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To obtain copies of the FireSmart Homeowner's Manual to share with your community go to: <https://firesmartbc.ca/resource-ordering-form/>.

## Modified Response Fires

**Modified Response**— The wildfire is managed using a combination of suppression techniques, including direct and indirect attack, and monitoring to steer, contain or otherwise manage fire activity within a pre-determined perimeter (to minimize costs and/or damage and to maximize benefits from the fire).

BC Wildfire Service

Fire can be a destructive force, but it can also help renew forests.

In decades past, there was a tendency to extinguish every wildfire as soon as possible, and forest renewal was generally not a primary consideration when developing fire suppression plans. Over time, however, science has proven that a "modified response" approach to fire on the landscape is more beneficial in some cases. By modifying the fire response in specific areas, results would include: healthier forests; reduced impacts from catastrophic wildfires; and maximizing the use of firefighting resources where they are most needed.

This approach to wildfire suppression incorporates a planning stage that identifies "values" (communities, infrastructure, natural resources, cultural values, etc.) that need to be protected. It also outlines any ecological benefits of allowing some wildfires to burn and spread within pre-established boundaries (under appropriate conditions).

Risk is always factored into any decision to modify the fire suppression response. What risks are associated with fighting the fire in that area? What is the probability of the fire being successfully suppressed? What is the risk if this fire is suppressed but another fire occurs in the same area the next year, after 10 years, or after 20 years?

All these considerations are documented in a Response Fire Management Plan for the area that is prepared by the relevant land manager reviewed by BCWS and that typically includes information about priority values, value based appropriate suppression tactics and considerations, firefighter safety concerns in addition to values identification. (As mentioned on Page 3, these types of plans will be supplemented by Wildfire Risk Management Plans beginning in 2020.) In some instances, a Response Fire Management Plan may be written to address a large region but also

include more specific wildfire risk considerations for smaller areas within the large region.

The Response Fire Management Plan is a pre-planning document that supports fire analyses. Once a wildfire ignites and if not suppressed within 72 hours, a Fire Analysis is written and updated regularly until the fire is extinguished and declared "out". The Fire Analysis is a forecasting tool that requires a fire official to document a strategy for fighting the fire, given the forecasted weather, site conditions, objectives, firefighting resources and anticipated costs. This document requires input from land managers and appropriate stakeholders, who are responsible for communicating any potential concerns related to the fire and quantifying any values at risk not already included in the Response Fire Management Plan.

In the case of a modified response fire, the Fire Analysis includes what actions could be taken if: the fire moves beyond pre-established trigger points; fire activity increases; or firefighting objectives are not being met. The Fire Analysis is updated in response to any change in conditions (such as shifts in the weather or other unforeseen factors) that may not have been included initially.

The monitor only response approach is most commonly used for wildfires burning in remote areas, at high elevations, and where people or their property will not be impacted. It is often on Crown land where a low-intensity fire will help clean out undergrowth or dead forest fuels. When a modified response approach is used, the BC Wildfire Service and the land manager agree on a set of trigger points. If the fire reaches those trigger points, then predetermined actions will be taken, including slowing the growth of the fire or suppressing its intensity by bucketing water on it (e.g. from helicopters) or dropping fire retardant along the fire's edges.

An ecosystem such as a forest periodically needs a fire to occur to rejuvenate and remain healthy. Without naturally occurring fires, trees can become stressed from overcrowding, fire-dependent species can disappear, and forest fuels (such as dead wood and accumulations of leaves and needles) can build up and become fire hazards. Modified response is an effective, ecological approach to managing wildfires and managing forest health, done within strict parameters that minimize risks to identified values.

## Fire Retardant

During a wildfire emergency, the BC Wildfire Service has many tools at its disposal. One of the tools that's used to slow a fire's spread is fire retardant.

An airtanker laying down a band of red fire retardant is an awe-inspiring sight, and one that many members of the public believe will stop the wildfire in its tracks. However, that's not the case.

Retardant (as its name implies) slows or "retards" the forward spread of a wildfire or reduces its intensity, but it does not stop the fire. Retardant is used to create an artificial firebreak where the terrain is rugged or remote. Slowing the fire or reducing its intensity gives ground crews time to safely position themselves, begin cutting a firebreak, lay water hoses, and start fully extinguishing the fire. Retardant can also be used to reinforce fire control lines or natural fuel breaks on larger and more aggressive wildfires that crews can't safely work on directly. These reinforced control lines can then be used to burn off (or "backfire") unburned fuels ahead of the fire.



They contain ammonium salts which affect the burning process of forest fuels. Retardants prematurely release the gaseous fuels within logs and debris. This reaction releases a water and carbon dioxide combination that cools and suffocates the fire. Retardant has a much longer-lasting effect than water in fire suppression because it does not evaporate.

