From Emergency to Preparedness:
The Story of BCIT’s Emergency Management Plan
April 2009 BCLA
Glen Magel / Tricia Daum
Context

BCIT has developed an "All Hazards" Emergency Response Plan to become a "Disaster Resilient Institute..."

BCIT’s Plan will optimize the success of the recovery effort
Emergency Planning Cycle
Emergency Planning

• Mitigation and Prevention
  - Identify the risk
  - Mitigate, transfer or accept the risk

• Preparedness
  - Procuring supplies and resources
  - Developing plans
  - Exercises and Training
Emergency Planning

• **Response**
  - Recovery programs and activities assist victims and their families
  - Restore entities to suitable economic growth
  - Rebuild destroyed property
  - Includes activities, tasks, programs, and systems that help preserve life, preserve business operations, and protect property and the environment.
Recovery and Business Continuity
When Disaster strikes

- **People**
  - May result in injury and loss of life
  - Impacts individuals, families, employees

- **Community**
  - Infrastructure damage
  - Emergency resources overwhelmed

- **Government**
  - Normal processes disrupted
  - Priorities change
Impacts of Disasters on a Library

• Short Term
  - Employees and customers impacted
  - Library closed
  - Loss of:
    • Clientele
    • Equipment
    • Collections
Impacts of Disasters the Library

• Long Term
  - Library closed for renovations/recovery
  - Specialized equipment not readily obtained
  - Suppliers unable to provide supplies
  - Employees injured, traumatized, no longer willing to work at the business or move away
Objectives of Emergency Management

- Provide for the safety and health of all responders
- Save lives
- Reduce suffering
- Protect public health
- Protect the Library infrastructure
- Protect the Library property
- Restore the Library operations
- Protect the environment
- Reduce economic and social losses
Emergency Management Committee

- reviews the Institute’s Emergency Response Plan once a year
- initiates / coordinates annual emergency exercise or simulation and evaluate the response
- issues directives and protocols
- delegates Institute resources and alternates responsible for emergency response as adopted
  - by the British Columbia Emergency Response Management System (BCERMS)
- responsible for technical oversight of the Department and School Response Plans and Business Continuity Plans.
Emergency Response Policy

• prepare for and responds effectively to an emergency situation through the appropriate use of Institute resources

• provide a framework for enhancing the safety and security of its operations

• mitigate the long term effects of an emergency on its operations and mission

• develop and implements recovery and Business Continuity Plans as required
Support Plans

Your Emergency Response Plan needs to include “support plans” that are divided into the following groups:

- Life-Safety
- Departments
- Functions relating to business
- Human Resources (employee lists and call-out lists)
Standards

• Implement the Provincial standards in emergency management.
  - British Columbia Emergency Management System (BCERMS)
  - Incident Command
  - “All Hazards” response
Four levels of activation

- **Level One** –
  - A minor emergency that is quickly resolved with internal resources or limited help.

- **Level Two** –
  - A major emergency that impacts sizable portions of the business, and that may affect critical functions or endanger the physical safety of people.

- **Level Three** –
  - A disaster that involves an entire business and surrounding community.

- **Level Four** –
  - A disaster that involves several sites of your business and surrounding communities.
EOC

- An Emergency Operations Centre (EOC) is activated
  - coordinates site, support, and manage all non-site activities.
  - Notifies the response agencies and
  - Coordinates the activities of the various departments and organizations
- The Centre provides policy direction and support to Incident Commanders and site personnel.
  - Acts as an information clearing house, collecting as much information as possible on the status of the emergency event,
  - Vets the information, prioritizing it, evaluating it, summarizing, disseminating, displaying and action upon required needs.
EOC, continued

- Establishes priorities
  - based on all the information gathered
- Develops action plans that complement and enhance the response taken at the site level
- Obtains, coordinates and manages payment of any additional resources needed to support site activity
  - both personnel and equipment
- Communicates emergency information and warnings to the general public
Emergency Response Depots

- Program to assist employees and students who are unable to leave the BCIT campus and return to their homes in an emergency situation.
- Provides students and employees the basic necessities for survival through installation of Emergency Response Depots strategically placed around all Campuses.
Emergency Response Teams

- Employees and students can help to mitigate the risks should a disaster occur.
  - many employees from diverse campuses, programs, and walks of life have joined the Emergency Response Teams (ERT).
  - Teams have approximately 20 members and are assigned to a depot.
Emergency Response Teams

- All ERT members receive ongoing training in all aspects of emergency response, including
  - Light Urban Search and Rescue (LUSAR)
  - rapid damage building assessment
  - Incident Command System, and first aid training
  - Self study manuals
- The rescue kits carried by the ERT members contain
  - helmets, vests, work gloves, water, a
  - basic first aid kit, and knee pads.
Depots & Teams
Annual Exercises

• BCIT conducts Annual Exercises to
  - Create an organizational awareness to respond
  - Enhance the skills required to develop, implement, maintain, and execute the Emergency Response Plan
  - Exercise objectives
  - Maintaining the plan

• Exercise Events
  - Emergency Preparedness Table Top exercise
  - Emergency Preparedness Full Functional Exercise
  - Business Continuity Table Top exercise
Business Continuity
Glen Magel
Business Continuity

- Business Continuity
  - prioritizes key business processes,
  - identify significant threats to normal operations, and
  - plans mitigation strategies to ensure effective and efficient organizational response to the challenges that surface during and after a crisis.
  - builds a business resiliency in response to disasters.

