

# Property Assessment in the Wake of Natural Disaster

John Watling MRICS, MIMA

Director, International Property Tax Institute (IPTI)





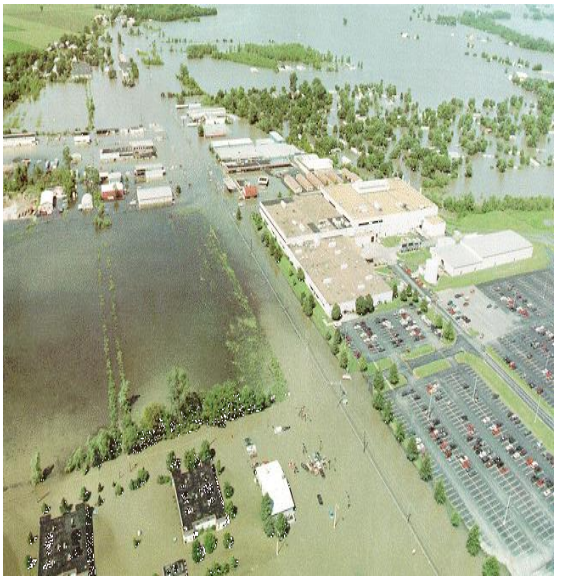
# Agenda

1. Natural Disaster- A Valuation Overview
2. Property Assessment Challenges
3. Data Challenges
4. Valuation Considerations, Guidance and Standards
5. Dealing with Natural Disasters in a Mass Appraisal Environment
6. Property Assessment Valuation Techniques
7. Best Practices
8. Conclusions and Recommendations





# What are Natural Disasters?



# Natural Disaster Valuation Overview

## NATURAL DISASTERS

### HYDROMETEOROLOGICAL

Floods  
Hurricane  
Tornado  
Wildfires  
Heat Waves  
Cold Weather  
Wind Storms

### GEOLOGICAL

Landslides  
Tsunamis  
Avalanches  
Volcano  
Earthquakes

## DAMAGES PROPERTY

Residential  
Non-Residential  
Institutional  
Agricultural  
Utilities  
Infrastructure

### DAMAGE ASSESSMENT

Severe  
Major  
Moderate  
Minor

### REPAIR ISSUES

Supply Chain  
Labour Shortages  
Infrastructure Damages

## DISASTER MANAGEMENT

Response  
Recovery  
Mitigation  
Preparation

## DISASTER RESPONDERS

### GOVERNMENT

Response  
Financial Relief  
Recovery Management  
Building Codes  
Planning Regulations

### NON-GOVERNMENTAL

Response  
Relief

### INSURANCE

Cost  
Risk

### LENDERS

Cost  
Risk

## ASSESSORS RESPONSE

### VALUATION APPROACHES

Sales  
Costs  
Income

### DATA COLLECTION

Damage Assessment  
Ongoing Market Monitoring

### DETRIMENTAL EFFECTS

Costs  
Use  
Risk

### TIME PERIOD

Initial Assessment  
Repair  
Ongoing





# Natural Disasters: Property Assessment

## BEFORE

## AFTER

### RISK

- Exposure
- Vulnerability to Damage (Frequency)

### REDUCING RISK

- Exposure
- Reduce Damage

### DAMAGE ASSESSMENT

- Condition Report

### THREE APPROACHES TO VALUE

- Cost to cure
- Sale price effect (sale of damaged properties)
- Income effect
  - Rental
  - Vacancy
  - Operating Costs
  - Capitalization Rates

# Audience Participation



How many in the audience have dealt with property valuations in the aftermath of a natural disaster?

# Property Assessment Challenges



- Data
  - Capturing of data before and after
  - What data to capture?
- Property access
- Resources
  - staffing
  - technology

- Determination of valuations
  - impact on current values and future values
  - monitoring ongoing affect
- Legislation
  - ability to update values
- Establishment of best practice

# Data Challenges – What and How



## What

- What data to capture
- Structural damage assessments
- Market transactions
- Continued monitoring of data

## How

- Inspections
- Mail of forms or questionnaires
- Aerial imagery
- Change detection software
- Use of drones
- Self report

Are we capturing the correct data???



# Valuation Considerations



## Supply and Demand

- Imbalance in supply and demand
- Supply affected by damage
- Demand may increase

## Exposure Time

- Exposure time abnormal in crisis
- Shortage of supply
- Desire to relocate

# Valuation Considerations



## Buyer and Seller Motivations

### **BUYERS**

- Undamaged property shortage
- Damaged property discounts

### **SELLERS**

- Shortage of buyers
- Desire to relocate
- Speculative buyers

## Recovery Impacts

- Exposure time abnormal in crisis
- Shortage of supply
- Desire to relocate

# Valuation Considerations



## Appraisal Basis

- Retrospective
- Current
- Prospective

## Damage Effects

- Unable to inspect properties
- Repair costs
- Supply chain issues
- Labour force issues
- Infrastructure issues
- Effect of new building codes/planning regulations



# Valuation Considerations



## Sales Comparison

- Shortage of sales comparables
- Sales motivation
- Degree of damage
- Difficulties in viewing comps

## Income

- Rental effects
- Vacancy effects
- Operating costs
- Capitalization rates
- Damage repair costs

## Cost

- Repair costs may be excessive
- Shortage of materials/labour
- Insurance coverage affects
- EMO assistance

## Infrastructure

- Utilities
- Communications
- Transportation

## Other Issues

- Temporary shelters
- Emergency facilities
- Business disruptions

# DAMAGE ASSESSMENT AND COSTS



Natural Disasters cause damage to real estate and infrastructure. As part of measuring the effect of natural disasters on value, the damage has to be identified and the costs quantified in terms of costs and time.

