



From Emergency to Preparedness: The Story of BCIT's Emergency Management Plan

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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

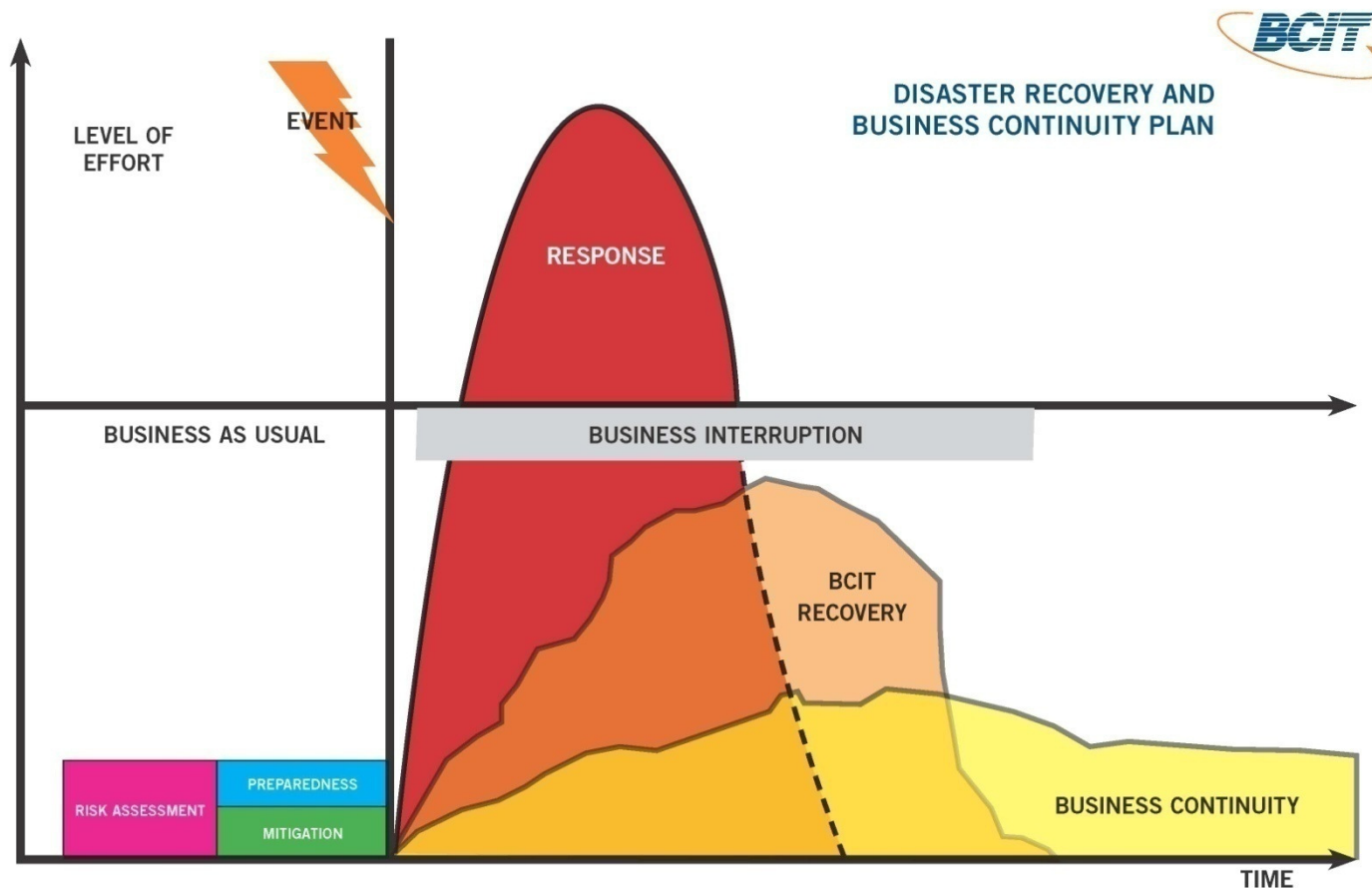
- **Mitigation and Prevention**
 - Identify the risk
 - Mitigate, transfer or accept the risk
- **Preparedness**
 - Procuring supplies and resources
 - Developing plans
 - Exercises and Training

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



TECHNOLOGY CHANGES EVERYTHING

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)
<http://www.pep.gov.bc.ca/bcerms/BCERMS%20Brochure%20Rev%20Aug%2006.pdf>
 - 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.

