HOUSE OF COMMONS

Environmental Audit Committee

Oral evidence: Peatlands: natural and environmental benefits and impacts, HC 1731

Wednesday 4 March 2026

Ordered by the House of Commons to be published on 4 March 2026.

Watch the meeting

Members present: Mr Toby Perkins (Chair); Julia Buckley; Jonathan Davies; Carla Denyer; Barry Gardiner; Chris Hinchliff; Sojan Joseph; Manuela Perteghella; Martin Rhodes; Dr Roz Savage; Blake Stephenson; John Whitby; Sammy Wilson.

Questions 46 - 121

Witnesses

II: Gabrielle Edwards, Deputy Director of Access, Landscape, Peatland and Soils, DEFRA; Alan Law, Deputy Chief Executive and Chief Operating Officer, Natural England; Craig Rockliff, Head of Biodiversity Data, Nature Regulation and Peatland, Environment Agency.

Examination of witnesses

Witnesses: Gabrielle Edwards, Alan Law and Craig Rockliff.

Q46 **Chair:** Welcome back, ladies and gentlemen, to the second session of our one-off review into peatlands and the impact of Government policy on them. We have in front of us now a panel representing Natural England, DEFRA and the Environment Agency. I do not know whether the three of you were all present in the session that has just gone before, but it has given us all plenty to consider. We are very grateful to you for attending this session. Could I start by just asking the three of you to introduce yourselves, your organisations and your role in peatland preservation and policy?

Craig Rockliff: I am Craig Rockliff. I am the head of nature data regulation and peatland management in the Environment Agency. Our role there has been working on delivering the grant schemes for discovery pilots, working with local communities, farmers and landowners to develop communities to encourage the development of the sustainable management of peat. We also provide additional support for upland management. We are here today because of the level of water and the role that water plays in peat, as you have probably heard from the previous session.

Gabrielle Edwards: I am Gabrielle Edwards. I am deputy director for access, landscape, peat and soils in DEFRA. Peat policy is part of my job. I lead the team that has overall responsibility for peat policy, but also for developing the programme that spends money to deliver the targets on peat restoration, as well as the legislative work around heather and grass burning, which you have just heard a lot about. We also run the licensing and enforcement function around the heather and grass burning regulations.

Alan Law: I am Alan Law. I am chief officer for operations at Natural England. My teams deal with the frontline services, if you like, working with landowners, developers, local planning authorities and the like around site management, site regulation, species licensing and that range of matters, as well as, importantly, agri-environment scheme advice.

Q47 **Chair:** I will come back to you in a moment, Mr Law. Ms Edwards, you will have heard, in the previous session, Mr Gilruth from the Moorland Association being particularly critical of the advice that DEFRA officers have provided to Ministers. Specifically on the charge of misleading Ministers on this, I will give you an opportunity, before we get into the bones of the issue, to respond to what you heard. Are you content that Ministers have not been misled on this matter?

Gabrielle Edwards: I am completely content on that. I did sit through that session and heard what Mr Gilruth said. I will just say two things.

First, the advice to Ministers around heather and grass burning covered a whole range of issues, including looking at the scientific advice, which was based on advice from Natural England and an evidence review that it had concluded, which Alan might want to talk about. It also covered the responses from the consultation exercise that we had undertaken. We had a lot of responses to that, including, as he said, from the fire and rescue service. It included economic advice.

As far as we are concerned, Ministers had an extremely balanced package of advice. It is probably worth saying that that was crawled over through the judicial review that was referred to. Part of the grounds that were brought against the Government in that was that Ministers had not taken a decision that they could justify and that they had not given conscious consideration to the issues. The judge ruled very clearly that none of those grounds was arguable. Clearly, that is subject to appeal, but it was a very clear ruling by the judge, so I would just stand by the fact that those issues were gone over in court.

Alan might want to say something about the Natural England evidence review, because that is the thing in particular that Mr Gilruth was pushing back on so hard.

Q48 **Chair:** We will give you an opportunity, Mr Law, on that, and then we will get into the bones of the matter.

Alan Law: Sorry; I was not here for Mr Gilruth's session.

Chair: You might want to get it on catch-up.

Alan Law: We undertook a detailed evidence review in 2013-14, which has been published. More recently, we undertook an update to that review, doing a literature review in particular to look at new information that had come to light and bringing that piece of advice up to date. I am quite happy, if the Committee would like, to provide a summary or, indeed, the full evidence review content.

Q49 **Chair:** The particular charge was that the claim of a rigorous peer review was, at best, exaggerated; that one of the reviewers said that they had not read it end to end; that another said their brain could not keep track. Effectively, it was not a rigorously peer-reviewed document.

Alan Law: My understanding is that it was conducted fully in line with our published guidance around evidence reviews, and we will be responding to Mr Gilruth in full in terms of his questions on the matter.

Q50 **Chair:** That is fine. Let us get into the detail of the condition of England's peatland. If I could start with you, Mr Law, how would you describe the condition of England's peatland, and how is that monitored?

Alan Law: The first thing to say about England's peatland is that we have a large and significant proportion of the world's resource of peatland. As the Committee will know, peatlands are enormously valuable

resources. They take thousands of years to develop. They are valuable in their own right for the wildlife and the carbon that they store.

They are also enormously valuable for people and are part of the real infrastructure of this country. Something approaching 70% of the drinking water that we receive comes via peaty soils. That is not surprising, because these are areas that have high amounts of rainfall or water capture, so they are really important for providing water management, be that drinking water supply, flood risk management, or water quality.

Sadly, although we have a large extent, the IUCN estimates that over 90% of that is currently in a degraded condition. "Degraded" means that it is not functioning, so it is not delivering those services that I described for nature or for people. It can be releasing carbon. What we have with peatlands is one of the most effective means of carbon capture. Compared with other natural means of carbon capture, peatlands lock carbon away in perpetuity, whereas trees, for example, take carbon out of the atmosphere, but, very often, that will be released again within a relatively short time. Peatland locks it away permanently.

