Hazard Resilience Index (HRI)

Fires

Brush, Bush and Grass Fires
Community Interface Fires
Community Structural Fires
Forest Fires or Wildfires
Peat Bog Fires

Fires

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

Note that since significant fires can lead to extensive air pollution from the smoke, communities at risk from fire should also refer to the "Contamination" guide.

Brush, Bush and Grass Fires

Hazard Resilience Rating				High Resilience ☐ Low Resilience ☐ Need More Info ☐ Not Applicable ☐	This factor is important to my community
Yes	No	Need More Info	Not Applicable	FACTORS	
☐	☐	☐	☐	Before issuing a permit for any prescribed/controlled burns there must be adequate plans to avoid the fires getting out of control, including scenarios of high winds.	☐
☐	☐	☐	☐	Community-based brush, bush and grass fire exercises have taken place in the community-at-large (e.g., table-top or full-scale exercises).	☐
☐	☐	☐	☐	All residences and businesses have smoke detectors and fire extinguishers on each floor of the building.	☐
☐	☐	☐	☐	Residents and businesses have participated in Fire Smart training offered by the community and know warning system, as well as prevention methods such as clearing flammable vegetation (e.g., dried grass) within 10 metres of structures and clearing all other combustible material (e.g., firewood, debris under porches, fuels) within 10 metres.	☐
☐	☐	☐	☐	Residents who have burn barrels have placed them well away from their homes and have proper ventilation and screens around them.	☐
☐	☐	☐	☐	Residents have covered building vents and chimneys with wire mesh to prevent flying embers from entering or leaving the home.	☐
☐	☐	☐	☐	Residents have home fire evacuation plans and have tested them.	☐
☐	☐	☐	☐	Residents have homes that do not have single-paned glass and have metal, clay tile and asphalt shingles with outer surfaces of stucco, metal, brick and concrete which offer superior fire resistance to wildfire (wood and vinyl siding offer very little protection).	☐
☐	☐	☐	☐	Residents have shovels, rakes, axes, garden hoses, sprinklers and roof ladders to assist in suppressing brush, bush and grass fires.	☐
☐	☐	☐	☐	Residents follow Traditional Knowledge and practices around sacred and ceremonial fires to maintain safe environments.	☐
☐	☐	☐	☐	The community and Parks Boards have policies in place to ban outdoor fires and to advise residents and visitors about these fire bans and their application to ceremonial and sacred fires also.	☐
☐	☐	☐	☐	The community has cleared and pruned flammable brush, bushes and grasses in an extensive zone around the community core.	☐
☐	☐	☐	☐	The community has developed designated evacuation routes.	☐
☐	☐	☐	☐	The community has signage in multiple languages posted (with the appropriate phone number) encouraging residents and visitors to report any fires which are observed no matter where or when they are spotted.	☐
☐	☐	☐	☐	The community requires new construction to be built using fire-resistant building materials and to have sprinkler systems.	☐
☐	☐	☐	☐	The fire safety team checks frequently with fire risk monitoring and weather forecasting agencies such as the Canadian Wildland Fire Information System, provincial/territorial fire agencies and Environment Canada.	☐
☐	☐	☐	☐	The Fire Department conducts programs (e.g., such as *Learn Not to Burn*) within schools and with youth to prevent arson/fire setting.	☐

Hazard Resilience Rating				High Resilience ☐ Low Resilience ☐ Need More Info ☐ Not Applicable ☐	
Yes	No	Need More Info	Not Applicable	FACTORS	This factor is important to my community
☐	☐	☐	☐	There is a warning system in place to notify community residents and businesses of a potential brush, bush or grass fire and how to prepare for it.	☐
☐	☐	☐	☐	There is a warning system in place to notify emergency response personnel of a potential brush, bush or grass fire.	☐
☐	☐	☐	☐	The community has emergency social service plans for housing persons who lose their home and belongings to fire.	☐
☐	☐	☐	☐	The community has a means to consult with subject matter experts or Traditional Knowledge holders on typical fire regimes and bush and grass fire history in the area as well as appropriate responses and fire monitoring.	☐
☐	☐	☐	☐	The community has an inventory of buildings not meeting modern building codes and posing a public risk; an action plan for financing and retrofitting/rebuilding these buildings is underway.	☐
☐	☐	☐	☐	The community has plans to bring herds of cows and goats into area fields each summer to eat large patches of dried grass and weeds (cows only eat grass while goats only eat weeds)?	☐

