Peatland Restoration Roadmap Findings from stakeholder engagement

Peatland Restoration Roadmap Annex 2: Narrative report by Dialogue Matters

June 2026

NATURAL ENGLAND

About Natural England

Natural England is here to secure a healthy natural environment for people to enjoy, where wildlife is protected and England's traditional landscapes are safeguarded for future generations.

Further Information

This report can be downloaded from the Natural England Access to Evidence Catalogue. For information on Natural England publications or if you require an alternative format, please contact the Natural England Enquiry Service on 0300 060 3900 or email enquiries@naturalengland.org.uk.

Copyright

This publication is published by Natural England under the Open Government Licence v3.0 for public sector information. You are encouraged to use and reuse information subject to certain conditions.

Natural England photographs are made available under the Non-Commercial Government Licence v2.0 for public sector information.

Images, data or maps used will state their licence within the report.

Any quotations from project participants are not shared under the Open Government Licence v3.0 and should not be reused or reproduced. For further information, please contact data.services@naturalengland.org.uk.

For information regarding the use of maps or data, see our guidance on how to access Natural England's maps and data.

© Natural England 2026

Catalogue code: NERR171

Report details

Author(s)

Diana Pound, Ross Freeman, Aimee Williams, Imogen George, Zoe Bullivant

Natural England Project Manager

Emily Dresner

Contractor

Dialogue Matters Ltd

Keywords

Peat, restoration, stakeholder engagement

Citation

Pound, D., Freeman, R., Williams, A., George, I., Bullivant, Z. 2026. Peatland Restoration Roadmap: Findings from stakeholder engagement. Narrative report by Dialogue Matters. Peatland Restoration Roadmap Annex 2 NERR171. Natural England.

Foreword

The Peatland Restoration Roadmap (PRR) sets out a pathway towards the ambition set out in the Environment Improvement Plan to bring 280,000 hectares of peatland under restoration by 2050. Natural England was commissioned by Defra to deliver the roadmap project, but the roadmap itself has been developed collaboratively with the peatland restoration community to incorporate their expertise, views and delivery plans.

As part of the roadmap project, an extensive participatory stakeholder engagement process was carried out by Dialogue Matters to identify successes, barriers, priorities and suggested actions to realise government's peatland restoration ambitions. This report presents the findings of that engagement process.

The findings from this report have been used by the Natural England PRR team in developing and writing the Peatland Restoration Roadmap final report.

Natural England commission a range of reports from external contractors to provide evidence and advice to assist us in delivering our duties. The views in this report are those of the authors and do not necessarily represent those of Natural England.

Executive summary

This report summarises findings from an extensive participatory stakeholder engagement process, conducted to inform and co-create elements of Natural England's Peatland Restoration Roadmap (PRR). Commissioned to support the ambitions of the England Peat Action Plan (EPAP), the process involved diverse stakeholders including landowners, farmers, statutory bodies, environmental organisations, universities, heritage, and hydrology professionals.

The dialogue incorporated regional and national workshops, supported by a qualitative survey and separate geospatial surveys. These events created a narrative vision, and identified barriers, priorities and suggested steps required to achieve the goal of 280,000 hectares of peatland in restoration by 2050.

Stakeholder participants highlighted environmental, social, and economic benefits of peatland restoration including biodiversity enhancement, carbon sequestration, improved water management, flood mitigation, and strengthened community heritage. Alongside the wider contexts and scanning the future horizon, a collective vision emerged where peatlands are thriving carbon-storing habitats, managed collaboratively to provide multiple benefits. However, stakeholders also recognised potential trade-offs, particularly around land use and agricultural practices, which require nuanced and place-based solutions.

Key challenges identified were long term funding; complexity and time around consents and permissions; regulatory and policy alignment and uncertainty; stakeholder involvement and collaboration; technical restoration issues; workforce skills and capacity; environmental and ecological challenges including climate change and competing demands on water. Stakeholders identified friction between calls for flexible regulatory frameworks to allow innovation and acceleration of restoration efforts, and risk-aversion displayed by some planning and statutory bodies. Uncertainty regarding the economic viability of alternatives to current land management and agriculture was also a concern. These challenges highlight the need to include and carefully negotiate the needs of different stakeholders to realise the potential multiple benefits that are achievable for peatland and wider interests.

To build on existing good work and overcome the challenges, stakeholders prioritised seven focus areas:

- **Consents and Permissions** – Streamlining regulatory processes, clarifying standards, and adopting risk-informed, flexible consent frameworks.
- **Management Toolbox** – Developing and sharing practical, adaptable restoration approaches and techniques, particularly considering the role of paludiculture and innovative technologies, and capturing the differing needs of sites in uplands and lowlands.

- **What Does ‘Restored’ Look Like?** – Establishing consistent definitions, standards, and long-term monitoring systems to measure restoration progress and outcomes clearly and accurately.
- **People to do the work** – Building a skilled, sustainable workforce through targeted education, apprenticeships, and stable employment opportunities.
- **Funding and Finance** – Securing reliable, long-term financial frameworks through public-private partnerships, enhanced carbon markets, biodiversity net gain, and targeted government incentives, while addressing stakeholder concerns about market volatility and private investment uncertainty.
- **Effective Collaboration at Landscape/Restoration Level** – Promoting a strong culture of partnership among diverse stakeholders interested in and impacted by changes, ensuring integrated and holistic management of peatland areas.
- **Culture of Learning and Innovation** – Encouraging continuous learning, knowledge-sharing, and technological innovation, supported by open national data hubs and collaborative networks. Stakeholders also highlighted the importance of balancing innovation with practical constraints.

To realise the roadmap’s ambitions, stakeholders highlighted the need for sustained collaboration, an open learning culture, and a commitment to adaptively manage peatland restoration. Continued dialogue and review mechanisms are seen as important to progress towards resilient and sustainably managed peatland in England by 2050.

