

# AFTER THE FLOOD

## Caring for Alberta's Flood-Damaged Historic Buildings

A Presentation to the Calgary Heritage Roundtable, July 25, 2013  
Eileen Fletcher, Heritage Conservation Advisor,  
Historic Resources Management Branch, Alberta Culture

# Caring for Alberta's Flood-Damaged Historic Buildings

## ▶ Applying Conservation Principles

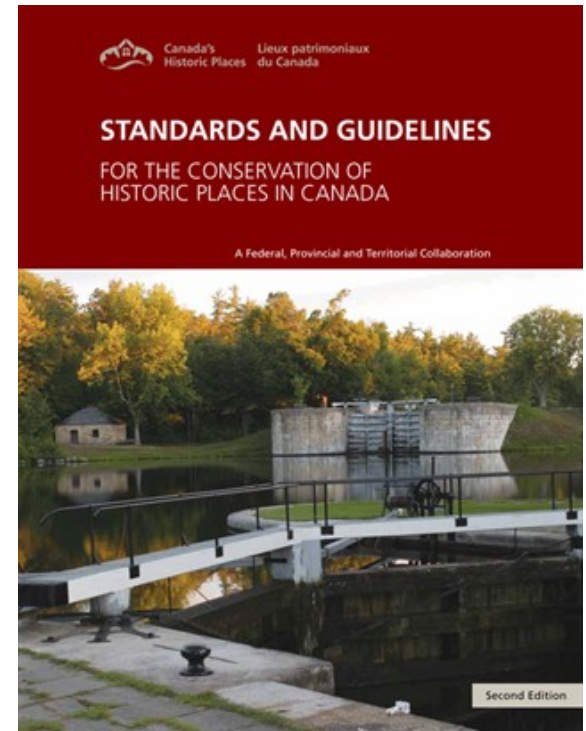
- Understand
- Plan
- Intervene

## ▶ Key Issues

- Cleaning and Drying
- Sandstone
- Biological growth

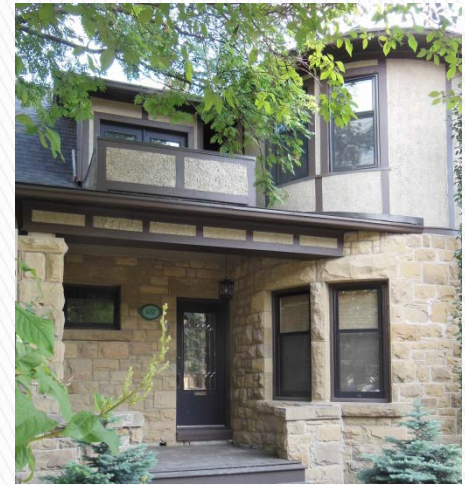
## ▶ Timelines for Recovery

- Signs of Trouble



# Applying Conservation Principles

- ▶ Understand the historic place
  - Document the condition of character defining elements
- ▶ Plan the conservation work
  - Identify appropriate interventions
- ▶ Implement the interventions
  - stabilize before repair or replacement



# Key Issue – Cleaning and Drying

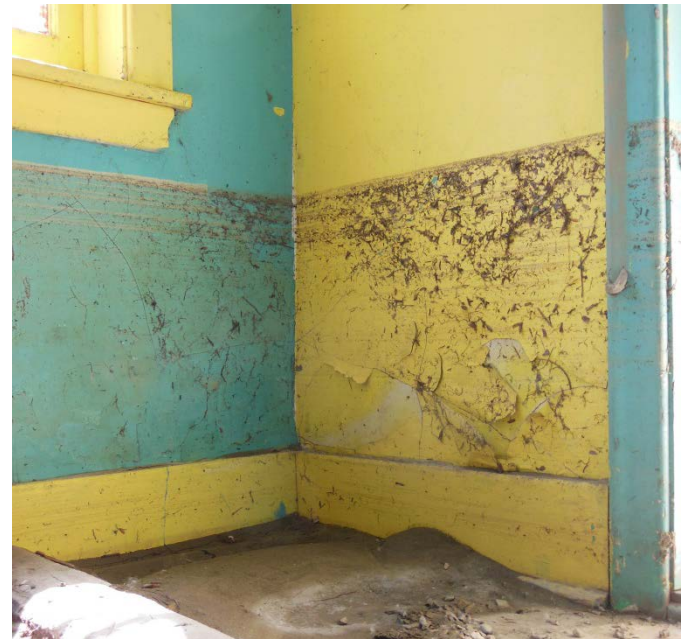
## ▶ Principle: Historic materials are resilient

- Retain historic material
- Remove moisture reservoirs
- Clean gently
- Dry slowly



