	
			Team Member	
			Team Member	
			Team Member	
			Team Member	
			Team Member	
			Team Member	
			Team Member	

Exhibit 2: Logistics Recovery Team Assignment Form

Name/Email	Home/Office	Cell/Pager	Team Position	Contact Date/Time
			Team Leader	
			Alternate Team Leader	
			Team Member	
			Team Member	
			Team Member	
			Team Member	
			Team Member	
			Team Member	
			Team Member	

Exhibit 3: Department Contact List

Department Name	Name/Email	Home/Office	Cell/Pager	Contact Date/Time

Exhibit 4: Employee / Faculty Calling List

Department Name	Name/Email	Home/Office	Cell/Pager	Contact Date/Time

7.2 RECOVERY FORMS

Exhibit 8: Disaster Assessment Report

Time Reported: _____

Name of Person Submitting Initial Alert: _____

General Description of Disaster Event: _____

External Support Requirements: _____

Impact Level on Key Resources:	Damage Magnitude (S, M, I)	Extent of Damage	Estimated Recovery Time
--------------------------------	----------------------------	------------------	-------------------------

Utilities and Services (List affected utilities)

- Power
- Water
- Sewer
- Other

Hardware (List affected hardware)

- Mainframe
- Servers
- PCs
- Printers

Data Communications

-
-
-
-
-

Building Structure (List affected areas)

Impact Level on Key Resources:	Damage Magnitude (S, M, I)	Extent of Damage	Estimated Recovery Time
--------------------------------	----------------------------	------------------	-------------------------

Personnel Injuries (List affected people)

Vital Records (List affected vital records)

Other Resources (List other affected resources)

Exhibit 9: Team Recovery Progress Report (Cont.)

Requests for Additional Support:	

Anticipated Problems:	

Exhibit 10: Emergency Operations Center Locations

Description	Primary	Secondary
Location		
Street Address		
City		
State		
Zip Code		
Directions		

Primary Contact		
Day Phone		
Night Phone		
Email		
Pager		

Alternate Contact		
Day Phone		
Night Phone		
Email		
Pager		

Exhibit 11: Emergency Operations Center Equipment and Supplies

Description	Quantity	Storage Location
Multi-column paper		
Lined paper		
Envelopes		
Stationary		
FedEx forms		
UPS forms		
Zip code book		
Area code book		
Scissors		
Tape		
Tape dispenser		
Binder clips		
Rubber bands		
Calendars		
File folder		
Liquid paper		
Stapler		
Staples		
Pens		
Pencils		
Erasers		
Highlighters		
Letter opener		
Standard telephones		
Cellular telephones		
Pagers		
Walkie talkies		
Wireless radio		
Desktop PCs		
Laptop PCs		
Modems		
Disks		
CDs		

Exhibit 11: Emergency Operations Center Equipment and Supplies

Description	Quantity	Storage Location
Laser printers		
Inkjet printers		
Printer paper		
Fax machine		
Fax paper		
Copier		
Copier paper		
Multiple communication lines		
Status media (whiteboard, etc.)		
Portable battery operated radios		
Portable battery operated TVs		
Battery operated clocks		
Battery operated tape recorder		
Extra batteries		
- Flashlight		
- Radios		
- Cell phones		
- Pagers		
- Laptops		
- Clocks		
- TV		
- Tape recorder		
- Battery rechargers		
Telephone directory		
Company phone directory		
Portable lights		
Sleeping provisions for extended stays		
Water for drinking and sanitation purposes		
Water-purifying tablets		
Non perishable food items that do not require cooking		
Paper towels		
Toilet paper		
Large plastic bags		
Bottle and can openers		

Exhibit 11: Emergency Operations Center Equipment and Supplies

Description	Quantity	Storage Location
Insect repellent		
First-aid kits		
Blankets		
Clothing as needed		
Personal care items (soap, towels, etc.)		
Fire extinguishers		
Cold weather heating equipment (space heater, camping stove)		
Large (12"0 crescent wrench (to turn off gas and water valves)		
Crow bar		
Candles		
Flares		
Duct tape		
Table		
Chairs		
Portable restrooms		
Large buckets		
Hard hats		
Bull horn		
Spare cable		
Plastic sheeting		
Tent		
Copies of the Disaster Recovery Plan		
Forms		
- Flip charts		
- Note pads		
- Special forms		

