

The Heather and Grass etc. Burning (England) Regulations 2021: A start, not a solution Link Policy Briefing

Background

England contains around 355,000 hectares of upland deep peatland habitat (an upland area where peat forms the soil to a depth of more than 40cm) with a particular concentration of the habitat being found in the Pennines.¹ This habitat is also known as blanket bog but is referred to as upland peat in the remainder of this briefing).

These high value upland peat habitats are subject to rotational burning. This practice sees vegetation on top of peat set alight at regular intervals, in order to create better conditions for the rearing of grouse for the shooting industry.

Upland peat habitats are a significant carbon store² and burning heather and grass within them releases carbon. Natural England has calculated that around 260,000 tonnes of CO₂ are released every year from rotational burning on peat in England.³ Rotational burning also reduces the biodiversity value of upland peat habitats, drying them out from their natural wet state.⁴

In January 2021 the Government announced the introduction of a partial ban of burning heather and grass on peatland, in recognition of the 'consensus that burning of vegetation on blanket bog is damaging to peatland formation and habitat condition'.⁵ The Heather and Grass Burning Regulations 2021 were introduced as an SI to put this partial ban into law.

The Heather and Grass Burning Regulations were laid as a Statutory Instrument (SI) on 16 February 2021. The full text of the Statutory Instrument (SI) can be found [here](#). On 11 March the Secondary Legislation Scrutiny Committee drew the SI to the attention of the House of Lords; the Committee's statement can be found [here](#). On 18 March Baroness Jones of Whitchurch's motion of regret concerning the SI was [debated](#) in the Lords. A vote was called and the motion of regret narrowly defeated, by 274 votes to 252. A RSPB review of the debate can be accessed [here](#).

The SI was considered at a Third Delegated Legislation Committee [meeting](#) on 27 April. The SI passed, despite Labour members of the Committee calling for the SI to be withdrawn to and a more robust SI advanced. The regulations came into force on 1 May, with accompanying [guidance](#) published the same day.

The flaws in the regulations

Two weaknesses prevent the regulations from achieving its policy objective of protecting upland peat habitats from the impact of burning.

¹ <http://publications.naturalengland.org.uk/publication/30021>

² https://www.theccc.org.uk/wp-content/uploads/2013/07/ASC-2013-Chap4_singles_2.pdf

³ <http://publications.naturalengland.org.uk/publication/30021>

⁴ <https://www.wildlifetrusts.org/what-we-do/natural-solutions-climate-change/peatland-solutions>

⁵ <https://www.gov.uk/government/news/englands-national-rainforests-to-be-protected-by-new-rules>

i) *The regulations are flawed by limited scope*

The regulations only partially prohibits burning and only on designated sites only. The regulations state that only sites that are both in a Site of Special Scientific Interest and in a Special Area of Conservation or a Special Protection Area can be considered as designated sites for the purposes of the regulations. Link has estimated that 109,043 ha of English upland peat meet these specifications, out of a total of 355,000 ha⁶. Defra has since suggested, in response to an earlier Link briefing, that coverage is slightly higher, at 142,000 ha.⁷ Even so, significantly less than half of upland peat is covered by the regulations.

In the same response, Defra also suggests that the amount of upland peat in England stands only at 230,000 ha. However, this figure just covers upland peat that is on the Biodiversity Action Plan (BAP) priority habitat list. Upland peat that is not on the BAP list is still precious and should not be burnt. As confirmed by Natural England, there are a total 355,000 ha of upland peat in England. This is the figure that should be used.

In drawing the attention of the House of the Lords to the SI, the Secondary Legislation Scrutiny Committee criticised Defra's use of figures on upland peat, saying:

*'The Department should have been clearer about the actual size of the areas covered by the ban and the peatlands currently subject to rotational burning as well as those areas where consent to burn has already been removed: the mix of percentages, hectares and other metrics and the use of different reference points, such as "protected blanket bog habitat", "peatlands" or "upland deep peat", are a source of confusion and make it difficult to assess the extent and impact of the ban on unlicensed rotational burning.'*⁸

In fact, only a minority of upland peat in England (142,000 ha out of 355,000 ha, so 40%) is covered by the regulations. 60% of upland peat is excluded from the regulation as it is outside the specification for a designated site.