Contents

1 Introduction 9

1.1 Background 9

1.2 Approaches and Methods 9

1.3 About this Report 10

1.4 Acronyms used in this report 11

2. Wider Context & Future Focus 14

2.1 Benefits of peatland restoration 14

2.2 Narrative Vision 15

2.3 Horizon and Driver scanning 16

2.4 Pioneering initiatives and innovation 20

2.5 Challenges and Barriers 25

3 Key Focus Areas 28

3.1 Consents and Permissions 28

3.2 Management Toolbox 32

3.3 What Does ‘Restored’ Look Like? 38

3.4 People to do the work 42

3.5 Funding and Finance 46

3.6 Effective Collaboration at Landscape/Restoration Level 49

3.7 Culture of Learning and Innovation 53

4 Conclusion and Next Steps 58

4.1 Conclusion 58

4.2 Ongoing Collaborative Working 59

Annex 1 Priorities and Steps by Focus Area 61

Consents and Permissions 61

Management Toolbox....62
What does restored look like? 66
People to do the work....68
Funding and Finance....69
Working together collaboratively....72
Culture of Learning and Innovation....74
Annex 2 Methods....76

1 Introduction

1.1 Background

Published in 2021, the England Peat Action Plan (EPAP) set out the broad actions needed to support government's ambition for the recovery of peatlands. To action commitments made in the EPAP, Defra commissioned Natural England to develop a Peatland Restoration Roadmap (PRR). This roadmap will set out information to help reach the ambition of 280,000 ha of England's peatland in recovery by 2050.

Natural England appointed a team consisting of Dialogue Matters and Environment Systems to carry out a process of stakeholder dialogue and survey. Participants came from a range of backgrounds and interests such as landowners, farmers, EA, NE, Historic England, IDBs and universities. Throughout the process, participants were asked to share information, identify priorities, and make suggestions.

This process helped ensure that a breadth of perspectives and knowledge were involved and captured to contribute to the creation of the Restoration Roadmap.

Complete outputs of the workshops and surveys are available in the output records and reports which are also available. This document summarises and sets out the findings from the process.

1.2 Approaches and Methods

Dialogue Matters designed the process based on stakeholder dialogue best practice. This helps to ensure that the resulting roadmap is well informed from a wide range of perspectives and interests. Care was taken to identify a balanced and mixed group of participants. The stakeholder group reflected the main interests and types of knowledge and experience found within peatland restoration in England.

The process consisted of a scoping workshop involving select members of the project team, Technical Advisory Group (TAG) and Project Steering Group (PSG); three online regional workshops, two national workshops held in Brimingham, a qualitative survey to test emerging ideas from the first workshops, and quantitative geospatial surveys to gather information about expected and potential restoration activity and funding (See fig.1 and Annex 2 for more detail). In total, 52 individuals attended the workshops and 91 people responded to the qualitative survey.

Stakeholders at the regional workshops:

- Shared their visions for the future of peatland restoration

- Shared information and knowledge of pioneering and innovative practices
- Discussed what's working well and the challenges faced
- Considered challenges and barriers and ways to overcome them
- Highlighted important areas to focus on

Stakeholders within the national workshops built on the work of the regional workshops to:

- Create a vision for peatland restoration
- Share drivers in the form of trends and changes, and scan the horizon for emerging factors
- Identify what is already working well for restoration and what more needs to be done
- Identify priority areas for action and suggest steps to achieve them
- Offer resources which could help achieve the priorities

1.3 About this Report

This report describes, summarises and sets out the findings and ideas that emerged from the series of workshops and qualitative survey in this process. It aims to reflect and be inclusive of the different ideas and reflect the breadth and richness of the stakeholders' perspectives.

The report follows the flow of the process set out above and will go on to inform and provide content for the creation of the Peatland Restoration Roadmap.

Section 1 – Introduction. Introduces the approach and steps in the process

Section 2 - Wider context and Future focus. Captures key information about the wider context that peatland restoration sits in, outlooks for the future, and barriers and challenges experienced by participants at the regional and first national workshop

Section 3 – Key Focus Areas. Summarises participant discussions around each of the focus areas which they see as key to achieve England's peatland restoration ambitions

Section 4 – Next Steps. Concludes the report and reflects what stakeholders would like ongoing collaboration to be like.

This is not a report of what will happen - it is a report of findings from the process, and of what stakeholders involved in peatland restoration experience and would like to see happen to achieve England's restoration goals. This in turn will inform and guide creation of the England Peatland Restoration Roadmap.

1.4 Acronyms used in this report

Acronym	Meaning
AI	Artificial Intelligence
ALBs	Arm's Length Bodies (public bodies independent of government departments e.g. NE, FC, EA)
API	Application programming interface
ASAP	As soon as possible
BB	Blanket bog
BCNWT	Beds, Combs, Northants wildlife Trust
BNG	Biodiversity net gain
BSI	British standards institute
CHC	Culture and Heritage Capital
CLA	Country Land and Business Association
CO2	Carbon dioxide
CPD	Continuing Professional Development
CSM	Common Standards Monitoring
CWT	Cumbria Wildlife Trust
DCMS	Department for Culture, Media and Sport
DEFRA	Department for environment, food and rural affairs
DNPA	Dartmoor Nature Park Authority

Acronym	Meaning
EA	Environment Agency
ELM	Environmental land management schemes
eNGOs	Environmental non-governmental organisation
FC	Forestry Commission
FCL	Foundation for common land
FTSE CO's	Financial times stock exchange companies
GCSE	General certificate of secondary education
GNB	Great north bog
GFM	Great Fen
GHG	Greenhouse gas
HLS	Higher level stewardship
IDBs	Internal drainage boards
IUCN	International Union for Conservation of Nature
LA	Local authority
LIDAR	Light detection and ranging sensor
LNRS	Local nature recovery strategy
LPP	Lancashire Peat Partnership
LR	Landscape recovery
LWT	Lancashire Wildlife Trust