Exhibit 12: Alternate Work Sites

Building/Department			First Alternative Location		Second Alternative Location	
Building Floor	Department	Space Needs	Building/Floor	Space Available	Building/Floor	Space Available
A.I. THOMAS (501)	Administration	34 Office	Clark (789) Library (744) Room 127	1 st Floor 10 Office 24 Desks	Library (744) Rm 209, 210A, 210B	34 desks 24 computers
WOOLFOLK (503)	Behavior & Political Science	21 Offices	Library (744) Rm 127	21 desks 2 computers	Library (744) Rm 126	21 desks 6 computers
WOOLFOLK (503)	Classrooms	WOOLFOLK (503) 103 104 109 110 203 204 207	NICKS – ARENA (669) SEC A B C D E F G	7 Rooms	508 - 309 689 – 1D141A 686 – 001A 686 – 001B 783 – 263A 783 – 263B 783 – 263C	7 Rooms
GILCHRIST (504)	Eng & Business Affairs	9 Offices	C.L. Wilson (704) 1 st Floor	9 desks	Library Rm 209	9 desks & computers
GILCHRIST (504)	Classrooms	Classes 104 109	689 - 1D138 689 - 1D141A	2 Rooms	504 - 209 676 - 108	2 Rooms
WELCOME CENTER (506)	Aux Services	3 Offices	Harrington Sci (668)	3 desks	MSC (779) Room 106	3 desks
W.R. BANKS (508)	Business Affairs, Math	117 Offices	Library (744) Rms 205, 206	117 desks	Library (744) Rooms 306, 307	117 desks
W.R. BANKS (508)	Classrooms	WR BANKS (508) 202 211 240 242 204 205 208 209	NICKS ARENA (669) SEC A SEC B SEC C SEC D SEC E SEC F SEC G SEC H	8 Rooms	689 – 1D138 761 – 102 686 – 001 761 – 103 689 – 1D141B 689 – 1D141A 783 – 263A 783 – 263B	8 rooms
VET CLINIC (517)	AG	1 Offices	Coop Ext. (761)	1 Office	AG Research (745)	1 Office
Pool (519)	Health * Human Performance	3 Offices	Nicks (669)	3 Offices	L. Moore (758)	3 Offices
PLANT WAREHOUSE (522)	Physical Plant	4 Offices	Plant Admin (674)	4 Offices	Transportation (523)	4 Office Spaces
TRANSPORATATION (523)	Physical Plant	3 Offices	Plant Admin (674)	3 Offices	Plant (674) Warehouse (522)	3 Office Spaces
SHOPS (525)	Physical Plant	5 Offices	Plant Admin (674)	5 Office spaces	Transportation (523) Warehouse	2 Offices 3 Offices
POWER PLANT (529)	Utilities	4 Offices	Physical Admin (674)	4 Offices	Wastewater Admin (734)	4 Office spaces
DREW	Research &	20 Offices	Library (744)	20 desks	Library (744)	20 desks

Exhibit 12: Alternate Work Sites

Building/Department			First Alternative Location		Second Alternative Location	
Building Floor	Department	Space Needs	Building/Floor	Space Available	Building/Floor	Space Available
(535)	Institutional Research		210A & 210B	& computers	Rm 126	6 computers
HILLIARD (537)	Language & Communications	46 Offices	Library (744) Rooms 209, 212, 210a & 210B	46 desks & 40 computers	Library (744) Rooms 126 & 127	46 seats, 8 computers
HILLIARD (537)	Classrooms	HILLIARD (537) 121 123 124 126	NICKS ARENA (669) 761 – 102 761 – 103 686 – 001A 686 – 001B	4 ROOMS	742 – 304 789 – 137 676 – 108 790 – 123	4 rooms
ANDERSON (541)	Research, Academic Affairs	39 Offices	Library (744) Rooms 209, 212, 210 A & 210B	39 Desks & computers	Library (744) Rooms 126, 127	39 desks 8 computers
EVANS (544)	Student Affairs	41 Offices	Library (744) Rooms 209, 212, 210A & 210B	41 Desks & computers Office Spaces	Library (744) Rooms 126 & 127	41 desks 8 computers
MAY HALL (658)	AG	13 Offices	Ag Research (745)	13 Office Spaces	Coop Ext. (761)	13 Office Spaces
MAY HALL (658)	Classroom	113 115 119 125 127	689 – 1D139 689 – 1D138 508 – 309 689 – 1D141A 686 – 001	6 Rooms	NICKS (669) SEC A SEC B SEC C SEC D SEC E	6 Rooms
	Labs	118 (L)	517 - 111		783 – 113 (L)	
HARRINGTON SCIENCE (668)	Business Affairs & Solar Research & Med. Academy Aux Services	41 Offices	Library (744) Rooms 209, 212, 210A & 210B	41 desks & 40 computer	Library (744) Rooms 126, 127	41 Desks 8 computers
NICKS (669)	Health & Human Performance Athletics	8 Offices	L. Moore (758) Athl Admin (834)	4 Spaces 4 spaces	Owens- Franklin Basement	8 Office Spaces
NICKS (669)	Classroom	B123	689 - 1D141A	3 Rooms	789 – 257	3 Rooms
	Labs	119 (L) B114 (L)	217 – 108 742 - 304		783 – 133 689 – 1D138	
PLANT ADMIN (674)	Physical Plant	27 Offices	Library (744) Rooms 209, 210a & 210B	27 Desks & Computers	Library Room 126	27 Desks & 6 computers
NAVY (676)	Navy	12 Offices 2 classes 107 112	Army (686) 761 – 102 761 - 103	12 Office Spaces 2 Rooms	Library Room 111 517 – 108 742 - 304	12 Desk Spaces 2 Rooms
ARMY (686)	Army	10 Offices 1 classroom 110	Navy (676) 761 - 102	10 Office Spaces 1 Room	Owens-Franklin Basement 761 - 103	10 Desk Spaces 1 Room
FERRELL (687)	Aux Services	5 Office	MSC (779) 106,107	5 Office Spaces	Owens-Franklin Basement (688)	5 Offices