Degraded peatlands are a matter of real concern, because not only are they not serving the purpose that they could be, which is helping us to fight the challenge of climate change, but they are adding to the problem by releasing, at accelerated rates, very large amounts of stored carbon.

Q51 **Chair:** In terms of the monitoring, how adequate is the full extent of our knowledge of that degradation? Are you pretty confident about the quality of our monitoring?

Alan Law: A significant proportion of peatlands are designated as sites of special scientific interest. They receive a monitoring programme. That monitoring programme is nothing like as up-to-date as we might wish it to be, simply because the volume of work associated with undertaking site condition assessments is beyond the resources available to us right now.

Q52 **Chair:** What are the commitments that Natural England has legally on the monitoring of sites of special scientific interest, and how are you performing against those with the resources that you have?

Alan Law: There are EIP targets around getting information on the state of SSSIs and to inform management advice. The gold standard that is currently in operation for SSSIs, which is called common standards monitoring, is a very onerous level, and we are looking at how we can reform and simplify that monitoring regime so that we can get the information that we need around site condition to inform site management and to work with the relevant landowners, without going through quite such an exhaustive process on every occasion.

Q53 **Chair:** So at the moment, the Government, through the EIP, have a particular set of expectations, and your response to that is that we should

reduce those expectations.

Alan Law: No, we are not reducing those expectations. We are working with Government to deliver the expectations that Government have set us.

Q54 **Chair:** Are you not saying that they will be achieved by monitoring less? Is that not what you are saying?

Alan Law: No, not by monitoring less, but by monitoring differently. The gold standard monitoring regime, common standards monitoring, is based on an assessment of features that are defined at the time of notification of a site of special scientific interest. Those features change over time, so there are interest features of sites now that were not present at the time of notification.

Similarly, the function of SSSIs needs to be understood in the context of the wider landscape. The idea that you manage SSSIs in isolation from the wider ecosystem that they belong in is one that is archaic, and we need a modernised monitoring regime that enables us to cope with that.

Q55 **Chair:** In terms of monitoring, you referred to a big proportion of England's peatlands being within SSSIs, and that, therefore, they should, by definition, be better monitored. We heard earlier that only about 6% of SSSIs are monitored, so how much confidence should we take from, "Don't worry. These are in SSSIs"?

Alan Law: It is not that they are not monitored. We undertake site checks. The gold standard, common standards monitoring, is a very onerous exercise.

Q56 **Chair:** Unreasonably, do you think?

Alan Law: It needs modernising, yes, and we have explored with DEFRA how we might undertake that in spending review discussions. We do site checks on these sites, so it is not the case that they are not visited by our people, and we are able to discern where a more in-depth monitoring visit or, indeed, adjustments to management are required.

Q57 **Chair:** In terms of the figures that you have given us of around 90% of peatlands being degraded, you can be pretty confident that that is accurate.

Alan Law: From our evidence, we reckon that 85% of SSSIs are in an unfavourable condition. A significant proportion of those SSSIs are in a recovering condition, because we are talking about a habitat type that can take decades, even with all the right management in place, to be fully restored.

Q58 **Chair:** So they are starting to improve.

Alan Law: They are starting to improve.

Q59 **Chair:** Is the restoration of peatlands monitored in a different way, or is

it, basically, the same thing?

Alan Law: The SSSIs will be monitored through our site visits and common standards monitoring where appropriate. There is also a monitoring protocol that is being developed with DEFRA in relation to peatland grant scheme restoration, so a four-stage categorisation, with works undertaken to, first of all, stem causes of decline, then put in place the means of active management, and then monitor the move through to stage 4, which is a thriving and recovering peatland.

Q60 **Sojan Joseph:** Gabrielle, if I can come to you first, we heard evidence from the previous panel on the use of horticultural peat and the impact of the Government's proposed ban, including the economic cost, as well as leaving the horticultural industry in limbo because of the uncertainty around what is going to happen. No one is investing due to that uncertainty. Could you provide an update on where we are on reducing the use of peat and on the necessary legislation to take this forward?

Gabrielle Edwards: The position on legislation is the one that was set out in the environmental improvement plan, as discussed in the last session, which is that this Government are committed to legislate when parliamentary time allows. As the witness from the Peat-free Partnership said, we have agreed with the devolved Governments that we are going to do some work on how we now move that forward. What is the timetable to move it forward? How do we move towards joint legislation?

We are all agreed that legislating for this on a UK-wide basis is, by far, the best way forward. There will be some very difficult internal market issues if that was not the case. There is work to be done, because this is not a straightforward piece of legislation, and we will move that forward, but I cannot say more than that broad commitment about when parliamentary time allows.

What is important, though, as became clear through that previous session, is that the transition to a more sustainable market here is quite a broad-ranging and complex thing. We can legislate, and that is an important part of what we are trying to do, but we also need to change demand, and we are starting to see quite a significant shift in the market. Anyone who has been to a garden centre over the last few years will have seen an awful lot more peat-free produce that is available for customers, partly because there is a wish to change, but also because of the market demand. Over the last eight years, we have seen about a 64% reduction in the amount of peat that is being sold through the system.

Legislation is part of the picture, but only part of it, and we need both the market pull and the changes that were being talked about by, for example, the witness from the HTA around really supporting that evidence work to ensure that people understand what the impact of alternatives and of that change would be, what the economics are, and what the different options and the pros and cons are.

We carry on supporting work around the evidence base to make sure that, as we develop legislation, we are doing that in the best way possible, and to support both growers and suppliers of alternative growing media in making that transition.

Q61 **Sojan Joseph:** Just to clarify, do Ministers and the Department acknowledge the concerns raised by the industry about the uncertainty that is not allowing them to invest in any new plans? Do Ministers and the Department acknowledge their concern?

Gabrielle Edwards: We have certainly heard the message extremely strongly from the industry that it would like certainty, and I cannot disagree with that. That is why there is a commitment in place to try to move to legislation, but also to make that broader environment more certain to enable people to have the confidence to make the shift.