The damage costs and time associated with repairs also affect potential income for rental and business properties.

Also the likelihood of recurrence may have a more lasting impact on the property in terms of marketability. Indeed if the damage is severe, the owner may be liable for more stringent building code rules which in turn will affect costs



# Audience Participation



Do you feel there is negative stigma attached to areas that have been affected by natural disaster?



# Standards and Guidance



# Development of an Opinion of Market Value in the Aftermath of a Disaster



## Guide Note 10

### Guide Note 10

### Development of an Opinion of Market Value in the Aftermath of a Disaster



MARKET VALUE

VALUATION CONSIDERATIONS  
& PRINCIPLES

SUSTAINABILITY OF VALUE

COMPETENCY ISSUES

- The aftermath of a disaster poses special challenges in real property valuation.
- During such periods, real property markets in affected areas often exhibit instability, even chaos.
- Analyzing market data in such markets can be difficult.
- Damaged property is repaired and **destroyed property is often replaced.**
- During that time period, **real property markets in affected areas often exhibit instability**, even chaos. Analyzing data in such markets presents an array of challenges.
- How can an appraiser develop a credible opinion of market value in the aftermath of a disaster?



# Guide Note 10 - Property Utility



The Guide Note explores how property utility might be impacted by damage or destruction;

Properties might be more scarce because damaged or destroyed properties are removed from the overall supply;

Desire for property might increase because displaced homes and businesses need replacement space;

Effective purchasing power might be impacted by changes in lending policies and practices in the area in response to the disaster.

# Guide Note 10 - Summary of Standard Practices



1. Developing an opinion of value in the aftermath of a disaster might require competency that surpasses or is different from that required prior to the disaster.
2. The characteristics of the applicable definition of market value must be carefully examined when appraising in a chaotic or unstable market.
3. Valuation in the aftermath of a disaster requires special attention to the fundamental appraisal principles of supply and demand, anticipation, change, substitution, contribution, externalities, and balance.
4. Transactions that occurred prior to the disaster will not reflect the same market conditions as those occurring after. Ideally, comparable data must be selected from the same market area and must be subject to the same market conditions as the subject property.

# Guide Note 10 - Summary of Standard Practices (Cont)



5. In appraisal assignments for which the date of value is a retrospective date prior to the disaster, the appraiser must rely on comparable sales that occurred prior to that retrospective value date.
6. In appraisal assignments for which the date of value is a retrospective date prior to the disaster, the appraiser must rely on the best available information concerning the nature of the subject property as of the date of value. Such an appraisal would be based on one or more extraordinary/special assumptions about the property condition and other characteristics that are as presumed to be true in the appraisal assignment.
7. Unless the appraiser possesses the requisite competency to make judgments about these matters, the appraiser must not take on assignments that require competency that is beyond that of a real property appraiser.



# AIC Professional Excellence Bulletin



Professional Excellence Bulletin

## Integrating Flood Risks into Property Appraisals



### Executive Summary

Research completed by the Insurance Bureau of Canada indicates that roughly 1 in 10 Canadian homes are at high risk of flooding due to rivers overtopping their banks, ocean water surging onto shore, and heavy rainfall overwhelming local drainage systems and settling in low-lying areas of communities. Research completed by the University of Waterloo indicates that large scale flooding events have material impacts on the value of impacted properties, with previously flooded homes selling for an average 8.2% lower price than non-flooded comparable properties in the same communities within 6 months of flood events<sup>1</sup>.

### Integrating Flood Risks into Property Appraisals (Traditional Residential Form Report or Consulting Report)

As part of the appraisal process, and as per CUSPAP (7.5.1.i), Members must inspect a property and undertake the appropriate research to identify any factors that could affect the property. The table below outlines the key steps a simple step-by-step process to integrate flood risks into property appraisals (traditional residential form report or consulting report).

