

EARTHQUAKES AND INFORMATION

IS YOUR ORGANIZATION READY?

CUBE Global Storage

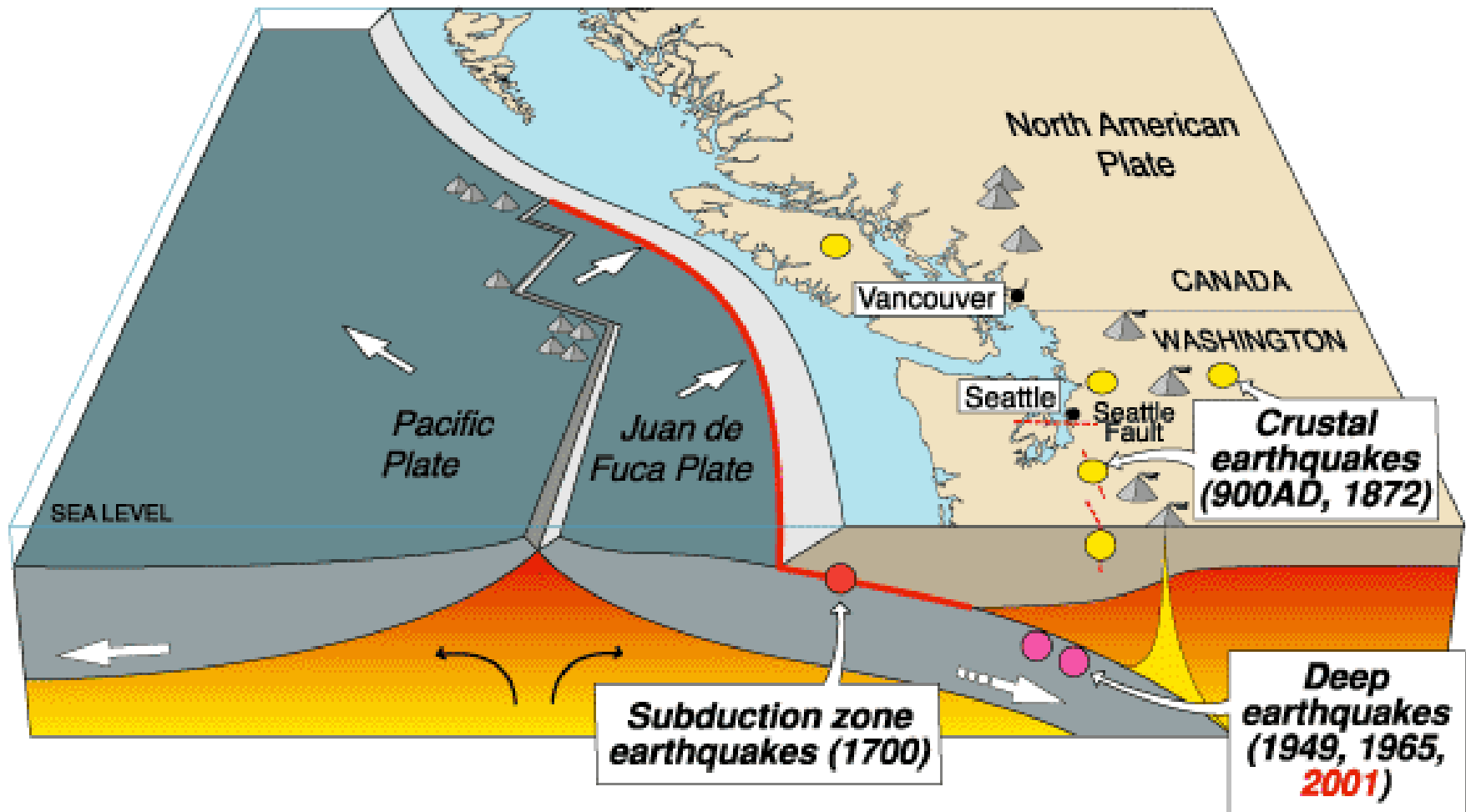
April 20th 2015

Agenda

- ❑ Earthquakes in our area
- ❑ How to Approach DR/BC
- ❑ DR/BC Planning Considerations
- ❑ Discussion and Questions

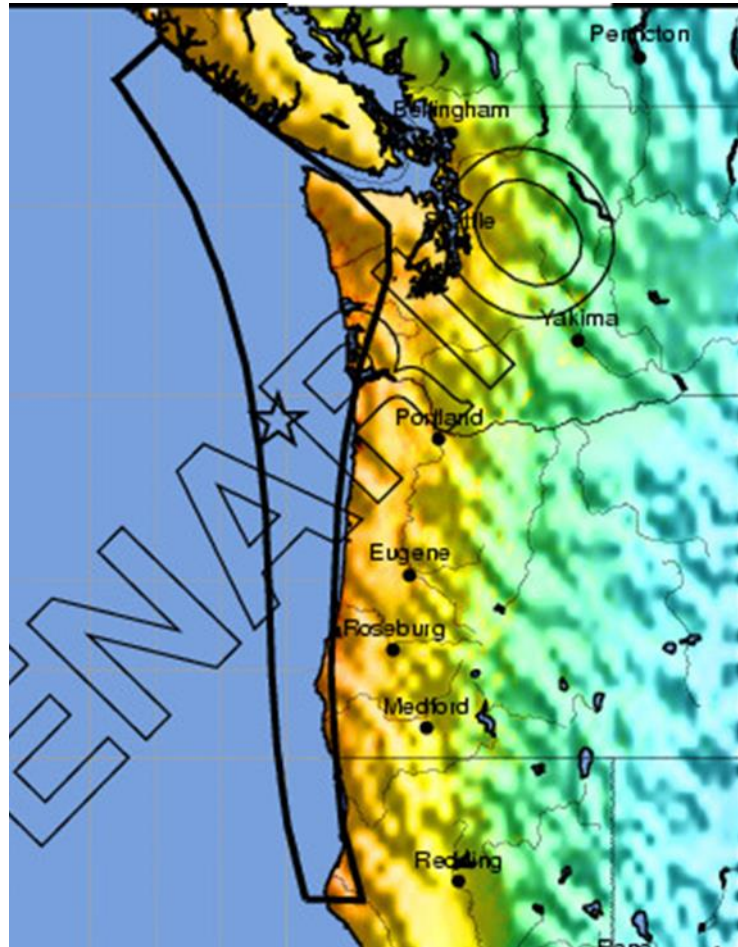
- ❑ Vancouver Island located in the Cascadia Subduction Zone
- ❑ Risk of intraplate, crustal, and mega-thrust events
- ❑ Current estimates suggest a 30% chance of a significant damaging earthquake in the next 50 years.

