

CANADIAN HOMEOWNER GUIDE

Rooftop Wildfire Sprinklers in Canada

A practical, safety-first guide to exterior sprinkler protection: how it works, what affects coverage, and how to prepare a system as one part of a complete FireSmart plan.

Layered protection Sprinklers supplement - not replace - FireSmart work and emergency instructions.	Plan before fire season Check water supply, pressure, hose routes and deployment while conditions are safe.	Safety comes first Never delay evacuation or remain behind to operate equipment.
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How rooftop wildfire sprinklers help

Wind-driven embers can travel ahead of a wildfire and settle on roofs, decks, gutters and nearby vegetation. Exterior sprinklers are designed to wet exposed surfaces and raise local humidity, making receptive fuels less likely to ignite.

The Province of British Columbia says strategically placed sprinklers can create a "humidity bubble" around a structure and reduce the chance that embers or burning debris ignite combustible materials. Sprinklers are most effective when a property has already applied FireSmart principles.

The key idea: A sprinkler system is one layer in a broader plan that includes removing combustible material, maintaining the home ignition zone and following local emergency direction.

What 'humidity bubble' protection means

Wet vulnerable surfaces Water can moisten roofing, siding, decks and nearby vegetation before embers arrive.	Cover more than one point A well-planned spray pattern helps reduce dry gaps around the parts of a structure most exposed to embers.
Prepare early Equipment should be selected, tested and practised before an emergency - not while evacuation is underway.	Expect changing conditions Wind, roof height, water pressure and available flow all affect real-world coverage.

No-ladder deployment: why it matters

Climbing onto a roof creates a fall risk and takes valuable time. Water Winger systems are designed to help users place a rooftop sprinkler from the ground by sending a line over the roof and pulling the unit into position. This approach can make preparation faster and keep the user off the roof.

Practise only in safe conditions, keep clear of overhead electrical hazards, and stop immediately if the task cannot be completed safely. Visit waterwinger.ca/videos for examples of sending the line over by hand or with a ball launcher.

Plan water pressure, flow and coverage

Pressure and flow are related, but they are not the same. Pressure helps project the water; flow determines how much water is available. Adding multiple sprinklers can reduce performance if the source cannot supply all of them at once.

Pressure Published operating guidance uses approximately 40-80 PSI. Performance varies by nozzle, hose length, elevation and fittings.	Flow At about 50 PSI, a standard Water Winger nozzle uses roughly 7-9 gallons per minute. Confirm sustained combined demand.
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Coverage	Water source
Under suitable conditions, spray may reach up to approximately 100 feet in diameter. Wind and obstructions reduce coverage.	Municipal supply, a suitable well, tank or pump may work when it provides the required pressure and continuous flow.

Do not rely on maximum figures when planning. Test the exact hose, fittings, elevation and water source you intend to use.

A practical preparation checklist

- 1 Start with FireSmart.** Clear combustible material from the immediate area around the home and complete the highest-priority recommendations for your property.
- 2 Assess the water source.** Confirm pressure, sustained flow, connection sizes and backup needs.
- 3 Map the system.** Plan sprinkler locations, hose routes and shutoffs without blocking exits or vehicle access.
- 4 Test in safe conditions.** Practise ground deployment, inspect hoses and confirm the real spray pattern.
- 5 Maintain readiness.** Store components together, replace damaged parts and review the plan each season.
- 6 Follow authorities.** Deploy only when permitted and safe. Obey evacuation alerts, orders, fire bans and local instructions.

Choose a setup for your situation

Homeowners	Community groups
Portable kits for preparing a house, cabin or outbuilding. waterwinger.ca/homeowners	Scalable equipment for neighbourhood and community preparedness. waterwinger.ca/community-groups

Structure protection crews

Equipment packages for trained professional deployment.

waterwinger.ca/structure-protection-crews

Need help choosing?

Tell us about the property, water source and intended coverage.

waterwinger.ca/contact-us

Frequently asked questions

Do rooftop sprinklers replace FireSmart work?

No. Exterior sprinklers are most effective as one layer of a larger FireSmart plan. Reduce combustible material and maintain the home ignition zone first.

When should a system be deployed?

Prepare and practise well before wildfire season. During an incident, follow local officials and deploy only when it is permitted and safe. Never delay evacuation.

Can one person deploy a rooftop sprinkler?

Some no-ladder systems are designed for ground deployment by one prepared user, but larger properties and multi-unit setups are generally easier with trained help.

Can a well supply the system?

Possibly. The well and pump must provide enough sustained pressure and flow for every sprinkler operating at the same time. Test the complete setup.

Is the system permanent?

Water Winger rooftop sprinkler kits are portable and can be stored between uses. Local requirements and conditions may affect where and when equipment can be installed.

More questions?

Visit waterwinger.ca/contact-us and tell us about your property, water source and intended coverage.

Important safety note

Exterior sprinklers cannot guarantee that a structure will survive a wildfire. Fire behaviour, wind, fuel conditions, water supply and emergency access can change quickly. Follow all evacuation orders and instructions from local authorities. Never remain in a threatened area to install, adjust or operate equipment.

Official Canadian resources

- Province of British Columbia - Structure Protection and Structure Defence
- BC Wildfire Service - Structure protection during wildfire season
- FireSmart BC - firesmartbc.ca