COUNTRYSIDE ALLIANCE BRIEFING NOTE: REGULATION OF HEATHER BURNING ON PEATLANDS

Westminster Hall, Olivia Blake MP

Tuesday 23 January 2024

- **Rotational heather burning is an essential tool for moorland managers. It aims to create lots of micro-habitats for a full range of habitats allowing the widest possible biodiversity, while reducing fuel loads and thereby curtailing the risk of wildfires.**

- **Opposition to burning often cites science that is now out of date and cannot be regarded as a safe basis for policy.**

- **Researchers at the University of York undertaking a 20-year study to compare the impacts of different management options found, in their preliminary report, that there is no 'one size fits all' approach that land managers should use. Heather burning, mowing and leaving vegetation unmanaged should all be available as management tools.**

- **Large stands of rank and woody heather, left unmanaged, pose a major fire risk due to the build-up of fuel loads. The controlled rotational burning of vegetation can help reduce the risk of these damaging wildfires.**

- **There is no proven link between grouse moor management and flooding. The concerted efforts of grouse moor managers to block agricultural drains and revegetate bare peatland is helping slow the flow of water through catchment areas.**

- **Grouse moor managers are doing considerable work on heather moorlands to reduce the risk of wildfires, capture carbon, maintain and enhance biodiversity, and improve the ability of the uplands to store water and reduce downstream flooding. They are protecting and enhancing these treasured, globally rare upland landscapes.**

Background

- Rotational heather burning, also known in Scotland as 'muirburn', on shallow peat and dry heath is done to increase the diversity of heather age and structure. It is an essential tool for moorland managers when reducing the fuel load to help curtail the risk of wildfires, which has increased because of climate change and can cause significant environmental damage by burning into peat.

- Burning is done in small patches, depending on how fast heather is growing and becoming dominant in the area. It ensures a mixture of older heather for protection and nesting, younger heather for feeding, and a fresh burn where regrowth is just starting. It also acts as a fire break to help prevent the spread of uncontrolled wildfires and encourages the growth of peat-forming sphagnum moss which filters and absorbs water.

- The aim is to create lots of micro-habitats for a full range of habitats allowing the widest possible biodiversity. Low-intensity 'cool burn' in small patches removes the canopy but prevents the burning of peat or moss beneath the vegetation, avoiding the resultant loss of carbon and delay in regrowth of the heather.

- On 16 February 2021, the Government published new legislation (The Heather and Grass etc. Burning (England) Regulations 2021 (legislation.gov.uk)) to protect blanket bog habitats in England. The regulations, which came into force that May, prevent burning on areas of peat over 40cm deep on Sites of Special Scientific Interest that are also Special Protection Areas or Special Areas of Conservation, except under licence. This does not apply if the area to be burned in one burning season has a slope of more than 35 degrees or is more than half covered by exposed rock or scree, and in either case is a single area of 0.5 hectares or less, or is on two or more areas within 5 metres of each other with a combined area of 0.5 hectares or less.

- The Government recognised that neglecting to manage moorland risks significant damage from wildfires, which have been increasing due to climate change. The new regulations therefore allow applications for a licence permitting to burn on blanket bog where otherwise prohibited. This may be granted where it is either beneficial or necessary for:
    - conservation, enhancement or management of the natural environment;
    - human safety;
    - reducing the risk of wildfire;
    - because the specified vegetation is inaccessible to mechanical cutting equipment and any other method of management is impracticable.

- The statutory Code of Practice for heather burning, The Heather and Grass Burning Code (Defra, 2007) developed with key stakeholders, acknowledges that *"Fire has been used by land managers for many thousands of years. When used with skill and understanding, it can benefit agriculture, game birds and wildlife."*

- The Code defines a 'burning season' running from 1 October – 15 April in upland areas, when roots are at their wettest to avoid a hot burn that can otherwise enter the peat. To burn in environmentally protected areas, such as Sites of Special Scientific Interest (SSSIs), consent is required from Natural England and there are strict limits on how much heather can be burned at a time. More than 60 per cent of English grouse moors are designated as SSSIs. A licence is also required to burn in sensitive locations such as on a slope or near a watercourse.

