



Hazard Resilience Index (HRI)

Astronomical Hazards

Asteroid, Comets, and Meteor Crashes
 Geomagnetic and Ionospheric Storms
 Space Object Crashes

Astronomical Hazards

Please refer to the Hazard Resilience Index Instructions (HRI) document for more information on using this document.

Asteroid crashes, Comet Crashes and Meteorites ¹

Hazard Resilience Rating	High Resilience <input type="checkbox"/>	Low Resilience <input type="checkbox"/>	Need More Info <input type="checkbox"/>	Not Applicable <input type="checkbox"/>
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Yes	No	Need More Info	Not Applicable	FACTORS	This factor is important to my community
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Community-based asteroid, comet and meteorite crash exercises have taken place in schools and community-at-large (e.g., table-top or full-scale exercises)	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	There is a warning system in place to notify community residents of a potential asteroid, comet or meteorite crash	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	There is a warning system in place with the Canadian Space Agency to notify police, fire and ambulance personnel of a potential asteroid, comet or meteorite crash	<input type="checkbox"/>



Geomagnetic Storms ²

Hazard Resilience Rating	High Resilience <input type="checkbox"/>	Low Resilience <input type="checkbox"/>	Need More Info <input type="checkbox"/>	Not Applicable <input type="checkbox"/>
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Yes	No	Need More Info	Not Applicable	FACTORS	This factor is important to my community
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Community-based geomagnetic exercises have taken place in community-at-large (e.g., table-top or full-scale exercises)	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The community has worked with utilities to ensure that sufficient systems are in place to avoid long-term power outages and overheating of transformers and other malfunctions due to geomagnetic storms.	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The community has worked with pipeline companies to ensure the pipelines are not subject to excess corrosion that could lead to leaks as a result of geomagnetic storms.	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	There is a warning system in place to notify community residents of potential geomagnetic storms.	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	There is a warning system in place with Public Safety Canada to notify police, fire and ambulance personnel of potential geomagnetic storms	<input type="checkbox"/>

Space Object Crashes ³

Hazard Resilience Rating	High Resilience <input type="checkbox"/>	Low Resilience <input type="checkbox"/>	Need More Info <input type="checkbox"/>	Not Applicable <input type="checkbox"/>
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Yes	No	Need More Info	Not Applicable	FACTORS	This factor is important to my community
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Community-based space object crash exercises have taken place in the schools and community-at-large (e.g., table-top or full-scale exercises)	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	There is a warning system in place to notify community residents of a potential space object crash	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	There is a warning system in place to notify police, fire and ambulance personnel of a potential space object crash	<input type="checkbox"/>

References

¹ Matheny, Jason G. (2007). Reducing the Risk of Human Extinction. *Risk Analysis*, 27:5, 1335-1344.

² NASA. (2006, 15 March). Solar Storm Warning. Retrieved May 3, 2011, from http://www.nasa.gov/vision/universe/solarsystem/10mar_stormwarning.htm

³ NASA. (2006, 15 March). Solar Storm Warning. Retrieved May 3, 2011, from http://www.nasa.gov/vision/universe/solarsystem/10mar_stormwarning.htm