

FORMAT		
1. Name of resource	Fire Risk Assessment for Collections in Museums	
2. Location	https://www.cac-accr.ca/publications/fire-risk-assessment-for-collections-in-museums/	
3. Alternative location		
4. Author[s]	J. Tétreault	
5. Publisher/producer/host	Journal of the Canadian Association for Conservation (J. CAC)	
6. Year	2008	
7. Suggested citation	Tétreault, J. (2008). Fire Risk Assessment for Collections in Museums. Journal of the Canadian Association for Conservation (J. CAC) 33: 3-21, available at https://www.cac-accr.ca/publications/fire-risk-assessment-for-collections-in-museums/	
8. Languages in which available	English	
9. Geographic area resource relates to	Worldwide	
10. Does the resource relate to a specific time frame?	2015-30	
11. Type	Report	Yes
	Toolkit/Framework/Roadmap	
	Sign-post to other resource (database)	
	Case studies	Yes
	Other	
12. If this is part of an initiative, what is the initiative?		
COLLECTIONS AND COLLECTIONS-BASED INSTITUTIONS		
13. Explicit links to collections	Yes	
14. Explicit links to museums/libraries/archives	Yes	
15. Types of institutions the resource covers	Museums	X
	Archives	X
	Libraries	X
	Other	X
16. Does the resource relate to specific disciplines?	Arts, humanities and social sciences: philosophy, psychology, religion, social sciences, law, politics, language, arts and recreation, architecture, literature, history, geography and ethnology, anthropology, archaeology	
	Science, natural history,	X

	technology, medicine, engineering, manufacturing	
17. If no explicit links to collections, justification for inclusion		
HOW IT CONTRIBUTES TO SUSTAINABLE DEVELOPMENT		
18. Collections-related activities the resource relates to (mark all that apply)		
Develop collections to protect and safeguard wider cultural and natural heritage more effectively, and that support sustainable development for example by targeting collecting to threatened forms of heritage in strategic ways		X
Use collections to promote learning and educational opportunities that contribute to sustainable development more effectively , for example education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development and/or skills development relating to collections		
Use collections to promote cultural participation/social inclusion more effectively , for example by reducing barriers to participation, to ensure no-one is 'left behind'		
Use collections to promote sustainable tourism more effectively , for example by developing new products based on local cultural heritage, and/or considering the rights of stakeholder groups in relation to collections		
Use collections to support research that contributes to sustainable development (including all forms of personal and self-directed research at all levels that make use of stored collections) more effectively, for example by providing effective facilities, collections and information to meet researchers' needs		
Make decisions around collections that contribute to sustainable development more effectively		
i. employment (recruiting, staff training, staff safety)		
ii. energy consumption, greenhouse gas emissions, reduction, monitoring and reporting		
iii. waste management and reduction of waste		
iv. transport (forms of transport, energy use)		
v. commercial activities including copyright and IP		
vi. governance and management		X
vii. security, disaster preparedness and risk reduction		X
Direct external leadership, partnerships and collaborations towards sustainable development more effectively , for example by developing impactful partnerships		
19. Does the resource relate clearly to any international conventions (mark all that apply)?		
Culture conventions:		
1952, 71 Protection of Copyright and Neighbouring Rights		
1954 Protection of Cultural Property in the Event of Armed Conflict		
1970 Fighting Against the Illicit Trafficking of Cultural Property		
1972 Protection of the World Cultural and Natural Heritage		X
2001 Protection of the Underwater Cultural Heritage		

2003 Safeguarding of the Intangible Cultural Heritage	
2005 Protection and Promotion of the Diversity of Cultural Expressions	X
Rio Conventions:	
Convention on Biological Diversity (CBD), Convention to Combat Desertification (UNCCD), Framework Convention on Climate Change (UNFCCC)	
AIMS AND CONTENT	
20. What issues does the resource aim to address?	<p>“Loss of collections in museums can be significant during a fire. It is important that museums put control measures in place to prevent a fire, to detect a fire, and to respond quickly if a fire does occur. To evaluate potential collection losses due to fire over a certain period of time, substantial information is required and there is little quantitative data for fires in museums. It was decided to obtain this data by collecting fire museum records from Canadian fire authorities as well as from fire authorities in other countries and by consulting with experts. This project has resulted in establishing fire Control Levels for museums and in creating a set of reference materials to help risk assessors evaluate the potential collection losses due to a fire. According to experts consulted in this study, having an active fire safety committee composed of staff and management is one of the key elements in fire prevention. Such a committee helps promote awareness and identify problems, as well as propose solutions and ensure that these solutions are applied to minimize risk of fire in an institution. For optimal protection, museums are encouraged to have a fire alarm system that is monitored continuously as well as an automatic fire suppression system.” (p.3)</p>
21. Intended audience of resource	[Museum workers]
22. Process of development	<p>[The author would especially like to thank Paul Baril, fire protection advisor, and Robert Marchand, manager, Protection Services at the Canada Science and Technology Museum Corporation, who dedicated many hours of their time to build the database on fire, to develop Control Levels and to contribute to the correlation between the Control Levels and the Likelihood and Consequence of a fire event. Thanks to the fire marshals and fire commissioners in each Canadian province and territory for their kindness in providing data regarding fires in museums. The author also acknowledges the important contribution of Deborah Stewart, from CCI, during the consultation, the development of Control Levels and the revision of this article. Thanks to Tom Strang, Cliff Cook and Joy Patel from CCI. Thanks to Nancy Schwartz and John R. Hall, Assistant Vice President of Fire Analysis & Research Division, from the U.S. National Fire Protection Association for their input and support, and thanks also to Edwina Von Baeyer and David Grattan from CCI for their editing contributions.</p>
23. Organisation/structure/contents	<p>Introduction Risk Assessment Collecting Data on Fire</p>