# Key Issue – Cleaning

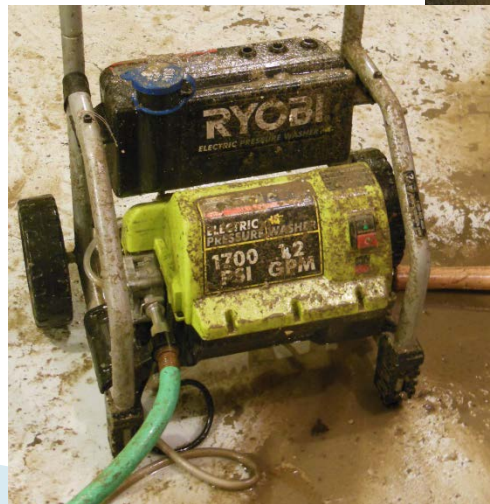
- ▶ Principle: Use gentlest approach possible
  - Do:
    - Clean only when necessary
    - Test and observe
    - Aim for 85% clean
  - Try:
    - Cold water washing
    - Non-ionic detergents (Joy)
  - Tools
    - Natural bristle brushes
    - Wood or plastic spatulas
  - Don't :
    - Clean if the substrate will be damaged



# Key Issue – Cleaning Sandstone

## ▶ Paskapoo Sandstone is Calcareous (chalky)

- Do:
  - Test a small area in situ
  - Evaluate, then re-evaluate after several weeks
- Try:
  - Cold water washing (less than 300 psi)
  - Soft bristle brushing
- Not acceptable:
  - High pressure washing
  - Acidic cleaners
  - Metal or wire tools



# Key Issue – Cleaning and Drying Wood

- ▶ Wood may take several months to dry

**Goal: 15 – 20 % moisture content**



- Clean mold and mildew:
  - Wash with weak solution of Clorox and water
  - Remain on mold alert
- Encourage air circulation:
  - Remove vapour barriers, vinyl or linoleum flooring
  - Open windows and doors
  - Install window fans



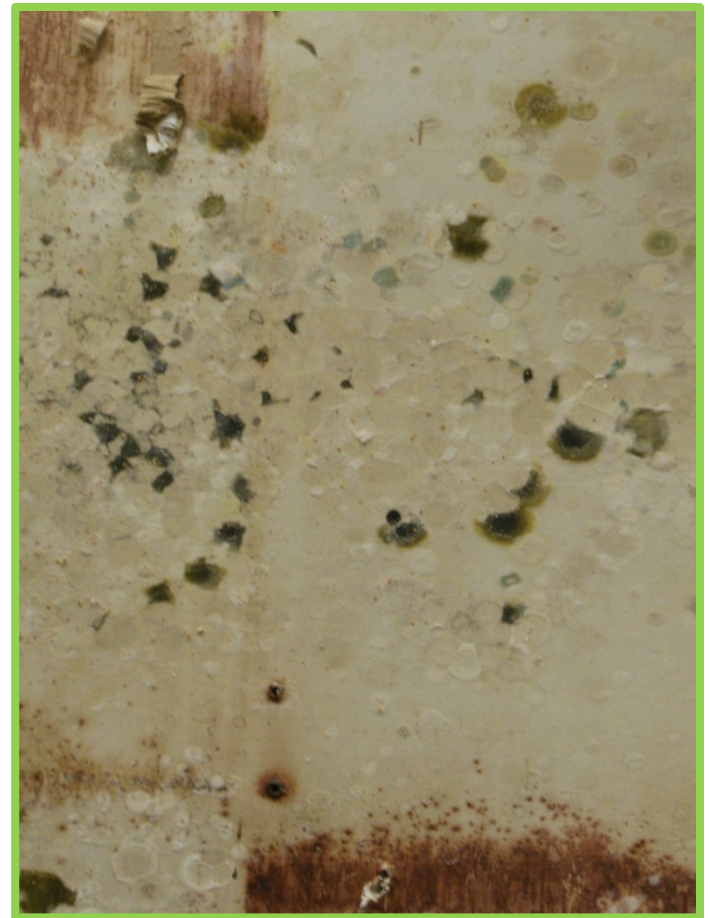
**Search for hidden moisture**

- ✓ Promote air circulation
- ✓ Drain wall cavities

# Key Issue – Biological Growth

## Bacteria, Fungi, Mould, Mildew, Rot

- Remove contributing factors:
  - Food – drywall, paper, cardboard, fibreboard, wet insulation, non-historic wood
  - Moisture – less than 50% RH
  - Spores – scrub, filter, vacuum





# Timelines for Recovery

- **September 2013:**
  - **Moisture levels stable**
- **Fall 2013**
  - **Assess condition**
  - **Plan interventions**
- **Winter 2013–2014**
  - **Keep foundations dry and/or warm**
- **Spring through Fall 2014**
  - **Implement interventions**



# Signs of Trouble

- Foundation erosion
- Masonry cracking
- Mortar loss
- Heaving floor slabs
- Rot in structural posts
- Bulging plaster
- Ongoing basement water

## Sandstone issues:

- Scoured or carved stones
- Extensive blistering
- Exfoliation
- Powdering





# More Information

## **RETROactive**

Blogging Alberta's Historic Places

Alberta Culture – Heritage Division

<http://albertahistoricplaces.wordpress.com>

## **Canada's Historic Places**

Standards and Guidelines for the  
Conservation of Historic Places in Canada

<http://www.historicplaces.ca>