Step #	Description	Information Sources	High Risk?
1	<b>Assess Flood Exposure</b> -Research past flood events and document current exposure	<b>Online Search</b> - Media coverage, provincial, municipal, conservation authority (Ontario) websites of flood events, maps showing locations of low elevation areas and areas at high risk of flooding and erosion. <b>Onsite Observations</b> - Low-lying property with close proximity to lake, ocean, waterbody, or in low-lying area of neighbourhood (e.g. at base of an escarpment, bottom of hill)	<b>Online Search</b> - indicates past flood event or located in high risk zone? Y/N  <b>Onsite Observations</b> - indicate subject property in low lying areas? Y/N
2	<b>Assess Vulnerability</b> -Research past flood events and document current exposure	<b>Onsite Observations of Present Condition</b> - Condition of walls, doors, foundation, lot (erosion), air quality (damp, musty smell) <b>Note Building Type and Finishes</b> - Crawl space/ basement, below grade windows or doors, finished below grade space	<b>Onsite Observation</b> - Evidence of past water damage? Y/N <b>Building Type and Finished</b> - Presence of basement/crawl space, below grade windows or doors, finished below grade space Y/N
3	<b>Integrate Flood Risks into Appraisal</b>	Document whether or not the subject property exhibits high exposure and/or high vulnerability to flood damage and if any resilience measures are in place that reduce vulnerability to flood damage  Document whether there are signs/evidence that the subject property was subject to a flood.	If yes, where possible, select recent comparables) from within the high-risk zone that was documented during Step 1 or a property that was subject to a flood

More information and resources on this guidance can be found in the full Professional Excellence Bulletin (below).



# Integrating Flood Risks into Property Appraisals

# Integrating Flood Risks into Property Appraisals



As part of the appraisal process, and as per CUSPAP (7.5.1.i), Members must inspect a property and undertake the appropriate research to identify any factors that could affect the property. Specifically, to flood risks, this includes whether the subject property has been flooded in the past (flood history) and its risk of being flooded in the future (its current flood exposure and vulnerability).

Risk is determined by two main factors:

1. How likely it is that damage will occur (Exposure)
2. How much will be damaged if a loss occurs (Vulnerability)

Reducing risk can be accomplished by:

1. Reducing the likelihood that damage will occur (Exposure)
2. Reducing the amount of damage that will occur in the event of a loss (Vulnerability)

The table on the next slide outlines the key steps a simple step-by-step process to integrate flood risks into property appraisals (traditional residential form report or consulting report).

# Integrating Flood Risks into Property Appraisals



## INTEGRATING FLOOD RISK INTO APPRAISALS

Steps	Description	Information Sources	High Risk?
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## 9.0 REAL PROPERTY APPRAISAL STANDARD – COMMENTS



### 9.2 Characteristics of the Property

9.2.3 The characteristics of the property must be adequately described and analyzed.

The Report must include:

9.2.3.i the property identification by civic address and/or legal description or other such specific reference to describe the location of the property and the property type with certainty;

9.2.3.ii the interest to be valued;

9.2.3.iii physical, legal, and economic attributes;

9.2.3.iv any personal property, chattel, trade fixtures, and/or intangible items if included in the value estimate;

9.2.3.v any known or apparent restrictions, easements, encumbrances, leases, reservations, covenants, contracts, declarations judgments, special assessments, ordinances, liens, and/or other item of a similar nature if relevant to the Assignment;

9.2.3.vi consideration of known detrimental conditions; [see 3.20, 3.30]

9.2.3.vii whether the subject property is a fractional interest or a partial holding; and

9.2.3.viii the extent of Inspection of the subject property.



# CUSPAP 2022 - Detrimental Conditions



## 3.20 DETRIMENTAL CONDITION:

An issue or condition that may cause a decrease in value including:

General

Transactional

Distress and sociological

Legal

External

Building and manufacturing

Site and infrastructure

Environmental and biomedical

Conservation; and/or

Natural and climate

## 3.30 Forced Sale Value:

A Forced Sale Value occurs in a situation where:

- The seller is under compulsion to sell (and may be an unwilling seller);
- Consummation of the sale is within a short period of time; and
- Normal Marketing Time is not possible due to a brief Exposure Time.

A forced sale is a description of the situation under which a sales takes place, resulting in a value that does not fully meet the definition of Market Value.

May also be referred to as: “liquidation value”, “distressed sale” or “power of sale”.