Q62 **Sojan Joseph:** If I can move on to the next topic, we heard from the previous panel about the impact of the Government's extended ban on the burning of peatlands. As the Chair said, we heard that DEFRA is isolated on this and does not know the depth of the problems. Controlled burning can help with wildfire. Is there any evidence from G7 countries where this has been successfully implemented that stopping controlled burning can help? Is the extension of the ban being adhered to? Do you still think that your level of ambition was justified?

Gabrielle Edwards: There is a lot in that question. This is a journey that we have been on for a number of years. We started with a voluntary approach, and that did not work. We were not getting the move away from using rotational burning as a standard management technique in the uplands. That was not delivering the benefits for protection of the peatlands that we needed to see.

We went through a voluntary approach. We then went into a more limited regulatory approach, which was very much focused on stopping burning in SSSIs, and now we have moved to a broader approach across the uplands and on deeper peat. This has been a very long-signalled transition.

I would also stress that this is not a ban. It is a ban subject to a licensing regime. I fully accept, as Mr Gilruth was saying, that not many licences have been issued—

Q63 **Chair:** Not many, or just one?

Gabrielle Edwards: A very small number of licences were issued under the 2021 regime. As he said, there has been one particular licence—we probably should not go into the details of a particular licence, but we have given those applicants and licence holders a huge amount of assistance, as have my colleagues in Natural England, in trying to fulfil the conditions of that licence, and they still have not managed to do it.

The new regulations came in only in September. We have had 15 licence applications under that system. Despite what Mr Gilruth said, we have now issued the first decisions under that licensing regime.

Q64 **Chair:** You have approved some of those, have you?

Gabrielle Edwards: No, we have declined the applications.

Q65 **Chair:** You are saying that there is not a ban and there is a licensing arrangement, but nobody has successfully come through that licensing arrangement, so it is not far off a ban, is it?

Gabrielle Edwards: What we have tried to do with the new arrangements is to provide more assistance to applicants, because we fully accept that there will be circumstances in which burning may be the right solution. There may be some areas where cutting does not work, because of the nature of the land, such as slopes or historical features, and there may be circumstances in which it is a suitable approach for tackling some of the wildfire risk. That does not mean that using it as a standard management tool on a rotational basis is necessarily the right approach to go through.

We think it is possible, and we look at every licence application on its merits. We have provided more support through a revised heather and grass management code. We have provided standard templates and application forms that are easier to use. We have streamlined our application system to try to enable us to deal with licence applications in as rapid a process as possible.

We fully expect that, if a good application came in that met the conditions, we will issue a licence. We are still looking applications for licences to come in, in what is still a very new system. It came in only at the start of September.

Q66 **Sojan Joseph:** Just to clarify, is there any evidence, especially from G7 countries, that this has been successfully implemented anywhere?

Gabrielle Edwards: It is very hard to draw some of those comparisons, because, as Alan said earlier, we have a lot more peat than most other people. There is a big difference between burning as a way of managing vegetation control when you have a risk of getting fire into a deep peat, for all the reasons that Mr Gilruth set out about the length of time that it can carry on burning in there, and burning if you are not using it on deep peat, which may be a more reasonable management technique. It is really hard to make comparisons about the position on particular areas of moorland in England as against what might be happening in Spain or in Canada.

Alan Law: Could I come in? This is contextual, really. It is really important to understand that where we have fire risk and fire practice on blanket bog and peatlands is where there is an excess of dry surface

vegetation. It is that dry surface vegetation that burns, and burns first, and it is only when that gets too hot that it gets into the peat.

The reason we have surplus dry surface vegetation is because of land management changes over the last 60 years, really, that have involved a combination of drainage, excess grazing, and a relatively recent massive uptick in the amount of rotational burning that has been undertaken on these moors. What those have led to are areas of heather dominance and areas of Molinia dominance. That is the vegetation that is driving this. The best way to tackle that is to rewet those habitats, because wet sponges do not burn.

In no way would we say that in no circumstances ever would rotational or localised burning be appropriate. A sweeping, one-size-fits-all answer is not the right one. The best way to get these habitats back into good condition, to tackle wildfire risk and to deliver all the range of other services is to rewet them.

Q67 **Sojan Joseph:** As a quick follow-on, we heard the experts on the earlier panel saying that rewetting cannot prevent wildfire. I do not know whether you have any evidence in that regard.

Alan Law: We are experiencing climate change. Climate change will lead to changes in rainfall patterns in some of these areas, with longer, drier summers. Could we say categorically that that is not going to lead to increased wildfire risk on peatlands? No, we could not. Is there the potential for using some forms of surface management that might involve burning? Might that be appropriate in some cases? Yes, possibly. The licensing regime is designed to bring forward that evidence, but it is not there as a vehicle for simply trying to persist with outdated forms of land management under the guise of dealing with fire risk.

Gabrielle Edwards: Could I just very quickly add to that? Again, we would not disagree with Mr Gilruth that rewetting and re-establishing these functioning peat bogs takes time. Managing some of the risks through that transition is something that we are all interested in and concerned about. That is why changing some of these land management practices and thinking about when licensing for burning might be sensible to help with that is really important.

The other thing that I would just say is that, in the end, it is not rewetting peat bogs that causes wildfire. All sorts of things will cause wildfire. If you look at the report about the Fylingdales incident, they think it was caused by a camper in a forest with a gas stove, or something like that.

Q68 **Chair:** If there had been controlled burning in advance of that, might that not have happened? We accept that wetting does not cause fires, but does the approach and the lack of controlled burning make it more vulnerable to that camper?

Gabrielle Edwards: Where we have rewetted peatlands, the risk is lower.

Q69 **Chair:** I do not think you are saying anything that anyone is disputing.

Gabrielle Edwards: It does not prevent it, and we cannot say that it will never get into the deep peat, because that is what we saw happening.

Q70 **Chair:** With respect, that is not the question I asked you, was it? In the case of that camper, if there had been controlled burning in advance of that, would that have reduced the risk?

Gabrielle Edwards: I think it was in a forest, so you would not have conducted controlled burning in a forest. We do not know, if there had been controlled burning in a particular area—

Q71 **Chair:** Maybe putting that case to one side, do you accept that controlled burning does reduce the risk in comparison with not doing it?