This limited scope will hinder the effectiveness of the regulation. For the best climate and ecological results, all upland peat should be included in the ban.

ii) *The regulations are undermined by loosely worded exemptions*

As well as direct exemptions from the rules, Regulation 4 gives the Secretary of State the power to grant a license to permit burning in a designated site covered by the ban on any of the following grounds:

- (a) for the conservation, enhancement or management of the natural environment for the benefit of present and future generations;
- (b) for the safety of any person;
- (c) to reduce the risk of wildfire; or

⁶ 104,241ha in SACs and 4,802 ha in Bowland SPA – RSPB calculations from JNCC data

⁷ <https://committees.parliament.uk/publications/4911/documents/50015/default/>

⁸ <https://publications.parliament.uk/pa/ld5801/ldselect/ldsecleg/242/24203.htm>

(d) because the specified vegetation is inaccessible to mechanical cutting equipment and any other method of management is impracticable.

These wide-ranging powers given to the Secretary of State mean that even in the 40% of upland peat habits covered by the regulations, the protection offered can be revoked by a licence. The regulations and accompanying guidance contains very little detail on the licensing processes and does not specify a standard of evidence that a licence application must meet to be successful. The absence of such detail risks leaving extensive loopholes that will enable continued burning in protected areas.

More detail about the loophole risk can be found in this report published by the [Independent](#), and in the following Link [blog](#).

The need for stronger prohibitions on heather burning

The regulations weaknesses undermine the Government's advocacy for nature-based solutions to climate change.

The rotational burning season this year coincides with the UK's hosting of the global climate conference, COP26, which will see the Government champion nature-based solutions to climate change. In the words of Environment Minister Lord Goldsmith: 'the UK will use our Presidency of COP26 to persuade other countries to put nature at the heart of their climate response'.⁹

This advocacy will be undermined if it takes places against a backdrop of burning on our peatland habitat. The UK cannot be a champion of nature-based solutions to climate change whilst simultaneously allowing our biggest domestic natural carbon store to be burned.

Link is calling for the regulations to be followed by a prohibition of burning on all upland peatland, in order to avoid this undermining of the UK's climate agenda.

The British public agree. Link has commissioned You Gov polling to gauge public interest in and views on rotational burning and upland peat. The results are clear:

- 60% of the British public want to see the Government's peat burning ban expanded to cover all peatland at risk of being burned, with only 3% opposed.¹⁰
- 56% also want a ban on the burning of all at risk peatland in Scotland, Wales and Northern Ireland.
- Two-thirds of people asked want promises to protect peatland included in UK pledges for COP26
- 67% want the government to ensure our natural carbon stores, like peatlands, are healthy and capture as much carbon as possible.

The public recognise the importance of upland peat, wish to see its potential as a nature-based solution to climate change realised and support a comprehensive burning ban to deliver this.

⁹ <https://www.telegraph.co.uk/news/2020/09/27/britain-will-use-financial-diplomatic-power-help-save-planet/>

¹⁰ <https://www.wcl.org.uk/weak-ban-could-leave-englands-peatland-burning.asp>

Q&A

The game bird industry has a financial stake in the perpetuation of rotational burning, as it is a practice that increases breeding success amongst gamebird populations.¹¹ A number of claims have been advanced to suggest that even the partial and imperfect ban advanced by the regulations goes too far. Link responds to each claim below, with thanks to RSPB for research input:

The science is incomplete – shouldn't we delay action on burning until more research is undertaken?

The argument that the science isn't clear enough 'yet' has been used for decades to hold back environmental progress in many areas of policy.