Cascadia Earthquake Zone



Mega Thrust Quake

- ❑ Very large magnitude event 8 to 9+
- ❑ Very large area involved
- ❑ Long period waves
- ❑ Shaking lasts a long time (4mins or more)
- ❑ Very great tsunami potential
- ❑ Tall / large structures at risk
- ❑ Tends to generate landslides

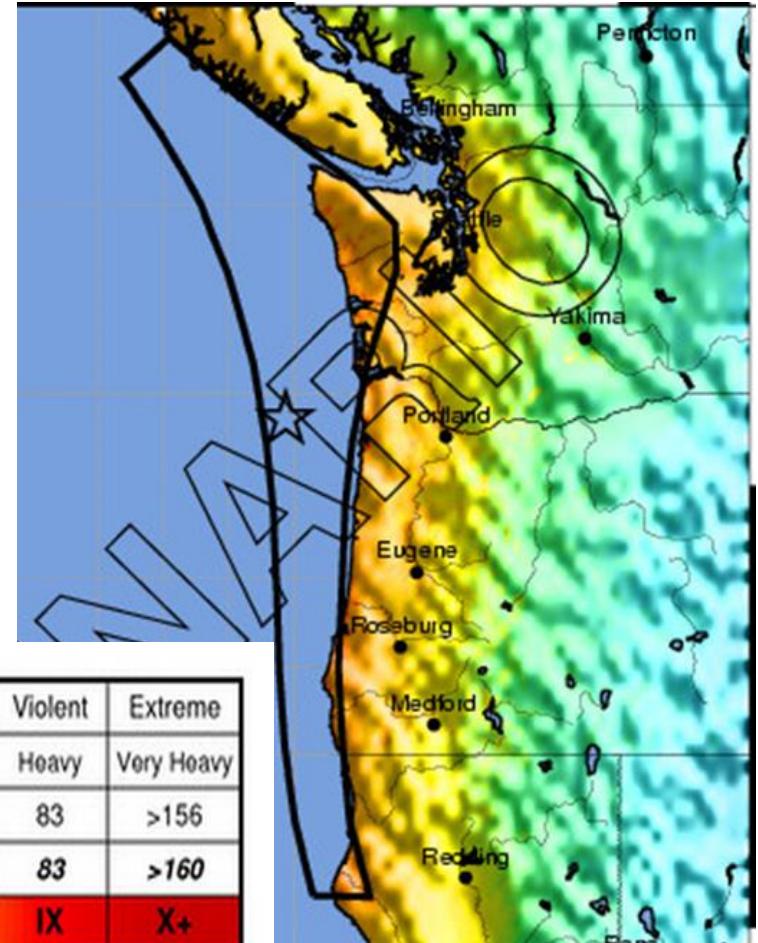
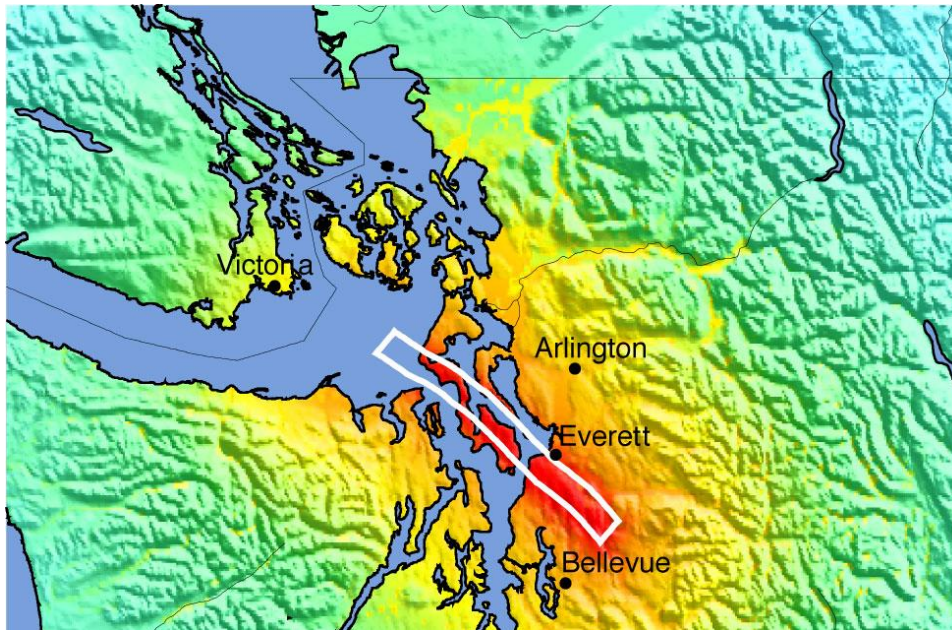


Cascadia Subduction Event



Intraplate and Crustal Earthquakes

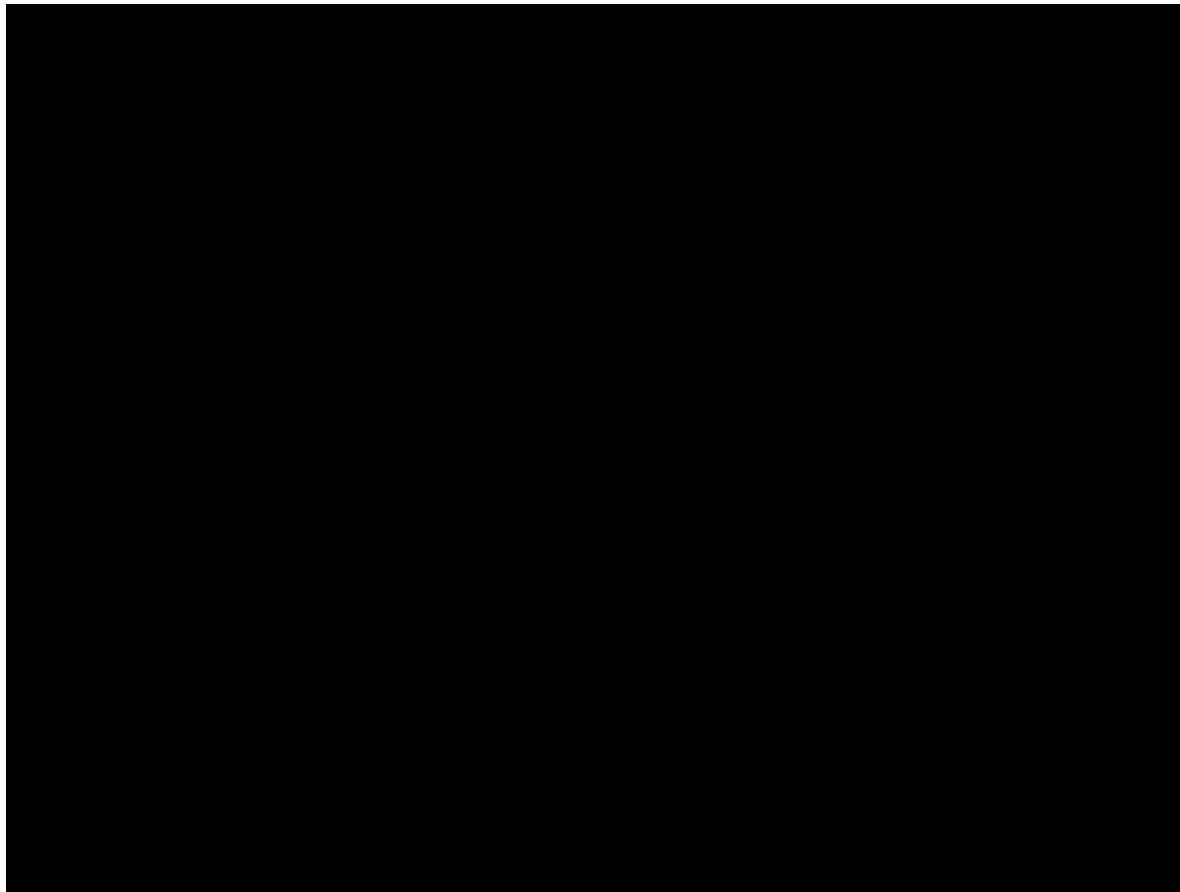
- ☐ Tend to be shorter in duration.
- ☐ Can have a very high peak ground acceleration.
- ☐ Can be very damaging locally.
- ☐ Happen more frequently in our region.
- ☐ Currently the focus of Gov't EMP