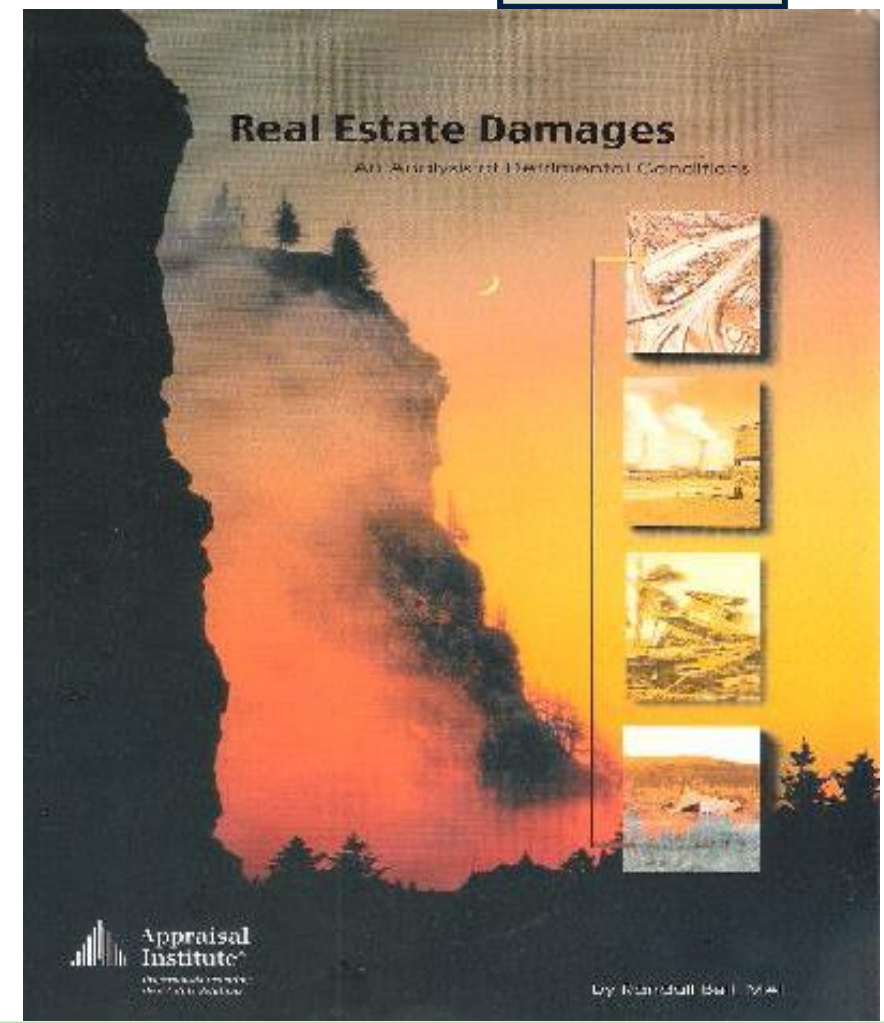
# Detrimental Conditions - Randell Bell



THE BELL CHART  
TYPES OF DETRIMENTAL CONDITIONS

DC Class	Name	Description
I	<b>General Conditions</b>	<b>Baseline description and general market issues</b> – Real estate, franchise, business, FF&E, goodwill, personal property, products, services, etc.
II	<b>Transactional Conditions</b>	<b>Unique sales or transfer issues</b> – Motivation, option, assemblage, distress, financing, bankruptcy, foreclosure, etc.
III	<b>Distress and Sociological Conditions</b>	<b>Human loss and tragedy issues</b> – Crime, war, terrorism, accident, car crash, air disaster, train derailment, shipwreck, death, disability, illness, injury, etc.
IV	<b>Legal Conditions</b>	<b>Legal issues</b> – Eminent domain, contract, tort, insurance claim, title, lot line, CC&R, lien, bond, lease, historic, moratorium, zoning, easement, etc.
V	<b>External Conditions</b>	<b>Neighborhood issues</b> – Nuisance, proximity, noise, odor, hazard, power lines, airport, privacy, view, etc.
VI	<b>Building and Manufacturing Conditions</b>	<b>Construction, equipment, and mechanical issues</b> Defects, engineering, repairs required, design, code, architecture, infestation, regulations, permits, etc.
VII	<b>Site and Infrastructure Conditions</b>	<b>Soils, geotechnical, and right-of-way issues</b> – Drainage, grading, fill, cracking, subsidence, slides, roads, corrosive soils, compaction, groundwater, utilities, etc.
VIII	<b>Environmental and Biomedical Conditions</b>	<b>Contamination, health, and toxicity issues</b> – Spills, hazmat, asbestos (1979), lead paint (1978), mold, radioactive, metals, solvents, biological, hydrocarbons, plague, epidemic, etc.
IX	<b>Conservation Conditions</b>	<b>Cultural and natural resource issues</b> – Habitat, endangered species, natural and cultural resources, archaeological, shoreland, wetland, overpopulation, etc.
X	<b>Natural and Climate Conditions</b>	<b>Natural disaster and weather issues</b> – Flood, hurricane, typhoon, wildfire, seismic, volcano, tornado, global warming, tsunami, famine, drought, storms, etc.

Source: Bell, Randall, PhD, MAI, (2020), Real Estate Damages: the Appraisal of Properties Impacted by Detrimental Conditions