Retardant is a blend of liquid-concentrate, fertilizer-based solution that is blended and diluted with water generally obtained from municipal water supplies. Phos-chek® is the retardant used by the BC Wildfire Service and it contains more than 85% ammonium phosphate solution and a combination of clay, iron oxide and performance additives. The mixed solution used for fighting wildfires contains about 15% concentrate and 85% water.

Fire retardant gets its red colour from the iron oxide, which enhances the fire retardant's visibility for air attack officers and pilots so they can see exactly where it's been dropped. Once an initial drop has been made, additional drops can extend the retardant line or reinforce it.

When retardant is dropped in populated areas, sometimes the public asks whether the product will affect local watersheds, but retardant entering a water supply is not considered to be harmful. The high fertilizer content can cause some phosphate-loving organisms to bloom when dropped into stagnant water sources, but is generally not toxic. Air Attack Officers make every effort to avoid dropping retardant into watersheds and large waterways and have a process in place to report any spills.

The retardant components present in the solution are consumed by plant life and provide nutrients to the plants. The gum thickener and other inorganic compounds are biodegradable and will break down via other means in the environment.

If retardant lands on houses, cars, etc., the manufacturer recommends that it be removed as soon as possible. If the retardant is still wet, it can easily be washed off with water. If the retardant is dry, removal may require some scrubbing with water or power washing and a mild detergent.

Retardant is a valuable tool that is used when necessary to support the hard work of ground crews. It is used to help manage a wildfire's spread and intensity, but it does not put the fire out by itself.



Fire retardant is typically dropped ahead of the moving fire or along its edge. The two main methods used by air attack officers are the "box" and "blanket" techniques. Small fires (under one hectare) can be blanketed with retardant to help initial attack crews gain control of the fire.

The box technique is used to slow or contain larger fires, buying time for a more coordinated response with crews and heavy equipment. Retardant is designed to be effective in both wet and dry conditions and is expected to hold an average ground fire for about four hours. However, if the fire is not immediately burning into this artificial firebreak, the retardant can maintain its integrity and effectiveness for two or more days.

Water-soluble fire retardants are commonly used in fire suppression because of their long-lasting effect on fires.

## Coastal—A Change of Plans

By March 2020, “Response Fire Management Plans” will be supplemented by “Wildfire Risk Management Plans”. This new type of plan will incorporate much of what currently exists in a Response Fire Management Plan, plus additional details (including the identification of values on the land base and assessments of those values’ vulnerability to wildfire).

The new Wildfire Risk Management Plans will also indicate how any such vulnerabilities and risks could be mitigated through specific activities. This change will help enhance the BC Wildfire Service’s response and prevention activities, projects and other initiatives. It will also assist with integrated investment planning, modernize land use planning, and help meet other land use objectives.

The newly formulated Wildfire Risk Management Plans will consist of two parts:

- a focus on mitigation activities primarily contributing to response risk to values, ignitions, fuels management, and land management activities; and
- enhance fire response that is fully integrated with FLNRORD and other relevant agencies (FLNRORD, MOE, EMBC).

The goal of the new plans is to align prevention, fire response and resource management decisions with land management objectives to build plans that are proactive and sustainable.

## Crew Safety

When determining whether a “modified response” approach is suitable for a particular fire, several factors are considered. They include the fire’s location, potential risks and crew safety.

Modified response fires are generally in remote locations at high elevations. Many of these areas have a Response Fire Management Plan in place (signed off by the land manager) that supports allowing a fire to burn, and outlines any inherent risks that may be present.

One of the most important factors — depending on the fire’s location — is whether it’s safe for firefighters to try to suppress it. Some of the questions that need to be asked are:

- How steep is the terrain?
- Are there loose rocks or logs on the slope?
- Will crews be able to disengage if necessary and use escape routes from the site quickly and safely?
- If water bucketing is required to hold the fire, can it be done without dislodging debris that could roll downhill toward firefighters?

In some cases, a modified response fire is allowed to burn until it reaches an area where fire crews can safely and efficiently contain or suppress it. Crews can modify their tactics as a fire moves, as fire behaviour increases or decreases, or as other conditions change.

Crew safety is always of paramount importance when responding to any wildfire.

## Prevention Blog

Hello,

While the Coastal Fire Centre experiences a cooler and more seasonal weather pattern (compared to the scorching conditions we’ve endured in August for the past few years), I’d like to remind people that there are many historical examples of hot and dry weather patterns in our region during the fall months.

On the coast, the highest fire danger ratings of the year have often occurred in September and October. With the larger fuel types that we have here, it often takes longer for forests to dry out completely under “seasonally normal” conditions like we’ve experienced to date this year. The hazards posed by these dry fuels are often overlooked by many people, due to fewer hours of daylight and a misperception that the wildfire season ends around the Labour Day long weekend.