Exhibit 12: Alternate Work Sites

Building/Department			First Alternative Location		Second Alternative Location	
Building Floor	Department	Space Needs	Building/Floor	Space Available	Building/Floor	Space Available
OWENS-FRANKLIN (688)	Aux Services	41 Offices	Library 209, 212, 210A & 210B	41 Desks & Computers	Library 126, 127 109	41 Desks & 8 computers Clinic Area
HOBART TAYLOR (689)	Business Music & Drama	70 Offices	Library (744) Rooms 126 & 127. 111	70 Desk Spaces 8 Computers	Library (744) Rooms 205 & 206	70 Desk Spaces
HOBART TAYLOR (689)	Classrooms	Classrooms 1A110 1C129 1E146 1G161 2B209 2B210 2B215 2B216 2G254 2G256	NICKS (669) SEC A SEC B SEC C SEC D SEC E SEC F SEC G SEC H SEC I SEC J	13 Rooms	 686 – 001 508 – 309 783 – 133A 783 – 133B 689 – 1D141B1 689 – 1D141B2 783 – 263A 783 – 263B 783 – 263C 761 – 102	13 Rooms
	Labs	Labs 2B219 (L) 2B220 (L) 2B221 (L)	Labs 704 – 101 508 – 210A 508 – 210B		669 – SEC A 669 – SEC B 669 – SEC C	
C.L. WILSON (704)	Engineering	30 Offices	S.R. Collins (743) E.E. Bldg (743)	30 Office Spaces	Library (744) Room 127	30 Desks spaces & 2 computers
C.L. WILSON (704)	Classrooms	Classrooms 103 109K	761 – 103 761 – 104	6 Rooms	674 – 111 789 – 137	6 rooms
	Labs	Labs 106A 109A 109F 109J	743 – 220 783 – 223 789 – 252A 789 – 252B		508 – 210A 508 – 210B 508 – 210C 508 – 210D	
DE LA GARZA (707)	AG Research	12 Offices	AG Research (745)	12 Office Spaces	Coop Ext. (761)	12 Office Spaces
MEAT GOAT (713)	AG Research	1 Office	De La Garza (707)	1 Office	AG Research (745)	1 Office
GOAT REPRO (714) Goat Nutrition (715) Goat Yearling (716) Goat Mat (717)	AG Research	1 Office Each Bldg	De La Garza (707)	1 Office	AG Research (715)	1 Office
CENTRAL RECEIVING (727)	Police & Central Receiving	13 Offices	Physical Plant Admin (674) Owens-Franklin Basement	2 Offices 11 Offices	Transportation (523) Ferrell Hall (687) Waste Water Admin	2 Offices 5 Office Spaces

Exhibit 12: Alternate Work Sites

Building/Department			First Alternative Location		Second Alternative Location	
Building Floor	Department	Space Needs	Building/Floor	Space Available	Building/Floor	Space Available
					(734)	6 Office Spaces
SEWAGE CONTROL (734)	Physical Pant	4 Offices	Physical Plant Admin (674)	4 Offices	Ferrell Hall (687)	4 Office Spaces
UTILITY ANNEX (739)	Utility	1 Offices	Physical Plant Admin (674)	1 Office	Transportation (523)	1 Office
CHAPEL (741)	Student Activities	4 Offices	MSC (779) (2 nd Floor)	4 Offices	Library (744) Room 212	4 Desks & computers
DELCO (742)	Education	85 Offices	Library (744) Rooms 126, 127, 111, 209	85 Office Spaces & 10 computers	Library (744) Rooms 205, 206	85 Desks spaces
DELCO (742)	Classrooms	Classrooms 241 242 243 308 327 328 329 330	NICKS (669) SEC A SEC B SEC C SEC D SEC E SEC F SEC G SEC H	10 Rooms	686 – 001A 686 – 001B 761 – 104 741 – 126 789 – 155A 789 – 115B 789 – 155C 789 – 15D	10 rooms
	Labs	Labs 217 305	Labs 704 – 101 704 – 109B		508 – 210A (L) 508 – 210B (L)	
S.R. COLLINS (743)	Engineering	72 Offices	Library (744) Rooms 111, 126, 127, 209	72 Office Spaces & 10 computers	Library (744) Rooms 205, 206	72 Desk spaces
S.R. COLLINS (743)	Classrooms	116 331 224	501 – 114A 501 – 114B 501 – 114C	15 Rooms	744 – 108 790 – 123 790 – 106	15 Rooms
	Labs	114 204 205 207 208 209 210 211 218 222 223 226	742 – 332 744 – 210A 704 – 202 744 – 210B 783 – 223 704 – 101 704 – 106 508 – 210A 537 – 144 508 – 210B 742 – 321 704 – 109B		NICKS (669) SEC A SEC B SEC C SEC D SEC E SEC F SEC G SEC H SEC I SEC J SEC K SEC L	
Library (744)	Library	46 Offices	W.R. Banks (508) Anderson Hall (541) Owens-Franklin Basement (688) JJ (789)	5 Offices 5 Offices 20 Offices 5 Offices	Look at Vacant 230 Labs	46 Spaces

