



Position Statement

A Response to the UK Government's Proposed Ban on Prescribed Vegetation Burning on Deep Peat

(2nd October 2025)

‘One of Sherlock’s axioms goes something like this:

“It is a big mistake to theorize before one has data – because one begins to twist facts to suit theories, instead of theories to suit facts.”

‘You are starting to try my patience, Mr. Copeland.’

‘I gave you a new fact. Rather than trying to rethink what happened, you just immediately found a way to twist that fact to suit your theory.’

He just stared at me. I didn’t blame him. I was coming on hard, but I needed to push.

(Harlan Coben; The Woods; 2014; Orion Books, London)

Government's Position

The UK Government recently announced that burning on peatlands > 30 cm is to be effectively banned as a management tool for vegetation, replaced by cutting and rewetting (Defra, 2025a). The policy announcement in relation to a consultation claims that rewetting will be sufficiently effective in reducing heather cover and fuel loads to a level where wildfire will be far less of an issue (Defra, 2025b). The policy announcement also states that 30 cm is an evidence-based threshold for blanket bog vegetation. **Defra claims that these policy changes are backed by robust science in response to the latest evidence assessments by Natural England.**

Important Background

There is widespread recognition that, as most scientific focus to date has been on the impacts of prescribed burning, **significant knowledge gaps remain regarding the impacts of the alternative heather management tools available to moorland managers.** To address this lack of understanding, and in light of most previous studies being limited to around three years, in 2011 Defra decided to fund the Peatland-ES-UK study: the first long-term and fully replicated Before-After Control-Intervention (BACI) experiment, designed to compare burning, cutting and no-management (Heinemeyer et al., 2019). Crucially, this study was recommended by Defra to monitor three sites ranging from dry to wet bogs, over a complete management cycle of about 25 years. Therefore, it would allow, for the first time, a robust comparison of the impacts of managed versus unmanaged heather areas, considering any pre-existing differences between sites and

plots – a mostly overlooked but crucial factor likely explaining most of the detrimental impacts associated with burning in previous studies (Ashby & Heinemeyer, 2020).

In 2018, Defra appointed an unprecedented in-depth review of the initial five-year phase of the Peatland-ES-UK study, which praised its significance and confirmed the robustness of its experimental design. In 2019, Defra approved the publication of the five-year report, which included peer-review comments and responses. Defra also expressed enthusiasm for its utility in formulating evidence-based upland land management policy.

It was therefore surprising that, for reasons never made public, Defra significantly reduced the funding for this important study, despite the peer review of the five-year report strongly recommending a 25-year extension. The peer review emphasised the study's significance as the only robust long-term BACI design study, which included plot-to-catchment scale monitoring at three climatically different sites, thereby addressing many of the well-known limitations of previous studies. Importantly, funding was sought from elsewhere to ensure that the study continues to this day, with the majority of the overall financial support coming from Defra, water companies and the Natural Environment Research Council (NERC). The data analysis and interpretation continue as agreed at the outset, with the continued presence of Defra and Natural England on the Advisory Group. An updated 10-year report has provided **clear evidence that the initial short-term findings were misleading, underscoring the necessity of considering pre-management differences** when evaluating how management affects carbon, water and biodiversity (Heinemeyer et al., 2023).

Concerns about the evidence presented to Defra

Recent publications clearly show that some key reports by Natural England (Gregg et al., 2021; Glaves et al., 2013; Noble et al., 2025) and other influential organisations such as the IUCN UK Peatland Programme (e.g., IUCN, 2020) and NatureScot (Holland et al., 2022) frequently **misinterpret study findings, make misleading and even false statements, and lack robust evidence to support generic claims around impacts from burning, rewetting and alternative cutting** (Ashby & Heinemeyer, 2021; Heinemeyer & Ashby, 2023; Heinemeyer et al., 2025).