Community Interface Fires

Hazard Resilience Rating				High Resilience ☐ Low Resilience ☐ Need More Info ☐ Not Applicable ☐	
Yes	No	Need More Info	Not Applicable	FACTORS	This factor is important to my community
☐	☐	☐	☐	Before issuing a permit for any prescribed/controlled burns there are adequate plans to avoid the fires getting out of control, including scenarios of high winds.	☐
☐	☐	☐	☐	Community-based wildland/community interface fire exercises have taken place in the community-at-large (e.g., table-top or full-scale exercises).	☐
☐	☐	☐	☐	Forestry practices around the community are sustainable and ecologically sound.	☐
☐	☐	☐	☐	All residences and businesses have smoke detectors and fire extinguishers on each floor of the building.	☐
☐	☐	☐	☐	Residents and businesses are able to access water for sprinklers or to hose down roofs and areas surrounding their home to protect against wildfires.	☐
☐	☐	☐	☐	Most residents have adopted FireSmart principles and the community publicly recognizes FireSmart neighbourhoods.	☐
☐	☐	☐	☐	Residents and businesses have cleared and pruned flammable trees and vegetation (e.g., dried grass) within 10 metres of structures and cleared all combustible material (e.g., firewood, debris under porches) within 10 metres.	☐
☐	☐	☐	☐	Residents who have burn barrels locate them well away from their homes and have proper ventilation and screens.	☐
☐	☐	☐	☐	Residents have covered building vents and chimneys with wire mesh to prevent flying embers from entering or leaving the building.	☐
☐	☐	☐	☐	Most residents have home-based fire evacuation plans and have tested them.	☐
☐	☐	☐	☐	Most homes do not have single-paned glass and have metal, clay tile and asphalt shingles and homes have outer surfaces of stucco, metal, brick and concrete which offer superior fire resistance to wildfire (wood and vinyl siding offer very little protection).	☐
☐	☐	☐	☐	Residents have shovels, rakes, axes, garden hoses, sprinklers and roof ladders to assist in suppressing wildfires.	☐
☐	☐	☐	☐	Residents have spaced trees so that the crowns of individual trees are 3 to 6 metres apart and have removed or reduced the number of evergreen trees within 10 to 30 metres from their homes.	☐
☐	☐	☐	☐	Residents follow Traditional Knowledge and practices around sacred and ceremonial fires to maintain safe environments.	☐
☐	☐	☐	☐	The community offers fire safety education in schools and to residents along with information on their individual risk of house fire.	☐
☐	☐	☐	☐	The community and Parks Boards have policies in place to ban outdoor fires and to advise residents and visitors about these fire bans and their applicability to ceremonial and sacred fires.	☐
☐	☐	☐	☐	The community has cleared and pruned flammable brush, bushes and grasses throughout the entire community and holds annual work parties	☐