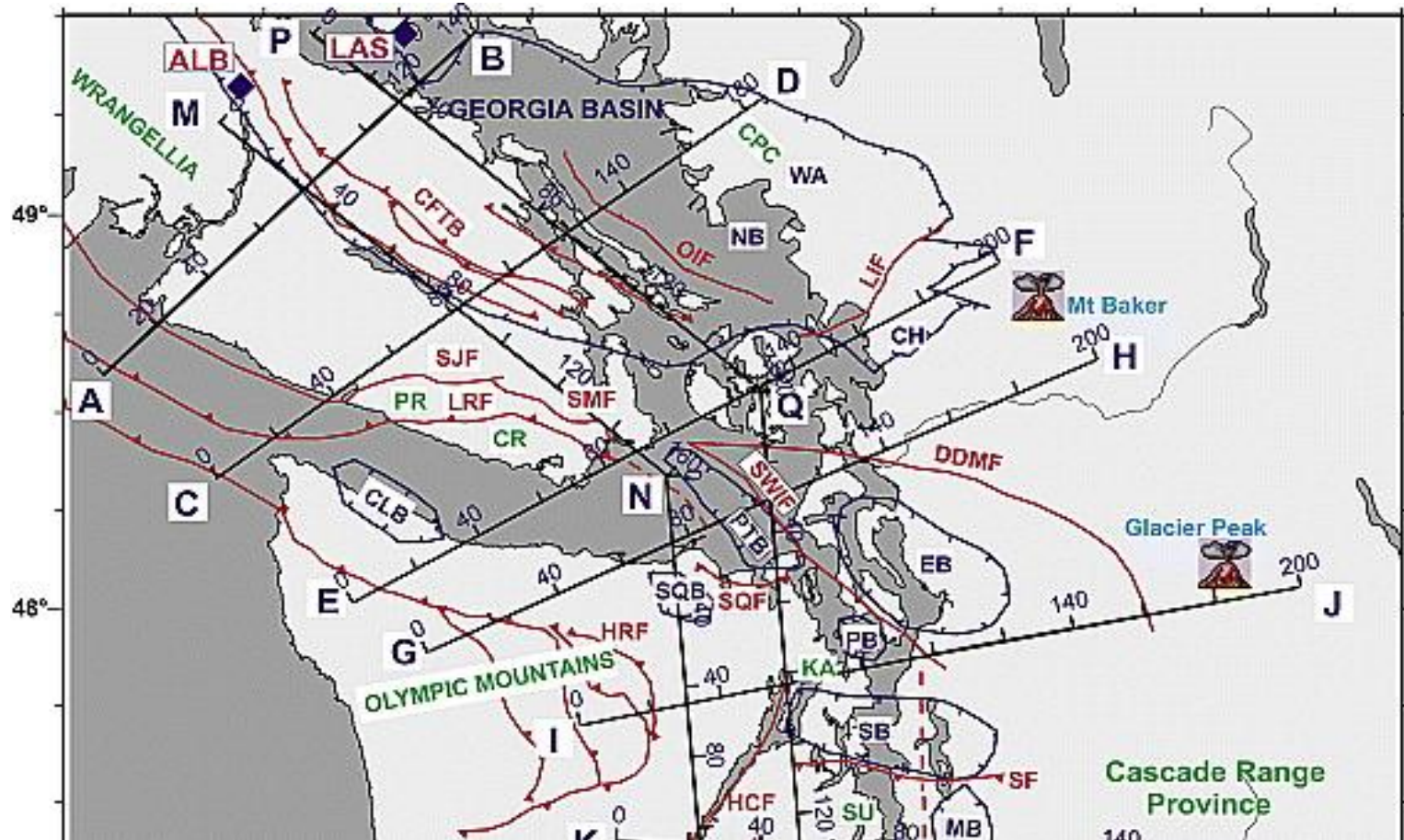
PERCEIVED SHAKING	Not felt	Weak	Light	Moderate	Strong	Very strong	Severe	Violent	Extreme
POTENTIAL DAMAGE	none	none	none	Very light	Light	Moderate	Mod./Heavy	Heavy	Very Heavy
PEAK ACC.(%g)	<0.1	0.5	2.4	6.7	13	24	44	83	>156
PEAK VEL.(cm/s)	<0.07	0.4	1.9	5.8	11	22	43	83	>160
INSTRUMENTAL INTENSITY	I	II-III	IV	V	VI	VII	VIII	IX	X+