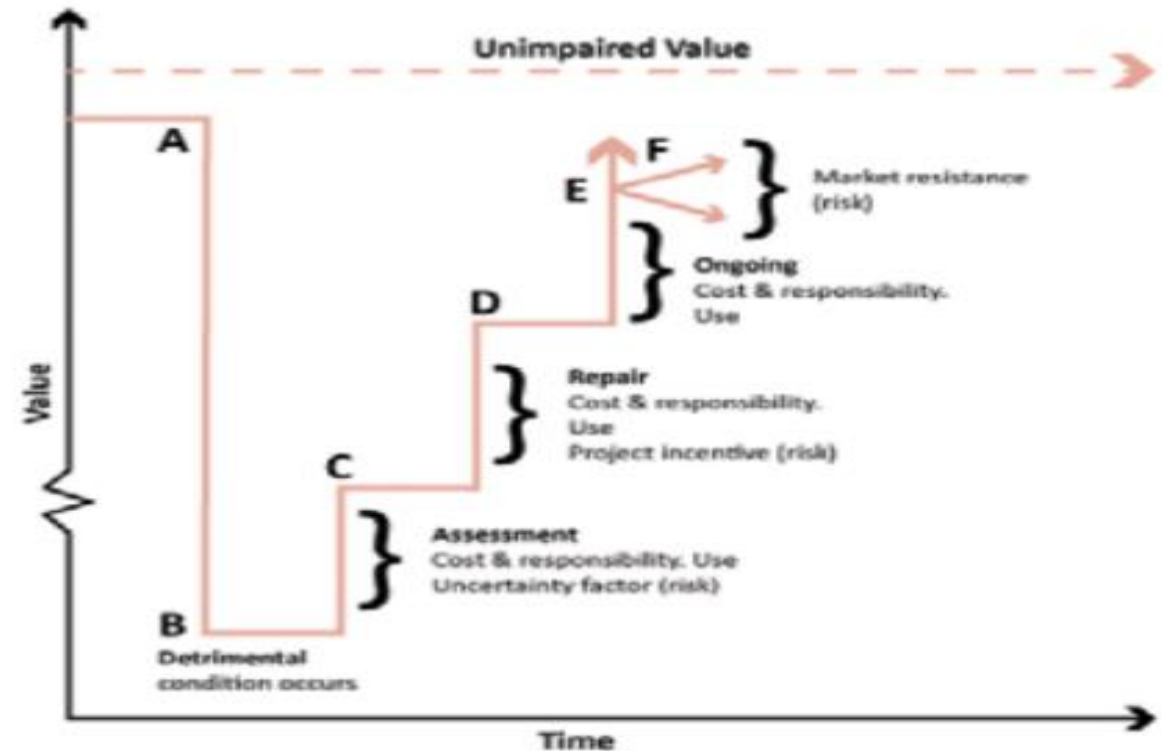
# Detrimental Condition Life Cycle

## DC LIFECYCLE

- There are **three stages** to the lifecycle of a detrimental condition.
  1. the **assessment** (before repair),
  2. **repair** (during repair), and
  3. **ongoing** (after repair).

## • LIFECYCLE CHART

### The Detrimental Condition Model



Source: Bell, Property Owners Manual

# Bell's Detrimental Conditions Model



## DETRIMENTAL CONDITIONS TIME STAGE

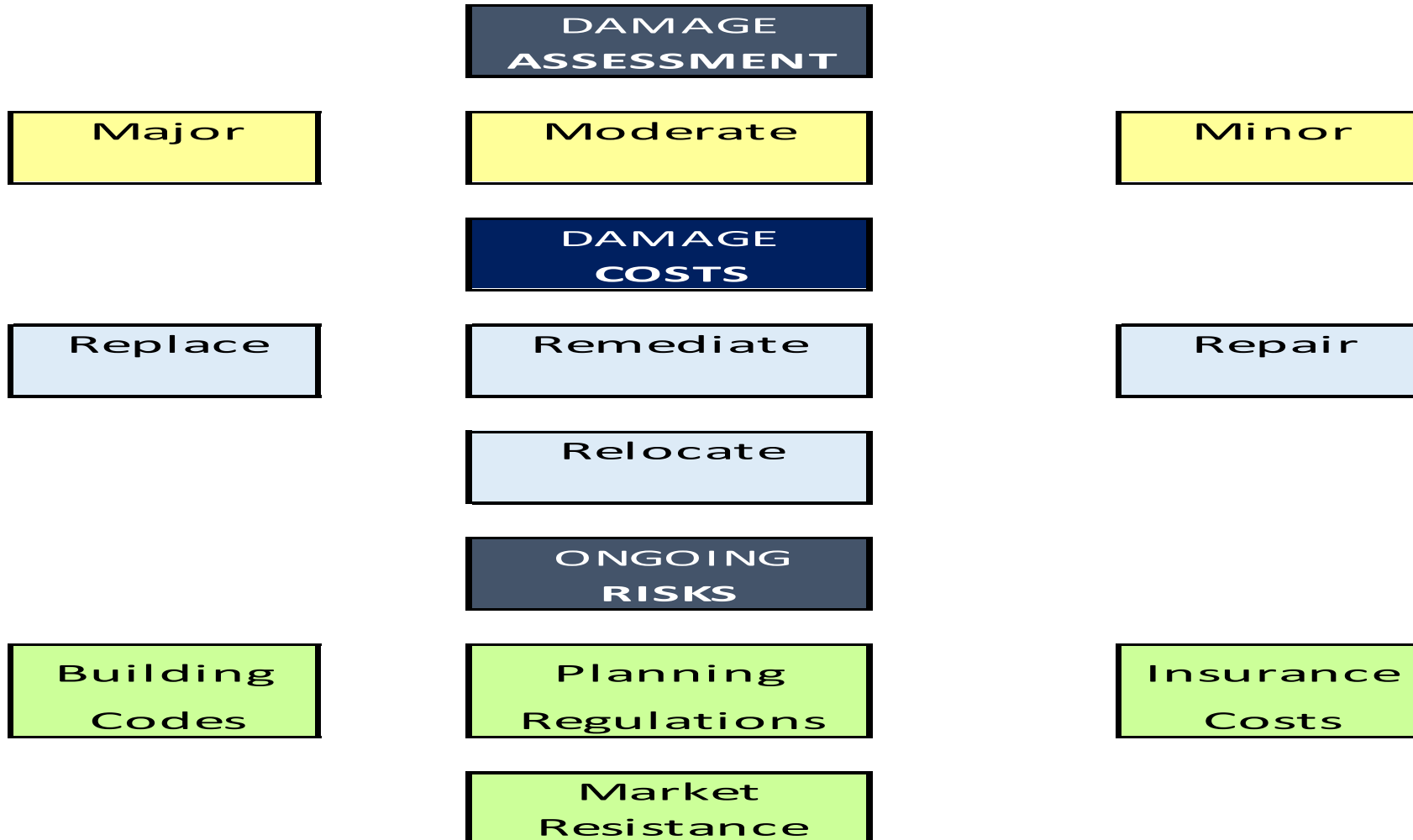
		ASSESSMENT	REPAIR	ON-GOING
<b>DETRIMENTAL</b>	<b>COSTS</b>	Assess Damages & Responsibility  Severe Moderate Minor	Repair Costs & Responsibility  Demolition & Repair Contingencies	On-going costs Infrastructure damages  Higher costs due to New Building Codes
	<b>USES</b>	All loss of utility while assessed  Disruptions Safety Concerns Temporary housing	All loss of utility while repaired  Income loss Expense increase Use restrictions	Ongoing disruptions Limitations on  highest & best use Planning Limitations
	<b>RISK</b>	Uncertainty factor  Discount if any If extent of damage is unknown	Insured or not  EMO or other assistance Financial incentives if any to complete repairs	Market resistance  Residual resistance if any due to situation