On burning vegetation on peat, the science is clear. In the words of Lord Goldsmith, responding for the Government to the 18 March Lords debate on the SI "there is now an established scientific consensus that burning of vegetation on blanket bog can be damaging to peatland formation and habitat condition, making it difficult or, in some cases, impossible to restore these habitats to their natural state and to restore their hydrology".¹²

This follows the Committee on Climate Change conclusion (January 2020) that burning is 'highly damaging to the peat...so the practice should be banned across the UK'.¹³ In November 2020 Natural England concluded that 'the body of evidence [shows] that burning on blanket bog is damaging to peatland across a range of environmental outcomes and ecosystem services'.¹⁴

Rotational burning burns heather, not peat. What's the problem?

Whilst the aim of rotational burning is to remove heather, fire is a destructive and carbon-releasing activity which affects every part of the upland peat habitat, leading to an overall increase in carbon emitted. Burning directly adds emissions into the atmosphere, as well as contributes to the peat underneath the heather drying out, degrading, and releasing carbon. It can take around 10 years for the water table to regain its former level in a burned peatland. Furthermore, just the presence of such large quantities of heather on these landscapes is unnatural and is detrimental for the peat soils.

A landmark rotational burning study conducted by Garrett et al in 2000 compared burnt and unburnt upland peat habitats in the Pennines over decades and found 'after 30 years there was significantly less C (carbon) stored in the blanket peat in plots which had been burned every ten years'.¹⁵ A recent study

¹¹ <https://bioone.org/journals/wildlife-biology/volume-2017/issue-SP1/wlb.00227/Does-rotational-heather-burning-increase-red-grouse-abundance-and-breeding/10.2981/wlb.00227.full>

¹² [https://hansard.parliament.uk/lords/2021-03-18/debates/3770C9D8-040C-4B7F-A305-E9BD27B88B63/HeatherAndGrassEtcBurning\(England\)Regulations2021#contribution-681D0297-33DF-4960-B6D4-7B77852F8D0B](https://hansard.parliament.uk/lords/2021-03-18/debates/3770C9D8-040C-4B7F-A305-E9BD27B88B63/HeatherAndGrassEtcBurning(England)Regulations2021#contribution-681D0297-33DF-4960-B6D4-7B77852F8D0B)

¹³ <https://www.iucn-uk-peatlandprogramme.org/news/committee-climate-change-report-land-use-policies-net-zero-uk>

¹⁴ <http://publications.naturalengland.org.uk/publication/6647144950005760>

¹⁵ https://www.researchgate.net/publication/29813355_Effects_of_burning_and_grazing_on_carbon_sequestration_in_a_Pennine_blanket_bogUK

of a wildfire on upland peat in North East Scotland demonstrated the destructive impact that burning vegetation has on carbon storage in upland peat habitats — this one wildfire emitted carbon equivalent to 6.2 days of 2017 daily average greenhouse gas emissions in Scotland.¹⁶

This accumulation of evidence has led Natural England to their calculation that 260,000 tonnes of CO₂ are released every year from rotational burning on upland peat habitat in England. We need to ban burning, with this being the first step on the path to fully restoring these landscapes to their natural wet & boggy state – a condition that is better for nature and better for the climate.

Doesn't rotational burning provoke the growth of carbon capturing mosses such as sphagnum?

A 2018 paper from Noble et al, drawing on decades of data, suggests a nuanced picture. The paper concluded that *'in some cases fire has a negative impact on sphagnum, and this can persist for several decades'*.¹⁷ The paper did find that repeat burning could, along with other circumstances like a change in pollution levels, help damaged sphagnum recover from the impact of the original burning. Burning's possible role under certain circumstances as a partial mitigation agent should not obscure its proven role as a cause of sphagnum loss. The partial mitigation role could also be more effectively delivered by habitat restoration.

Isn't burning the only way to prevent wildfires?

Wrong. Controlled burning can often become out of control wildfires – and the vast majority of fires that become wildfires, are started intentionally or accidentally by individuals, rather than occurring naturally. But more importantly, burning is only done to re-grow the easily flammable heather vegetation, which the land manager has put there to begin with - these landscapes would not be dominated by heather in their natural state – they would be bogs. When you burn the heather, you get locked into an ever-smaller cycle of the heather continually growing back quicker and thicker, which maintains this heavy fuel load on the peatland.