Scientific evidence

- Heather growing on peat soil can quickly become dominant and out of control when left unmanaged. Methods of management have been an area of fierce debate for many years, and the use of controlled burning as a key element of moorland management remains controversial. Opposition often cites science that is now out of date and cannot be regarded as a safe basis for policy.

- Whilst some landowners have long opted to use fire as a method to manage vegetation, others use mowing, or chose to leave it unmanaged. Researchers at the University of York are undertaking a 20-year study to compare the impacts of these three management options in relation to mitigating climate change, increasing water storage and quality, and increasing biodiversity. Their findings after 10 years of that study, published in January 2023, were significant. Its key findings included:

- There is no ‘one size fits all’ approach that land managers should use, so heather burning, mowing and leaving vegetation unmanaged should all be available as management tools.

- When compared with unmanaged plots, both burning and mowing heather support an increased diversity of vegetation, with higher levels of sphagnum moss that supports peat formation. The study predicted a greater number of some ground-nesting birds where heather was burnt or mown, many of which are red listed as being of conservation concern, because taller unmanaged heather limits appropriate nesting sites. Burning was found to be particularly good for carbon uptake and nutrient content for grazing animals.

- Concerns around burning often focus on emissions from the fire. The study found that while carbon loss from burnt areas was higher than from mowing in the short term, as the vegetation regrew it fell, and new vegetation took up considerably more carbon in the long term. Burnt plots absorbed more than twice the carbon of mown areas.

- Unmanaged plots were found to have a lower water table than those managed by burning or mowing. This could prove relevant to ongoing carbon storage projects, which employ significant resources to raise water tables on moorland areas to capture and retain more carbon.

- Unmanaged areas were also found to be drier, allowing microbes to decompose peat. This can present a fire risk. Damage caused by wildfires can be catastrophic because, unlike controlled cool burns carried out by grouse moor managers, they result in huge carbon losses due to the fire burning into the underlying peat.

- Although there are a further 9 years remaining in this project, the interim findings are extremely important both for policy makers and moorland managers. Answers on how heather burning compares with mowing or leaving vegetation uncut are finally being given. No two moors are the same, and given the right conditions burning, cutting and leaving heather unmanaged should all be available management tools, depending on which is most appropriate for a particular piece of ground.

- The Future Landscapes Forum, a group of academics and experts with specialist knowledge of the management, ecology, functioning, and fire risk associated with heather-dominated landscapes in the UK, published a Position Statement on 23 August 2023. They expressed their growing concern that the debate about managing heather moorlands, including on peatlands, is neither properly informed nor evidence-based, leading to dangerous policy decisions that ignore the positive social and ecological effects of controlled burning. These decisions disregard a large body of evidence showing that burning can support wildfire prevention, carbon capture, and improve biodiversity.

- Moreover, they argued that the risks and impacts of alternatives such as cutting or no vegetation management remain largely unknown and are often ignored. There is *“no clear scientific consensus to support a blanket ban against controlled vegetation burning on heather moorland”*, and *“policy decisions are being influenced by special interest groups who regularly ignore or distort evidence in order to outlaw the practice”*.

- The debate has been derailed by undue focus on the issue of driven grouse shooting, leading to reductive arguments against controlled burning being presented as scientific consensus by influential individuals and organisations. They are so preoccupied with the

issue of grouse shooting that they ignore all the evidence in favour of controlled burning and the risks of the alternatives, especially considering the devastation impact of wildfires.

- The evidence shows that controlled burning can often contribute to reducing the risk of wildfires, capturing carbon, and maintaining biodiversity.

Wildfire prevention

- Large stands of rank and woody heather, left unmanaged, pose a major fire risk due to the build-up of fuel loads. The controlled rotational burning of vegetation can help reduce the risk of these damaging wildfires.

- Uncontrolled wildfires cause considerable environmental damage as they burn with greater intensity, burning the peat beneath the vegetation and preventing peatland from storing water and carbon.

- University of York researchers found that water levels are higher in moorland areas managed by burning than those left unmanaged; a wetter landscape further diminishes the risk of wildfire.