Gabrielle Edwards: No, not necessarily, because there are other ways to keep the vegetation down. You can cut. You do not have to control. It is not the case that you either have a fuel load from vegetation or you burn. There are a range of practices that you can use to reduce that fuel load, and how you combine that with rewetting is really important.

Q72 **Barry Gardiner:** I am struggling with the figures here. The EIP—environmental improvement plan—pledged £85 million by 2030 and said that 40,000 hectares should be restored by April 2030. The nature for climate fund said that there was £50 million from that, and that it was looking to add that to the pot by 2027. Carbon budget 7 says that we will have done 6,900 hectares of restoration by 2025—i.e. last year—7,943 hectares by 2030, and 9,208 by 2035. How much money do we have, and how much restoration have we done?

Gabrielle Edwards: I agree with you that that is an absolute soup of figures. Can I try to take you through my understanding of it? The headline target, which is the one that was set out in the EIP—

Q73 **Barry Gardiner:** It is 280,000 hectares by 2050. It is commitment 63 of the EIP, as we know.

Gabrielle Edwards: It is 280,000 hectares by 2050. If you try to break that down, between 2020 and 2026, we think we have delivered 28,000 hectares.

Q74 **Barry Gardiner:** Sorry, I want all that you are just about to give me, but, if that is the case, why on earth has carbon budget 7 said that we would have 6,900 by now?

Gabrielle Edwards: Everyone is always just calculating different fractions, different baselines and different things that are being delivered by different pots of money.

Q75 **Barry Gardiner:** This is hectares of peatland restoration. This is not

emissions or different calculations of it. I do not understand why the Committee on Climate Change would have said 7,943 hectares by 2030 if we have already done 28,000 hectares.

Gabrielle Edwards: They, I assume, are talking about a small amount potentially being delivered through a pot of money. I do not know the specific reference.

Q76 **Barry Gardiner:** Could you write to us? We do need clarity on this.

Gabrielle Edwards: We will write to you.

Q77 **Barry Gardiner:** We really do need clarity, because, if one arm of Government is saying something, and another—well, the CCC, in fairness, is not an arm of Government, but is the adviser to Government—is saying something that is so out of sync, it does not seem right.

Gabrielle Edwards: There is a clear path through it if you look at 2020 to 2026, what we expect to do in 2026 to 2030, and then what the residual is between 2030 and 2050 to get to that 280,000 figure.

Q78 **Barry Gardiner:** Give me those figures as well, please.

Gabrielle Edwards: In 2020 to 2026, we delivered 28,000 hectares. In 2026 to 2030, we expect to deliver 40,000 hectares. That leaves 211,000 hectares between 2030 and 2050.

Q79 **Barry Gardiner:** No, it does not, because it is 280,000, not 250,000.

Gabrielle Edwards: It does, because 28,000 plus 40,000 plus 211,000 gets you pretty much to 280,000.

Q80 **Barry Gardiner:** Apologies—yes. So the 40,000 hectares is within that time period. It is additional to the 28,000 hectares.

Gabrielle Edwards: Yes.

Barry Gardiner: Sorry, I did not realise that.

Gabrielle Edwards: So the 40,000 hectares is what we expect to fund, essentially, with the pot of money that we got from the spending review, which is the £85 million you referred to. That is money to spend on a whole range of things, some of which is peatland restoration. I should say that the £85 million, just to complicate things further, does not necessarily cover the entire spend, because that includes peatland restoration only for a year, after which we are expecting the funding to come through the landscape recovery scheme.

The vast majority for the 2026 to 2030 period is for something that we have not discussed at all today, which is lowland peat restoration.

Barry Gardiner: I was just coming to that.

Gabrielle Edwards: There is money there around support for the peatland code, paludiculture trials, more research and evidence, and all sorts of very interesting—

Q81 **Barry Gardiner:** What progress have you made so far in implementing the recommendations of the lowland agricultural peat taskforce?

Gabrielle Edwards: We have been talking a lot about upland peat restoration, how difficult that is, and how you are trying to turn round large periods of land management. Let us now think about the lowlands, when we are, basically, going back to the 17th century and the draining of some of the lowlands, and having to really seriously think about how we manage water resources in those sorts of areas. This is a really big job, and this is the really big prize. We know that lowland agricultural peatlands are responsible for 88% of our peatland emissions, which is really challenging, but absolutely critical.

Q82 **Barry Gardiner:** There is a fight here with agriculture, is there not?

Gabrielle Edwards: It is not a fight, but it is a transition. Over the last few years since the taskforce, which was really important for shaping the programme, I would say that we have very much been in a discovery, research and partnership-building phase. We have done quite a lot of work building partnerships around how you bring people together within a catchment. This is not an area where a landowner can, on their own, decide to make a change. These are complex water management systems, which I am sure Craig will be able to talk you through.

Q83 **Barry Gardiner:** The Dutch have been doing this for years, have they not? You said earlier, "We have a lot more peat than other people", but we do not. We have 41,000 hectares, and the Canadians have 1.1 million hectares.

Gabrielle Edwards: We have certainly been looking at what has been going on in the Netherlands, and that has also helped to shape our programme.

We have been doing partnership building, thinking about the sorts of infrastructure changes that you need to introduce, supporting farmers around starting to make that transition, so trialling paludiculture and the wetter farming crops, putting in place improved incentives for farmers through the countryside stewardship higher tier scheme, and doing research and evidence around the economics, the social issues and the agronomy, which will enable us then to build on that for a much more extensive programme of interventions and support in the period up to 2030 that we are talking about.

Q84 **Barry Gardiner:** I asked what progress has been made in implementing the recommendations. What you have said is that we have been getting people together to try to do the sort of co-ordinated land management that is required. What progress has been made?

Gabrielle Edwards: Those projects are directed at implementing the recommendations, so it is very much about, as I said, reforming the way that the water system works.

Q85 **Barry Gardiner:** I know what it is about. Sorry, I am being really mean to you because I am asking you to be specific and not just give me a sweetie-wrapper answer.