Hazard Resilience Rating				High Resilience ☐ Low Resilience ☐ Need More Info ☐ Not Applicable ☐	This factor is important to my community
Yes	No	Need More Info	Not Applicable	**FACTORS**	
				to focus on fuel removal, including dryfall, dead timber, and making use of communal chippers.	
☐	☐	☐	☐	The community has developed designated evacuation routes.	☐
☐	☐	☐	☐	The community has signage posted (which include the appropriate phone number) encouraging residents and visitors to report any observed fires no matter where or when they are spotted.	☐
☐	☐	☐	☐	The community requires new buildings to have sprinkler systems and to use fire-resistant building materials.	☐
☐	☐	☐	☐	The fire safety team checks frequently with fire risk monitoring and weather forecasting agencies such as the Canadian Wildland Fire Information System, and Environment Canada.	☐
☐	☐	☐	☐	The fire safety team conducts programs (e.g., such as *Learn Not to Burn*) within schools and with youth to prevent arson/fire setting.	☐
☐	☐	☐	☐	There is a warning system in place to notify community residents and businesses of a potential community interface fire and how to prepare for it.	☐
☐	☐	☐	☐	There is a warning system in place to notify emergency response personnel of a community interface fire.	☐
☐	☐	☐	☐	The community has emergency social service plans for housing persons who lose their home and belongings to fire.	☐
☐	☐	☐	☐	The community has an inventory of buildings not meeting modern building codes and posing a public risk; an action plan for financing and retrofitting/rebuilding these buildings is underway.	☐
☐	☐	☐	☐	The community has a means to consult with subject matter experts or Traditional Knowledge holders on typical fire regimes and wildland fire history in the area as well as appropriate responses and fire monitoring.	☐
☐	☐	☐	☐	The community has land-use development plans in place to restrict building near forested areas or has development permits in place to reduce the risk of fire to homes.	☐
☐	☐	☐	☐	The community fire department actively follows up on bylaws, regulations and building code enforcement.	☐
☐	☐	☐	☐	Within wildland urban interface areas, the community regularly visits post-harvest replanting requirements for forest licensees so community safety is considered first and foremost.	☐
☐	☐	☐	☐	Land and Resource Management plans (LRMP) can address fire management in a meaningful way. Do existing LRMPs consider fire management strategies and their impacts on ecosystems and other forest management practices?	☐
☐	☐	☐	☐	Community meetings at the start of the fire season can help to educate the community, especially including newcomers, and prepare the community for the potential threat of wildland interface fires. Does your community host a community meeting at the start of fire season to inform and educate residents?	☐
☐	☐	☐	☐	The community has plans to manage vacant land.	☐
☐	☐	☐	☐	The community conducts regular needs assessments; provides local first responders with geography-specific training; engages with youth,	☐

Hazard Resilience Rating				High Resilience ☐ Low Resilience ☐ Need More Info ☐ Not Applicable ☐	This factor is important to my community
Yes	No	Need More Info	Not Applicable	**FACTORS**	
				incorporates traditional knowledge into wildfire education; and provides cultural awareness/sensitivity training for volunteers, responders and government representatives.	
☐	☐	☐	☐	The community has posted "No Smoking" signs in wildland interface areas and along roadways.	☐
☐	☐	☐	☐	The community has implemented a partners' program where, prior to wildfires, local resources are assigned to containment line teams consisting of heavy equipment, forest professionals, technicians and workers who use their local knowledge and expertise to establish containment lines as part of tactical operation.	☐
☐	☐	☐	☐	The community holds annual meetings with all the key fire-fighting organizations to promote good working relationships, trust and understanding.	☐
☐	☐	☐	☐	The community regularly reviews existing land use plans to ensure that the location of Old Growth Management Areas, ungulate winter ranges, visual corridors and other land-use designations do not preclude the reduction of wildfire risk adjacent to communities.	☐
☐	☐	☐	☐	The community provides developers with incentives to make available open spaces and trails to provide fire breaks in new developments.	☐
☐	☐	☐	☐	Community development planning practices have put in place steep slope development permits that prohibit development in high-risk wildfire locations.	☐