Exhibit 12: Alternate Work Sites

Building/Department			First Alternative Location		Second Alternative Location	
Building Floor	Department	Space Needs	Building/Floor	Space Available	Building/Floor	Space Available
			EE (793)	11 Offices		
AG Research (745)	AG Research	47 Offices	Library (744) Rooms 207, 212, 210A, 210B	47 Spaces & 40 computers	Library (744) 126 & 127	47 Spaces & 8 computers
Hay Barn (746)	AG Research	1 Office	De La Garza (707)	6 Offices	AG Research Bldg. (745)	6 Offices
SWINE FARROWING (747)	AG Research	1 Office				
Lab Processing (752)	AG Research	3 Offices				
Feed Mill (753)	AG Research	1 Office				
L. MOORE (758)	Health & Human Performance	9 Offices	Owens-Franklin Basement (688)	9 Offices	Nicks (669) Delco (742)	9 Offices
L. MOORE (758)	Classroom	010	508 – 210	2 Rooms	745 – 015	2 Rooms
	Labs	132	676 – 108		790 – 123 (L)	
COOP EXT. (761)	AG	33 Offices	Library (744) Rooms 209, 212, 210A, 210B	33 Offices Space & computers	Library (744) Room 127	33 desks Spaces & computers
MSC (779)	Aux Serv. Student Act. Financial Aid Registrar	80 Offices	Library (744) Rooms 111, 126, 127, 209, 212, 210A, 210B	80 Office spaces & 10 computers	Library (744) Rooms 205, 206	80 desk spaces
N. KENNEDY (783)	Architecture Business	45 Offices	Library (744) 111, 209, 212, 210A, 210B	45 Office Spaces & computers	Library (744) Rooms 126, 127	45 desk spaces & 8 computers
N. KENNEDY (783)	Classrooms	227 231 232 233 115	508 – 309A 508 – 309B 689 – 1D141A1 689 – 1D141A2 686 - 001	5 Rooms	789 – 137 674 – 111 676 – 108 790 – 123 789 - 257	5 Rooms
D. CLARK (789)	Juvenile Justice	60 Offices	Library (744) Rooms 209, 212, 210A, 210B	60 desks spaces & 40 computers	Library (744) 205 & 206	60 desk spaces
D. CLARK (789)	Classrooms	235 236 336 340 341 362 363 364 365 240	NICKS (669) SEC A SEC B SEC C SEC D SEC E SEC F SEC G SEC H SEC I SEC J	10 Rooms	686 – 001 689 – 1D141B 501 – 114A 501 – 114B 501 – 114C 501 – 114D 779 – 222A 779 – 222B 779 – 222C 783 – 263	10 Rooms

Exhibit 12: Alternate Work Sites

Building/Department			First Alternative Location		Second Alternative Location	
Building Floor	Department	Space Needs	Building/Floor	Space Available	Building/Floor	Space Available
E.E. O'BANION (790)	Chemistry Biology Physics Med. Academy	62 Offices	Library (744) Rooms 209, 212, 210A, 210B & 127	62 desk spaces & 40 computers	Library (744) Rooms 205 & 206	62 desk spaces
E.E. O'BANION (790)	Classrooms	101 103 104 122 A101 A103 A104	NICKS (669) SEC A SEC B SEC C SEC D SEC E SEC F SEC G	31 Rooms	789 – 155A 789 – 155B 789 – 155C 761 – 100A 783 – 263 761 – 100B 761 – 100C	31 Rooms
	Labs	105 201 205 209 212 214 216 217 218 221 301 303 307 308 309 311 313 315 320 323 402 406 407 411	NICKS (669) SEC H1 SEC H2 SEC H3 SEC H4 SEC H5 SEC I1 SEC I2 SEC I3 SEC I4 SEC I5 SEC J1 SEC J2 SEC J3 SEC J4 SEC J5 SEC K1 SEC K2 SEC K3 SEC K4 SEC K5 SEC L1 SEC L2 SEC L3 SEC L4		779 – 111 SEC 1 SEC 2 SEC 3 SEC 4 SEC 5 SEC 6 SEC 7 SEC 8 SEC 9 SEC 10 SEC 11 SEC 12 SEC 13 SEC 14 SEC 15 SEC 16 SEC 17 SEC 18 SEC 19 SEC 20 SEC 21 SEC 22 SEC 23 SEC 24	
ELECTRICAL ENGINEERING (793)	Electrical Engineering	61 Offices	Library (744) Rooms 209, 212, 210A, 210B & 127	61 desks & 40 computers	Library (744) Rooms 206 & 206	61 desk spaces
ELECTRICAL ENGINEERING (793)	Classrooms	115 117 137 139	783 – 263A 783 – 263B 501 – 114A 501 – 114B	11 Rooms	NICKS (669) SEC A SEC B SEC C SEC D	11 Rooms
	Labs	Labs 119	Labs 789 – 115A		NICKS (669) SEC E	

Exhibit 12: Alternate Work Sites

Building/Department			First Alternative Location		Second Alternative Location	
Building Floor	Department	Space Needs	Building/Floor	Space Available	Building/Floor	Space Available
		125 126 213 215 219 221	789 – 115B 789 – 155C 789 – 155D 761 – 100A 761 – 100B 761 – 100C		SEC F SEC G SEC H SEC I SEC J SEC K	
WATER ADMIN (817)	Utility	1 Office	Physical Plant (674)	1 Office	Fry-Thomas (529)	1 Office
NURSING (833)	Nursing	119 Offices	Library (744) Rooms 126, 127, 209, 212, 210A, 210B	119 desk spaces & 40 computers	Library (744) Rooms 205 & 206	119 desk spaces
NURSING (833)	Classrooms	959 962 964 966 1004 1006 1032 1104 1106 1191	779 – 111 SEC 1 SEC 2 SEC 3 SEC 4 SEC 5 SEC 6 SEC 7 SEC 8 SEC 9 SEC 10	17 Rooms	NICKS (669) SEC A1 SEC A2 SEC B1 SEC B2 SEC C1 SEC C2 SEC D1 SEC D2 SEC E1 SEC E2	17 Rooms
	Labs	979 1082 1086 1132 1136 1082A 1089A	SEC 11 SEC 12 SEC 13 SEC 14 SEC 15 SEC 16 SEC 17		SEC F1 (L) SEC F2 (L) SEC G1 (L) SEC G2 (L) SEC H1 (L) SEC H2 (L) SEC I1 (L)	
NW CENTER (845)	Admin Offices Business Offices	23 Offices	Library (744) Rooms 209, 212, 210A, 210B	23 desks & 23 computers	Library (744) Room 127	23 desk spaces
NW CENTER (845)	Classrooms	105 107 108 110 123 203 204 205 206 207 208 209 212 213 214 215	779 – 111 SEC 1 SEC 2 SEC 3 SEC 4 SEC 5 SEC 6 SEC 7 SEC 8 SEC 9 SEC 10 SEC 11 SEC 12 SEC 13 SEC 14 SEC 15 SEC 16	22 Rooms	NICKS (669) SEC A1 A2 B1 B2 C1 C2 D1 D2 E1 E2 F1 F2 G1 G2 H1 H2	22 Rooms

