Building Scotland's Resilience to Wildfires and Other Climate Shocks
Parliamentary Briefing
September 2026

Stop Climate Chaos Scotland and Scottish Environment LINK are re-circulating the information below which was shared in advance of the Parliamentary debate on wildfire management on 1st September.

Key points:

- **2025 was the UK's worst year for wildfires on record, and three of the five largest wildfires ever recorded in the UK have happened in Scotland since 2019. Formal climate attribution studies show that human-caused climate change is making the hot, dry and compound weather conditions behind these fires significantly more likely in Scotland.**
- **Scotland needs to learn from recent fires and strengthen wildfire prevention and preparedness, including ensuring the Scottish Fire and Rescue Service and other partners have the resources they need.**
- **Nature restoration can help reduce the risk of large-scale wildfire by creating wetter, more resilient landscapes that are less prone to rapid fire spread.**
- **Wildfire policy needs to support Scotland's wider climate and nature objectives. There is no single solution to wildfire risk, and approaches need to reflect local conditions.**

The growing risk of wildfire

Wildfires are a growing risk to people, communities and the natural environment. In 2025 more than 47,000 hectares of land burned across the UK, a substantial 40% increase on the previous record set in 2019, across a record number of individual fires over 30 hectares[1]. Climate change is increasing the likelihood of longer periods of hot and dry weather, creating conditions in which fires can start and spread rapidly.

The most fundamental response to wildfire risk must be to seriously address the threat of climate change. Scotland must reduce our climate emissions and adapt to the impact of warming temperatures. Warmer, drier air is a leading driver of worsening fire severity worldwide, and NASA satellite analysis shows extreme wildfire activity has more than doubled in the last two decades[2]. Last year's State of Wildfires Report[3] found that human-driven climate change increased the likelihood of extreme fire weather across every region it studied. These fires themselves add additional CO2 emissions, which adds to future warming and fire risk. A Met Office analysis found the May/June heatwaves of 3-4C warmer peaks can be expected on a one in five year basis due to climate change, as opposed to a one in 300 year return cycle at pre-global warming levels.

[1] Global Wildfire Information System data, August 2025
[2] NASA: Wildfires and Climate Change: https://science.nasa.gov/earth/explore/wildfires-and-climate-change/
[3] The State of Wildfires Report is produced by an international network of wildfire scientists from over 60 institutions across 20 countries. It is co-led by the UK's Met Office and the UK Centre for Ecology & Hydrology

Under strong emissions reductions pathways, the future increase in wildfire risk is projected at roughly a third of what medium-to-high pathways would see. Alongside much needed work on wildfire mitigation and response, continuing to cut emissions will help to reduce future risk of such events.

The recent fire in the Cairngorms demonstrated the scale of this challenge. It affected a large area, including important native pinewoods, and threatened local communities. The firefighting effort continued for several weeks and involved the Scottish Fire and Rescue Service (SFRS), land managers and gamekeepers, public bodies, local businesses, volunteers and the local community. SFRS described this year's Cairngorms fire as one of the most significant and resource-intensive wildfires in recent years and required the deployment of over 500 firefighters.

People across Scotland are extremely grateful to everyone involved in responding to recent fires. Their experience provides important lessons for how Scotland should prepare for increasing wildfire risk.

Nature restoration

Nature restoration has an important role to play in building landscapes that are more resilient to wildfire:

- **Healthy peatlands with a natural water table are better able to withstand fire than degraded and drained peatlands.** Restoring peatlands and wetlands can help keep water in the landscape and reduce the risk of severe fires.
- **Mixed native broadleaf woodlands can slow or halt wildfire due to higher moisture and lower fire risk.** Scottish Fire and Rescue Service guidance states that "Broadleaf and Mixed Woodlands are the most resilient classes to extreme fire behaviour and are regularly used as fire belts to fragment higher risk classes, such as coniferous woodlands, scrub and grasslands".[4]
- **The wetlands and pools created by beavers can provide vital refuges from extreme heat and wildfire.** In California, research by Dr Emily Fairfax found that riparian zones with beaver activity were three times less affected by wildfire than those without. Encouraging the return of beavers and making space for the wetlands they create can therefore help protect wildlife and people.
- **Grazing by large herbivores is associated with a reduction in wildfire risk by reducing fuel load through a combination of grazing and browsing.** The GrazeLIFE project, co-financed by the European Commission and co-ordinated by Rewilding Europe, showed that wild and semi-wild herbivores such as horses, cattle and bison can reduce wildfire risk through their grazing patterns. Low-intensity grazing can create a mosaic of vegetation and shorter grazed patches that act as natural firebreaks, rather than producing uniformly short vegetation. This can reduce the amount of combustible vegetation and limit the spread of fire if ignition occurs.
- **Natural green and blue infrastructure can play an important role in reducing wildfire risk in urban and peri-urban landscapes.** For example, in Cumbernauld, the Scottish Wildlife Trust is trialling the use of yellow rattle, a native wildflower that suppresses vigorous grass growth