Scale based upon Wald, et al.; 1999

Crustal and Intraplate Earthquakes



Crustal and Intraplate Earthquakes

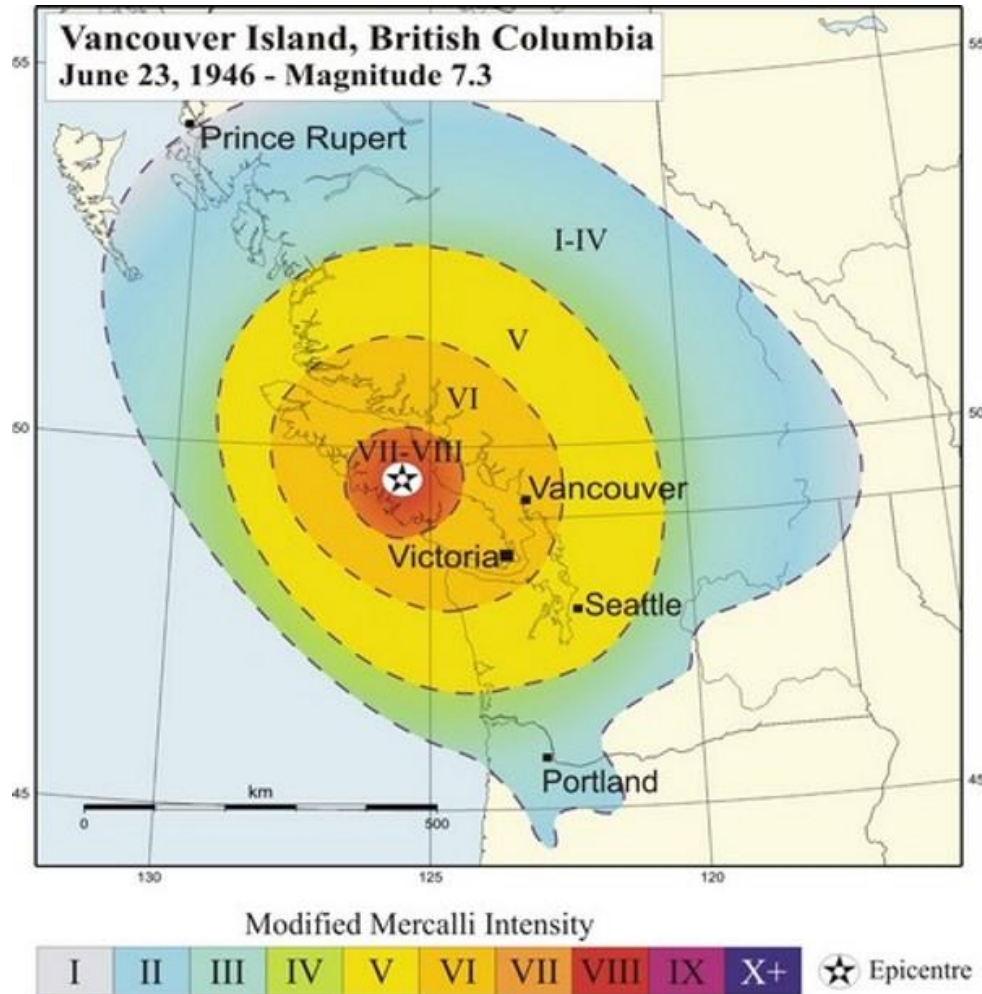


Crustal and Intraplate Earthquakes

The 7.3 magnitude 1946 Vancouver Island earthquake was such an event.



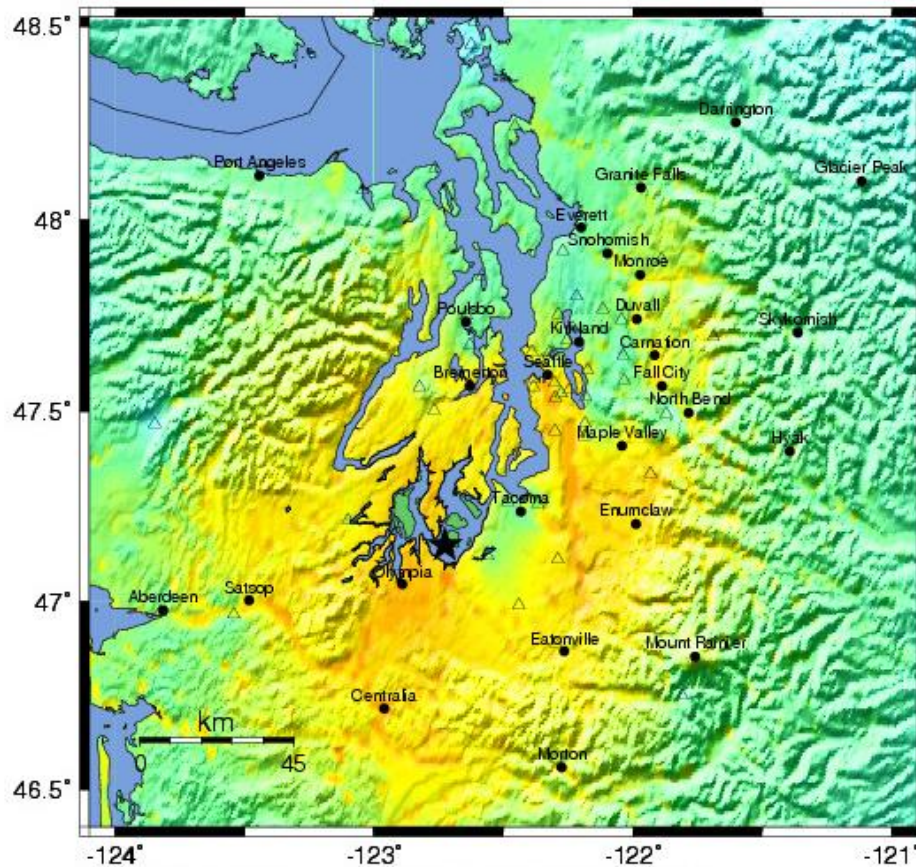
Crustal and Intraplate Earthquakes



2001 Nisqually Earthquake



Crustal and Intraplate Earthquakes



PERCEIVED SHAKING	Not felt	Weak	Light	Moderate	Strong	Very strong	Severe	Violent	Extreme
POTENTIAL DAMAGE	none	none	none	Very light	Light	Moderate	Moderate/Heavy	Heavy	Very Heavy
PEAK ACC (%g)	<.17	.17-1.4	1.4-3.9	3.9-9.2	9.2-18	18-34	34-65	65-124	>124
PEAK VEL (cm/s)	<0.1	0.1-1.1	1.1-3.4	3.4-8.1	8.1-16	16-31	31-60	60-116	>116
INSTRUMENTAL INTENSITY	I	II-III	IV	V	VI	VII	VIII	IX	X+

Earthquake could result in:

- ☐ Structural failures
- ☐ Power outages, Gas Interruptions
- ☐ Water and sewer issues
- ☐ Transportation Disruptions
- ☐ Connectivity and Telephony outages
- ☐ Injuries and deaths
- ☐ Flooding – Water Damage
- ☐ Fires

What will the Impact be:

- ☐ Diminished ability to access and share information
- ☐ Increased risk to the viability and/or security of stored information

The true impact to your organization is dependant on what your particular business functions are and what and your specific vulnerabilities are.

The Business Continuity Plan:

Is a document that defines an organization's approach and processes for resuming business operations after a disruption.

At the minimum the BC Plan Consists of:

- ☐ Business Impact Analysis
- ☐ Risk Assessment
- ☐ Disaster Recovery Plan

The BC Plan could also include:

- ☐ Business Continuity Policy
- ☐ Incident Management Plan
- ☐ Anything else your business decides to put in it.

Business Impact Analysis (BIA)

- ❑ Identifies each of your company's functions.
- ❑ Rates each function as to its importance.
- ❑ Defines how long the function can be non-operational.
- ❑ Defines the acceptable loss data for the function.