- All Departments and Schools have a role in restoring business.
  - Plan identifies critical activities across the organization
    - based on department and school input and addresses the vulnerability associated with them.
EMERGENCY RESPONSE PLAN

BOARD OF GOVERNORS

PRESIDENT OF BCIT POLICY GROUP

Executive Team

DISASTER MANAGEMENT COMMITTEE

DEACTIVATED

ACTIVE

EOC

BUSINESS CONTINUITY PLAN

OPERATIONS

PLANNING

LOGISTICS

FINANCE/ADMINISTRATION

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Personal Preparedness
Personal Preparedness

• No-one can predict disasters
  – such as earthquakes, terrorism, fires, or hazardous material accidents. The list is endless.

• When these things happen
  – you must be ready to act immediately
  – At the office, everyone should have a Grab and Go Kit under their desk

• Preparing for a disaster takes time and effort. You need to plan so that you can:
  – Avoid injury and help others
  – Minimize damage to your property
Personal Preparedness

- Survive at least 72 hours after a disaster in your home or workplace without help from emergency response officials.
- Review website links
  - [http://www.pep.bc.ca/hazard_preparedness/AllHazards_WEB.pdf](http://www.pep.bc.ca/hazard_preparedness/AllHazards_WEB.pdf)
Summary: Emergency Planning Documentation

- Policy
- EOC operations and procedures
- Emergency Response Plans
  - Per department
  - Central services (IT, HR, Supply Mgmt, Finance)
- Business Recovery Plans
  - Per department
  - Central services (IT, HR, Supply Mgmt, Finance)
- Collection Analysis and Vital / Archival records
- All documents refreshed annually
Vital / Archival Records and Collection Analysis
Tricia Daum
Vital and Archival Records Protection

- Objectives
  - Identify records vital to business recovery
  - Protect those records from loss

- Procedures
  - BCIT’s Directory of Records identifies
    - Vital, Archival, and Important records
  - Defines what vital and important mean in our context
  - Lists the types of protection methods
Vital / Archival Records Criteria

- Irreplaceable
  - reproduction does not have the same value as the original (such as a signed contract)
- Needed in order that money can be recovered promptly
- Required to expedite the restoration of a critical service
- Evidence of legal status, ownership, accounts receivable, land title, and/or obligations
- A duplicate record has lesser value than the original
Important Records Criteria

- Record can be replaced
  - But only at considerable time, expense and labour.
Library Collection Analysis

• Understand and document the parts of the collection that are
  – Replaceable or not
  – Worth the cost to freeze, dry, clean
  – To be discarded if damaged

• If irreplacable, then consider
  – Filming, imaging, alternative formats
BCIT’s Response to Three Disasters:
1. Boiler Explosion April 2004
Glen Magel
TECHNOLOGY CHANGES EVERYTHING
Impacts of Boiler Explosion on BCIT

- **Short Term - Recovery**
  - Twenty six buildings impacted
  - Institute closed
  - Minimal injuries
  - Extensive administration time and costs
  - Lost opportunity / time
  - Relocation of classes and offices
  - Recovery costs estimated at ten million
Impacts of Boiler Explosion on BCIT

• Initial Impact
  - Same day - part time class cancelled
  - Second day – Full time class cancelled
  - After 18 hours, 19 buildings operable

• The Future
  - What did we learn?
  - What would we do differently?
Impacts of Boiler Explosion on BCIT

• Long Term – Business Continuity
  - Temporary hydro services lost for two and a half years
  - Boiler instructional lab still under design
  - Litigation
  - Ongoing investigation
  - Closure – four to six years!
2. Guichon Creek Flood September 2007
Glen Magel
Campus Areas Affected

SE6
SE16
Impacts of Flood on SE16

- Recreation Facilities & Services
- Medical Services
- Counselling & Student Development
- Institute Research and Planning
- Faculty and Staff Association
Initial Action Steps (first 30 min)

- Contact Facilities and Security
- Ensuring Individual Safety of students and staff. (e.g. electrical concern).
- Secure Building.
- Secure Departments’ Personal Records a critical concern.
- Electrical and Computer Equipment secured.
Short Term Damage Assessments

- Decision to close building.
- Building SE-16 flooded up to a depth of 5 to 10cm. (subsequently closed)
- No Injuries reported.
- Patrons Safety and Security.
- Mitigate loss of critical and valuable equipment, facilities and files.
Direct Initial Actions (first 12 hours)