[4] Fire and Rescue Service Wildfire Operational Guidance, https://www.gov.scot/publications/fire-rescue-service-wildfire-operational-guidance/pages/14/

and can help reduce the accumulation of dense, dry grassland fuel. The Trust is also gradually replacing areas of non-native conifer woodland with native broadleaf species. Broadleaf woodlands generally retain higher moisture levels, produce less flammable litter and are less likely to support rapid fire spread than dense conifer plantations. Alongside wetlands, ponds and other blue infrastructure features, these habitat restoration measures can contribute to more resilient landscapes while delivering wider benefits for biodiversity and people.

Case studies:

At Golticlay in Caithness[5] peatland restoration involved removing non-native conifers and rewetting previously drained and planted peatland. When a fire spread across the area in 2018, the restored section helped stop the fire, with the difference between the burnt and restored areas clearly visible from the air.

Restored wetlands and reconnected rivers have remained green at the National Trust's Holnicote estate in Somerset during this summer's heatwaves while surrounding land has become dry and brown[6]. The restoration work has created areas that can store water during drought and slow its movement during extreme rainfall. This demonstrates the wider value of restoring natural systems as part of climate adaptation.

Preventing wildfire

There is no single land management practice that can prevent wildfires. What works will depend on the landscape and local conditions. A variety of management techniques including the creation of firebreaks, the use of grazing animals, and landscape rewetting can play a role in reducing risk. Much of our landscape is dominated by moorland vegetation which is vulnerable to ignition and spread. This landscape has been shaped by drainage of wetlands, burning, over-grazing, and deforestation. Land managed through muirburn will itself be vulnerable to wildfire once vegetation reestablishes.

Consistent and clear public information and engagement on wildfire risk, recognition of the important role of rangers, and appropriate management of high-risk sites can all play a role in preventing wildfire risk.

Being ready to respond

Recent incidents have highlighted the importance of being able to respond quickly when a wildfire starts. The Scottish Government's Strategic Action Plan on Wildfires contains positive proposals for improving Scotland's preparedness and response. These should be progressed and properly resourced.

The availability of firefighting resources, including helicopter support, should be considered as part of this work. Recent experience has shown how quickly a fire can develop when conditions are dry, warm and windy.

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[5] Peatland ACTION case study: what's the connections between peat and wildfire?

[6] National Trust for Scotland Press Release: Holnicote Estate, August 2026

The Cairngorms fire provides an important opportunity to learn lessons before the next major wildfire. We support calls for a process to bring together a variety of land managers and other interests to consider the experience of recent fires and what more needs to be done. Wildfire policy should be developed with those directly involved in managing and responding to fires, while ensuring that measures to reduce wildfire risk support Scotland's wider climate and nature objectives.

There also needs to be a clear understanding and acceptance that large wildfires in Scotland are part of a climate change-induced trend and not a series of isolated events. This has a direct impact on how we resource firefighting capacity which should be viewed as a recurring and escalating requirement, not a response to a single bad summer.

Stop Climate Chaos Scotland (SCCS) is Scotland's climate coalition, bringing together over 70 civil society organisations campaigning together on climate change. Together, we represent over 1 million people across Scotland. We collaborate to build public support for fair, effective policies to reduce emissions, adapt to climate impacts and support international climate justice.

Scottish Environment LINK is the forum for Scotland's voluntary environment community, with over 50 member bodies representing a broad spectrum of environmental interests with the common goal of contributing to a more environmentally sustainable society.

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