Business Functions

- ❑ Literally anything that your business does

Start big and go small - identify dependencies

Systems

People

Infrastructure

Secure Document Storage (Physical)

Secure Document Storage (Digital)

Document Conversion

Document Destruction

Disaster Recovery Space

Data Centre

Off-site Backup (Physical)

Off-site Backup (Digital)

Sales

Customer Service

Invoicing

Payment Processing

Accounts Payable

Facilities/Fleet Maintenance

Inventory Management

Payroll and HR Activities

Secure Document Storage (Physical)

Secure Document Storage (Digital)

Document Conversion

Document Destruction

Disaster Recovery Space

Data Centre

Off-site Backup (Physical)

Off-site Backup (Digital)

Secure Document Storage (Physical)

Secure Document Storage (Digital)

Document Conversion

Document Destruction

Disaster Recovery Space

Data Centre

Off-site Backup (Physical)

Off-site Backup (Digital)

Secure Document Storage

Physical Storage of the Documents

Retrieving Documents

Picking up Documents

Reporting on Client Inventories

Monitoring and Reporting on Service Levels

Secure Document Storage

Physical Storage of the Documents

Retrieving Documents

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Reporting on Client Inventories

Monitoring and Reporting on Service Levels

Retrieval						

Retrieval						
Accept Request						

Retrieval						
Accept Request						
Validate Authenticity of Retrieval Request						

Retrieval						
Accept Request						
Validate Authenticity of Retrieval Request						
Locate and Retrieve Actual Box or File						

Retrieval						
Accept Request						
Validate Authenticity of Retrieval Request						
Locate and Retrieve Actual Box or File						
Delivery (Physical)						
Delivery (Electronic)						

Retrieval	People					
Accept Request						
Validate Authenticity of Retrieval Request						
Locate and Retrieve Actual Box or File						
Delivery (Physical)						
Delivery (Electronic)						

Retrieval	People					
Accept Request	Reception Staff					
Validate Authenticity of Retrieval Request						
Locate and Retrieve Actual Box or File						
Delivery (Physical)						
Delivery (Electronic)						

Retrieval	People					
Accept Request	Reception Staff					
Validate Authenticity of Retrieval Request	Retrieval Staff					
Locate and Retrieve Actual Box or File						
Delivery (Physical)						
Delivery (Electronic)						

Retrieval	People					
Accept Request	Reception Staff					
Validate Authenticity of Retrieval Request	Retrieval Staff					
Locate and Retrieve Actual Box or File	Warehouse staff					
Delivery (Physical)						
Delivery (Electronic)						

Retrieval	People					
Accept Request	Reception Staff					
Validate Authenticity of Retrieval Request	Retrieval Staff					
Locate and Retrieve Actual Box or File	Warehouse staff					
Delivery (Physical)	Driver					
Delivery (Electronic)	Retrieval Staff					

Retrieval	People	Place				
Accept Request	Reception Staff					
Validate Authenticity of Retrieval Request	Retrieval Staff					
Locate and Retrieve Actual Box or File	Warehouse staff					
Delivery (Physical)	Driver					
Delivery (Electronic)	Retrieval Staff					

Retrieval	People	Place				Other
Accept Request	Reception Staff	Front Desk				
Validate Authenticity of Retrieval Request	Retrieval Staff	Front Office				
Locate and Retrieve Actual Box or File	Warehouse staff	Warehouse				
Delivery (Physical)	Driver	Loading Bay				
Delivery (Electronic)	Retrieval Staff	Front Office				

Retrieval	People	Place	Software			
Accept Request	Reception Staff	Front Desk				
Validate Authenticity of Retrieval Request	Retrieval Staff	Front Office				
Locate and Retrieve Actual Box or File	Warehouse staff	Warehouse				
Delivery (Physical)	Driver	Loading Bay				
Delivery (Electronic)	Retrieval Staff	Front Office				

Retrieval	People	Place	Software			
Accept Request	Reception Staff	Front Desk	Outlook Web Portal Exchange			
Validate Authenticity of Retrieval Request	Retrieval Staff	Front Office	Records Management System			
Locate and Retrieve Actual Box or File	Warehouse staff	Warehouse	Records Management System			
Delivery (Physical)	Driver	Loading Bay	Records Management System			
Delivery (Electronic)	Retrieval Staff	Front Office	Outlook Conversion Software Exchange RMS			

Retrieval	People	Place	Software	Hardware		
Accept Request	Reception Staff	Front Desk	Outlook Web Portal Exchange			
Validate Authenticity of Retrieval Request	Retrieval Staff	Front Office	Records Management System			
Locate and Retrieve Actual Box or File	Warehouse staff	Warehouse	Records Management System			
Delivery (Physical)	Driver	Loading Bay	Records Management System			
Delivery (Electronic)	Retrieval Staff	Front Office	Outlook Conversion Software Exchange RMS			

Retrieval	People	Place	Software	Hardware/Equip.		
Accept Request	Reception Staff	Front Desk	Outlook Web Portal Exchange	Fax, Phone PC Email Server		
Validate Authenticity of Retrieval Request	Retrieval Staff	Front Office	Records Management System	Fax/Phone PC Server		
Locate and Retrieve Actual Box or File	Warehouse staff	Warehouse	Records Management System	PC Bar Code Scanner Docking Station Genie Server		
Delivery (Physical)	Driver	Loading Bay	Records Management System	Bar Code Scanner Docking Station Van		
Delivery (Electronic)	Retrieval Staff	Front Office	Outlook Conversion Software Exchange RMS	Imaging Scanner Email Server		

Retrieval	People	Place	Software	Hardware	Infrastructure	
Accept Request	Reception Staff	Front Desk	Outlook Web Portal Exchange	Fax, Phone PC Email Server		
Validate Authenticity of Retrieval Request	Retrieval Staff	Front Office	Records Management System	Fax/Phone PC Server		
Locate and Retrieve Actual Box or File	Warehouse staff	Warehouse	Records Management System	PC Bar Code Scanner Docking Station Genie Server		
Delivery (Physical)	Driver	Loading Bay	Records Management System	Bar Code Scanner Docking Station Van		
Delivery (Electronic)	Retrieval Staff	Front Office	Outlook Conversion Software Exchange RMS	Imaging Scanner Email Server		

Retrieval	People	Place	Software	Hardware	Infrastructure	
Accept Request	Reception Staff	Front Desk	Outlook Web Portal Exchange	Fax, Phone PC Email Server	Power Connectivity (Internet) Phone Line	
Validate Authenticity of Retrieval Request	Retrieval Staff	Front Office	Records Management System	Fax/Phone PC Server	Power Connectivity (Intranet and Internet) Phone Line	
Locate and Retrieve Actual Box or File	Warehouse staff	Warehouse	Records Management System	PC Bar Code Scanner Docking Station Genie Server	Power Connectivity (Intranet)	
Delivery (Physical)	Driver	Loading Bay	Records Management System	Bar Code Scanner Docking Station Van	Fuel Roads	
Delivery (Electronic)	Retrieval Staff	Front Office	Outlook Conversion Software Exchange RMS	Imaging Scanner Email Server	Power Connectivity (Intranet and Internet)	