Another concern is that the RSPB, an organisation with strong opinions about heather burning, frequently contributes to many of these reports, whilst organisations and researchers with contrasting views are often absent (e.g., Heinemeyer & Ashby, 2023), suggesting potential bias. It is particularly concerning that the views of Chief Fire Officers appear to have been ignored in the Defra consultation (Telegraph, 2025). Moreover, Natural England reports frequently cite the EMBER report as key evidence (e.g., Noble et al., 2025) highlighting the damaging impact of prescribed vegetation burning on blanket bog ecosystems. However, many of the publications linked to the EMBER report were based on a Space for Time (SfT) design, with unburnt sites being naturally wetter and ecohydrologically different from burnt sites, due to their higher elevation and more westerly locations (Ashby & Heinemeyer, 2020). Moreover, study site is confounded with treatment for most of the hydroecological impacts assessed in the EMBER study, and no attempt was made to control for this in the statistical analysis (Ashby & Heinemeyer, 2019). Further issues include soil temperatures likely being artificially elevated by sunlight exposure, and the inappropriate treatment of subsamples as true replicates during analysis (Ashby & Heinemeyer, 2019). However, EMBER and other potentially biased SfT studies were ranked as considerably

more robust than the Peatland-ES-UK study by Natural England in several recent reviews of the impacts of heather management on peatlands (e.g., Moody & Holden, 2023; Noble et al., 2025), with the Peatland-ES-UK study apparently being labelled as an 'outlier' by Natural England without offering clear justification (Raptor Persecution, 2023). Indeed, of particular concern is the **lack of transparency from Natural England about how the robustness of individual studies was determined during the critical appraisal process** (criteria for assessing study robustness are provided, but no information is provided about how individual studies met each criterion and why). Another key concern is that several authors of these recent Natural England reports on heather management are directly linked to the EMBER project. It is worth noting that those methodological criticisms of key studies and reviews were published in scientific papers (e.g., Ashby, 2020; Heinemeyer & Ashby, 2023; Heinemeyer et al., 2025), and concerns about potential bias, false and misleading statements were raised directly with Natural England. A recent publication summarises the key issues to be considered and recommends a reassessment of all recent reviews on the impacts of heather management on peatlands (including those for NatureScot) before any policy changes are made (Heinemeyer et al., 2025). This reassessment should be based on a sound and transparent review methodology (e.g., CEE, 2022) **that accounts for key concerns such as study design, temporal and spatial scale, statistical robustness, and unverified opinions.**

Our position

Heather moorland management, including on peatlands, has a long history spanning hundreds to thousands of years. Prescribed burning of small vegetation patches under cold, wet conditions has traditionally been one of the main management tools. Over recent decades, however, many false claims and accusations regarding the impacts of prescribed burning—often conflated with other aspects of grouse moor management and land ownership (Monbiot, 2013; Avery, 2015; Davies et al., 2016; Shrubsole, 2019)—have emerged, ultimately contributing to the latest proposed ban on prescribed heather burning across nearly all peatlands (Defra, 2025a). The lack of robust evidence supporting such a ban has been well-documented (Heinemeyer et al., 2025 and references therein). Notably, critical expert voices appear to be largely excluded from key groups, such as the IUCN UK PP and the list of reviewers and authors of Natural England reports, creating an 'echo-chamber' that reinforces pre-existing opinions. In addition, key reports commissioned by Natural England—challenging overly generalised claims such as the assumption that intact peatlands are uniformly wet and that peatland plants are particularly susceptible to fire—have been approved but remain unpublished by the agency (e.g., Eades et al., 2021; Belcher et al., 2025). More importantly, the **potentially immense and increasingly documented risks associated with the alternatives—such as cutting or no management—are becoming ever clearer.** These include damage to the peat surface and its microtopography, loss of habitat diversity and, consequently, biodiversity, and an increased fuel load that potentially leads to devastating wildfires (FLF, 2023; Heinemeyer et al., 2025). Finally, and most worryingly, the aspects of the proposed policy changes likely to incur the greatest costs for people, place, and nature appear not to have been considered at all:

- If permission to burn heather is not granted for wildfire prevention, then Natural England and other government agencies have, in effect, decreed it is not necessary. This is not just a decision but implies an **acceptance of responsibility for future outcomes**.
- In recent wildfires, much has been made of the actions of estate workers, farmers and gamekeepers who have responded with equipment and manpower (especially at night) to assist the Fire and Rescue Services (FRS), often at **considerable risk and cost to people and equipment**. If Defra have taken control of the situation by justifying imposed policy changes based on unsound and questionable assessments of the evidence base by Natural England and others, then it seems they:
 - have no right to expect estates and their teams to assume this responsibility;
 - need to replace this voluntary effort with their own agency staff and equipment;
 - need to conduct and pay for training FRS personnel to replace the function currently provided by gamekeepers, farmers and their equipment;
 - need to pay for track maintenance of abandoned areas to ensure continued FRS crew and vehicle access;
 - must cover the costs of firefighting and any resulting damage to people, assets, ecosystems, and the restoration of ecological functions.

We believe there is currently **no robust evidence to justify the proposed policy changes on heather management in peatlands, regardless of peat depth**. The existing evidence base urgently requires an independent, transparent and unbiased reassessment as outlined in peer-reviewed publications (Heinemeyer & Ashby, 2021; Heinemeyer et al., 2025). Furthermore, we do not believe the government has adequately considered the potentially enormous costs or clarified responsibilities and accountability—a concern echoed by senior FRS staff.

Accordingly, we **strongly support calls to pause the proposed policy changes until a full, thorough, transparent, and unbiased evaluation of the available evidence and potential consequences of any policy changes has been completed**. Given the many likely negative impacts of heather cutting or cessation of management—particularly increased fuel loads that can greatly exacerbate wildfire severity and other ecological consequences—**we believe the following aspects should be investigated first**:

- (1) **The potential limited effectiveness of heather cutting in reducing fuel load** (Barber-Lomax et al., 2022). Dry brash could easily ignite, causing dangerous peat-smouldering fires.
- (2) **The association between a cessation of heather management and wildfire risk**. Large areas of unmanaged heather may contribute to higher fuel loads, increasing wildfire risk and severity.
- (3) **Ecological and health risks from brash accumulation**. Large brash layers may provide ideal breeding conditions for ticks and other pests, posing ecological, animal, and human health risks, as well as potential water quality issues from brash decomposition.
- (4) **The long-term consequences of heather cutting on peat microtopography and nutrient cycling**. Repeated heather cutting and brash removal (e.g., via baling) may deplete crucial micronutrients (e.g., Mn, P) and disrupt peat microtopography and ecosystem functions.

- (5) **The effectiveness of rewetting for wildfire prevention and mitigation.** Due to topography and other factors, interventions such as drain blocking, bunding, or *Sphagnum* reintroduction may have limited potential to significantly increase the wetness of moorlands or reduce heather cover (i.e., fuel load) at a landscape scale. Consequently, rewetting may not be an effective tool for preventing or mitigating wildfires. Importantly, this is not an argument against rewetting itself, but rather for ensuring that landowners retain other wildfire mitigation options, such as prescribed burning.

Highlighting key aspects in the overall evidence

1. Peat depth

There appears to be **no published scientific evidence supporting the claim that 30 cm is superior** to 40 cm for defining the point at which blanket bog vegetation communities appear. On the contrary, the only modelling study examining the transition from an organo-mineral to an organic (deep peat) soils—considering water table depth mostly within the peat column rather than the bedrock—supports a 40 cm threshold (Heinemeyer et al., 2019).

Furthermore, the rooting depth of several blanket bog species can extend to below 30 cm, and it is the access to bedrock minerals, coupled with a water table generally below the peat layer, that limits the development of a fully functioning blanket bog vegetation community. The previous 40 cm threshold is therefore far more ecologically sound. It is also important to note that species presence alone does not necessarily indicate a functioning (or potential) blanket bog ecosystem, as many plant species found in bog habitats can tolerate a wide range of environmental conditions, including varying moisture levels.