- The 2018 wildfire on Saddleworth Moor, which was followed by a further serious wildfire in February 2019, took 10 days to bring under control. The effort involved firefighters from seven counties assisted by gamekeepers, wardens from the Peak District National Park, National Trust and RSPB, as well soldiers, farmers and other volunteers. The gamekeepers, who came from nine shooting estates from across the Peak District, provided much-needed experience and specialist firefighting equipment.

- Some four square miles of moorland were destroyed, and the environmental damage was considerable. The moor had a no-burn policy.

- The 2019 wildfire of Scotland's Flow Country, which resulted from the moorland becoming overgrown, likewise severely damaged over 22 square miles of this UNESCO world heritage site. 700,000 tonnes of CO_2 equivalent were released into the atmosphere, doubling the country's greenhouse gas emissions for the six days it burned.

- An exercise by Scottish Natural Heritage and the Scottish Fire and Rescue Service (SFRS) in 2018 also showed that the correlation between the number of wildfires resulting in an SFRS call-out and areas managed through heather burning was extremely low. From a total of 153 fires, only four were in areas of managed moorland and none occurred during the burning season. All were due to accident or arson.

Flood prevention

- The accusation that moorland heather burning contributes to flooding shows a lack of understanding about the practice and its role in conserving heather and peatland across the uplands.

- Drainage of peatland with agricultural drains, or 'grips', was once widespread in the uplands. In the 1960s and '70s successive governments offered farmers and landowners grants for draining their land, aimed at increasing agricultural productivity not grouse numbers.

- Drainage of peatland has since been discredited. Research undertaken by the Game and Wildlife Conservation Trust in the 1980s and '90s found drains erode over time. It concluded that blocking these drains was the only way to reverse moorland deterioration.

- Grouse moor managers, working in conjunction with government and other stakeholders, continue to work on projects including re-vegetating bare peat and blocking government-incentivised drains. The aim is to restore damaged peatland and encourage the growth of peat-forming sphagnum moss which slows the flow of surface water and filters out discolouration.

- Peat Restoration Partnerships have proved highly effective and are an example of stakeholders working together to restore peatland. In the North of England over 44,500 acres of moorland have been repaired and revegetated. In the North Pennines, work to block agricultural drains resulted in the North Pennines Area of Outstanding Natural Beauty Peatland Programme being awarded the Climate Change Award at the Durham Environment Awards 2015.

- A Natural England Evidence Review into The Effects of Managed Burning on Upland Peatland Biodiversity, Carbon and Water (Natural England, 2013) concluded, "no evidence was identified specifically relating to the effect of burning on watercourse flow or the risk of downstream flood events. If there are any effects, these are likely to be highly site specific." Based on that Review, the prominent ecologist Professor Jeremy Purseglove stated in Countryfile Magazine in January 2016 that any link between moor management and flooding was "unproven".

- There continues to be no proven link between grouse moor management and flooding. What is clear is that the concerted efforts of grouse moor managers to block agricultural drains and revegetate bare peatland contributes to slowing the flow of water through the catchment area. This work should be seen as part of any flood prevention strategy, not a causal factor.

Countryside Alliance position

- The Countryside Alliance supports the continuation of controlled vegetation burning, conducted in accordance with best practice, as an option in moorland management.

- There is no clear scientific consensus to support a blanket ban. Policy decisions must not be influenced by special interest groups that regularly ignore or distort evidence in an attempt to outlaw the practice, to further their own agendas.

- The debate around managing heather moorlands has become derailed by an undue focus on the issue of driven grouse shooting, leading to arguments against controlled burning being presented as scientific consensus by influential individuals and organisations.

- These groups are so preoccupied with the issue of grouse shooting that in calling for a ban on controlled burning of heather on moorland, they are choosing to ignore all the scientific evidence in its favour. This is irresponsible, especially considering the devastating environmental and economic impact of wildfires, which controlled burning play an important role in helping prevent.

- The Countryside Alliance welcomes the Government's acknowledgement that controlled burning has an important role to play in preventing wildfires and for conservation. Grouse

moor managers are undertaking considerable work to reduce the risk of wildfires, capture carbon, maintain and enhance biodiversity, and improve the ability of the uplands to store water and reduce downstream flooding.

- In doing so, they are protecting and enhancing these treasured, globally rare upland landscapes.

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