Retrieval	People	Place	Software	Hardware	Infrastructure	Other
Accept Request	Reception Staff	Front Desk	Outlook Web Portal Exchange	Fax, Phone PC Email Server	Power Connectivity (Internet) Phone Line	
Validate Authenticity of Retrieval Request	Retrieval Staff	Front Office	Records Management System	Fax/Phone PC Server	Power Connectivity (Intranet and Internet) Phone Line	
Locate and Retrieve Actual Box or File	Warehouse staff	Warehouse	Records Management System	PC Bar Code Scanner Docking Station Genie Server	Power Connectivity (Intranet)	
Delivery (Physical)	Driver	Loading Bay	Records Management System	Bar Code Scanner Docking Station Van	Fuel Roads	Insurance
Delivery (Electronic)	Retrieval Staff	Front Office	Outlook Conversion Software Exchange RMS	Imaging Scanner Email Server	Power Connectivity (Intranet and Internet)	

Rate the relative importance of each business function

- ☐ Chose terminology that works for your business.
- ☐ Mandatory, critical, preferable, optional, etc.
- ☐ Plot on scale of 1-10, 1-5 etc.

Secure Document Storage (Physical) **10**

Secure Document Storage (Digital) **10**

Document Conversion **4**

Document Destruction **5**

Disaster Recovery Space **10**

Data Centre Services **10**

Off-site Backup (Physical) **10**

Off-site Backup (Digital) **10**

Sales 5

Customer Service 8

Invoicing 6

Payment Processing 6

Accounts Payable 6

Facilities/Fleet Maintenance 7

Inventory Management 7

Payroll and HR Activities 10

Secure Document Storage (Physical) **10**

Secure Document Storage (Digital) **10**

Document Conversion **4**

Document Destruction **5**

Disaster Recovery Space **10**

Data Centre Services **10**

Off-site Backup (Physical) **10**

Off-site Backup (Digital) **10**

Secure Document Storage (Physical) 10

Secure Document Storage (Digital) 10

Document Conversion 4

Document Destruction 5

Disaster Recovery Space 10

Data Centre Services 10

Off-site Backup (Physical) 10

Off-site Backup (Digital) 10

Secure Document Storage 10

Physical Storage of the Documents **10**

Retrieving Documents **9**

Picking up Documents **7**

Reporting on Client Inventories **6**

Monitoring and Reporting on Service Levels **5**

Retrieval 9	People	Place	Software	Hardware	Infrastructure	Other
Accept Request 10	Reception Staff 6	Front Desk 5	Outlook 10 Exchange 10 RMS 6	Fax, Phone 10 PC 10 Email Server 10	Power 10 Connectivity (Internet) 9 Phone Line 9	
Validate Authenticity of Retrieval Request 8	Retrieval Staff 8	Front Office 5	Records Management System 8	Fax/Phone 10 PC 10 Server 10	Power 10 Connectivity (Intranet and Internet) Phone Line 9	
Locate and Retrieve Actual Box or File 10	Warehouse staff 8	Warehouse 10	Records Management System 10	PC 10 Bar Code Scanner 7 Docking Station 7 Genie 7 Server 10	Power 10 Connectivity (Intranet) 10 (Internet) 1	
Delivery (Physical) 8	Driver 6	Loading Bay 3	Records Management System 3	Bar Code Scanner 3 Docking Station 3 Van 8	Fuel 8 Roads 8	Insurance 8
Delivery (Electronic) 6	Retrieval Staff 6	Front Office 4	Outlook 8 Conversion Software 5 Exchange 8 RMS 3	Imaging Scanner 10 Email Server 9 Web Server 7	Power 10 Connectivity 10 (Intranet 10 and Internet 10)	

RTO (Recovery Time Objective)

- ☐ How long before the process needs to be restored.
- ☐ Based on the MTD (Maximum Tolerable Downtime)
- ☐ Not always Achievable

Secure Document Storage (Physical) **2 Hrs**

Secure Document Storage (Digital) **2 Hrs**

Document Conversion **1 Week**

Document Destruction **1 Week**

Disaster Recovery Space **Immediately**

Data Centre Services **Immediately**

Off-site Backup (Physical) **2 Hrs**

Off-site Backup (Digital) **2 Hrs**

Retrieval 2 hrs	People	Place	Software	Hardware	Infrastructure
Accept Request 30 m	Reception Staff 30 m	Front Desk 30 m	Outlook 30 m Exchange 30 m RMS 30 m	Fax, Phone 30 m PC 30 m Email Server 30 m	Power 10 m Connectivity (Internet) 25m Phone Line 25m
Validate Request Authenticity 2 hrs	Retrieval Staff 90 m	Front Office 90m	Records Management System 90 m	Fax/Phone 90m PC 90m Server 90m	Power 90m Connectivity (Intranet 90m and Internet 2h) Phone Line 90m
Locate and Retrieve Actual Box or File 30m	Warehouse staff 30m	Warehouse 30m	Records Management System 30 m	PC 10 min Bar Code Scanner 1D Docking Station 1D Genie 20m Server 20m	Power 30m Connectivity (Intranet) 20 m
Delivery (Physical) 60m	Driver 90m	Loading Bay 90m	Records Management System 1D	Bar Code Scanner 1D Docking Station 1D Van 90m	Fuel 90m Roads 90m
Delivery (Electronic) 2 hrs	Retrieval Staff 2 hrs	Front Office 2 hrs	Outlook 2 hrs Exchange 2 hrs RMS 1D	Imaging Scanner 2 hrs Email Server 2 hrs Web Server 2 hrs	Power 2hrs Connectivity 2 hrs (Intranet and Internet)

RPO (Recovery Point Objective)

- ☐ Defines acceptable time period of lost data.
- ☐ Mostly applicable to IT processes.
- ☐ Again not always achievable.

Retrieval	People	Place	Software	Hardware	Infrastructure
Accept Request	Reception Staff	Front Desk	Outlook NA Exchange NA RMS 1Day	Fax, Phone PC Email Server	Power Connectivity (Internet) Phone Line
Validate Request Authenticity	Retrieval Staff	Front Office	Records Management System 3hrs	Fax/Phone PC Server	Power Connectivity (Intranet and Internet) Phone Line
Locate and Retrieve Actual Box or File	Warehouse staff	Warehouse	Records Management System 3 hrs	PC Bar Code Scanner Docking Station Genie Server	Power Connectivity (Intranet)
Delivery (Physical)	Driver	Loading Bay	Records Management System 1Day	Bar Code Scanner Docking Station Van	Fuel Roads
Delivery (Electronic)	Retrieval Staff	Front Office	Outlook 1Day Exchange 1Day Web Portal 1Day RMS 1Day	Imaging Scanner Email Server Web Server	Power Connectivity (Intranet and Internet)

Create a list of threats to your business

- ☐ List everything imaginable
- ☐ Even extremely unlikely events
- ☐ Even ones you won't necessarily be able to respond to.