# Natural Disaster Model



## DETRIMENTAL CONDITIONS



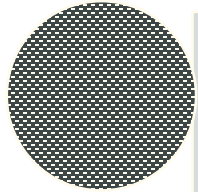
# Audience Participation



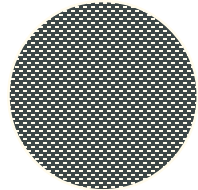
What are some of the practical problems that assessors/valuers face when dealing with these situations?



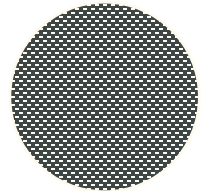
# Dealing with Property Valuation – Mass Appraisal



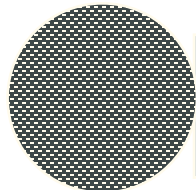
Large number of properties to deal with in a short timeframe



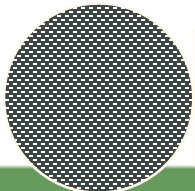
Limited amount of data – not on all affected



Owners looking for immediate relief of taxes



Timing of revaluations



New construction – revised valuations

# Property Assessment Valuations



## Challenges

Lack of data  
will limit  
accuracy

Should always  
be tested to  
market i.e.,  
sales, rents –  
if available

Need to  
monitor  
construction  
progress to add  
valuations back  
to assessment  
roll

Adjustments  
are for quick  
remedy and  
relief for  
owners  
affected



# Direct Comparison Approach

## Basic Residential Example

### Before Disaster

	Component	Value
	Land	\$125,000
	Improvements	\$375,000
	<b>Total</b>	<b>\$500,000</b>

### After Disaster

a. Part destroyed (20% loss in use) but home still habitable

	Component	Value
	Land	\$125,000
	Improvements	\$300,000
	<b>Total</b>	<b>\$425,000</b>

b. Part destroyed (40% loss in use) but home still habitable

	Component	Value
	Land	\$125,000
	Improvements	\$225,000
	<b>Total</b>	<b>\$350,000</b>

c. Part destroyed (60% loss in use) but home uninhabitable

	Component	Value
	Land	\$125,000
	Improvements	\$0
	<b>Total</b>	<b>\$125,000</b>

d. Completely destroyed

	Component	Value
	Land	\$125,000
	Improvements	\$0
	<b>Total</b>	<b>\$125,000</b>

- Based on percentage of improvement destroyed
- Could be argued that land is worth less now it is uninhabitable

# Income Approach

Retail store valued using the income approach has a total valuation of \$3,352,000. The natural disaster affected a portion of the property and business was halted for a period of two months.



## BEFORE

Retail Store  
20,000 sq.ft.

