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7 Risk Mitigation

Governments have limited resources and planning for every possible hazard is not a realistic approach. However, an informed ranking of hazards provides a cost-effective approach to hazard mitigation, emergency planning and response. Community emergency committees can use the following table to help identify the most cost effective strategies to mitigate their risk and improve preparedness.

Table 15: Control and Treatment Options

	Hazard	Mitigation Strategies
	Fire/Explosion	<p>Forest Management Division has adopted FireSmart principals to identify and mitigate wildfire risks.</p> <p>Consider implementing FireSmart programs for all communities and include the response capabilities for urban/rural/wildland fires.</p> <p>Create fire education training and awareness sessions for first responders and the public.</p> <p>Enforce fire prevention practices.</p>
	Flood	<p>Outline a water management and community development policy.</p> <p>Develop and exercise plans/programs for:</p> <ul style="list-style-type: none"> • watershed management; • river/lake/ocean modeling/prediction and monitoring; • erosion control; and • flood response. <p>In the face of rapid snowmelt and intense rains in spring and summer, communities susceptible to flash flooding should review and improve their drainage facilities and protect vulnerable buildings and facilities (Black, R et al. 2010).</p>
	Weather - Winter Storm	<p>Develop and enforce snow load standards.</p> <p>Ensure that plans are in place for severe winter storms.</p> <p>Develop/distribute and facilitate a public awareness program around how to prepare for and what to do in a severe winter storm.</p> <p>Identify and communicate available “safe areas” for community members.</p>
	Transportation Accidents	<p>Enforce safety and prevention programs.</p> <p>Ensure Dangerous Goods practices/regulations are followed.</p> <p>Implement transportation route monitoring programs.</p> <p>Confirm that emergency response plans in place for all areas to allow for prompt response to transportation accidents.</p>
	Critical Infrastructure Failure - Energy Crisis	<p>Understand the potential risks associated with critical infrastructure failure – energy crisis.</p> <p>Build partnerships between stakeholders.</p> <p>Ensure back up/alternate systems in place for life safety.</p> <p>Ensure emergency response plans in place.</p>

	Hazard	Mitigation Strategies
	Critical Infrastructure Failure – Other	Understand the potential risks associated with critical infrastructure failure. Build partnerships between stakeholders. Ensure back up/alternate systems in place for life safety. Ensure emergency response plans are in place.
	Critical Infrastructure Failure - Water Contamination	Understand the potential risks associated with water contamination. Plan for identification and reduction of contaminants into ground and surface water. Ensure water sampling and monitoring program in place. Ensure emergency response plans are in place.
	Weather - Other Extreme	Develop and enforce building standards for identified extreme weather hazards. Develop/distribute and facilitate public awareness programs. Ensure that emergency plans in place. Ensure “safe areas” are available and known to community members.
	Industrial Emergency	Identify the industries in each community and rank according to risk. Ensure back-ups are in place for the industries ranked as critical. Ensure appropriate safety and emergency plans are in place.
	Weather - Wind Storm	Develop and enforce building standards for severe winds. Develop/distribute and facilitate public awareness programs. Ensure emergency plans include response to wind storms. Ensure “safe areas” are available and known to community members.
	Human Disease	Ensure disease monitoring plans are in place between all levels of government and private sector. Ensure preparedness plans are in place. Ensure response plans are in place and are exercised, including containment and quarantine procedures. Human vaccination against anthrax is available for personnel likely to be involved in investigating or responding to anthrax outbreaks.
	Ice Hazard	Develop and enforce building standards for ice accumulations. Develop/distribute and facilitate public awareness programs. Confirm that ice storm emergency plans in place. Ensure “safe areas” are available and known to community members. The Canadian Ice Service (CIS) provides the most accurate and timely information about ice in Canada's navigable waters.
	Snow Load Hazard	Include snow load hazards in community response plans. Clear snow from public building rooftops. Perform a Roof Risk Assessment on key community structures such as schools and community centers.
	Earth Movement - Permafrost Degradation	Develop and enforce building standards for building slumping and/or collapse. Develop/distribute and facilitate public awareness programs. Include permafrost degradation risk actions in emergency plans.

Hazard	Mitigation Strategies
	Ensure "safe areas" are available and known to community members.
Civil Unrest	Have intelligence and monitoring plans in place with law enforcement and stakeholders. Coordinate integrated response plans with stakeholders.
Earth Movement – Other	Develop and enforce building standards. Develop/distribute and facilitate public awareness programs. Ensure emergency plans in place. Ensure "safe areas" are available and known to community members.
Earth Movement - Earthquake/ Tsunami	Develop or adopt and enforce building standards for earthquakes. Develop/distribute and facilitate public awareness programs for what to do in the case of an earthquake or tsunami. Ensure emergency plans in place. Develop tsunami inundation mapping and hazard zones for at risk communities. Plan and communicate "safe areas" for community members to go to in the event of an earthquake or tsunami.
War/ International Incident	Ensure notification and information/communication protocols are in place with Federal Government Departments. Ensure appropriate emergency plans are in place based on the perceived or real risk of war and potential casualty threats.
Food and Agricultural Emergency	Ensure disease and recall monitoring plans are in place between all levels of government and private sector. Ensure public awareness information and programs are available from the Federal Government and industry associations. Ensure that response plans include containment and quarantine procedures.
Falling Debris	Have monitoring and notification protocols in place with appropriate agencies (i.e. CSA, NASA, NavCan). Ensure emergency plans are in place for potential risks associated with falling debris.