Exhibit 12: Alternate Work Sites

Building/Department			First Alternative Location		Second Alternative Location	
Building Floor	Department	Space Needs	Building/Floor	Space Available	Building/Floor	Space Available
		216	SEC 17		I1	
		217	SEC 18		I2	
		221	SEC 19		J1	
		222	SEC 20		J2	
		223	SEC 21		K1	
		224	SEC 22		K2	

Exhibit 13: Applications and System Recovery Priorities

	Software Application Name	RTO	Server	Web	Desktop	Other
1.	ADAM	Urgent		X		
2.	Adobe Acrobat	Critical			X	
3.	Adobe Flash	Urgent			X	
4.	Adobe Illustrator	Critical			X	
5.	Adobe Indesign	Critical			X	
6.	Adobe Photoshop	Critical			X	
7.	ALLDATA (Fleet)	Critical			X	
8.	ANSYS (Engineering)	Urgent	X			
9.	ArchView	Essential			X	
10.	Arctic International Portal	Urgent		X		
11.	ArcView	Critical			X	
12.	ARMS System (CAD)	Critical	X			
13.	Arrival Software (Bar Coding)	Essential			X	
14.	ASPEN	Important			X	
15.	Atlas TI	Critical			X	
16.	AutoCAD	Critical			X	
17.	B Line Medical (Nursing)	Urgent	X			
18.	BIOPAC	Urgent			X	
19.	Blueridge Data Base	Urgent	X			
20.	Budget-Payroll-Personnel (BPP) (TAMU)	Critical		X		
21.	Business Manager (Mail Machine Software)	Necessary				X
22.	Cadet Command Information Management System (CCIMS)	Critical		X		
23.	Canopy (TAMU)	Critical		X		
24.	CAPS (Computerized Application Processing System) Homegrown electronic internal logging system.	Urgent	X			
25.	CISCO Ironport	Urgent				X
26.	CITRIX	Urgent	X			
27.	Cognos	Critical	X			
28.	Compustat	Critical		X		

Exhibit 13: Applications and System Recovery Priorities

	Software Application Name	RTO	Server	Web	Desktop	Other
29.	Comsol	Urgent		X		
30.	Config Mgr Server Mgmt (w/SQL)	Critical	X			
31.	ContentDM (Also OCLC)	Important	X			
32.	CS Gold Card Systems	Urgent	X			
33.	Deep Freeze Enterprise	Urgent	X			
34.	Department of Homeland Security	Critical		X		
35.	Department of Labor	Critical		X		
36.	Diplomas on Demand	Critical		X		
37.	DIR SIR On-Line Application	Critical		X		
38.	DocuWare	Critical	X			
39.	DODMERB (Department of Defense)	Urgent		X		
40.	DODMETS (Department of Defense)	Urgent		X		
41.	Dreamweaver	Critical			X	
42.	DTS (Department of Defense software)	Urgent		X		
43.	E Verify USCI Portal	Critical		X		
44.	eCourses	Critical		X		
45.	Employee Payroll Action (EPA) (TMAU)	Essential		X		
46.	Enterprise Data Warehouse	Critical	X			
47.	Enterprise Software Initiatives (Department of Defense)	Critical		X		
48.	ERES (Hosted by third party)	Important		X		
49.	Ethicspoint (A&M system) (TAMU)	Necessary		X		
50.	E-Verify - Government	Critical		X		
51.	Ex Libris Voyager (TAMU)	Urgent		X		
52.	Excel	Critical			X	
53.	Exchange Svr Ent	Critical	X			
54.	Ezproxy (Authentication Software - At PVAMU)	Urgent	X			
55.	Faculty Web Pages	Essential		X		
56.	Famis (TAMU)	Critical		X		

Exhibit 13: Applications and System Recovery Priorities

	Software Application Name	RTO	Server	Web	Desktop	Other
57.	Fastlane via the Internet	Critical		X		
58.	First Advantage - Safe Schools - Web Application	Critical		X		
59.	Fleet Focus	Critical		X		
60.	Fortran	Critical			X	
61.	Gliem CPA Review	Critical		X		
62.	Global Payments	Critical		X		
63.	HDO	Important		X		
64.	Hitachi Data Protection Suit	Urgent	X			
65.	HR (TAMU)	Urgent		X		
66.	HR Connect (TAMU)	Critical		X		
67.	Hummingbird	Critical		X		
68.	HYSYS	Important			X	
69.	ICC (server in Physical plant)	Essential	X			
70.	IDL Astronomy User Library	Critical		X		
71.	Incircuit	Important	X			
72.	InConnect (Notification)	Critical	X			
73.	Internet Explorer (IE)	Critical			X	
74.	ISAAC Database (TAMU)	Critical		X		
75.	Java	Critical			X	
76.	Johnson Controls - Metasys	Critical	X			
77.	JPAS (Department of Defense)	Urgent		X		
78.	Kaplan Smart Report	Critical		X		
79.	Keystone Key Control	Urgent	X			
80.	Labview	Critical	X			
81.	Landesk	Urgent	X			
82.	Laradoll	Urgent	X			
83.	McAfee ePolicy Orchestrator	Critical		X		
84.	MASM	Necessary			X	
85.	MAT Lab	Urgent			X	
86.	Mathlab	Critical			X	
87.	Medicat- EMR	Critical	X			
88.	Microsoft Access	Important			X	