Community Structural Fires

Hazard Resilience Rating				High Resilience ☐ Low Resilience ☐ Need More Info ☐ Not Applicable ☐	
Yes	No	Need More Info	Not Applicable	FACTORS	This factor is important to my community
☐	☐	☐	☐	Community-based structural fire exercises have taken place in the community-at-large (e.g., table-top or full-scale exercises).	☐
☐	☐	☐	☐	All businesses have smoke detectors and fire extinguishers on each floor of the building.	☐
☐	☐	☐	☐	Residents who have burn barrels locate them well away from their homes and have proper ventilation and screens.	☐
☐	☐	☐	☐	Residents have covered building vents and chimneys with wire mesh to prevent flying embers from entering or leaving the building.	☐
☐	☐	☐	☐	Residents have home-based fire evacuation plans and have tested them.	☐
☐	☐	☐	☐	The community offers fire safety education in schools and to residents along with information on their individual risk of house fire (e.g., never leave candles or fires unattended, safe placement of flammable materials in the kitchen, cleaning & checking chimney and wood stoves regularly etc.).	☐
☐	☐	☐	☐	The community provides fire hydrants, standpipes or access to large quantities of water in the community, especially in the densely populated area or community core, for fire-fighting purposes.	☐
☐	☐	☐	☐	The community has a warning plan to advise residents and visitors about fire bans.	☐
☐	☐	☐	☐	The community has policies in place limiting the number of levels in the construction of multi-level wood frame buildings in order to offset fire hazards.	☐
☐	☐	☐	☐	The community has policies in place for historical, wood frame buildings for the installation of fire sprinkler systems.	☐
☐	☐	☐	☐	The community has signage postage (which include the appropriate phone number) encouraging residents and visitors to report any observed fires no matter where or when they are spotted.	☐
☐	☐	☐	☐	The community requires new buildings to have fire sprinkler systems and to use fire-resistant building materials.	☐
☐	☐	☐	☐	The fire safety team conducts programs (e.g., such as *Learn Not to Burn*) within schools and with youth to prevent arson/fire setting.	☐
☐	☐	☐	☐	There is a warning system in place to notify community residents and businesses of a community fire and how to prepare for it.	☐
☐	☐	☐	☐	There is a warning system in place to notify emergency response personnel of a community fire.	☐
☐	☐	☐	☐	The community has emergency social service plans for housing persons who lose their home and belongings to fire.	☐
☐	☐	☐	☐	The community has an inventory of buildings not meeting modern building codes and posing a public risk; an action plan for financing and retrofitting/rebuilding these buildings is underway.	☐
☐	☐	☐	☐	The community has a means to consult with subject matter experts or Traditional Knowledge holders on typical fire characteristics and	☐

Hazard Resilience Rating				High Resilience ☐ Low Resilience ☐ Need More Info ☐ Not Applicable ☐	This factor is important to my community
Yes	No	Need More Info	Not Applicable	FACTORS	
				structural fire history in the area as well as appropriate responses and fire monitoring.	
☐	☐	☐	☐	Most of the homes have smoke alarm detectors and the fire department conducts "Check Your Smoke Detectors" promotions twice a year.	☐
☐	☐	☐	☐	The fire department holds regular drills for residents on how to use a fire extinguisher safely and promotes checking on expiry dates for fire extinguishers in every home.	☐
☐	☐	☐	☐	The fire department practices routine, regular fire inspections of commercial and industrial sites.	

Forest Fires or Wildfires

Hazard Resilience Rating				High Resilience ☐ Low Resilience ☐ Need More Info ☐ Not Applicable ☐	
Yes	No	Need More Info	Not Applicable	FACTORS	This factor is important to my community
☐	☐	☐	☐	Before issuing a permit for any prescribed/controlled burns (e.g., slash burning) there have to be adequate plans to avoid the fires getting out of control including scenarios of high winds.	☐
☐	☐	☐	☐	Forest fire-fighting organizations have held forest fire exercises with scenarios including forests near the community (e.g., table-top or full-scale exercises).	☐
☐	☐	☐	☐	Forestry practices around the community are sustainable and ecologically sound.	☐
☐	☐	☐	☐	Forestry practices reduce the amount of forest fuel build-up.	☐
☐	☐	☐	☐	The community and Parks Boards have policies in place to ban outdoor fires and to advise residents and visitors about these fire bans and their applicability to ceremonial and sacred fires.	☐
☐	☐	☐	☐	The fire safety team conducts programs (e.g., such as *Learn Not to Burn*) within schools and with youth to prevent arson/fire setting.	☐
☐	☐	☐	☐	If the forested area around the community is covered by one of the real-time sensors of the Lightning Detection Network (providing immediate feedback on local lightning), does the fire safety team have access to the information to plan for potential forest fires?	☐
☐	☐	☐	☐	There is a warning system in place to notify community residents and businesses of a potential forest fire and how to prepare for it.	☐
☐	☐	☐	☐	The community offers fire safety education to residents and in schools, including information on warning signs for different types of fire (e.g., smoke).	☐
☐	☐	☐	☐	There is a warning system in place to notify emergency response personnel of a potential forest fire.	☐
☐	☐	☐	☐	The community has emergency social service plans for housing persons who lose their home and belongings to fire.	☐
☐	☐	☐	☐	The community has an inventory of buildings not meeting modern building codes and posing a public risk; an action plan for financing and retrofitting/rebuilding these buildings is underway.	☐
☐	☐	☐	☐	The community has a means to consult with subject matter experts or Traditional Knowledge holders on typical fire regimes and forest fire history in the area as well as appropriate responses and fire monitoring.	☐
☐	☐	☐	☐	The community has implemented low-cost, landscape-level treatments (including prescribed burns) that can slow, divert or even halt large-scale wildfires.	☐
☐	☐	☐	☐	The community participates in the Community Forests Program.	☐
☐	☐	☐	☐	The community has a comprehensive strategic plan identifying how the community is at greatest risk from wildfire, coupled with a commitment to treat those areas most at risk regardless of the ability to pay?	☐
☐	☐	☐	☐	The community conducts needs assessments; provides local first responders with geography-specific training; engages with youth, incorporates traditional knowledge into wildfire education; and provides	☐