In many places in the Coastal Fire Centre, light grassy fuels and logging slash are forecast to reach a point by next week where even a small spark could cause a wildfire. These conditions could persist for weeks.

I hope everyone keeps wildfire prevention and safety in mind as they participate in recreational activities during the beautiful months of autumn, which is my favourite time of the year to enjoy the outdoors.

Thanks,

Alan Berry,

Senior Wildfire Officer—Prevention

## Fires to Date Since April 1, 2019

Total 129

Lightning 36

Person 93

## Number of fires since August 9, 2019

Total 13

Lightning 2

Person 11

## Fire Danger Rating today



Current Prohibitions (within BCWS jurisdictional area)

Category 2 Open Fire Prohibition throughout the Coastal Fire Centre.

Campfire and Category 3 prohibitions have not been implemented.

Go to [BCWildfire.ca](http://BCWildfire.ca) for the latest information.

## At Coastal

### V71472—Summit Road Fire (near Loon Lake)

Reported: August 19, 2019

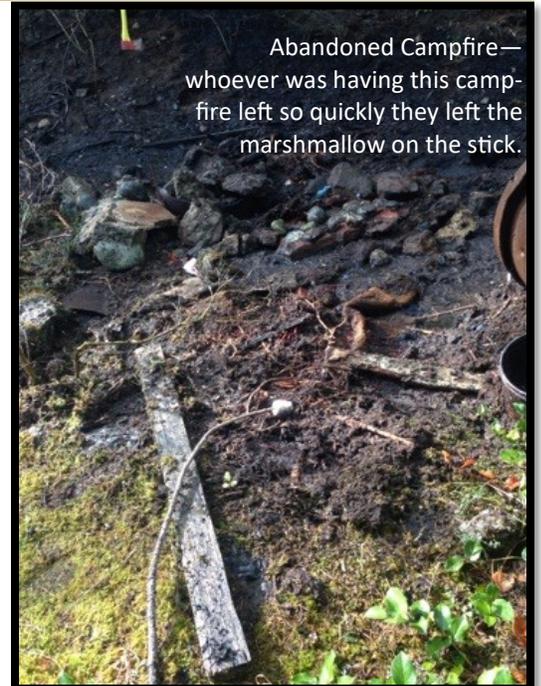
Size: 3.1 hectares, Status: Under Control and being patrolled

Cause: Suspected human-caused

Personnel assisted fire departments with 2 fires: one in the Dashwood area and the other near Cumberland.

One fire in Manning Park was quickly extinguished by hikers. Coverage of the situation was reported in the Aldergrove Star: <https://www.aldergrovestar.com/news/two-hiking-families-team-up-to-extinguish-fire-in-b-c-backcountry/>. The Coastal Fire Centre always appreciates the help of the public in reporting, and in this case, extinguishing fires.

CoFC continues to support EMBC at the Big Bar Landslide with personnel.



Abandoned Campfire— whoever was having this campfire left so quickly they left the marshmallow on the stick.

## Weather

**SYNOPSIS:** Inflow or onshore winds should come up a notch throughout all zones on Saturday under a drier west-northwesterly flow aloft. Expect sunnier skies and drier conditions on Saturday (isolated showers favouring higher terrain and upslope sections of the north) while temperatures return to or close to seasonal normals. The inflow pattern helps support good overnight recoveries again Saturday night.

**OUTLOOK:** The general pattern remains largely unchanged on Sunday with a prevailing northwesterly flow aloft and continued inflow conditions at the surface. A marginal increase in ISI values should be seen on Sunday (more significant in some areas) as a drier upper flow brings sunnier skies and warmer/drier conditions while elevated inflow/onshore winds continue. Temperatures should warm to the mid twenties throughout the warmer inland sections of each zone on Sunday with humidities on the Island briefly dipping below 30%

in spots; potentially approaching 25% for a few hours in a few spots on the Mainland. Monday may be a near repeat of Sunday, except in Haida Gwaii and potentially the outer Mid Coast where the next Pacific frontal system may bring the next round of rain & wind. An upper ridge building offshore should begin to edge inland by Tuesday, kicking off a more significant warming and drying trend, especially with the potential for a developing outflow pattern at the surface.

**6 TO 10 DAY:** Confidence is not high, but the latest guidance continues to point to a significant uptick in temperatures near the middle of next week as a Pacific ridge drifts onshore. A period of at least two days of outflow conditions usually accompany this kind of pattern so humidities could dip below 20% in some areas by next Thursday/Friday. Winds typically remain generally light in this kind of pattern. Tough call on the timing/nature of the eventual ridge breakdown that follows.