Acronym	Meaning
MFTFP	Moors for Future Partnership
NC	Natural capital
NCPGS	Nature for climate peatland grant scheme
NE	Natural England
NFM	Natural flood management
NFU	National Farmers Union
NGOs	Non-governmental organizations
NNR	National nature reserve
NPPF	National policy planning framework
NT	National Trust
PSG	Project Steering Group
PC	Peatland code
PRR	Peatland Restoration Roadmap
R&D	Research and Development
RSPB	Royal Society for the Protection of Birds
SSSI	Site of specific scientific interest
SWW	South West Water
SW	South West
SWPP	South West peatland partnership

Acronym	Meaning
TAG	Technical Advisory Group
UKCEH	UK Centre for Ecology and Hydrology
UU	United Utilities
W&FC	West Moorland and Furness council
YW	Yorkshire Water

2. Wider Context & Future Focus

2.1 Benefits of peatland restoration

When asked to consider the benefits of peatland restoration, participants' responses drew attention to the environmental, social, and economic considerations. Their perspectives highlight that well-planned peatland management can deliver wide-ranging benefits for the environment and climate resilience, water security, social and cultural heritage. However, there is an understanding that perceived trade-offs must be carefully assessed and managed particularly around food, agriculture and existing land use.

Stakeholders recognise that peatland restoration helps deliver environmental benefits in the form of biodiversity and ecosystem resilience. Restoration is shown to support diverse species and enhance ecological stability and natural landscape functions at a broader scale. From a water perspective, improved retention and quality help with water security and reduced flood risk in some areas, whilst restoration can increase flood risk in others depending on design. Climate regulation is a benefit of more carbon being sequestered or locked away over the long term, reducing carbon loss, and mitigating fire risks.

Socially and culturally, peatlands have been and continue to be important and valuable to communities who live, work and depend on them. Restoration helps preserve these areas and landscapes for future generations. It is seen as enhancing the beauty and sense of place associated with peat landscapes. Indeed, it can also enable increased access to some moorland areas and heighten public appreciation and awareness of peatlands value.

Peatland restoration has the potential to influence agriculture and land use choices. Whilst this may benefit some, there is caution over potential impacts on crops and food choices

and impacts to food security, pricing and livelihoods. There are also possible trade-offs around land management, with an example given of restored peatland in fen environments potentially altering soil temperature, reflectivity and mist formation.

2.2 Narrative Vision

The opening stage of the first national workshop posed the question:

“Imagine it is 2050 and you are at an event like this reviewing progress on England’s peatland restoration goals. What 2 things please you most?”

Wider engagement with stakeholders tested levels of support for the deliberative group’s ideas and suggested improvements. The refined vision was presented at the last workshop for the group to make any final suggestions.

Vision statements created this way are rich in people’s hopes and aspirations for the future. They are expressive in language, encompassing and giving voice to everyone’s hopes for peatland restoration in England.

The resulting narrative vision for the Peatland Restoration Roadmap is:

“The target of ‘280,000 hectares of England’s peatland in recovery by 2050’ has been met far sooner than expected! The holistic, healthy and dynamic functioning of England’s upland and lowland peat habitats has been a large-scale success nationwide. The scale of change is visible from the air. Peat ecosystems are teeming with wildlife and flagship species increased significantly. There have been big shifts in approaches to water management; wildfire and flood risk has been minimised and mitigated; no peatland emits carbon and carbon sequestration is increasing and supporting nationwide decarbonization.

Achievements are made in collaboration with different stakeholders and local people. Solutions work and are negotiated to deliver benefits for local culture, farmers, employment, recreation, access, navigation, and communities too. Voices from these interests help develop well-informed holistic action and shape the peatlands’ future.

There is now mutual understanding and respect between people with differing interests, property rights and responsibilities, and an ongoing willingness to work at finding mutually acceptable and joined up solutions. A range of landownerships and occupations, such as tenant farmers and gamekeepers, have been engaged throughout and are working together at a landscape or place-based level to plan the way forward. Citizens now value upland and lowland peat and their associated historic, natural and cultural features as an intrinsic part of the British landscape.

New innovations and forms of management (like paludiculture) mean farming and other land uses work alongside habitat restoration. Agri-businesses are viable and food production has adapted to restoration. This has increased food security.

Innovation, good science, and evidence-based solutions underpin measures of success and back up climate adaptive management, restoration techniques, livestock choices, and the roles of trees and scrub in dynamic peatlands systems. Pioneering and dynamic methods are used in water management leading to functioning water tables that support restoration. In the uplands, there is good water quantity and quality. In coastal lowlands, peat restoration is part of a continuum of transition to adapt to climate changes like sea level rise.

All this has been possible because barriers to restoration have been overcome. Policy and consenting are streamlined, local authorities have clear roles, skilled workforces are established and recognised at a large scale. This is all supported by sufficient, sustained long-term funding with clear pathways for uplands and lowlands. Evidence informs policy and funding targets, which in turn allows some peatland to be set aside for nature and natural ecosystem function."

2.3 Horizon and Driver scanning

During each of the regional workshops and the first national workshop, participants shared their thoughts around trends and changes, what is on the horizon, and what kind of innovation is taking place around peatland restoration. Outputs from these exercises help uncover drivers effecting peatland restoration, horizon scan for emerging and waning trends, and highlight the kind of innovations currently underway.

2.3.1 On the Horizon

By considering what is emerging of the future and what is waning in the present, the core group highlighted the kind of things which may require increased or decreased focus as restoration efforts continue and progress over the coming 25 years.