DRP can help you recover from

- ☐ Fires
- ☐ Flooding
- ☐ Theft
- ☐ Sabotage
- ☐ Data Loss
- ☐ Storms
- ☐ Terrorism
- ☐ Epidemics
- ☐ War
- ☐ Power Failure
- ☐ Transportation Failure
- ☐ Espionage
- ☐ Volcanoes

Rate Every Risk on the List

- ☐ By how likely it is to occur
- ☐ And by how severe an impact it will have on your business functions.
- ☐ Once again chose a scale that works for your business
- ☐ Use these numbers to assign a priority to planning for these risks

Look at how each event might have an impact.

Fire – Loss of physical space, loss of information, damage to systems.

Epidemic - Loss of staff resources, loss of external or third-party resources.

Map Risks to Business Functions

- ☐ Map each of the potential risk events to each of your business functions dependencies.
- ☐ Start small and go big.

Retrieval	People	Place	Software	Hardware	Infrastructure	Other
Accept Request	Reception Staff	Front Desk	Outlook Exchange	Fax, Phone PC Email Server	Power Connectivity (Internet) Phone Line	
Validate Authenticity of Retrieval Request	Retrieval Staff	Front Office	Records Management System	Fax/Phone PC Server	Power Connectivity (Intranet and Internet) Phone Line	
Locate and Retrieve Actual Box or File	Warehouse staff	Warehouse	Records Management System	PC Bar Code Scanner Docking Station Genie Server	Power Connectivity (Intranet)	
Delivery (Physical)	Driver	Loading Bay	Records Management System	Bar Code Scanner Docking Station Van	Fuel Insurance Roads	
Delivery (Electronic)	Retrieval Staff	Front Office	Outlook Conversion Software Exchange	Imaging Scanner Email Server	Power Connectivity (Intranet and Internet)	

Retrieval	People	Place	Software	Hardware	Infrastructure	Other
Accept Request	Reception Staff	Front Desk	Outlook Exchange	Fax, Phone PC Email Server	Power 10 Connectivity (Internet) Phone Line	
Validate Authenticity of Retrieval Request	Retrieval Staff	Front Office	Records Management System	Fax/Phone PC Server	Power Connectivity (Intranet and Internet) Phone Line	
Locate and Retrieve Actual Box or File	Warehouse staff	Warehouse	Records Management System	PC Bar Code Scanner Docking Station Genie Server	Power Connectivity (Intranet)	
Delivery (Physical)	Driver	Loading Bay	Records Management System	Bar Code Scanner Docking Station Van	Fuel Insurance Roads 8	
Delivery (Electronic)	Retrieval Staff	Front Office	Outlook Conversion Software Exchange	Imaging Scanner Email Server	Power Connectivity (Intranet and Internet)	

Map Risks to Business Functions

$$\text{Power} (4_{\text{likelihood}} * 2_{\text{impact}}) = 8$$

Map Risks to Business Functions

$$\text{Power} (4_{\text{likelihood}} * 2_{\text{impact}}) = 8 * (10_{\text{importance}}) = 80$$

Map Risks to Business Functions

$$\text{Power} (4_{\text{likeliness}} * 2_{\text{impact}}) = 8 * (10_{\text{importance}}) = 80$$

$$\text{Roads} (4_{\text{likeliness}} * 10_{\text{impact}}) = 40$$

Map Risks to Business Functions

$$\text{Power} (4_{\text{likeliness}} * 2_{\text{impact}}) = 8 * (10_{\text{importance}}) = 80$$

$$\text{Roads} (4_{\text{likeliness}} * 10_{\text{impact}}) = 40 * (8_{\text{importance}}) = 320$$

Threat Description	Likelihood	Impact	Ranking
Virus Attacks	81	66	5508
Computer (workstation failure)	86	61	5246
Network Failure – Branch Connectivity	77	68	5236
Computer (miscellaneous server) Failure	87	59	5133
Blackouts (wide area power outage)	72	72	5112
Network Failure (internal – LAN)	81	62	5022

Impact	Likelihood				
	Rare	Unlikely	Possible	Likely	Almost certain
Catastrophic	moderate	moderate	high	critical	critical
Major	low	moderate	moderate	high	critical
Moderate	low	moderate	moderate	moderate	high
Minor	very low	low	moderate	moderate	moderate
Insignificant	very low	very low	low	low	moderate

TECHNOLOGIC EVENTS

EVENT	PROBABILITY <i>Likelihood this will occur</i>	SEVERITY = (MAGNITUDE - MITIGATION)						RISK <i>Relative threat*</i>
		HUMAN IMPACT <i>Possibility of death or injury</i>	PROPERTY IMPACT <i>Physical losses and damages</i>	BUSINESS IMPACT <i>Interruption of services</i>	PREPARED-NESS <i>Preplanning</i>	INTERNAL RESPONSE <i>Time, effectiveness, resources</i>	EXTERNAL RESPONSE <i>Community/ Mutual Aid staff and supplies</i>	
SCORE	0 = N/A 1 = Low 2 = Moderate 3 = High	0 = N/A 1 = Low 2 = Moderate 3 = High	0 = N/A 1 = Low 2 = Moderate 3 = High	0 = N/A 1 = Low 2 = Moderate 3 = High	0 = N/A 1 = High 2 = Moderate 3 = Low or none	0 = N/A 1 = High 2 = Moderate 3 = Low or none	0 = N/A 1 = High 2 = Moderate 3 = Low or none	0 - 100%
Communications Failure								0%
Electrical Failure: External or Utility Company								0%
Electrical Failure: Internal								0%
Elevator Failure								0%
Fire Alarm Failure								0%
Fire, Internal								0%
Flood, Internal								0%
Fuel Shortage								0%
Generator Failure								0%
Hazmat Exposure, Internal								0%
Helipad Disaster								0%
HVAC Failure								0%
Information Systems Failure								0%
Medical Gas Failure								0%
Natural Gas Failure								0%
Sewer Failure								0%
Steam Failure								0%
Structural Damage								0%
Supply Shortage								0%
Transportation Failure								0%
Water Failure (External)								0%
Water Failure (Internal)								0%
AVERAGE SCORE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0%

*Threat increases with percentage.

RISK = PROBABILITY * SEVERITY		
0.00	0.00	0.00

L I K E L I H O O D	5	10	15	20	25
	4	8	12	16	20
	3	6	9	12	15
	2	4	6	8	10
	1	2	3	4	5
C O N S E Q U E N C E					

Now its time to build the DR Plan

- ❑ Identify and Document the steps needed to recover from the event.
- ❑ Look at each component within the business function and build the process that will allow you to recover that function within the RTO
- ❑ Prioritize by the information created in the BIA and RA

Why have a Disaster Recovery Plan?