	Control Levels for Fire Risk Likelihood Consequences Fire Risk Assessment Scenario for a Typical Museum Issues Related to Water-Based Suppression Conclusion Acknowledgements References
FRAMEWORKS	
24. Framework structure	Table 2 presents a series of Control Levels for Fire Prevention and Response, which can be considered as a framework. For each of the five Control Levels, suggested actions are provided under the headings Avoid, Block, Detect, Respond, Training and Procedures
25. Relevant policy considerations	Yes
26. Resources for implementation identified	Yes
27. Specific assessment points/indicators/milestones/action plan for monitoring	Yes
28. ASPECTS OF SUSTAINABILITY COVERED BY RESOURCE (mark all that apply)	
People (social sustainability)	X
Planet (environmental sustainability)	
Prosperity (economic sustainability)	
Peace	X
Partnerships	X
29. CROSS-CUTTING CONSIDERATIONS COVERED BY RESOURCE (mark all that apply)	
Gender perspectives	
North and South perspectives	
HOW THE RESOURCE CONTRIBUTES TO AGENDA 2030 AND THE SDGs	
HOW AGENDA 2030 AND THE SDGs FEATURE IN THE RESOURCE	
30. SDGs and Agenda 2030 specifically mentioned?	No
31. SDGs specifically mentioned?	No
32. SDG targets specifically mentioned?	No
33. SDG indicators specifically mentioned?	No
SDGs AND SDG TARGETS AND LINKAGES	
34. Comments on SDG linkages	The resource can help support action for several SDGs linked to strengthening efforts to protect cultural and natural heritage

	(SDG 11.4), reducing the impact of natural disasters (SDG 11.5), adopting plans for Disaster Risk Reduction (SDG 11.B), and effective, accountable and transparent institutions (SDG 16.6).
35. SDGs and SDG targets the resource helps advance	
SDG 11. Make cities and human settlements inclusive, safe, resilient and sustainable 11.4 Strengthen efforts to protect and safeguard the world's cultural and natural heritage	<p><i>11.4.1 Total expenditure (public and private) per capita spent on the preservation, protection and conservation of all cultural and natural heritage, by type of heritage</i></p> <p>Plans, policies and procedures in place for the safe use of collections for a variety of purposes, protecting and safeguarding both collections and those who use them.</p> <p>Plans, policies and procedures in place for the identification, safeguarding and protection of cultural and natural heritage at risk.</p> <p>Collecting programmes in place to protect, safeguard and make use of cultural and natural heritage, addressing the needs of communities and stakeholders, and ensuring that collections can be an effective resource for sustainable development.</p> <p>Number and diversity of educational, awareness-raising, research programmes, and partnerships that aim to strengthen protection of cultural and natural heritage.</p>
SDG 11. Make cities and human settlements inclusive, safe, resilient and sustainable 11.5 By 2030, significantly reduce the number of deaths and the number of people affected and substantially decrease the direct economic losses relative to global gross domestic product caused by disasters, including water-related disasters, with a focus on protecting the poor and people in vulnerable situations	<p>Collections-based research that supports the understanding and management of disasters of all kinds.</p> <p>Plans in place for public education and awareness drawing on collections and collections-based institutions to reduce exposure and vulnerability to disasters of all kinds.</p> <p>Plans in place to ensure collections-based institutions steadily work to reduce their contributions to disaster risk, for example by reducing pollution and waste of all kinds.</p> <p>Plans in place to ensure collections-based institutions, and people related to them (including workers) are protected from economic losses as a result of disasters.</p> <p>Plans in place to provide special support/protection to poor and vulnerable people and groups in and following disasters.</p>
SDG 11. Make cities and human settlements inclusive, safe, resilient and sustainable 11.B By 2020, substantially increase the number of cities	<p><i>11.B.1 Proportion of local governments that adopt and implement local disaster risk reduction strategies in line with the Sendai Framework for Disaster Risk Reduction 2015-2030a</i></p>

<p>and human settlements adopting and implementing integrated policies and plans towards inclusion, resource efficiency, mitigation and adaptation to climate change, resilience to disasters, and develop and implement, in line with the Sendai Framework for Disaster Risk Reduction 2015-2030, holistic disaster risk management at all levels</p>		<p>Disaster Risk Reduction strategies and plans in place, in line with the Sendai Framework for Disaster Risk Reduction, to ensure collecting institutions and collections are factored into planning, and contribute effectively to Disaster Risk Reduction.</p>			
<p>SDG 16. Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels. 16.6 Develop effective, accountable and transparent institutions at all levels</p>		<p>16.6.2 Proportion of the population [audience/users/non-users] satisfied with their last experience of public services Access to information, and accountability policies and mechanisms, in place.</p> <p>Effective institutional arrangements, both for own working and for working in partnership with other sectors, in place.</p> <p>Plans and arrangements in place for extraordinary circumstances such as natural and human-caused disasters.</p> <p>Effective arrangements in place to fulfil legal and social obligations and responsibilities.</p> <p>Effective arrangements in place for transparent communication and reporting of institutional performance.</p> <p>Effective arrangements in place for transparent decision-making and accountability.</p>			
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