- Use of staff and students
  - Water removal throughout building and gym (manual)
  - Equipment and Furniture moved
  - Computers moved
  - Files transferred both security and safety
- Communications become key
TECHNOLOGY CHANGES EVERYTHING
Short Term Impacts (1st 12-28 hours)

- SE16 building closed for five days
- Recreation Services (5 days only)
- Relocation of other depts...
  - Medical Services
  - IRP
  - Counselling
  - Faculty Association
Recovery Phase

- Plan with departments and develop 1 to 3 day work plans.
- Identify critical needs
- Use Business continuity documents
- Support staff and help mitigate loss and disruption
- Continue to communicate verbal and written
Recovery Phase (cont)

• Business Continuity partners
  – Campus Planning (relocation plans)
  – Supply Management (identify needs)
  – Safety and Security (communicate)
  – IT Services (identify needs)
  – Facilities (restoration planning)
  – Senior Executive (communication)

Continue to communicate
Coordination

- Regular Meetings for affected areas
- Senior Mgmt meetings and recovery planning sessions
- Provincial Govt, for insurance and funding requirements
- Planning with Facilities Dept
- Provide staff support and ensure staff are coping
Additional Challenges and Issues

- Water testing services and building envelope checks
- Asbestos complications
- Mould mitigation
- Gym Floor (humidity and drying plan)
- Odor mitigation
Recovery Phase – Supply Mgmt

- Belfour Restoration Services
  - Plan and negotiations
  - Cutting contracts issuing work orders
  - Logistical arrangements, department equipment and areas
- Purchase of replacement equipment
- Contractors to restore and re-build offices
Re-Entry Plans for Displaced Departments

- Transition Plan to move departments back
  - FSA
  - IRP
  - Medical Services
  - Counselling
Provincial Reporting Requirements and Documentation

- Requires detailed documentation via safety and security
  - Insurance, adjustment and reporting
  - Contracts for Belfour and Contractors
  - All replacement equipment and supplies
  - Track all staffing costs
  - This is a huge task for S&S
Longer Term Impacts

- Extensive administration time & costs
- Building Envelope and Restoration efforts
- Relocation of departments
- Estimated Costs at approx. 1.5 million
- High value placed on business continuity
3. Library Fire February 2006
Tricia Daum
The Disaster

• Vandalism
• Early Monday morning, an incendiary device was thrown into the Richmond campus library
  – Crashed through window
• Fire and smoke damage within Library
• Water damage throughout office complex
The Response – Same Day

- Restoration company packaged materials for drying / restoration
  - Library supervisor indentified materials that were needed quickly
- Restoration company picked up computers
  - Computer lab computers were OK
    - as they were in a different room with a closed door
- Insurance claims adjustor was onsite
Response – First Week

- Responsibility for recovery was assigned
  - To Library’s operations manager
- Temporary repairs (wood on windows) secured the library
- Insurer meetings to assess damage and complete records
- Decision was made to close library for the week
Collection recovery

- Library staff (supervisor + area librarian) made collection decisions
  - Of damaged items what would be:
    - Replaced through purchase
    - De-selected and not replaced
    - Recovered through drying and remediation
    - Cost of restoring compared with replacement cost

- Acquisitions advised of rush order for replacement items
  - Special account set up for insurance claim purposes
Recovery

• Air quality monitored for acceptable range
  – Burnt wall affected air quality
• Photocopiers were cleaned
• Wet book assessment by supervisor and librarian at Belfor in Surrey
  – Shelf list was created (by online catalogue) and sent to restoring company
**Staffing**

- One staff member re-deployed to Burnaby
- Supervisor spent time on recovery activities
- Librarian managed
  - the library catalogue status while items were being restored, re-ordered, or de-selected
Recovery, continued

- Bookshelves and non-damaged books were cleaned
- Floors, furnishings cleaned
- One week later
  - Cleaned books were put back on shelves
  - Computers that were “not cleanable” were replaced and costs tracked
  - Furnishings reordered
- Library opened two weeks after the fire
  - Smoke smell was the issue
One year later

• Was a stressful time for staff working in the campus library
• Was an opportunity that enhanced teamwork in the library unit
• Total costs:
  – Recovered by insurance
Summary
Partnerships

• BCIT has developed partnerships in the management of emergency management
  - Objectives are to further BCIT initiatives
  - Share knowledge, experience and skills
  - Provide a coordinated response for post-secondary groups

• Partnerships
  - Regional Emergency Planning Committee (REPC)
    - Municipalities, Federal and Provincial Government, Utilities, Health Authorities, Post Secondary
  - BC Post Secondary Emergency Planners
    - BCIT is a member and Chair of this committee
References

- BCIT Emergency Response Policy - 7530
  - Procedures

- BCIT Emergency Response Plan
  - Basic Plan
  - Supporting Plans (road map to success)

- BCIT Disaster Management Committee
Reference Information

• Emergency Preparedness for Industry & Commerce Council (EPICC)
  www.epicc.org

• The Disaster Recovery Institute Canada
  www.dri.ca (professional practices)

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Questions