Emerging of the future
Participants shared their views about what they see on the horizon for peatland restoration in England.

When it comes to finance and accounting, participants expect to see capital frameworks such as Natural Capital, Culture and Heritage Capital, and Social Capital to increase in importance, and simplification of processes around biodiversity net gain and carbon accounting. Improved green finance metrics and clarity on what to invest in, the return of investment and the security and permanence of maintaining investment actions long term.

In addition, effective business models on lowland peat will emerge, and paludiculture plays its part in supporting habitat restoration.

Community ownership of peatland in line with that seen in Scotland is expected to become more prevalent, perhaps with associated land reform. The beauty and value of restored peat is expected to be more widely recognised, and with that will come more land uses compatible with restoring and restored peat, and landowners understand of the importance of protecting peat.

The natural function of peatland habitat is widely recognised as well as what it should look like in the UK. Discussions around the carbon benefits of trees and peatland are resolved, and landscape recovery and rewilding increase.

Participants foresee the needs of peat restoration and traditional farming are taken into consideration in some catchments, and there is an agri-ecological approach to all peatland in farm systems. Drought risks and water shortage are likely to become more apparent along with competing water demands between housing, farming and peat. There is also an expectation that IDBs shift focus from drainage to water management and rewetting. In addition, energy costs for water level management such as water pumping are expected to increase.

Some stakeholders expect that large-scale remote sensing and monitoring of ecology and hydrology will demonstrate restoration effectiveness, and there will be increasing need to keep on top of new science and opportunities for funding and innovations. With this and other developments will come more scientific understanding.

Losing relevance

Participants shared their understanding of things that are becoming less relevant or are seen as unfit for purpose. This includes barriers to restoration in the form of aspects of environmental law and regulation that shouldn't be relevant to peat, including planning barriers. Related to this are current agricultural subsidies and schemes such as HLS. Participants feel that deteriorating council resources, increased demands on public service and public debt have had their day.

Siloed ways of describing restoration and recovery are no longer seen as relevant. Participants expect to see a reduction in drainage of peatland, and variously of swaling and moorland burning.

Bridging the gap between the two

Participants shared their thoughts on what is needed to bridge the gap between those things on the wane and those things expected to be more important in the future. These include increase contractor, landowner, manager and societal understanding, awareness and appreciation of peatland restoration. There also needs to be understanding of best practice methods as well as awareness that trees are temporary, and peat is permanent

for carbon capture and storage. Biodiversity must also increase and be recognised as important for creatively resilient ecosystems.

New technology such as drones and technology to micro-manage water levels can help achieve mosaic restoration. In addition, there needs to be more knowledge of peat hydrology. However, traditional farming continues in some peatland catchments due to flood risk and to maintain drainage infrastructure to remove water.

Stakeholders also see a need to establish ‘risk based’ consenting processes through common knowledge or a reduction in consenting risk aversion, and more landscape scale trials and innovation.

Lastly, people see clear policies and jointly written position statements as important to bridging the gap between now and the future of peatland restoration.

2.3.2 Driver Scanning

Participants shared wider trends and changes relevant to peatland restoration in the form of a PESTLE exercise. These give insight into wider drivers impacting restoration efforts. These are summarised below and highlight the interconnectedness of peatland with wider factors and the importance of taking these into account.

Political Drivers

Government Priorities and Policy Direction. A new government focused on delivery has underscored a commitment to addressing environmental challenges, including peat restoration and waste reduction. However, there exists a degree of short-term political uncertainty, with the potential for future governments backing away from net zero and other environmental obligations.

Funding Strategies and Public-Private Partnerships. A significant focus is on leveraging public funding alongside private investment to achieve broader public goods. This includes initiatives that target waste reduction, particularly food waste, as part of an integrated environmental strategy.

Enhanced Public Engagement and Evolving Rights. Increased political engagement among younger generations, especially around green issues, is influencing policy discussions. Additionally, debates surrounding commoners’ rights and the balance between heritage preservation and environmental restoration are emerging as critical areas of consideration.

Environmental Drivers

Climate Change and Weather Variability. Key environmental challenges include sea level rise, altered rainfall patterns, and the increasing frequency of extreme weather

events. There is a clear desire to “future-proof” restoration projects to ensure resilience under changing climatic conditions.

Water Management and Ecosystem Resilience. Effective management of water resources is vital, particularly in designing systems with passive drainage to accommodate fluctuating water levels. While restored peatlands may not fully eliminate flood risk, they can contribute to improved biodiversity and water management when integrated into a holistic ecosystem approach.

System-Based Restoration Approaches. Recognising peatlands as complex systems encompassing hydrological, microbial, and environmental processes, necessitates moving away from siloed strategies. The adoption of SMART objectives is increasingly recommended within environmental land management schemes to ensure measurable and enduring outcomes.

Social Drivers

Community Engagement and Societal Values. Stakeholders see a notable increase in public awareness and support for peatland restoration. This is coupled with a desire among younger generations to reconnect with nature, and a growing emphasis on preserving rural communities and the identities of land managers.

Managing Transitional Impacts. The transition towards sustainable practices presents challenges, particularly for ageing land managers, and rural economies. Collaborative, community-based approaches are essential to ensure that local knowledge is integrated and that economic livelihoods are maintained throughout the transition.

Economic and Employment Considerations. The potential for job creation and the overall economic impact of peatland restoration are critical factors. Ensuring that restoration efforts contribute to long-term rural business viability and are financially attractive for landowners is a key strategic consideration.

Technological Drivers

Innovation in Equipment and Techniques. Advancements in adaptive machinery and restoration simulation tools, especially those tailored for paludiculture, are emerging as significant enablers. There is value in learning from international best practices, particularly from countries with established peat and water management systems.