Gabrielle Edwards: If you would like me to go through a blow-by-blow response to where we are on the taskforce recommendations, we will have to come back to you on that. Clearly, it was a report issued under the last Government, and we used that to shape a whole programme of work. I can talk to you about that, but I cannot say, "On this recommendation, we have done X, Y and Z".

Q86 **Barry Gardiner:** Let us accept a written response. Very briefly, going back to what we were talking about before, Mr Law, you talked about a modernised monitoring regime, but you also said that 80% of sites were in an unfavourable condition. You said that the figure of 6%, 8% or 12%, whichever it was, of SSSIs not being monitored was not correct because those sites were being visited and, where necessary, were then being monitored more carefully. If that had been the case, surely 80% of sites would not have been in an unfavourable condition.

Alan Law: So 85% of sites are in an unfavourable condition. I will need to get you the exact breakdown, but a significant proportion of that 85% is what we term "recovering". That means that it is under the right management regime to get to a state of favourable condition. A bit like ancient woodlands, peatland habitats take a very long time, once they are degraded, to get back. You can do everything that you need to do on them, but it still takes decades to get to a favourable condition.

Q87 **Barry Gardiner:** Thank you. That is a helpful clarification. The final question that I had is probably for you, Mr Rockliff. It is in two parts. Do you agree that controlled burns raise the water table, as Mr Gilruth suggested to the Committee? He said that the evidence was that controlled burns raise the water table.

Craig Rockliff: I made a note of that myself and it was something I was not aware of. When I visited these sites after there have been burns, I have seen those areas where they are wetted or the water table is closer to the surface. They have survived the burns in much better condition. I do not know specifically about that example.

Q88 **Barry Gardiner:** Could you delve into it further and write to us?

Craig Rockliff: Yes, we will look into it and write back to you.

Q89 **Barry Gardiner:** There is another question, I suppose. We rehearsed the argument—you were there, so you heard it all—about why Government had incentivised the draining of the moorlands. Why is it that the Moorland Association is so keen to have what it calls controlled burning?

Why does it not prefer cutting to burning? Why does it not prefer other ways of controlling the surface vegetation that is susceptible to wildfires? Is that because of the way in which the heather management produces those little green shoots that are so helpful for grouse?

Craig Rockliff: I cannot answer that directly, I am afraid.

Q90 **Barry Gardiner:** Indirectly will do.

Craig Rockliff: We know that, if we restore our upland peatland areas to their truly functioning hydrological nature, where they are wetter, they reduce flood risk, improve the water quality that runs off them, increase the storage of water and contribute to reducing the elements of wildfires. On the specifics that you have asked, I am afraid I am going to have to pass over.

Q91 **Barry Gardiner:** Mr Law, you look keen to interject at this point.

Alan Law: When you burn heather, you get a fresh flush of new growth.

Q92 **Barry Gardiner:** What is that good for?

Alan Law: The grouse feed on it. When you have a combination of long heather, which can be good for nesting in, and short heather, which can be good for feeding, you get a nice mix, which gamekeepers like. However, I have been on countless moorlands with gamekeepers and shown them pristine, good-functioning blanket bog. There is an "aha" moment when they see that. With blanket bog, with the water levels raised, you get those small tips of fresh growth poking out through the moss. The gamekeepers will say, "Aha, that is perfect for grouse".

The question is the transition. The question is, first, that transition, and, secondly, changes in what have become, albeit quite short-term, cultural practices. If people are wedded to a certain management regime that works for them—and grouse bags have been very elevated over the last 40 years through a combination of medicated grits and intensive burning—people are used to that as a means of yielding grouse. Switching to something that involves a long-term land management change is difficult, but it works and there are moorland owners who have done it and demonstrated it.

Q93 **Carla Denyer:** I am going to return to lowlands. As was remarked, we have spent much less time on that, even though it is very important. The chair of the lowland agricultural peat taskforce said in their report that, if vast areas of peat are to be rewetted in the lowlands, the key questions for Government are the likely impact is on our domestic food supply and the risk of us needing to import more food from overseas, with the carbon emissions that would arise from that. My question is initially to Gabrielle, but also to whoever wants to come in. How can the risks to food security and emissions from rewetting lowland peatlands be addressed, and how can we be sure that we are having a net benefit?

Gabrielle Edwards: I will start off coming at it from a slightly different angle. Let's not assume that business as usual is an option. These heavily farmed and historically very productive peatlands are degrading and eroding. As a food security issue, it has been flagged that, in the long term, that high-quality soil is simply not going to be there. Some sort of transition is going to be needed regardless.

I think that we all accept that moving to farming on rewetted land is a tricky transition. It requires thinking in a different way about some of the crops that are grown. Some of that might be quite different, for example thinking about growing fibre rather than growing standard vegetable crops. Potentially, some of that could be lower yield and lower productivity. That is why we are thinking about some of that through the countryside stewardship scheme, so you incentivise and think about the balance of incentives for those farmers.

We have done some analysis about what the impact of peatland restoration could be on food production. We know that there are some specialist crops that are disproportionately grown in some of those lowland peat areas, such as celery, radish, green beans, lettuce, onions and leeks. These are important for domestic supply so, if they are not grown on peat, they would need to be grown somewhere else or, as you say, potentially imported. Relative to the overall percentage of the UK domestic supply, it is not enormous. I do not think that we would see this as being a huge threat to food security, but there are threats there even if you are not thinking about rewetting the peat.

It is really quite interesting to see how some of the trials go about what you can grow on some of the rewetted areas and how far you can still grow different vegetable crops, even if you perhaps cannot grow some of the traditional root crops, and how those markets for fibre start to grow. There are other things. There have been some trials, for example, even for rice growing. I am not suggesting that that is going to be a big solution, but it is thinking in a different way about what you can grow on rewetted soils. This is tricky.

Q94 **Carla Denyer:** I am aware of the range of potential alternatives that you can grow on rewetted lowland peat and the argument, for example, for reeds for thatch. Obviously not a huge proportion of our housing stock is thatched, but it seems wild that, of what is thatched, most of it is from imported material. Why on earth are we not growing that ourselves?