### Valuation:

Potential Gross Income \$260,000  
Vacancy and Collection Loss -5%  
Effective Gross Income \$247,000  
Non-Recoverable Expense -5%  
Net Operating Income \$235,650  
Capitalization rate 7%  
Total Property Valuation \$3,352,000

### Remedy:

In its simplest form, the potential gross revenue can be adjusted to account for the loss in revenue due to a closure for two months. Each month of closure results in a decline in revenues of \$21,667. As the scenario represents a relatively short-term, adjusting revenues may suffice for the closed period. The resulting downward adjustment to overall property valuation is 16.67%

## AFTER

Closed 2 months

### Two-month closure

### Valuation:

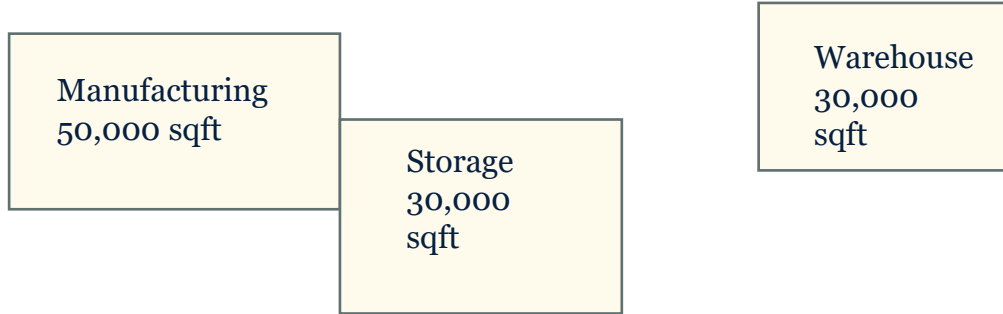
Potential Gross Income \$216,667  
Vacancy and Collection Loss -5%  
Effective Gross Income \$205,833  
Non-Recoverable Expense -5%  
Net Operating Income \$195,542  
Capitalization rate 7%  
Total Property Valuation \$2,793,000

# COST Approach



Industrial property valued using the cost approach has a land and building total valuation of \$1,500,000. After the natural disaster damage to the manufacturing building has amounted to 50% loss in utility.

## BEFORE

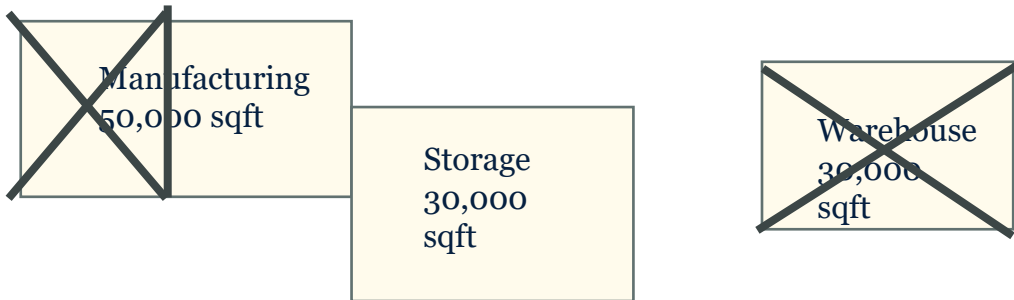


Valuation: Land valuation = \$300,000

Building valuation = \$1,200,000  
Manufacturing = \$500,000  
Storage = \$500,000  
Warehouse = \$200,000

Total Property Valuation = \$1,500,000

## AFTER



Valuation: Land valuation = \$300,000

Building valuation = \$750,000  
Manufacturing = \$250,000 (removal of 50% of sqft)  
~~Storage = \$500,000~~  
Warehouse = \$200,000

Total Property Valuation = \$1,050,000

50% improvement loss on manufacturing and warehouse destroyed

# Income Approach



## RESIDENTIAL RENTAL PROPERTY

### PRE-DISASTER INCOME

TOTAL UNITS	PERIOD UNITS	GROSS MONTHLY	ANNUAL INCOME
6	12	\$2,200	\$158,400

### IMPACTED AREA

TOTAL UNITS	PERIOD UNITS	GROSS MONTHLY	ANNUAL INCOME
3	12	\$2,200	\$79,200
		UNITS AFFECTED	50%

### IMPACTED PERIOD

TOTAL UNITS	PERIOD UNITS	GROSS MONTHLY	ANNUAL INCOME
3	3	\$2,200	\$19,800
		INCOME LOSS	13%

### REPAIR COST

AFFECTED UNITS	UNIT SIZE	COST PER SQFT	TOTAL COST
3	850	\$200	\$510,000

# Income Approach



In the following example the impact was partial in that only 5,500 square feet out of a total of 15,500 square feet were affected by the natural disaster. The repairs were completed within a 3-month timeframe.

COMMERCIAL RENTAL PROPERTY				
PRE-DISASTER INCOME				
TOTAL AREA	PERIOD MONTHS	NET RENT	RECOVERY INCOME	TOTAL INCOME
15,500	12	\$301,200	\$190,980	\$492,180
IMPACTED AREA				
TOTAL AREA	PERIOD MONTHS	NET RENT	RECOVERY INCOME	TOTAL INCOME
5,500	12	\$106,877	\$67,767	\$174,645
		AREA AFFECTED		35%
IMPACTED PERIOD				
TOTAL AREA	PERIOD MONTHS	NET RENT	RECOVERY INCOME	TOTAL INCOME
5,500	3	\$26,719	\$16,942	\$43,661
		INCOME LOSS		9%
REPAIR COST				
AFFECTED AREA	COST NEW PER SQ FT	REPAIR COST	OVERALL COST	
5,500	\$173.50	100%	\$954,250	

Estimates from local construction firms indicate that damage repairs costs on average are \$945,250 or \$173 per square foot for the area.