Exhibit 13: Applications and System Recovery Priorities

	Software Application Name	RTO	Server	Web	Desktop	Other
89.	Microsoft DOS	Critical			X	
90.	Microsoft Explorer	Urgent			X	
91.	Microsoft Office (Word, Access, Excel, One Note & Power Point)	Critical			X	
92.	Microsoft Outlook	Critical			X	
93.	Microsoft Publisher	Critical			X	
94.	Minitab	Critical			X	
95.	MIOTIC	Urgent		X		
96.	MOBIUS	Important		X		
97.	MSDN	Critical		X		
98.	Multisim	Necessary	X			
99.	My accounting lab	Critical		X		
100.	Nat'l Student Clearinghouse	Critical		X		
101.	Natural Log	Important			X	
102.	Novell/GroupWise	Critical	X			
103.	NX3 / NX5	Urgent	X			
104.	OCLC (Ohio College Lovline Center)	Urgent		X		
105.	ODS	Important		X		
106.	Office 2003, 2007	Critical			X	
107.	Office Mac 2008 English	Important			X	
108.	Office Professional Plus (all modules)	Critical			X	
109.	Office SharePoint Server	Urgent	X			
110.	Official Navy Mail (Department of Defense software)	Urgent		X		
111.	OPMIS (Officer Programs Management Infosystems)	Urgent		X		
112.	Oracle	Critical	X			
113.	Outlook	Critical			X	
114.	Panthertracks	Critical		X		
115.	Par Systems (Nursing)	Urgent	X			
116.	Payformance Secure 32)	Essential		X		
117.	Peachtree	Critical			X	

Exhibit 13: Applications and System Recovery Priorities

	Software Application Name	RTO	Server	Web	Desktop	Other
118.	Phoenix Fuel Management	Critical			X	
119.	POLYMATH	Important			X	
120.	PowerPoint	Critical			X	
121.	Premavera (Project Management)	Critical			X	
122.	Presidium Learning (third party)	Critical		X		
123.	Print Manager Plus	Critical	X			
124.	Procard (SDOL)	Essential		X		
125.	PV PAWS	Critical		X		
126.	PV Website	Critical		X		
127.	Range Facility Management Support System (RFMSS)	Critical		X		
128.	Revit Architecture Suite	Critical			X	
129.	Safe-Schools web application	Critical		X		
130.	SAS	Critical	X			
131.	Scanner from Procurent Services	Critical				X
132.	Scantron	Essential		X		
133.	SDOL (Smart Data Online) through (JP Morgan System)	Essential		X		
134.	Single Sign On (Leave Traq, Time Traq, iBenefits) (TAMU)	Critical		X		
135.	SIS Plus (student records - mainframe legacy system)	Critical				X
136.	Site Builder Toolkit (SBT)	Critical		X		
137.	SmartData Online	Critical		X		
138.	SnagIT	Urgent			X	
139.	SPA	Critical		X		
140.	Special Simulation Programs (Lab)	Essential			X	
141.	Specialized computer-based models (Lab)	Important			X	
142.	Specialized Programs (Lab)	Essential			X	
143.	Specilized software for equipment (Lab)	Critical			X	
144.	Sprocket System	Critical			X	
145.	SPSS	Critical	X			

Exhibit 13: Applications and System Recovery Priorities

	Software Application Name	RTO	Server	Web	Desktop	Other
146.	SQL Server	Critical	X			
147.	State Board of Educators Website	Critical		X		
148.	Student Activities Website	Urgent		X		
149.	Student and Exchange Visitor Program (SEVP)	Critical		X		
150.	Sun Networker 7.4.3	Urgent	X			
151.	Sungard Banner	Critical	X			
152.	Survaillant System	Critical				X
153.	T2 system (Permits)	Critical		X		
154.	TA100PRO	Critical			X	
155.	Taxwise	Critical			X	
156.	TCIC/NCIC Sat uplink (radio communication)	Critical				X
157.	Test Gen	Critical		X		
158.	Texas Automated Vehicle Inspection System (TAVIS)	Critical		X		
159.	Time Traq (Time Sheets)	Essential		X		
160.	TINS Texas Id # System	Critical		X		
161.	TMA System (Maintenance management)	Critical	X			
162.	TOPS (Department of Defense software)	Urgent		X		
163.	TouchNet	Critical		X		
164.	TRAQS	Essential		X		
165.	Travel Request and Travel Voucher (TAMU)	Essential		X		
166.	TRIMS	Critical			X	
167.	TrueOutcomes	Critical		X		
168.	TTVN	Critical				X
169.	Unified Statewide Accounting System (USAS)	Critical		X		
170.	US Department of Education website	Critical		X		
171.	USAS (Uniformed Statewide Accounting System)	Critical		X		

Exhibit 13: Applications and System Recovery Priorities

	Software Application Name	RTO	Server	Web	Desktop	Other
172.	Visual C++	Urgent			X	
173.	Visual Studio	Urgent			X	
174.	VStudio Pro w/MSDN Pro	Important			X	
175.	W.A.R.N. (Wide Area Rapid Notification System)	Critical		X		
176.	WASP Biometric/Time Clock - Mobile Asset	Critical	X			
177.	WAVEWEB	Urgent		X		
178.	WebCATS	Critical		X		
179.	WebCT/Blackboard	Critical		X		
180.	Windows 07	Critical			X	
181.	Windows 2008 Server (All instances)	Critical	X			
182.	Windows Vista Business 64-bit English	Critical			X	
183.	Windows XP Professional	Critical			X	
184.	Wonder Ware (SCADA)	Critical	X			
185.	Word Perfect	Critical			X	
Total # of Applications = 184			40	81	56	7