Hazard Resilience Rating				High Resilience ☐ Low Resilience ☐ Need More Info ☐ Not Applicable ☐	This factor is important to my community
Yes	No	Need More Info	Not Applicable	FACTORS	
				cultural awareness/sensitivity training for volunteers, responders and government representatives.	
☐	☐	☐	☐	The community's fire-fighting plans include archaeological considerations, and the importance of placing value on cultural and historic sites.	☐
☐	☐	☐	☐	The community regularly reviews existing land use plans to ensure that the location of Old Growth Management Areas, ungulate winter ranges, visual corridors and other land-use designations do not preclude the reduction of wildfire risk adjacent to communities.	☐
☐	☐	☐	☐	The community has clearly marked signs in areas leading to forest trails and camping sites that bans campfires during fire season.	☐
☐	☐	☐	☐	The community has sufficient park rangers or wardens to adequately monitor forest trails or campsites.	☐
☐	☐	☐	☐	The community has protocols for closure of back-country when the risk of fire increases.	☐

Peat Bog Fires

Hazard Resilience Rating				High Resilience ☐ Low Resilience ☐ Need More Info ☐ Not Applicable ☐	
Yes	No	Need More Info	Not Applicable	FACTORS	This factor is important to my community
☐	☐	☐	☐	Before issuing a permit for any planned controlled burns residents have to demonstrate adequate plans to avoid the fires getting out of control, including scenarios of high winds.	☐
☐	☐	☐	☐	Community-based peat bog fire exercises have taken place in the community-at-large (e.g., table-top or full-scale exercises).	☐
☐	☐	☐	☐	The community bans all fires in and around peat bogs.	☐
☐	☐	☐	☐	The community protects all peat bogs and does not allow any water to be drained from the peat bog.	☐
☐	☐	☐	☐	The fire safety team conducts programs (e.g., such as *Learn Not to Burn*) within schools and with youth to prevent arson/fire setting.	☐
☐	☐	☐	☐	There is a warning system in place to notify community residents and businesses of a potential peat bog fire and how to prepare for it.	☐
☐	☐	☐	☐	There is a warning system in place to notify emergency response personnel of a potential peat bog fire.	☐
☐	☐	☐	☐	Community maps identify any areas where peat bogs exist.	☐
☐	☐	☐	☐	The community has a means to consult with subject matter experts or Traditional Knowledge holders on typical fire regimes and peat bog fire history in the area as well as appropriate responses and fire monitoring.	☐
☐	☐	☐	☐	The community has plans to monitor water tables and source water for bogs and to note when conditions are creating added risk of fire to peat bogs.	☐
☐	☐	☐	☐	The community has policies, signage and enforcement prohibiting peat harvesting.	☐
☐	☐	☐	☐	The community has protocols and signage to close access to peat bogs during times of high risk of fire.	☐

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