There are some things that are no-brainers to me, but my question was largely on food security. I agree that, as soil quality declines, we have a food security problem already coming down the track on this, whether we like it or not. I am concerned to make sure that changes to lowland peat soils do not make that worse at least, and about whether there has been an assessment of whether the changes could make it worse or would make it better than where we are heading anyway. Do you see what I mean?

Gabrielle Edwards: I would say that there has not been at a system-wide level. You tend to see that people move away, for example, from growing some of those specialist crops to growing cereals as the productivity of the soil changes. How people respond, either through the degradation of the soil or through rewetting, will vary depending on different people's economic choices. We do not think at the moment, and we certainly do not have any evidence that would support it, that this is going to have a significant impact on food security.

Alan Law: There is a combination of change and choice here, but I was going to start with some stats, which I am sure the Committee has, from the Office for National Statistics in 2019. The cost of restoring peatlands is £8.4 billion. Total economic benefits of restoring those peatlands is £109 billion, so there are significant benefits.

If you look at the two big areas of lowland peat—one is the Somerset levels and the other is the fens—they are very different in terms of what changes might look like. Arguably, a switch of the type of livestock could be a long-term solution in the levels, as opposed to coming out of agriculture. The fens is altogether more complicated. As Gabrielle has said, long term this is not a sustainable form of agriculture with the levels of peat loss that are being seen, but there might be transitional choices that need to be made around what the balance of priority looks like in that transition.

Q95 **Carla Denyer:** Are you confident that the commitment to reduce emissions from peatlands will contribute meaningfully to the total 535 million tonnes of carbon savings pledged in the seventh carbon budget? Do you feel that that is achievable and on track?

Gabrielle Edwards: Decisions have not been made about how you would share out that budget and what the peak contribution to that would be at the moment. At the moment, we are very focused on keeping on track for the trajectory for delivery of carbon budget 6 and thinking about what the wider measures would be beyond that. I do not think that I can answer your specific question because the broader work across Government on that is not quite there yet.

Q96 **Jonathan Davies:** We have some questions about the relationship with infrastructure and how we manage the trade-offs with the natural world, or peatlands more specifically. This is a question that Governments have been thinking about for many decades in this and comparable countries. Mr Wilson will ask some questions about this too.

Building onshore wind farms on peatlands results in a compression of peat and increased greenhouse gas emissions. There is planning guidance and a carbon calculator to address this in Scotland. Why is there not in England? I would like to ask that to Natural England.

Alan Law: I am not sure that I can answer why there is not a carbon calculator in England. We have a policy presumption that steers away from onshore wind farms on peatland unless there are no alternatives.

However, the challenge, as you will be aware, is that bare areas in our uplands that are suitable for wind generation also tend to be suitable for peatlands and very often have the best peatlands on them. There is a policy presumption that steers away.

What we can, or need to, do at the moment is address applications that come through on a case-by-case basis, looking at, first, if you are not going to avoid, how you can mitigate, and, if you cannot mitigate, how you compensate, so working your way through that hierarchy. To be candid, it is very difficult to do anything meaningful in the way of compensation, for the reasons that we outlined at the start. We are talking about a finite resource that takes thousands of years to establish. The only way you can compensate on one site, frankly, is by restoring another area that is already there, so you are diminishing the resource by definition. Compensation is more qualitative rather than quantitative.

In terms of management on site and mitigation, that, again, is difficult. In some cases, applications we are seeing involve what is called micro-siting, so trying to locate the turbines in areas that are least sensitive. That remains fraught because the infrastructure needed with wind turbine sites involves tracks and cables. Where those cross important hydrology, you can end up damaging the functional site, even if the turbines are not located on those areas.

Q97 **Jonathan Davies:** We know that one hectare of peatland can sink 5,000 tonnes of carbon. Do you know how much peatland we have lost overall to wind turbines and whether the balance has been tipped in favour of reducing our dependence on carbon-generating fuel as a consequence of that?

Alan Law: I do not. I can inquire about those figures. I understand the question: it would be perverse if we found ourselves trying to save carbon through wind generation at the expense of our most important carbon assets.

Q98 **Jonathan Davies:** Do you think that we would be able to find that out ourselves quite easily, or would you perhaps let us know?

Alan Law: I am happy to take that and provide you with what information we can.

Gabrielle Edwards: You mentioned the calculator that there is in Scotland. We are aware of that and actively considering the availability of similar tools within England.

Q99 **Jonathan Davies:** Are we quite transparent, when we have a wind farm on peatland, about how much carbon-capturing peat we have lost? Is that information readily available?

Gabrielle Edwards: That is the sort of thing you would use a calculator for. It will always be quite site-specific as well.

Q100 **Jonathan Davies:** Have you ever suggested to Government, through Natural England as the independent adviser, to have the carbon calculator?

Alan Law: I am not aware that we have suggested that. That does not mean that we have not, but I am not aware that we have.

Q101 **Jonathan Davies:** This Government have a plan to roll out perhaps 150 nationally significant infrastructure projects over the course of this Parliament and they have done over 30 already. To what extent do you think the designation of nationally significant infrastructure projects bypasses protection for peatlands as a vital habitat?

Alan Law: We are a statutory adviser in relation to all NSIPs. We are not the decision-maker, however. A lot of our most important peatlands are what are called habitats sites, so they have the highest level of environmental protection associated with them. We engage closely with those NSIPs, working our way through the mitigations hierarchy and advising on what is possible and what the environmental implications are. Ultimately, we are not the decision maker around whether peatland or nature interests are deemed more important, equivalent or less important than others.

Q102 **Jonathan Davies:** Do you find that you are able to be totally independent as a public body?

Alan Law: Yes.

Q103 **Jonathan Davies:** Are there any of the national infrastructure projects coming forward at the moment that affect peatlands that you are worried about?

Alan Law: There are a number that we are aware of and we are engaged in through the NSIP process. Yes, we have expressed concerns through the process around those.

Q104 **Jonathan Davies:** Are you able to say which they are, or is that information available?

Alan Law: I am not sure I am. If you will forgive me for not giving you names at this stage, I will check what the position is around those. Our advice, ultimately, is public. If I am able to share those names, I will do.