Exhibit 14: ICS Primary Positions and Functions

Major ICS Position	Primary Functions
Incident Commander	<ul style="list-style-type: none"> • Have clear authority and know agency policy. • Ensure incident safety. • Establish the ICP. • Set priorities, and determine incident objectives and strategies to be followed. • Establish ICS organization needed to manage the incident. • Approve the IAP. • Coordinate Command and General Staff activities. • Approve resource requests and use of volunteers and auxiliary personnel. • Order demobilization as needed. • Ensure after-action reports are completed. • Authorize information release to the media.
Public Information Officer	<ul style="list-style-type: none"> • Determine, according to direction from IC, any limits on information release. • Develop accurate, accessible, and timely information for use in press/media briefings. • Obtain the IC’s approval of news releases. • Conduct periodic media briefings. • Arrange for tours and other interviews or briefings that may be required. • Monitor and forward media information that may be useful to incident planning. • Maintain current information summaries and/or displays on the incident. • Make information about the incident available to incident personnel. • Participate in Planning Meetings. • Implement methods to monitor rumor control.
Safety Officer	<ul style="list-style-type: none"> • Identify and mitigate hazardous situations. • Create a Safety Plan. • Ensure safety messages and briefings are made. • Exercise emergency authority to stop and prevent unsafe acts. • Review the IAP for safety implications. • Assign assistants qualified to evaluate special hazards. • Initiate preliminary investigation of accidents within the incident area. • Review and approve the Medical Plan. • Participate in Planning Meetings to address anticipated hazards associated with future operations.

Exhibit 14: ICS Primary Positions and Functions

Major ICS Position	Primary Functions
Liaison Officer	<ul style="list-style-type: none"> • Act as a point of contact for Agency Representatives. • Maintain a list of assisting and cooperating agencies and Agency Representatives. • Assist in setting up and coordinating interagency contacts. • Monitor incident operations to identify current or potential inter-organizational problems. • Participate in Planning Meetings, providing current resource status, including limitations and capabilities of agency resources. • Provide agency-specific demobilization information and requirements.
Operations Section Chief	<ul style="list-style-type: none"> • Ensure safety of tactical operations. • Manage tactical operations. • Develop operations portions of the IAP. • Supervise execution of operations portions of the IAP. • Request additional resources to support tactical operations. • Approve release of resources from active operational assignments. • Make or approve expedient changes to the IAP. • Maintain close contact with the IC, subordinate Operations personnel, and other agencies involved in the incident.
Planning Section Chief	<ul style="list-style-type: none"> • Collect and manage all incident-relevant operational data. • Supervise preparation of the IAP. • Provide input to the IC and Operations in preparing the IAP. • Incorporate Traffic, Medical, and Communications Plans and other supporting material into the IAP. • Conduct/facilitate Planning Meetings. • Reassign out-of-service personnel within the ICS organization already on scene, as appropriate. • Compile and display incident status information. • Establish information requirements and reporting schedules for Units (e.g., Resources Unit, Situation Unit). • Determine need for specialized resources. • Assemble and disassemble Task Forces and Strike Teams not assigned to Operations. • Establish specialized data collection systems as necessary (e.g., weather). • Assemble information on alternative strategies. • Provide periodic predictions on incident potential. • Report significant changes in incident status. • Oversee preparation of the Demobilization Plan.

Exhibit 14: ICS Primary Positions and Functions

Major ICS Position	Primary Functions
<p>Logistics Section Chief</p>	<ul style="list-style-type: none"> • Provide all facilities, transportation, communications, supplies, equipment maintenance and fueling, food, and medical services for incident personnel, and all off-incident resources. • Manage all incident logistics. • Provide logistics input to the IAP. • Brief Logistics staff as needed. • Identify anticipated and known incident service and support requirements. • Request additional resources as needed. • Ensure and oversee development of Traffic, Medical, and Communications Plans as required. • Oversee demobilization
<p>Finance/Administration Section Chief</p>	<ul style="list-style-type: none"> • Manage all financial aspects of an incident. • Provide financial and cost analysis information as requested. • Ensure compensation and claims functions are being addressed relative to the incident. • Gather pertinent information from briefings with responsible agencies. • Develop an operational plan for the Finance/Administration Section and fill Section supply and support needs. • Determine the need to set up and operate an incident commissary. • Meet with assisting and cooperating Agency Representatives as needed. • Maintain daily contact with agency(s) headquarters on finance matters. • Ensure that personnel time records are completed accurately and transmitted to home agencies. • Ensure that all obligation documents initiated at the incident are properly prepared and completed. • Brief agency administrative personnel on all incident-related financial issues needing attention or follow-up. • Provide input to the IAP.

