

# OMA Learning Lab Summer Series

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**Presented by:**



**Webinar 6: Emergency and Disaster Plans  
and Maintenance Manuals**

**August 22<sup>nd</sup>, 2013**

# Webinar Agenda

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- **Introduction**
  - Mary Collier, PD Program Manager, OMA
- **Presentation and Q&A (55 min)**
  - Bill Nesbitt, Museum Supervisor, Oakville Museum
- **Q&A with Ministry of Tourism, Culture and Sport (15 min)**
  - Museum & Heritage Advisor
  - Questions about the Ministry of Tourism Culture and Sport Physical Plant standard

# Maintenance And Emergency Planning for Museums



Ontario Museum  
Association Webinar  
with  
Bill Nesbitt, Museum  
Supervisor, Oakville  
Museum at the Erchless  
Estate

# Why have an Emergency Plan?

- Responsibility for public, staff, collections and public and heritage buildings
- To **anticipate** potential threats
- To **eliminate**, reduce or mitigate as many threats as possible
- To **prepare** for those that can't be eliminated
- To plan for **recovery** after the emergency
- Legislation and regulation



# Why have a Maintenance Plan?

- Responsibility for public, staff, collections and public and heritage buildings
- To **anticipate** potential threats
- To **eliminate**, reduce or mitigate as many threats as possible
- To manage budget responsibly
- To document changes over time
- Legislation and regulation



# Two for One!

- Maintenance and Emergency Plans share many of the same goals, and preparing them at the same time or combining them can save much duplication of effort.
- Most “emergencies” encountered in our museums are not emergencies at all, but could be prevented or mitigated by good inspection and maintenance routines.

# Emergency & Maintenance

## Planning: Minimum Basic Components

- Survey of threats-**internal** & **external**
- Inspection routines
- Maintenance schedules
- Emergency team
- Emergency procedures
- Emergency supplies and services
- Recovery procedures
- Training
- Regular updates

# Survey of Threats- internal & external

<b>WATER</b>	
Located on flood plain	external
Water pipes in ceilings	internal
Damaged/clogged/disconnected downspouts	internal
Damaged shingles, flashing	internal
Improper grading around building etc...	internal

<b>FIRE</b>	
Lightning	external
Defective wiring	internal
Film crews	internal
Demonstrations: blacksmithing, re-enactments, steam engines, etc.	internal
Construction/restoration project	internal
Hazardous material in collection (e.g. nitrate film) etc....	internal

<b>EXPLOSION</b>	
Gas heating	both
Artefacts: explosives, dynamite, cartridges, nitrate film, hand grenades	internal
Bomb threats, terrorism etc....	external

<b>MEDICAL</b>	
Heart attacks other medical conditions	external
Falls, slips, tripping	internal
Hazardous materials	
Demonstrations: blacksmithing, saw mill operations, etc.	internal
Workshops: saws, tools, chain saws	internal
Program/craft activities	internal
Large scale events etc....	internal

<b>THEFT AND VANDALISM</b>	
Remote locations	external
Seasonal operations	internal
Shrubs, trees-good cover	internal
Poor lighting	internal
Poor key control – staff or volunteer turnover	internal
Poor lock up procedures or training	internal
Rentals, alcohol etc....	both



# Inspection Routines



- Make inspections part of schedule (daily, weekly, etc.).
- Assign responsibility and train inspectors.
- Use standard templates to ensure consistency and create a long-term record.
- Have a system to ensure follow-up.
- Look at neighbourhood, grounds, interior, exterior and systems.
- Inspections are good for emergency preparedness, maintenance and health and safety purposes.