Enhanced Monitoring and Data Integration. The integration of remote sensing technologies, satellite monitoring, and dynamic water control systems is expected to improve the assessment of habitat conditions and the efficacy of restoration practices. This enhanced data capability supports rapid evaluation and iterative improvements.

Scalability and Cost-Efficiency. Technological innovations are not only aimed at improving restoration outcomes but also at reducing the cost of verification and validation

processes. Achieving economies of scale and ensuring that technological advancements can be deployed beyond pilot projects are key considerations.

Legal Drivers

Complex Governance and Land Ownership Issues. The management of extensive peatland areas, particularly those on common land, is complicated by split ownership and diverse stakeholder interests. Legal challenges include reconciling the rights and responsibilities of large landowners with those of commoners.

Regulatory Frameworks and Compliance. Stakeholders see that outdated regulations - spanning public rights of way, protected site designations, and environmental compliance - can impede restoration efforts. Revisiting these frameworks, especially in relation to planning permissions and land use designations, is essential to remove bureaucratic barriers.

Funding and Long-Term Obligations. The legal structures governing funding mechanisms, including green finance codes, and the sustainability of long-term restoration commitments must be clearly defined to ensure successful project implementation and maintenance.

Economic Drivers

Cost-Benefit Analysis and Financial Viability. Demonstrating the economic case for peatland restoration through robust, evidence-based analysis is critical. The focus is on ensuring that restoration not only delivers environmental benefits but also enhances rural economic stability and food security.

Access to Capital and Financial Incentives. A range of funding mechanisms are under review, including grants, capital frameworks for natural and heritage capital, and incentive schemes such as ELM and SFI. Addressing financial gaps and the upfront costs associated with large-scale restoration is important.

Market Dynamics and Broader Economic Impacts. Restoration activities are poised to influence land values, particularly as carbon and biodiversity credits become more integral to market dynamics. Ensuring that these market mechanisms do not inadvertently penalise productive land use is essential, as is mitigating the risk of perceptions of “greenwashing.”

2.4 Pioneering initiatives and innovation

Restoration techniques

There are many pioneering initiatives underway around techniques for peatland restoration. These range from using natural, local materials in restoration efforts, to creating connected landscapes with a whole flood plain approach. Initiatives are being

undertaken by different organisations and partnerships such as Cumbria Wildlife Trust, universities, peat partnerships, and the Forestry Commission (Forestry England).

What?	Who is doing it?
Use of sheep's wool in restoration	CWT, W&FC, Uni of C PhD
Restoration of the connected spaces i.e. valley mines, modified bog area	
YW assessment of Dartmoor to try to enable easier working, reduction of risk and potential costs of carrying out peatland restoration	DNPA
Review of all data and new trails on effectiveness of different methods of molinia control on Dartmoor Blanket Bogs	Dartmoor Forest Commoners Association and FCL
Tree planting and wet woodland on the edges of restoration sites in Dartmoor	
Ditch system creation for fens	Somerset and Holland
Moving green hay to create fen	Wicken Fen
Use of biochar for restoration	Peat partners, Uni's and EA
Bunding in restoration works	
Bog breathing techniques, block chaining and restoration databases	
Trialling to manage fuel loads in a new way by creating an uneven age mosaic without burning or cutting	Peak District
Revegetate bare peat	Peat Fix project
Whole flood plain approach to restoration	Stage Zero in Cumbria and Somerset

What?	Who is doing it?
Lowland agricultural peat small infrastructure pilots (LAPSIP) -> tilting weirs connected to telemetry to dynamically monitor/control water levels	Defra funded schemes delivered by IDBs

Assessments and mapping

There are many pioneering initiatives underway regarding assessments and mapping. These range from environmental assessments to mapping of peatland to remote surveying. These innovations are being undertaken by IDBs, SWPP, and a diverse range of others.

What?	Who is doing it?
Paleo environment assessments, surveys, investigation, macro level, inform past landscape to enable discussions around what habitats could be in the future. Help the discussion around trees and peatland	South West Peatland Partnership
Peak District upland restoration severely degraded BB (blanket bog) heather dominance, steep slopes, deep gullies, dry, sphagnum inoculation remote sensing, fire risk	NT, RSPB, UU, MFTFP, YW
Methane and pools	SWPP
Mapping of peat areas in SW	SWPP
Trajectories of change in respect of peatland	SWPP
Hyper-spectoral/AI low-cost site assessment	University of Cumbria PhD
Remote sensing and telemetry	IDBs
Technology providing opportunities for surveying sites and controlling grazing on upland sites	
Farmer-led mapping approaches in Cambridgeshire	IDB

Understanding Value

Pioneering initiatives underway for gaining understanding about restoration are centred around carbon costs, environmental impacts and the culture and history of peatland. Organisations undertaking these efforts include the University of Cumbria, the South West Peatland Partnership, NGOs and Historic England.

What?	Who is doing it?
Carbon cost calculator – IUCN	Uni of C. PhD
Impacts of tin streaming on peatland environment and water quality	SWPP
Culture and heritage capitol frameworks – identify the value of the environment (nature and historic)	Historic England, NGOs, Defra, DCMS (Department for Culture, Media and Sport)
Paleo-environmental investigations into peat reveals information about the role of wet woody species in the formation of early peat	
Green finance work	Great North Bog, EA and NFM

Participation and Engagement

Innovations in community engagement have come in the form of engaging communities in peat restoration through the arts, such as poetry. Organisations undertaking these innovations include FCL, SWPP and Art and Energy.