2. Burning

The **impacts of burning have not been reviewed adequately and have not been measured over sufficiently long time scales.** Many studies have captured only short-term disturbance responses—which can be misleading and are associated with nearly all management types—and have relied on shorter and less expensive correlative studies (i.e., SfT) that typically do not account for confounding factors, such as grazing history, drainage, or climate. These confounding factors are likely to explain many of the observed negative impacts attributed to prescribed burning on peatlands. The 2025 update to the Natural England burning evidence review by Noble et al. (the lead author associated with the EMBER study), knowingly chose not to improve its methodology to address these well-documented limitations—particularly regarding confounding factors and causality (e.g., Ashby, 2020; Heinemeyer et al., 2025)—apparently solely to maintain comparability with the previous iteration by Graves et al. (2013). Moreover, as previously mentioned, the report contains several inaccuracies and omissions, notably a lack of transparency regarding study robustness rankings.

3. Cutting

The **impacts of cutting have not been adequately researched or assessed over sufficient spatial and temporal scales to justify claims that it is a superior management tool for blanket**

bog plant communities, the protection of peat carbon stocks, or the promotion of future peat formation (see Heinemeyer et al., 2023). There are some likely short-term benefits in relation to peat moisture. However, there could also be increased methane emissions from decomposing brash, and litter could add to the combustible fuel load and smouldering conditions during wildfires. Brash may also have a detrimental impact on the post-management recovery of some plant species and could cause tick and other pest infestations, as well as water quality issues. There is also some evidence that cutting can damage the peat surface and its important microtopography.

Furthermore, cutting is far more limited in its applicability across the varied and complex topography of moorland and can be very costly depending on access and subcontractor capabilities (Heinemeyer et al., 2019). This will inevitably result in less heather being managed, and thus a greater fuel load contributing to a higher risk of wildfire damage at a time when experts are predicting an increase in their occurrence (Belcher et al., 2021). We also note that the Natural England cutting review by Moody and Holden (2023) was conducted by academics who appear to lack key expertise in certain areas (e.g., carbon) and contains numerous false and misleading statements. These statements often misinterpret or overlook study findings, and there is a lack of transparency regarding study rankings.

4. Rewetting

Whilst rewetting may often be beneficial, there is **no robust science to support the generic claim that it can significantly reduce heather dominance on UK moorlands**, particularly given the weak and sometimes contradictory evidence that prescribed burning promotes heather dominance. There is also **no evidence that rewetting can be achieved to a meaningful extent over large areas of all moorlands**. Topography, natural hill drainage and underlying geology mean that substantial areas of even blanket bog will always drain and experience seasonal lowering of water table depths, regardless of drain blocking or bunding (the latter only being possible on relatively flat basins or following natural flow paths). It is important to recognise that potential wetness varies: most sloping, ombrogenous peatlands (e.g., hill blanket bogs) are naturally drier than permanently wet, flat, topogeneous bogs (e.g., valley bogs). This distinction is well-documented in the “leaky slope” versus “*soup bowl*” concept by Glatzel et al. (2013). Observational evidence also indicates that long-established drains (spaced ~15 m apart) have limited negative hydrological and plant community impacts, with drainage and rewetting effects typically confined to a few metres on either side of drains, indicating a limited response to drain blocking (Stewart & Lance, 1991; Williamson et al., 2017). These findings suggest that both the applicability and long-term benefits of rewetting are likely overstated. In fact, in some cases, heather and other vegetation may grow more biomass under rewetting scenarios where they are currently periodically drought-stressed. Layering of old heather is well-documented, and long-term data from the very wet Moor House site show that heather cover and biomass remain dominant over very long time scales (~60 years). Thus, claims about rewetting reducing heather dominance are overly generic (Heinemeyer et al., 2025). Misleading claims are also made about rewetting and flooding. For example, while interventions such as revegetating bare peat and blocking deep drains may help mitigate flooding, the effects of other rewetting measures—such as changes in heather and *Sphagnum* cover—on flooding remain unknown. We also note that the

Natural England report on defining “favourable” blanket bog conservation status is poorly referenced, opinion-driven, and expresses a “view” rather than a scientific consideration (Crowle et al., 2025).