Q105 **Chair:** By definition, if the information is public, you can—can't you? I do not expect you to do it right now and I am fine for you to check, but I cannot think of any reason why you could not tell us what Natural England has suggested, if it is public information.

Alan Law: That is probably correct, but you will understand that the NSIP process involves asking questions and gathering information. The point at which we have a definitive opinion is towards the end of that process and we are mid-process.

Q106 **Sammy Wilson:** In the last session, we were told from the horticultural

sector that 0.07% of peatlands were actually used for extracting peat for gardening purposes. Do we have a similar figure for the amount of peatlands that are affected by wind farms? Many of the wind farms—I know that in my own constituency it is nearly all of them—tend to be in high areas, which are rich in peat, and that is where they are best sited. Do we have a figure? We have had a lot of figures given here about peatlands today. Do we have a figure for that specific use?

Gabrielle Edwards: No, not to hand, but I think that that is what we were talking about a minute ago, so we will see what we can find.

Q107 **Sammy Wilson:** It would be useful to have that. Because so many of the wind farms are located in peat-rich areas, could we maybe put on the record what the impact is on those peatlands when a wind farm is located on them?

Craig Rockliff: From a water perspective, this is impacted. There is material that has to be removed for siting these. That has to be stored or relocated elsewhere. There are impacts on the roads. If you think of a sponge, as soon as that sponge is compressed or removed you have lost the benefits of that sponge. As I have said before, this is about flood management, water quality, water storage, nature and carbon. There are many benefits from this existence of peat in those areas, which are hindered and damaged by the introduction of onshore wind farms. If the steps can be taken to avoid and site carefully, that is much better, before you then get to mitigation or compensation, which is very difficult.

Gabrielle Edwards: The likelihood is that, in order to build wind farms—I think it came up in the first session as well—you are going to need to dry the land. There may be some techniques that are being developed that enable you to build wind farms without doing that to the same extent. As soon as you do that, you start to lose some of the benefits, for the reasons that Craig says.

Also, it is worth bearing in mind—it is a broader issue with some other infrastructure issues as well—that dried-out peat is a bit unstable. There are issues with that, which we would certainly expect developers to be thinking about really carefully when assessing whether a peatland is the right site and how they would manage some of those risks.

Q108 **Sammy Wilson:** In the earlier session, we were told that one of the big problems was that there seems to be no joined-up approach when it comes to peatlands. Let's take the example we are discussing at the moment. What discussions are there when targets are set for renewable energy by DESNZ and your own Department, when many of those infrastructure projects have to be located, and are located, in sensitive areas? Is there any joined-up approach between the two Departments to look at the contradictions that the policy might produce?

Gabrielle Edwards: A lot of this comes together in some of the carbon budget work, where you are getting a whole range of targets in terms of how we would try to deliver the carbon reductions that we need. There

are, inevitably, as there always are in a whole range of issues across Government, lots of contradictory pressures. Everyone is really aware of those. One thing we have tried to do is to make sure that those are at least surfaced through planning policy.

As we referred earlier, the planning policy, for example, around large-scale renewable energy talks about the fact that there is a desire both to have lots of new renewable infrastructure and to protect peatlands, and that this is going to require some choices and trade-offs. That is why you think your way through this mitigation hierarchy. In the end, those will be decisions that Government need to take about how they want to balance those. We will need to make sure that the consequences and impacts are made extremely clear to Ministers when they are making those choices.

Q109 **Sammy Wilson:** Very often when these wind farms are proposed we are told that it will save so many tonnes of carbon. Usually it is calculated on the amount of energy that is generated—that if it was being generated by coal, gas or whatever, so much carbon would be produced and that would not be the case with the wind farm. You have described fully the disruption I have seen in my own constituency. I have seen nine feet of peat moved to put in roads, foundations and so on, destroying the landscape and releasing all of the carbon. Should there be a requirement in any planning application or any infrastructure project of that nature to do a calculation about the amount of disruption that there is to the peat and the impact that that is likely to have on CO_2 emissions, leave alone the other environmental impacts such as the loss of nesting sites for birds?

Gabrielle Edwards: I would certainly expect those calculations to be part of the evidence that would support any decisions. You are absolutely right that you need to think about it. What is the value, so the carbon value as well as the broader value, of that peatland and how does that calculate against the benefits you would get from the wind generation? That is exactly the sort of information that you would expect Ministers to have to take into account.

Q110 **Sammy Wilson:** In your experience, is that information required on every application?

Gabrielle Edwards: It is not so much that it has been required on the application, but it is something that would need to be developed as part of the decision-making process. I suppose the thing to just point out is that, of course, for a long time, we have not had lots of onshore wind applications because there was a de facto ban for a number of years. We are now starting to see these come through the system, and we have a new planning policy in place. We are now going to have to work through how you take the decisions, given those very tricky trade-offs, which I think we all recognise are there.

Q111 **Sammy Wilson:** Given that, in the future, there are likely to be many more such applications, you have outlined the impact it has on peatlands

and the impact that it is likely to have on the targets you are setting. Do you believe this Committee should be making recommendations that, in the future, that should be an essential component of any infrastructure project application of this nature?

Gabrielle Edwards: I would say that it is extremely important that, when any decisions are made, there is full understanding of the breadth of impacts and the range of issues that need to be taken into account. I would hope that that happens anyway, but re-emphasising that point is not unhelpful.

Q112 **John Whitby:** I have a question for the Environment Agency. To what extent could a land use framework contribute to the protection or the responsible use of peatlands?

Craig Rockliff: I know that the land use framework is under consultation at the moment, and there are a number of different measures within that. What we are aiming to do with our work in the lowlands is to bring together a collaboration of people who know about their local possible solutions and problems, when it comes to complex environments where there is a lot of water management, conveyance of water, requirements for water for their agricultural growth and so on, and allow them to come up with their own local water management plans, working in conjunction with the local conveyors of water to find solutions.

They fit into the picture of the land use framework, as far as the transition from current use to future use, but it is a complex picture in very complex environments. This is advice that the land use framework is going to offer, I believe.

Q113 **John Whitby:** Does anyone else want to comment on the land use framework?