7.3 MAINTENANCE FORMS

Exhibit 18: Glossary of Terms

Acronym/Term	Description
Activation	The implementation of recovery procedures, activities and plans in response to an emergency or disaster declaration.
Alternate Site	An alternate operating location to be used by IT staff when the primary facilities are inaccessible. (Associated terms: Back-up Site)
BCP/Business Continuity Planning	The advance planning and preparations which are necessary to; identify the impact of potential losses; to formulate and implement viable recovery strategies; to develop recovery plans) which ensure continuity of organizational services in the event of an emergency or disaster; and to administer a comprehensive training, testing and maintenance program. (Associated terms: Contingency Planning; Disaster Recovery Planning; Business Recovery Planning).
BCP Leadership Team	A team comprised of members that will provide organization-wide oversight, direction and guidance during an emergency. This Team will communicate organization-wide priorities; provide strategic direction; approve BCP activation; allocate critical BCP resources; and coordinate restoration efforts.
BCP Coordinator/Liaison	A member of the Department Recovery Team who is assigned the overall responsibility for coordination of the efforts of the Department Recovery Teams during a disaster event.
Business Continuity Program	An on-going process supported by executive management and funded to ensure that the necessary steps are taken to identify the impact of potential losses, maintain viable recovery strategies and recovery plans, and ensure continuity services through personnel training, plan testing and maintenance.
Business Impact Analysis (BIA)	A management level analysis that identifies the impacts of losing organization resources. The BIA measures the effect of resource loss and escalating losses over time, in order to provide executive management with reliable data upon which to base decisions on risk mitigation and continuity planning.
Cold Site	One or more data center or office space facilities equipped with sufficient pre-qualified environmental conditioning, electrical connectivity, communications access, configurable space and access to accommodate the installation and operation of equipment by critical staff required to resume business operations.

Exhibit 18: Glossary of Terms

Acronym/Term	Description
Data Security	The securing or safeguarding of electronic information owned by an organization using technology such as security software packages and data encryption devices.
Declaration	A formal acknowledgment or statement by authorized personnel that a disaster exists within the organization.
Disaster	A sudden, unplanned calamitous event that causes loss and hardship to all or part of an enterprise and thereby significantly impacts its ability to deliver essential services for some period of time.
Emergency	An actual or impending situation that may cause injury, loss of life, destruction of property or interfere with normal business operations to such an extent to pose the threat of disaster.
Escalation	The process of informing the recovery organization that an emergency exists in accordance with incident or emergency response procedures.
Hot Site	A data center facility with sufficient hardware, communications interfaces and environmentally controlled space capable of providing relatively immediate backup data processing support.
ICS	Incident Command System
Information Security	The securing or safeguarding of all sensitive information, electronic or otherwise that is owned by an organization.
Man-made Disaster	A disaster that is intentionally caused by human intervention (i.e. vandalism, terrorism or industrial sabotage).
Mobilization	The activation of the recovery organization in response to an emergency or disaster declaration.
Natural Disaster	A disaster that occurs as the result of forces occurring in nature (i.e. flood, hurricane, tornadoes, etc.).
NIMS	National Incident Management System
Offsite Location	A storage facility at a safe distance from the primary facility that is used for housing recovery supplies, equipment, vital records, etc.
Outage	The interruption of automated processing systems, support services or essential business operations that may result in the company's inability to provide service for some period of time.

Exhibit 18: Glossary of Terms

Acronym/Term	Description
Pandemic Influenza Planning	A comprehensive Plan developed to document the guidelines, support, and resources needed should a pandemic impact the County and / or community. It is designed to reduce confusion created during a pandemic and provides a framework for activation, recovery and restoration of critical County services and operations.
Pre-positioned Resource	Material (i.e. equipment, forms and supplies) stored at an off-site locations) to be used in business resumption and recovery operations. (Associated terms: Pre-positioned Inventory)
Prevention	The process of planning for and/or implementing controls to prevent incidents and manage risks by decreasing the potential for incidents or the affects thereof that may threaten the assets of the organization.
Recovery	The process of planning for and/or implementing recovery of less time sensitive business operations and processes after critical business functions have resumed.
Recovery Exercise	An announced or unannounced execution of Recovery Team Plans, intended to implement existing plans and/or highlight the need for additional plan development. Becoming more widely used for its connotation of problem identification and resolution instead of 'Recovery Testing' that purports success or failure. (Associated terms: Disaster Recovery Test; Disaster Recovery Exercise; Recovery Test; Recovery Exercise).
Recovery Site	The internal hot site used for the recovery of the critical computer systems.
Recovery Strategy	A predefined, pre-tested, management approved course of action(s) to be employed in response to a business disruption, interruption or disaster.
Recovery Team	A group of individuals given responsibility for the coordination and response to an emergency or recovering a process or function in the event of a disaster.
Recovery Window	A period of time in which time sensitive business operations must be resumed. (Associated term: Recovery Time Frame)
Restoration	The process of planning for and implementing full-scale business operations that allows the organization to return to a normal service level.

Exhibit 18: Glossary of Terms

Acronym/Term	Description
Resumption	The process of planning for and/or implementing the recovery of critical business operations immediately following an interruption or disaster.
Scenario	A predefined set of events and conditions that describe an interruption, disruption or disaster related to some aspects) of an organization's business for purposes of exercising a recovery plan(s).
Structured Walk-Through	An exercise in which team members verbally review each step of a plan to assess its effectiveness, identify enhancements, constraints and deficiencies. (Associated terms: Table Top Test)
Survey	A series of questions that relate to the various impacts of a business interruption or disaster.
Technological Disaster	A disaster involving automated systems.
Uninterruptible Power Supply (UPS)	A backup power supply capable of storing and allocating enough power to provide for the safe and controlled shutdown of information processing systems should there be an interruption or loss of normal electrical service.
Vendor	An individual or company who provides a services) to a department or the organization as a whole. (Associated term: Supplier; Third Party Vendor)
Vital Record	A record that is essential for preserving, continuing or reconstructing the operations of the organization and protecting the rights of the organization, its employees, its customers and its stockholders.
WAN	Wide Area Network
Warm Site	A data center or office facility that is partially equipped with hardware, communications interfaces, electricity and environmental conditioning capable of providing backup operating support.