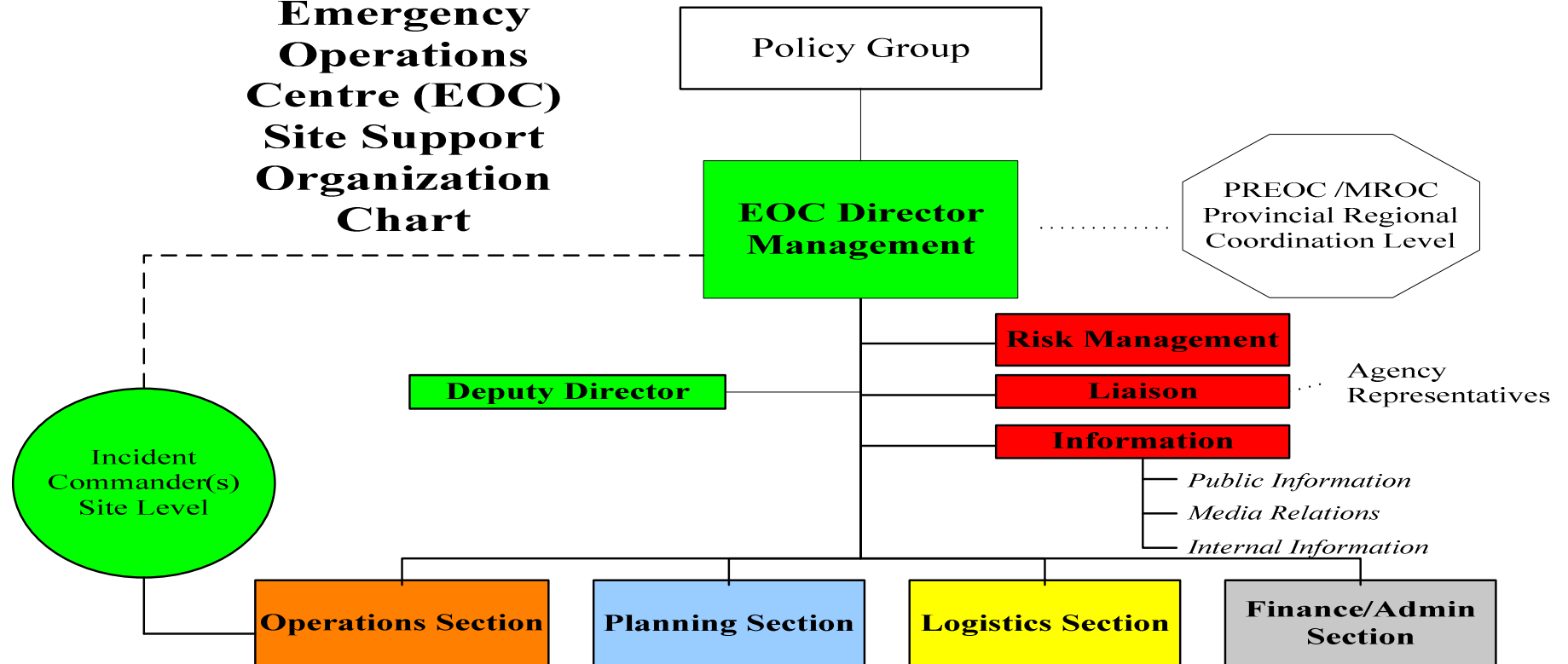
EOC

- 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 Operations Centre (EOC) Site Support Organization Chart