Gabrielle Edwards: As you know, a land use framework has been consulted on, and the purpose of that is to set a long-term vision and principles to guide how decisions are made on land use. We know that there are lots of competing demands for land, and we need to have some really clear principles, guidelines and tools to help make those decisions, to make sure that we think about how we best use land for houses, infrastructure, food production and nature recovery. Having a multifunctional approach to land is really important.

Again, if you think about this with a peat hat on, sometimes it is presented—and we have just been talking about it, in terms of wind turbines—as a choice but, for things such as solar, there is the potential, and we are looking at it elsewhere, for putting solar panels on land that has been rewetted.

Q114 **Carla Denyer:** It can be foundations that squash it all down.

Gabrielle Edwards: Yes. Thinking about the potential for a multifunctional use of land is really important and identifying where there

are areas where that would create more risks. Think about it as tools, principles and all of those sorts of things.

Q115 **John Whitby:** Given the limitations placed on the amount of agri-investment funding that farmers can receive, how are we going to incentivise carbon or wetland farming and nature-friendly farming?

Alan Law: You are talking about the cap in SFI that farmers might receive. There are enormous opportunities, around the landscape recovery scheme in particular, to work with farmers, and farm groups in particular, to explore ways in which they can incorporate peatland management alongside the way that they design their businesses, and to look at how they can bring private sector funding in to complement what they are doing on their farm management.

We see landscape recovery as a tool that we have longed for, in conservation terms, for decades, in that it provides both long-term stability of investment and a means by which you can effect transition over time, rather than simply set prescriptions at the start that you have to follow through every year for five or 10 years. It really enables that change to be taking place.

To your earlier question around confidence in delivering the 2050 target, landscape recovery as a key component of ELMs is critical here because it provides that longer-term certainty of funding. At the moment, we have grant schemes, which have done a great job, but they are relatively short term in their outlook. To get people to buy in at scale in ways that are complementary requires that longer-term funding piece.

Q116 **John Whitby:** Mr Rockliff, paludiculture was mentioned earlier on. What effect is the exploration fund having so far?

Craig Rockliff: In actual fact, that has been administered by Natural England because the wetter farming, as you have described there, offers an opportunity for farmers to diversify, to look at options, to think about the new information. I will pass over to Natural England.

Alan Law: It is, at the moment, small and niche, so it would provide the opportunity to maintain a land management business and, at the very least, by raising water tables, move lands that are currently releasing carbon into a more stable regime whereby carbon is not being lost. Whether it could then take the next step into actually accumulating carbon on top of that is yet to be clarified, but it is still small scale. It is more experimental.

Q117 **Chair:** Ms Edwards, you said earlier, as we have heard from previous Governments, that this Government's position on the ban on horticultural peat is simply a matter of parliamentary time allowing. I just want to be absolutely clear, because you have said that this is a complicated area, and we have heard some of those complications previously, but the Government's mind is made up on broadly what needs to happen, except that legislation always is a somewhat organic process and evolves from

the Second Reading to the end of it.

Broadly, the Government have decided they want to do this; this is a good thing. They just have decided right now it is not a bigger priority than the other things they are talking about. Simply, that matter is all that is to be basically concluded by the Government.

Gabrielle Edwards: Yes. That was the clear commitment in the EIP.

Q118 **Chair:** We have the Secretary of State in front of us next week. We will take that up with her. I am conscious that the previous Government, I think, broadly said the same thing. New Governments have a crowded list of things that they want to do, but under the previous Government, as we all know as MPs who were there, there were many times we were going home early because there did not seem to be that much of an agenda towards the end of the 14 years. Still, they never got this done. Can you just give us an idea of why we never managed to make this a priority, having had these conversations with probably a number of Secretaries of State over the years?

Gabrielle Edwards: You might be a little bit above my pay grade there in terms of how the Government decide on the make-up of their legislative programme. Clearly, there are a whole range of priorities across Governments.

Q119 **Chair:** Accepting there are other priorities, can you just give us a sense as to what the sensitivities are around this? What are the things that might be, say, making the Government think, "Let's not prioritise it"? As we heard previously, everyone seems to agree it is a good idea. This Government do quite a lot of things that not everyone agrees is a good idea, as every Government do. Why not get on with doing something that everyone thinks is a good idea?

Gabrielle Edwards: You have to have a suitable legislative vehicle, and there are lots of other pressures on the legislative programme. I have not been working on this policy for the last 10 years, but, if you were to go back 10 years, I suspect you would not have seen quite so much of a consensus among your first group of witnesses about the feasibility, cost and so on of a transition.

Clearly, the market has shifted, evidence has shifted, and there is now a much broader consensus that this is the way to go. You would hope that this would then be less controversial than it might have been if this had been up 10 years ago. In terms of the Government's broader prioritisation, yes, there is a lot of things that they want to legislate on.

Chair: Understood.

Q120 **Sammy Wilson:** Chair, can I just ask one question? The reason given was that it was complicated. First of all, we have the people who are affected by it saying that they are willing to embrace it. Secondly, they say that there are alternatives—alternatives actually that would give them materials from our own country. Thirdly, customers are happy and,

indeed, demanding it. Where are the complications?

Gabrielle Edwards: I do not disagree with any of that, and that is absolutely clear. Any piece of legislation where there are market issues and transitional issues and so on is complicated. That does not mean that we cannot do it. That is not a reason why we have not done it. I have just said that this is not going to be a three-clause Bill. It is going to be a slightly tricky piece of legislation, but we are working on it. We will continue working on it and, at some point, it will reach the top of the list in terms of the Government's priorities for legislation.

Q121 **Chair:** It sounds as though this Government could have a policy that even the DUP would support. If that is not reason enough for them to get on with it, I do not know what is. We will take that up with the Minister next week.

Gabrielle Edwards: From an official perspective, we certainly want to make sure that we are ready to go. We have done the work with the devolved Governments. That is what we have committed to do, so that there is a piece of legislation that can be taken forward when there is parliamentary time to do so.

Chair: Thank you to all three of you for that evidence. We will now bring this one-off session to a close.