# Continued from previous example



			NORMAL	IMPACT	RESIDUAL
<b>REVENUE</b>					
Total Revenue Stabilized in 2023			\$492,180	\$43,661	\$448,519
Vacancy		5.00%	\$24,609	\$16,942	\$7,667
Effective Gross Income			\$467,571	\$60,603	\$406,968
<b>EXPENSES</b>					
Total Operating Expenses			\$98,982	\$98,982	\$98,982
Less Management Fees		3.00%	\$14,027	\$14,027	\$14,027
Total Expenses			\$113,009	\$113,009	\$113,009
Less Structural Reserve		2.00%	\$9,351	\$9,351	\$9,351
Total Outgoings			\$122,360	\$122,360	\$122,360
Net Operating Income			\$345,211	\$345,211	\$284,608
<b>MARKET VALUE</b>					
Value Capitalized @		5.00%	\$6,904,220		\$5,692,160
		5.50%	\$6,276,564		\$5,174,691
		5.75%	\$6,003,670		\$4,949,704
		6.00%	\$5,753,517		\$4,743,467
		average	\$6,234,492		\$5,140,005
<b>REPAIR COSTS</b>					
REPAIR COSTS	5,500 sq.ft.		\$173.50		\$954,250
<b>MEDIUM TERM IMPACT</b>				rounded	\$4,185,750

# Income Approach



## HOTEL PROPERTY

### PRE-DISASTER INCOME

TOTAL ROOMS	PERIOD DAYS	AVERAGE ROOM RATE	OCCUPANCY RATE	REV PAR
120	365	\$200	60%	\$43,800
<b>IMPACTED AREA</b>				
TOTAL ROOMS	PERIOD DAYS	AVERAGE ROOM RATE	OCCUPANCY RATE	REV PAR
20	365	\$200	60%	\$43,800
			<b>ROOMS AFFECTED</b>	<b>17%</b>
<b>IMPACTED PERIOD</b>				
TOTAL ROOMS	PERIOD DAYS	AVERAGE ROOM RATE	OCCUPANCY RATE	REV PAR
20	121	\$200	60%	\$14,520
			<b>INCOME LOSS</b>	<b>33%</b>
<b>REPAIR COST</b>				
AFFECTED ROOMS	SQUARE FOOT ROOM	COST NEW SQ FT	REPAIR COST	OVERALL COST
20	500	\$500	\$250	\$2,500,000

# Property Assessment – Best Practices



- Dedicated task force
- Improved data collection systems
- Working collaboratively with local and federal government

- Continuous monitoring of market activity
- Adoption of standard data collection forms/questionnaires
- Increased online presence

# Conclusions and Recommendations



- Valuation approaches
  - 3 approaches to value are still universally applicable
- Sales comparison approach in limited market
  - a lack of market transactions can make this approach challenging
- Utilizing percentage adjustment
  - viable alternative for adjusting property values – especially for partially destroyed properties
- Cost Approach for severely damaged properties
  - In cases where a property is severely damaged, determining a cost to cure value – the cost to restore the property to its pre-disaster condition – is the preferred approach.





# Conclusions and Recommendations



- **Impaired vs Unimpaired Valuation**
  - adopt a three-stage approach to monitoring property values, similar to Randall Bell's methodology.
- **Data accessibility and accuracy**
  - any approach depends on the availability of accurate and up-to-date data.
- **Flexibility and fairness are key principles**
  - Adjusting the assessed values of affected properties post-disaster should prioritize fairness. Property owners who have suffered damage should not be unduly burdened by excessive taxes, particularly during the time that their properties are impaired.
- **Effective communication with property owners**
  - is paramount during the post-disaster valuation review process and in the preparation of a reassessment.





# Conclusions and Recommendations



- Utilize questionnaires for data collection
  - questionnaires can include requests for property condition updates, damage assessments, and other relevant documentation
- Diminution in value and market recovery
  - occurs when a natural disaster strikes, impacting property values due to damage and uncertainty. However, it is important to recognize that, as markets gradually return to stability and confidence is restored, property values may not only recover but also surpass their pre-disaster levels.
- Floods vs other natural disasters
  - predictability and mapping of certain natural disasters, like flooding, can significantly aid assessors in identifying properties and areas at higher risk



# Moving Forward – Discussion Points



- Are we capturing the correct data?  
(Adaptation of information collection)
  - reoccurrence
  - proximities
  - costal water levels
  - land erosion
- Are our sale investigations sufficient?
- Do we have the proper technology in place?
  - use of aerial imagery
  - change detection software
  - use of drones
  - mapping

Lasting impact on property values???



# Question Time



# Contact Information



John Watling MRICS, M.I.M.A.  
Director, International Property Tax Institute  
(IPTI)  
[jwatling@ipti.org](mailto:jwatling@ipti.org)