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

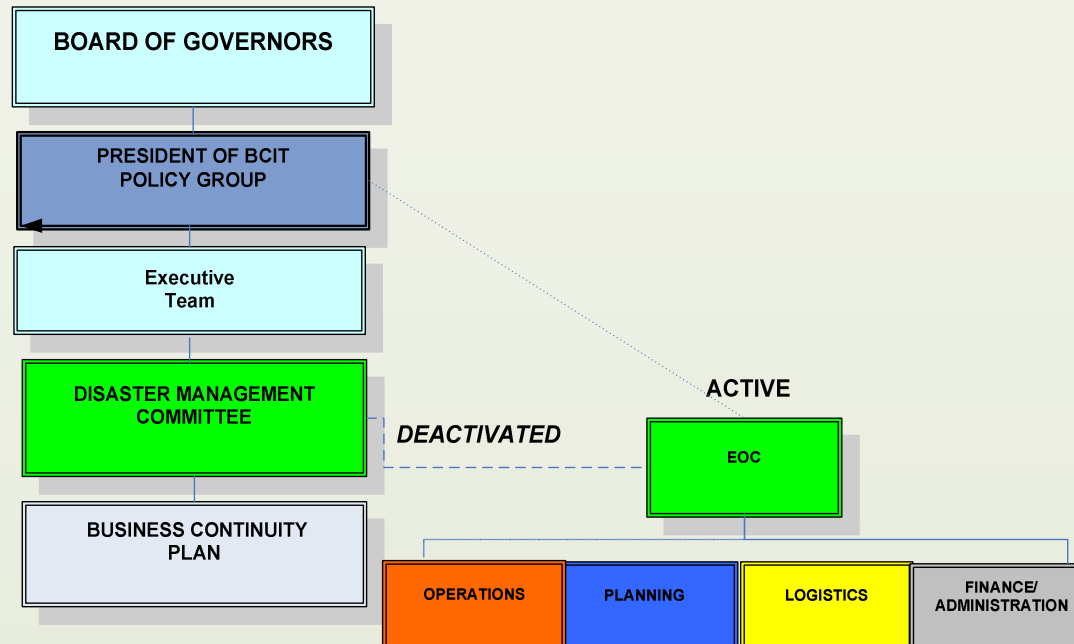
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Business Continuity

- 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





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.bcit.ca/files/safetyandsecurity/pdf/employee_guide.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

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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 irreplaceable, then consider
 - Filming, imaging, alternative formats



BCIT's Response to Three Disasters:

1. Boiler Explosion April 2004

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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!