The only way to truly reduce the risk of wildfires in the long term is to move away from these moorlands being heather dominated landscapes, by restoring the peatland hydrology, raising water levels (re-wetting), and transplanting peat-forming mosses back onto the bog surface – and moving the peatland back towards something that is actually a bog – i.e. muddy pools of stagnant water, which clearly don't catch fire! This restoration should be undertaken in tandem with targeted vegetation cutting (if needed). Particularly with the impacts of ever worsening climate change and biodiversity loss, the pressures on our peatland will increase, so we need to start restoring and re-wetting now in order to build up the long-term resilience of these landscapes.

¹⁶ <https://www.wwf.org.uk/sites/default/files/2019-11/Carbon%20loss%20and%20economic%20impacts%20of%20a%20peatland%20wildfire%20in%20north-east%20Sutherland.pdf>

¹⁷ <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6211700/>

Wont re-wetting be very expensive?

Not compared to the alternative. The Office for National Statistics estimates fully restoring the UK's degraded peatlands could cost between £8bn-£22bn over the next 100 years, but would save £109bn in terms of reduced carbon emissions.¹⁸

Burning is used as a land management practice in Australia/California, so should be used here too?

They are totally different types of landscape (mainly woodland) so the comparison is irrelevant and is unable to be made with how we should manage the UK's upland peatland.

Isn't it the case that there are no feasible alternatives to burning?

Wrong. For decades, the RSPB (and others) have been managing our own blanket bog reserves through a mixture of cutting and re-wetting.

Doesn't burning creates important habitat for curlew and other wading birds?

By intensively managing the land through practices like burning, as well as the widespread culling of ground predators (such as foxes) and birds of prey (such as hen harrier), in order to rear large populations of red grouse, the land managers have created what is essentially an unnatural flashing beacon to which certain species are attracted to.

These practices are unsustainable and hugely damaging to both the local ecosystem and climate change, and are done with the aim of rearing gamebirds; the presence of other species is a side effect. This system of land management creates ecosystems that are unnatural and distorted, with huge numbers of game birds alongside populations of a very small number of other species – rather than a truly biodiverse ecosystem and landscape. The nature and climate impact, as well as increased risk of flooding and reduced air quality, clearly outweigh the very small and site-specific benefit for the local population of a handful of species.

There are many alternative ways of creating habitat for curlew and other species of wading birds which are ecologically sound and sustainable – like re-wetting through ditch blocking and planting sphagnum mosses.

Isn't it the case that management of upland peat for game birds provides a net gain for carbon storage, due to industry-led restoration work?

Whilst this restoration work is welcome, its scale compares poorly with the scale of rotational burning. We understand that the game bird industry has restored around 8,000 hectares of upland peat habitat in England. This compares to 27,660 hectares of upland peat habitat burning, observed by a 2015 study

¹⁸

<https://www.ons.gov.uk/economy/environmentalaccounts/bulletins/uknaturalcapitalforpeatlands/naturalcapitalaccounts>

by Douglas et al.¹⁹ The overall amount of land burnt is likely to be even larger than that, as the 27,660 hectares only relates burning in SSSI, SAC or SPA sites. A ratio of over 3 hectares burnt for every hectare restored does not represent a net positive for upland peat habitats.

Does this mean the end of grouse shooting?

No. Shooting would need to be undertaken in a less intensive way in bogs managed for nature, but it could still continue – and it would be compatible with then nature and climate crises.

For questions or further information please contact:

Matt Browne, Advocacy Lead, Wildlife and Countryside Link E: matt@wcl.org.uk

Wildlife and Countryside Link (Link) is the largest environment and wildlife coalition in England, bringing together 58 organisations to use their strong joint voice for the protection of nature

14 May 2021

¹⁹ <https://muirburncode.org.uk/wp-content/uploads/2016/08/Douglas-et-al-Burning-for-Game-Management-2015-1.pdf>