## Basic Maintenance & Hazard Survey

Name of Building: \_\_\_\_\_

Date of Inspection: \_\_\_\_\_

Weather Conditions: \_\_\_\_\_

Inspection conducted by: \_\_\_\_\_

### Building Site

*Inspect the area around your buildings.*

- ❖ *Generally, is the site well maintained, and free of debris, hazards, etc?*
- ❖ *Do adjacent surfaces slope away from foundations for proper drainage?*
- ❖ *Do trees or shrubs rub on buildings, provide shelter or access for pests, impede proper ventilation, or offer concealment for vandals or burglars?*
- ❖ *Are walls, fences and gates in good repair? Are all service connections such as hydro, telephone etc. in good repair and properly sealed at entry points?*
- ❖ *Are all paved and walking surfaces in good condition, and free of obstructions?*
- ❖ *Are directional and regulatory signs in place and legible?*

Building Component	Acceptable Yes/No	Condition & Action Required (include timeline for implementation)	Date Action Completed
General			
Slopes for drainage			
Vegetation			
Fences, gates			
Service			
Roads, parking			
Pathways			

# Maintenance Schedules

- Most “emergencies” are a result of inadequate inspection and maintenance.
- Make maintenance part of schedule (daily, weekly, quarterly, semi-annual, annual, etc.)
- Assign responsibility and train appropriately.
- Use checklists to ensure consistency and create a long-term record.
- Have a system to ensure follow-up.
- Plan well in advance for major maintenance.



## Museum Building Conservation Plan

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### **SAMPLE MAINTENANCE SCHEDULE** (courtesy City of Guelph Museums)

Assistant Curator completes the following maintenance schedule. However, the larger inspections (e.g. Annual) may be completed with the help of other staff and the Property Manager of the City.

#### **Daily Maintenance**

- Do a quick Visual Check of the building exterior and interior to notice if anything is out of place or damaged.

#### **Weekly Maintenance**

- Check bathrooms to refill supplies (Assistant Curator and Administrative Assistant)
- Dust artefacts in the galleries; check for lost or damaged artefacts (Assistant Curator only)
- Put garbage out on Tuesday mornings.

#### **Monthly Maintenance**

- Test the security system to make sure that dispatch is reading our signal
- Change the hygrothermographs
- Check the fire extinguishers
- Test the emergency lights

#### **Quarterly Maintenance (Every Three Months)**

- Change the furnace filter
- Check areas of weakness for leaks or further deterioration

#### **Semi-Annual Maintenance (Every Six Months)**

- Check and clean all eaves troughs, outlets, and downspouts for leaves, pigeon droppings, etc. (Spring and Fall)
- Check and clean all flat roof outlets for the same debris as above
- Check and clear all catch basin gratings in parking lots and grassed areas
- Check the operation of heating cables to eaves troughs and downspouts (fall only)

## **Museum Building Conservation Plan**

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### **Quinquennial Maintenance (once Every Five Years)**

A restoration architect should inspect the building for:

- Any structural defects
- Review the on going maintenance reports and draw attention to any long term problems that require long term monitoring

Staff should:

- Review the maintenance plan and assess standards for the building
- Determine the state of and need for internal refinishing, external refinishing
- Examine voids and crawl spaces for decay
- Inspect electrical equipment and mechanical equipment noting any replacements required
- Coordinate all proposed work with evolving understanding of history, interpretation and use as required

# Emergency Response Team



- Team should be created and trained before there is an emergency.
- Members should have clear roles.
- Should meet at least once a year to update plan and train.
- Can include staff, volunteers, and outside specialists.
- Basic team should include:
  - Emergency Leader:  
*Takes overall charge of emergency situation.*
  - Assistant Emergency Leader:  
*Assists Emergency leader in decision making.*
  - Volunteer Coordinator:  
*Coordinates scheduling of volunteers.*
  - Recovery Coordinator:  
*Directs recovery operations.*
  - Recorder:  
*Receives and records information*

# Emergency Procedures



- Have a procedure for every identified emergency (fire, storm, flood, medical, theft, etc.)
- People come first!
- All staff and volunteers must have access to plan and training.
- Emergency “flip charts” are useful.