What?	Who is doing it?
Examples of using arts to engage commoners landowners and excluded communities in peat restoration	FCL, Art and Energy ‘bury the Giant’
Developing a mechanism for unlocking delivery on complicated and ‘difficult’ common land	Foundation for common land, NT and local partners
Peatlands and poetry	SWPP

Farming

Farming innovations are centred around paludiculture trials, technology innovations and sustainable farming incentives. The main organisations championing these innovations are DEFRA, universities and BCNWT.

What?	Who is doing it?
Carbon forum Paludiculture crop trials (blueberries, celery, typha –> for textiles and building materials	LWT and Manchester Met Uni
Transition from lowland peat farming to indoor farming (vertical and greenhouses) Development of complementary green energy to support, solar, wind, biomass (brown and green)	
Sustainable farming incentives (SFI) for restoring/rewetting lowland agricultural peat	Implemented by Defra
Drones for seeding, harvesting, crop health assessment, collecting telemetry	BCNWT, PhDs, SEAD collective, and ARU Peterborough
No fence cattle management to feed into other site management	BCNWT
Beyond paludiculture trials – inspiring end users by supporting research e.g. Sphagnum with medical uses, for particulates and air cleaning, typha as cattle fodder, typha as building materials	BCNWT, UKCEH, university of East London and Greenwich University
Linking paludiculture and biochar application, up scaling paludiculture to field scale	Paludiculture exploration fund, Defra and lowland peat 3
Windpumps in paludiculture and rewetting pilots	Mike Longden

2.5 Challenges and Barriers

During the regional and first national workshop, participants considered the challenges faced by those restoring or planning peatland restoration projects. These have been broadly summarised under the headings: Funding and finance; permissions and consents; stakeholder involvement and agreement; technical and practical; skills and capacity; environmental and ecological.

Funding and finance

Widely mentioned was the need for long-term funding commitment. Without the certainty this brings, ongoing and sustainable management of projects is challenging, and can make retaining skilled staff difficult. Current funding tends to be short-term in nature and favours shovel ready projects and does not allow for planning and scoping.

Finding match funding from private sources for Nature for Climate projects without giving away rights to carbon or ecosystems has proven challenging. Some participants mentioned the prescriptive nature of carbon funding schemes and low carbon prices as being a barrier to funding, and the need to address market uncertainties whilst encouraging private sector investment.

From a lowland perspective the practicalities of navigating complex funding mechanisms, such as those related to BNG, where multiple landowners are involved is a challenge. The economic viability of restoration projects is also a concern, with calls for working examples of lowland peat farms transitioning to novel crops under paludiculture regimes to demonstrate financial feasibility.

Consents and permissions

The process of obtaining consents is seen as complicated and time-consuming, involving many stakeholders and statutory bodies, and outcomes are uncertain. This hinders project progress. Often different government agencies and departments have conflicting objectives, creating inefficiencies, or are inconsistent in approach between different regions and advisors. Participants talked of delays due to the limited number of local area advisors within NE, and high staff turnover and loss of experience in government bodies. Furthermore, regulatory bodies tend to be risk-averse, which can stifle innovative approaches to restoration

Cost in both time and money to obtain multiple permissions is seen as problematic, and potentially a barrier for smaller projects. The cumulative effect can be significant. Participants also talked of sequencing issues where timing of grant applications and permissions do not align and cause delays.

Participants drew attention to the variability in the need for planning consent between regions. Some identified a need to influence local planning strategies to support restoration projects. While in areas like Greater Manchester development pressure can lead to loss of focus on the importance of peat soils and their restoration.

Biodiversity Net Gain requirements can add complexity, cost and delay, creating barriers to restoration, for example the need to recreate ditches in Somerset.

Heritage teams were noted as having significant influence in some local planning authorities, needing focussed time and communication, and archaeological considerations can adversely impact projects. Heritage survey costs were specifically mentioned in the South West uplands. Also referenced was the need to balance sometimes-conflicting heritage conservation or species protection with peatland restoration needs. One example being a need for careful planning to maintain habitats for protected species such migratory salmonid fish. This can complicate peatland restoration efforts. In northern uplands a lack of suitable and effective bracken control methods was discussed.

Stakeholder involvement and agreement

Participants highlighted the need for effective stakeholder involvement to support and further restoration efforts. Engaging with and involving affected parties early in the process helps to build trust, address concerns, and form consensus. This includes with statutory bodies, landowners and managers, farmers, tenants, communities, and commoners in some parts of the country. The differing interests of these stakeholders can prove challenging, and social and cultural issues can block progress especially where land use change is a factor. It takes time and good advice to build multi-party trust around peatland restoration. Shared spaces with the public or military add complexity to projects and underline the need for good engagement. Consistent and accurate communication was identified as important to avoid misunderstanding or negative reactions and build public understanding of the value of peatland restoration.

Specifically relating to commoners, some identified challenges in identifying all relevant parties, including those who are inactive, and securing agreements. In some upland areas, commoners have significant influence, and participants identified a need for proper engagement and funding packages to help secure their support for peatland restoration. There is also lack of clarity around legal rights, and about carbon credits and biodiversity payments.

Building trust and relationships with landowners is time-consuming. Securing their agreement can be made more difficult as funding mechanisms often require landowners to pay upfront which can lead to cashflow issues. Long-term financial viability and security are crucial factors which effect landowner commitment to projects. There can also be ongoing maintenance concerns for restored areas.

The nature of governance arrangements and reliance on partnerships could be a vulnerability if not carefully managed. In lowland areas participants talked about specific requirements around hydrological block agreements, and the need to ensure all landowners agree to restoration plans. And that water table requirements can be difficult for farmers to comply with, which potentially deters participation in projects.

Technical and Practical

Each peatland site has unique characteristics, making it difficult to apply a one-size-fits-all approach to restoration.

There is a need for baseline data to measure changes resulting from restoration efforts and demonstrate net gains, and standardising and simplifying data collection. Developing effective monitoring techniques and using tech for surveying, and in some areas to manage grazing, are important but require investment.