- ☐ Very hard to recover without one
- ☐ It will help you resume operation faster
- ☐ Will keep you focused
- ☐ Identifies priorities
- ☐ Will keep you from panicking
- ☐ Reduce the risk of your business failing
- ☐ Might be required by other organizations

Who Builds the DR Plan

- ☐ Establish a DR Committee
- ☐ Build it from a cross section of your organization or department
- ☐ Identify who drives the Process
- ☐ Identify those who will need to buy-in

Human Resources

- ☐ Who does what?
- ☐ What happens if a resource is unavailable?
- ☐ Contingency Resources
- ☐ Job sharing/shadowing

Human Resources

- ☐ Responsibilities
- ☐ Reliability
- ☐ Contingency Resource Planning
- ☐ Communications
- ☐ Transportation
- ☐ Where will they work?

Human Resources

- ☐ Create Personnel Preparedness Plans
- ☐ Provide Training and Resources
- ☐ Provide Emergency Supplies
- ☐ Both for work and home
- ☐ Consider Contingency Lodging
- ☐ Authorities suggest self-sufficiency for 72 hours - Plan on more!

Workspace

- ☐ Where will you work if your primary place of business is inaccessible?
- ☐ How much space do you need?
- ☐ How quickly do you need it?

Workspace

- ☐ Disaster Recovery Centres
- ☐ Portables
- ☐ Other Locations within the Organization
- ☐ Reciprocal arrangements with other Organizations
- ☐ Hotels
- ☐ Home
- ☐ Combination of the above solutions

Workspace

- ☐ Leasing
- ☐ Rebuilding
- ☐ Purchasing

Insurance

- ☐ Talk to your Broker
- ☐ What is covered?
- ☐ Document what you have
- ☐ Document what you spend during a recovery.

Financial

- ☐ Plan for loss of revenues
- ☐ Plan for increase in expenses
- ☐ Plan for reduced or interrupted cash flow
- ☐ Contingency funds
- ☐ Emergency cash reserve.

Information Technology and Communications

- ❑ Perhaps the most critical part of your BC/DR planning
- ❑ The most likely part of your business functions to experience a “disaster”
- ❑ Difficult if not impossible to recover from if you haven’t planned in advance.

Information Technology Disasters

- ❑ Everything that the rest of your business functions are subject to plus.....
- ❑ Viruses, application failures, hardware failures, hacking, file and database corruption, etc.
- ❑ These risks to IT in turn threaten your business functions that rely on IT.

Information Technology Disasters

- ☐ All data should be backed up.
- ☐ Use your RPO to determine backup interval
- ☐ You can use different backup strategies for different data sets
- ☐ Use multiple strategies to provide the greatest level of protection

Backups can be:

- ☐ Onsite and Offsite
- ☐ File or imaged based
- ☐ Cloud or Physical
- ☐ Mirrored environment
- ☐ Archiving for long term protection
- ☐ Combination of any or all of the above

Backups are only half of the process

- ☐ Recovery is the other
- ☐ Driven by your RTO
- ☐ Practice and practice often

Think about Information Security Issues when addressing data backup

Communication

- ☐ With your employees
- ☐ With your clients and constituents
- ☐ With your suppliers

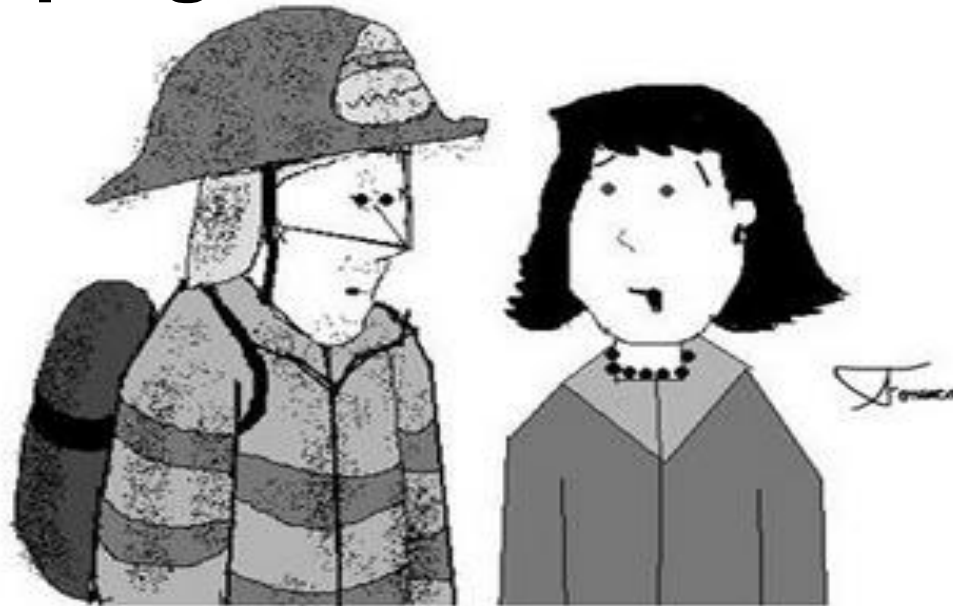
Communication

- ☐ Redirected Lines
- ☐ Cell Phones
- ☐ Texting
- ☐ Satellite
- ☐ Radio
- ☐ Social Media

Third- Party Dependencies

- ☐ How resilient are others that you depend on?
- ☐ Infrastructure, Suppliers, Service Providers
- ☐ Ask them about their BC/DR preparedness and planning

Keeping the Plan Accessible



WHILE YOU WERE IN THE BUILDING, DID YOU COME ACROSS A BIG BINDER TITLED "BUSINESS CONTINUITY PLAN"?

Keeping the Plan Accessible

- ☐ Somewhere Safe
- ☐ Multiple Copies in Multiple Locations
- ☐ Consider any other documents you might need

Copies of Insurance Policies

Instruction Manuals

Financial Information

- ☐ Designate authority to activate the plan
- ☐ Define the triggers that will cause the plan to be activated.
- ☐ Balance process with judgement.
- ☐ Adopt an approach that works for your business.
- ☐ When in doubt activate

Emergency Kits

- ☐ For your self, your staff, and the business
- ☐ Place them somewhere they will be accessible.

- ☐ Designate authority to deactivate the plan
- ☐ Define the triggers that will cause the plan to be deactivated.
- ☐ Balance process with judgement.
- ☐ Adopt an approach that works for your business.
- ☐ When in doubt leave activated

Ongoing Commitment

- ☐ Regular reviews (once a year)
- ☐ Introduction of a news business stream
- ☐ Significant change to an existing business process
- ☐ Change in staff

Testing your Plan

- ☐ Frequency
- ☐ Level of Detail

Questions?