# Emergency Supplies and Services



- You don't have time to look for supplies and services in an emergency.
- Research local service providers, and update list regularly.
- Create an inventory of emergency supplies.
- Maintain the inventory!
- Consider cooperative approach with other local institutions.
- Assemble & “seal” emergency supply carts.



## Emergency Supplies Inventory

Item	Number	On hand? (check)	Location	Date last checked
Emergency Response & Salvage Wheel				
sump pump				
nylon cord				
rechargeable flashlight				
extension cords				
electric space heater				
portable fans				
rain suits				
caution tape (rolls)				
hardhats				
clipboards & pads				
packing tape				
permanent markers				
pens				
utility knife				
polyethylene sheeting (rolls)				
spray bottle				
file boxes				
plastic tote boxes				
shop vac (wet/dry)				
mop				
sponges				
buckets				
garbage bags				
dust masks				
rubber gloves				
parcel twine				
disposable cameras				
clothes pins				
Lysol				
hair dryer				
nylon window screen (rolls)				
newsprint				
butcher paper				
blotter paper				
beach towels				

Disaster Supplies/Services	Supplier Contact Information	Date last contacted	Contacted by:
1. Conservation Services	Canadian Conservation Institute 1030 Innes Road, Ottawa, ON, K1A 0C8 Tel. 613 998-3721 Fax. 613 998-4721		
2. Commercial Freezers			
3. Freezer Trucks			
4. Smoke and Soot Cleaning/ Building & materials			
5. Dehumidification/ Building			
6. Vacuum/Thermal Drying			
7. Vacuum/Freeze Drying			
8. Fumigation / Building & materials			
9. Photographic Processing			
10. Pest Control			
11. Computer Data Recovery			
12. Industrial Equipment Rental (generators, pumps, fork lifts, etc.)			
13. Janitorial Supplies			
Packing materials (newsprint, tape, freezer paper, boxes, etc.)			

# Recovery Procedures



- Takes effect when emergency officials give all-clear.
- Not a replacement for professional conservation services.
- Goal is to stabilise situation and minimize damage until you have time to deal with it.
- There are good templates available.

# Training



- All staff and volunteers should be aware of plan and Emergency Response Team.
- Must be regular, scheduled training on emergency response, evacuation, and disaster recovery.
- Local emergency services and municipalities can be very helpful.
- Consider co-operative regional training days.

# Regular Updates

- Emergency and Maintenance Plans are living documents.
- They must be updated regularly, and when there are changes to staff, suppliers, equipment etc.
- Emergency Response Team should meet annually to review the Emergency Plan.
- Emergency Response Team Leader responsible for updates and distribution of Emergency Plan.
- Old plans must be retired.

## **Museum Building Conservation Plan**

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**Sample Outline** (courtesy of City of Guelph Museums)

### **Building Conservation Plan**

1. **Introduction**
2. **Commemorative Integrity Statement/Statement of Purpose**
3. **Contacts**
  - Staff
  - City Contacts
  - Ambulance
  - Cold Storage
  - Conservators
  - Electrician
  - Elevator
  - Fire Alarm
  - Fire Department
  - Gas
  - Heating / Air Conditioning
  - Pest Control Agent
  - Plumber
  - Police Department
  - Power
  - Security Company
  - Sprinklers
  - Telephone
4. **Building Plans**
5. **Building Exterior Maintenance**
  - 5.1 Foundation maintenance / repairs
  - 5.2 Wall maintenance / repairs
  - 5.3 Roof maintenance / repairs
  - 5.4 Window and Door maintenance / repairs
  - 5.5 Exterior Signage maintenance / repairs