Lowland participants talked of the need to better understand water movement, and how effective water management is crucial but technically challenging particularly in areas with varying water table depths. Rainfall can also be seen as a nuisance rather than a resource and there is a need to change this perception and harness the opportunity to manage it beneficially. Concerns about insurance and liability particularly related to new features and standing water also need addressing.

Restoration activities can cause damage to access routes, which in turn can lead to negative perceptions and media coverage, and the impact of moorland tracks is not understood holistically.

Skills and Capacity

There are notable gaps in knowledge and capacity that get in the way of restoration efforts. A shortage of skilled workers and contractors with the necessary expertise is a critical issue, and participants pointed to the importance of building local work and skills bases to secure ongoing efforts. In addition, knowledge gaps about effective restoration techniques and the long-term impacts of restoration efforts hinder progress. Limited sharing of data and best practices among stakeholders further reduces the efficiency and effectiveness of restoration projects.

Environmental and Ecological

Changing climate conditions could impact the success of restoration efforts, requiring adaptive management strategies. As mentioned above, balancing the needs of different species and ecosystems within peatland areas can be complex. Effective water management is important for peatland restoration, but it can be difficult to achieve, especially where there are competing water needs.

3 Key Focus Areas

During the first national workshop, after considering the wider picture for peatland restoration now and in the future, participants were asked to identify the key topics that they felt would help achieve the 2050 ambitions for peatland restoration in England. The emerging topics would become focus areas to discuss further during the next stages of the dialogue process. These key focus areas and a summary of the main ideas within them were tested with a wider group of stakeholders in the qualitative survey. The results of the survey were incorporated into workshop two as summary information for the participants.

Key focus areas that emerged from this process are:

- Consents and Permissions
- Management Toolbox
- What Does 'Restored' Look Like?
- People to do the Work
- Funding and Finance
- Effective Collaboration at Landscape/Restoration Project Level
- Culture of Learning and Innovation

In the following section, each focus area has a vision, a summary of what is already working well, and suggestions to further strengthen the work based on stakeholder discussion and input. During the second national workshop participants formed small groups around each focus area and discussed priorities within them, then suggested the steps needed to get reach the ambitions for peatland restoration in 2050. The source priorities and steps from the workshop record are captured in Annex 1 and the workshop output records, with a summary in this section. Discussion groups finished by proposing offers to help move forward towards those goals, and actions or activities that they or their organisations could take to help.

3.1 Consents and Permissions

3.1.1 Vision for success in 2050

There is a removal of barriers and risk aversity. Instead, new approaches and flexibility are used for projects where the scope of what to do is agreed with well-reasoned conclusions. Constraints of historic environments, landowners, and common rights on restoration projects have been overcome, and information, timetables, and consent are all submitted in a clear and timely way. Additionally, there is clear, consistent communication, agreement, and use of best practice techniques.

3.1.2 What is already working well?

Stakeholders coming together with a desire to work more closely to realise peatland restoration potential is seen as important to future success.

Guiding principles are becoming part of consenting, such as joint process best practices; as well as working within the confines of the existing system and time frames. This leads to flexible mechanisms which can adapt to deliver restoration targets. Investigation into having appropriate, flexible frameworks for abstraction licenses for uplands, lowlands and fenlands has also been undertaken.

Consenting bodies sit on restoration delivery partners' steering groups, along with people from differing interests and perspectives with the aim to help prevent blocks to restoration plans due to factors like, for example, common grazing rights. There are also benefits to creating integrated multi-agency plans of water use in restoration projects. When drainage boards are members of peat partnerships, they can beneficially influence decisions, increase modernising flood-risk activity permits, and review small reservoirs.

Finally, stakeholders noted that people experienced at working with peat are now being authorised to undertake restoration works, helping leverage their expertise in the sector.

3.1.3 Suggestions for complementing and amplifying good work

Suggestions for complementing and amplifying good work were collected through the regional workshops as well as workshop one and two.

Participants believed that changes need to be made to deliver restoration targets. To achieve this, there needs to be a more co-ordinated approach: consenting should incorporate joint-process best practice principles and consenting bodies should have a place on steering groups with delivery partners.

For better communication and collaboration, and to help in resolving differences within the DEFRA family and across the wider government, collaborative structures need to be put in place in all agencies. This will require upfront time investment. Additionally, there needs to be a consideration of delays in the timing of processes vs movement of water, and habitat regulations vs SSSI consenting.

To streamline planning, consenting and permissions processes, participants made suggestions, including standardising techniques; having mechanisms for wider conversations - which could include grouping work across smaller sites into larger packages; and implementing a traffic light system for restoration linked to a land use framework.

Wider awareness of the legal backdrop to consents and permissions is needed with a focus on outcome-based consenting. Landowners should be included as they have to consent to activities which affect their land.

Participants would like to be striving for place-based and evidence-based restoration. This requires that everyone involved in restoration has a deeper understanding of hydrology and risks. At workshop 2 people shared the view that it is important to accept appropriate risk when permitting. By adopting a more collaborative approach, it would be possible to capture and share more solutions, helping realise more service level agreements and in turn meeting more targets.

Finally, participants would like to see resources and funding in place for monitoring and staff within the DEFRA team and arm's length bodies beyond March 2025.

3.1.4 Priorities

Following on from the suggestions for complementing and amplifying good work, key priorities and actions were identified and tested in survey 1. Survey respondents gave suggestions for strengthening the proposals as well as providing additional actions to complement and amplify the good work.

Stakeholders discussing this focus area stressed the need to *simplify and improve regulatory processes* for peatland restoration. One priority is finding the right *balance between strict regulation and flexible management* – in other words, avoid overly prescriptive schemes while still guiding positive land management.