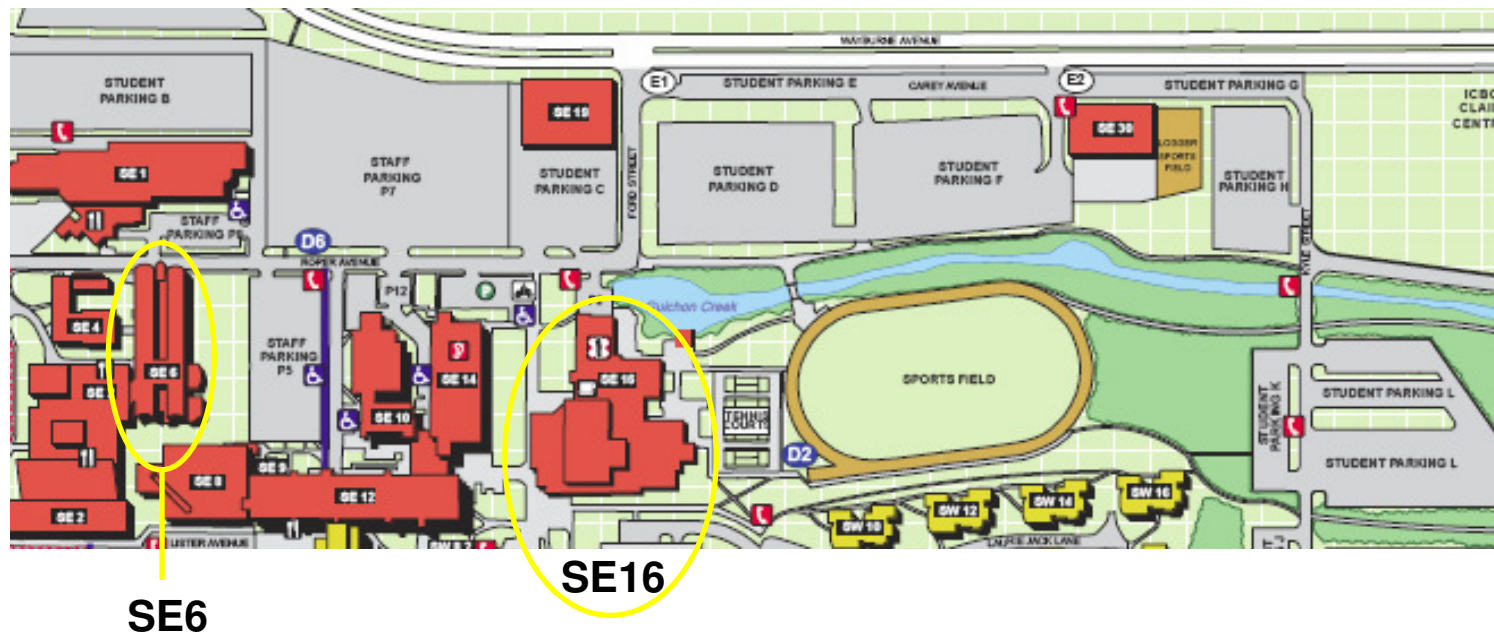


2. Guichon Creek Flood September 2007

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Campus Areas Affected



TECHNOLOGY CHANGES EVERYTHING

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 concerns.
- 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



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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



TECHNOLOGY CHANGES EVERYTHING



TECHNOLOGY CHANGES EVERYTHING

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



TECHNOLOGY CHANGES EVERYTHING

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

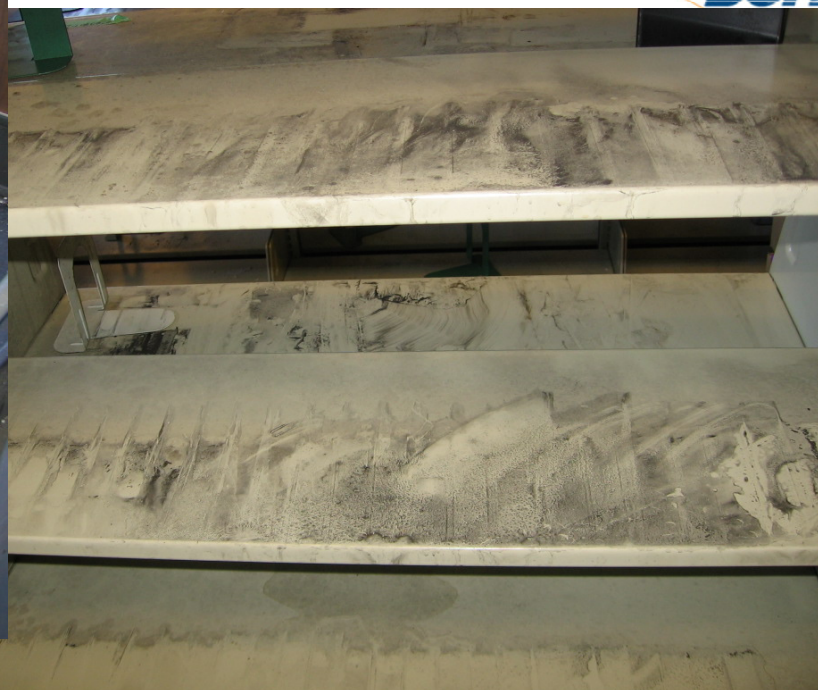
- Extensive administration time & costs
- Building Envelope and Restoration efforts
- Relocation of departments
- Estimated Costs at approx. 1.5 million
- High value placed on business continuity



3. Library Fire February 2006

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TECHNOLOGY CHANGES EVERYTHING

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 re ordered
- 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)
- Glen Magel – Director, Safety and Security
Glen_magel@bcit.ca
- Teresa Sharp – Manager, Emergency Planning
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Questions