5. Fuel load / Wildfire

Experts are warning us that the UK is not immune to increasing fuel-load levels on moorlands and the associated wildfire risks (Belcher et al., 2021). While some have dismissed views of wildfire analysts from other countries, the well-established correlation between fuel load and wildfire intensity is considered a universal factor, applicable to ecosystems worldwide, including the UK uplands. On most moorlands, *fire is not a matter of if but when*. Given that **banning prescribed burning—and thus leaving greater heather areas unmanaged—is highly likely to increase fuel loads** (Heinemeyer et al., 2025), we must be prepared for more frequent and severe wildfires, particularly where dense, old heather stands persist, or scrub and trees are allowed to establish. [Note: there are many examples from Scotland, North York Moors, Peak District, New Forest, ...]. Alternative management strategies are often impractical or too costly for land managers to implement, exacerbating this risk.

While the government offers reassurance that Natural England may grant consent for prescribed burning in areas where wildfire risk is considered high and no other options are viable, there is no indication of how such risk would be assessed or decisions made. Arson is a significant cause of wildfire: events such as the Corrimony, Morayshire and Caithness fires occurred in areas deemed to be low risk, yet they proved to be amongst the largest and most damaging. To illustrate this uncertainty, one should ask: would Natural England have given permission to allow prescribed burning in the areas affected by the recent Langdale wildfire on the North Yorkshire Moors to mitigate wildfire risk, if such a request had been made?

Accidental wildfires can occur wherever the public has access to moorlands, making it challenging for Natural England to quantify wildfire risk when deciding whether to grant permission for prescribed burning. For example, a recent study (Denny, 2025) of gamekeeper activity on 57 moors in England found that they asked visitors to extinguish campfires or barbecues on 2,323 separate occasions between October 2023 and September 2024. The risk of wildfire arising from careless or malicious behaviour is both real and widespread.

We are also concerned that **policy may have been influenced by misleading claims suggesting that escaped prescribed burning is responsible for a significant proportion of wildfires**. For example, a recent Natural England report cited a figure of 25–64% in the uplands (Glaves et al., 2020), which appears misleading. When considering the total fire area rather than only the area of known causes, the proportion is much smaller (~10%). Any such comparison should also account for ecological significance, including fire scale (total area affected) and impact (severity). Furthermore, the Wildfire Briefing POSTnote 717 presented to the government in 2024 is poorly and inadequately referenced, with several personal opinions used as key references. Finally, in the Natural England report by Yallop and Thacker (2023), which assessed an in-depth wildfire risk report for the Peak District National Park by Barber-Lomax et al. (2022), the authors acknowledge that, due to their lack of subject-specific expertise, *“it is feasible we may have mis-inferred or mis-interpreted many aspects of the report, and we apologise if this has occurred.”*

6. Consultation and Evidence Process

We are deeply concerned about the process used to justify the decision to effectively ban nearly all prescribed burning. **The Natural England updated evidence review on burning (NEER155) by Noble et al. (2025) was neither transparent nor methodologically robust**, relying on an inferior approach solely to maintain consistency with the previous review by Graves et al. (2013). More rigorous methods—such as those previously considered in collaboration with Natural England (Ashby, 2020)—allow studies to infer causality more accurately and, consequently, can lead to very different conclusions.

Whilst a review into the impacts of heather cutting on peatlands has been recently completed on behalf of Natural England (Moody & Holden, 2023), as outlined above, **many concerns were raised with Natural England about the quality of this review**. However, the cutting review seems not mentioned or considered much by either Natural England or Defra. Surprisingly, **there seems to be no comprehensive and robust assessment of the implications of a cutting or no-management scenario**. Furthermore, as rewetting is the moorland management regime ultimately claimed to deliver plant communities more representative of ‘natural’ blanket bog, more focus was needed to investigate the actual evidence for this, **considering hydrological limitations in rewetting large areas of moorland to mitigate wildfire risk from heather**. The only available report on this by Crowle et al. (2025) is highly opinion-driven and without adequate referencing in relation to substantiating evidence-based claims.