## Museum Building Conservation Plan

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5.6 Grounds maintenance

5.7 Paint Chips and Paint Schedule

5.8 Appendices

### 6. Main Building Interior Maintenance

6.1 Wall maintenance / repairs

6.2 Ceiling maintenance / repairs

6.3 Floor / carpet maintenance

6.4 Window maintenance / repairs

6.5 Cleaning services

6.6 Exhibition Maintenance and schedule

6.7 Paint Chips schedule

6.8 Washrooms

6.9 Appendices

➤ Record of repairs and painting

### 7. Electrical

7.1 Electrical Plans

7.2 Electrician Contacts

7.3 Electrical service description

7.4 Instructions for power shut-off

7.5 Appendices

➤ Record of previous repairs

### 8. Plumbing

8.1 Plumbing Plans

8.2 Plumber Contacts

8.3 Areas of potential risk

8.4 Instructions for water shut-off

8.5 Appendices

➤ Record of previous repairs

### 9. HVAC

9.1 HVAC Plans

9.2 HVAC Contacts

## Museum Building Conservation Plan

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9.3 HVAC description of equipment

9.4 HVAC service contract

9.5 Appendices

➤ Record of previous repairs

### 10. Elevator Maintenance

10.1 Elevator Plans

10.2 Elevator Contacts

10.3 Elevator description of equipment

10.4 Appendices

➤ Record of previous servicing / repairs

➤ Maintenance contract purchase order

➤ Service checklist

### 11. Pest Management

11.1 Contacts

11.2 Service Agreement

11.3 Appendices

➤ Service Contract

➤ Service Records

### 12. Security

12.1 Contacts

12.2 Procedure for arming and disarming building

12.3 Testing the security system

12.4 Security equipment description

12.5 Appendices

➤ Record of previous repairs

➤ Record of previous testing

### 13. Lighting

13.1 Suppliers

13.2 Types of lights used in the building

13.3 How to move and adjust track lighting fixtures

## Museum Building Conservation Plan

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### 14. Emergency Materials Maintenance

- 14.1 Map of emergency equipment
- 14.2 Fire extinguisher maintenance
- 14.3 Emergency light maintenance
- 14.4 First aid kit maintenance
- 14.5 Emergency drill training and drill schedule
- 14.6 Appendices
  - Fire extinguisher inspection schedule
  - First aid kit inspection form
  - Blank emergency drill forms
  - Completed emergency drill forms

### 15. Maintenance Schedule (see detail below)

- 15.1 Daily Maintenance
- 15.2 Weekly Maintenance
- 15.3 Monthly Maintenance
- 15.4 Quarterly Maintenance
- 15.5 Semi-annual Maintenance
- 15.6 Annual Maintenance
- 15.7 Quinquennial Checks (every 5 years)

### 16. Inspection Forms

- Exterior
- Exterior Roof
- Exterior Chimney
- Interior: Basement
- Interior: First Floor
- Interior: Second Floor
- Interior: Third Floor
- **Completed Forms**



For electronic templates and sample documents:

[bnesbitt@oakville.ca](mailto:bnesbitt@oakville.ca)

# Questions for your Museum and Heritage Advisor?

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Read the Standards for Community Museums in Ontario at  
[http://www.mtc.gov.on.ca/en/museums/museums\\_standards.shtml](http://www.mtc.gov.on.ca/en/museums/museums_standards.shtml)

Download the Standards Questionnaires at  
[http://www.mtc.gov.on.ca/en/museums/museums\\_reporting.shtml](http://www.mtc.gov.on.ca/en/museums/museums_reporting.shtml)

# What's Next?

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- The link to the recording of this webinar and the workbook will be available on the CMOG Standards Resources page of the OMA website.
- You will receive a link to a short webinar feedback form.
- Thank you for your participation!

# OMA Learning Lab Summer Series

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Conservation 2.0  
& Climate Control:  
What do you really  
need?  
With Fiona  
Graham



What Difference  
Did that  
Program/Exhibit  
Make? With  
Christine Castle



Emergency Plans  
& Maintenance  
Manuals with Bill  
Nesbitt

Accessibility in  
Exhibits with Dave  
Hollands



Deaccessioning with Richard Gerrard

## Thanks for the memories!

**OMAA MO**  
ONTARIO MUSEUM ASSOCIATION  
ASSOCIATION DES MUSÉES DE L'ONTARIO

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**Presented by:**



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