We also think that before setting a vision on any desirable level of heather cover (with important heather moorland habitat in rapid decline; Jarrett et al., 2025), more attention should have been given to the critical consideration of the evidence on historical heather cover on moorland landscapes before prescribed burning was commonplace (Heinemeyer et al., 2025). It has been stated previously that it remains unknown as to whether fire increases heather or vice versa (Davies et al., 2016). Some studies, such as those by Fyfe et al. (2013), suggest that current levels of heather cover were regionally significantly higher than they are today, and thus **bring into question the hypothesis that prescribed burning has created "heather monocultures"**. In any case, managed heather moorlands are not a monoculture in time and space, with many important biodiversity aspects across the different age structures and plant communities. Moreover, comparing the past to the future is unlikely to be valid, as our climate is rapidly changing, and policies need to consider shifts in climate that affect future changes in potential wetness, vegetation, and wildfire risks. The **evaluation of the evidence on wildfire was poor and contradictory, and, like the aspects of cutting or cessation of management, was not part of the consultation**. It is therefore a very real worry that concerns raised by a consortium of wildfire expert academics and the National Fire Chiefs Council were not adequately evaluated by Defra during the consultation process.

We suggest that the intense focus on (often short-term and localised) negative aspects of prescribed burning has distorted an objective search for the best means of managing our moorland habitats into the future. This appears to be reflected in **the numerous inadequate, ill-informed and sometimes inaccurate interpretations or unverified statements made in recent reviews or related documents**. Clearly, any management has positive and negative impacts, and some land managers are more considerate than others. Heather management is no different; a

robust and expert-led assessment of the evidence base is required to inform policy on achieving the best outcomes and best-practice regulation. Otherwise, unintended consequences – such as devastating wildfires or a real risk from tick infestations and associated illnesses in livestock and people – are likely, potentially at great environmental and economic cost. This is especially true, as there is even less known about the long-term outcomes of the potential alternatives, including cutting or cessation of heather management, and many unknown claims have been made about rewetting. Evidence reviews must consider confounding factors (i.e., drainage and climate) and study design limitations (i.e., SfT) to allow robust conclusions to be drawn about the impacts of specific management interventions. None of the recent reviews into vegetation management on peatlands pay adequate attention to this issue. Moreover, the lack of expertise by reviewers is evident, sometimes in their own statements, with false and misleading statements or unevidenced claims in reports. Therefore, in light of concerns about the inferior and potentially biased review methodology and interpretations, these reviews need to be reassessed before any changes are made to policy (Heinemeyer et al., 2025).

Conclusions

Based on the concerns outlined above, which are supported by numerous published documents and submissions to Defra as part of the consultation, a pause in the proposed change to the legislation seems justified. Subsequently, an adequate, in-depth, independent and unbiased expert review assessing the evidence underpinning any changes to policy, including the quality of Natural England reports and reviews, should be conducted. **Any consultation needs to be robustly informed by evidence on the impacts and consequent risks of all management options (including the cessation of vegetation management), and to allow all major stakeholders and experts to provide input into that process.** We and others have repeatedly shown that emotive and unevidenced opinions, along with numerous misleading or false claims, have often dominated the debate, the consultation process, and many of the supporting evidence reviews—overshadowing robust evidence and expert experience.

Although the precautionary principle might have been invoked to justify the recent policy change, it is even more relevant to cutting and no-management regimes, given expert concerns about ecological and wildfire risks. Crucial ongoing research designed to inform evidence gaps should be completed to support evidence-based policy. However, we acknowledge that good regulation and training in moorland management options can and should ensure best practice towards an outcomes-based approach. As recommended in the peer-review report to Ashby (2020), a sensible approach would be an **adaptive management framework, in which different management practices—including burning—are applied across sites and monitored for outcomes.**

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