A prominent theme is to *streamline the consenting and licensing procedures* - for example, making water management consents more efficient - so that projects can implement restoration faster. This streamlining should be paired with a broad, flexible strategy that encourages *innovation and "learning by doing"* through pilot projects or trials and without getting bogged down in red tape. Support from regulators and peers would help land managers navigate the process.

Stakeholders also urge *accepting a degree of risk* in decision-making – using the best available evidence to act, rather than stalling until complete certainty is available. To assist local decision-making, it was suggested to develop *clear guiding frameworks,* such as a list of safe, pre-approved restoration activities accompanied by well-defined principles, to expedite approvals. This should however avoid a one-size-fits-all approach for unique sites.

Finally, *effective communication from regulators* is key. Land managers and farmers need straightforward rules and guidance about these improved consent processes and would like to see the outcomes and lessons from completed restoration projects shared widely to inform and reassure those involved in peatland restoration.

3.1.5 Suggested Steps

From the actions and priorities that were proposed, participants discussing consents & permissions in workshop 2 created a timeline of suggested steps to take between now and 2050. These aim to achieve the longer-term aspirations and look at streamlining the regulatory environment and making the permissions process for peatland projects more efficient and transparent. In summary:

Iterative improvement of processes. The approach to consents should be *adaptive and evolving.* An ongoing commitment is to learn from each project and update the "roadmap" around consents continually. For example, Scotland's experience is cited as something to learn from – perhaps referring to how they adjusted timing windows for restoration activity. This ensures the consent process becomes smoother over time as lessons are taken onboard.

Better communication and guidance. A priority is *demystifying the consent process* for those involved or thinking about peatland restoration. This means clearly communicating *what* permissions are required and *why* they are needed. By explaining the reasons behind regulations – for example environmental protections, safety, legal obligations - project initiators and developers are more likely to plan accordingly. Alongside this, sharing *case studies that outline all the consents needed and typical timelines* is suggested so that practitioners can anticipate requirements and factor them into project plans.

Streamlining across agencies and policies. Multiple government bodies oversee peatland activities including Defra, the Environment Agency, Natural England, and local authorities. Steps call for these teams to *work together and streamline their processes,* effectively "bringing everything together". Additionally, achieving *cross-party political support* for the overall peatland vision – meaning major political stakeholders agree on restoration goals – would help maintain consistent policy over the longer term and send clear signals.

Integrating peatland priorities into planning law. One specific step is to ensure *lowland peat is recognised as an "irreplaceable habitat"* in planning guidelines. This would give peatlands stronger protection when local planning decisions are made, similar to how certain habitats or heritage sites have special status. Tying peatland restoration into instruments like *Local Nature Recovery Strategies (LNRS)* is another way to embed it in local planning process.

Building capacity and conflict resolution mechanisms. Recognising that navigating consents can be complex, stakeholders suggest *training programs for local authorities* so that officials understand restoration needs and can handle consent applications knowledgeably. A *conflict resolution panel* is also proposed to handle disagreements between statutory bodies – for instance, if environmental agencies and local planners

differ on a project, a neutral panel could arbitrate based on a shared understanding of peatland value. This would prevent projects from stalling due to inter-agency disputes.

Evidence-based decision making and future obligations. In the longer term, collecting and sharing evidence is key. Stakeholders want to see *data and evidence* **-** for example on restoration outcomes and best practices - gathered and used by involved parties to communicate and improve the consent framework. Also requested is *signalling future legal obligations* early - essentially warning landowners and managers that regulations could tighten over time. By communicating the *risk of future legal requirements* - for example, eventual mandates to conserve peat - stakeholders can prepare and ideally choose to comply voluntarily before they are forced.

Towards mandatory protection. The ultimate long-term step is to establish a *legal obligation for landowners to protect their peatlands.* In other words, peatland conservation would move from being incentivised or encouraged to being required by law. This would be the strongest possible measure to ensure peatlands aren't damaged, but it's understood as a final step – one that would likely follow only after giving landowners plenty of support, clarity, and warning via earlier steps.

3.1.6 Offers of Action

There were ten offers of action for this topic. These offers came from seven participants and range from providing case studies, conflict resolution, policy signalling, and awareness raising.

3.2 Management Toolbox

3.2.1 Vision for success in 2050

Broader more responsible land management tools and restoration methods which allow for site specific actions with the 'right tool in the right place'. Management decisions are informed by monitoring and there is an established consultation and engagement process. Cost effective tools help the simultaneous delivery of multiple benefits, such as the inclusion of Historic England features in restoration efforts. Additionally, paludiculture has a fully realised and researched toolbox. In the uplands, a fire danger rating system is in place to prevent and mitigate wildfire. Whilst the bog conservation handbook has been refined in the lowlands.

3.2.2 What is already working well?

The peatland restoration sector has received more credibility and interest since the IUCN created a governing body.

Forming peatland partnerships with wide varieties of stakeholders - like moorland managers, IDBs and farmers – is proving effective. In the uplands, these partnerships host site visits and outreach programmes to allow knowledge sharing between different groups. In the South West, restoration plan templates created by SWW consider all the potential issues of restoration. Across England, partners are carrying out monitoring of peatland though several channels. Partnership working, is enabling practitioners to upskill and raising interested in training the next generation of restorers.

Increasing interest from private finance and in carbon credits are benefitting restoration projects, despite their inconsistency and limited duration.

3.2.3 Suggestions for complementing and amplifying good work

Suggestions for complementing and amplifying good work were collected through the workshops. During workshop 2 they were divided into management toolboxes for lowlands and uplands.

Upland
To complement and amplify the existing good work, participants at workshop 2 suggest improving relationships, increasing capacity and visibility, and focussing on landscape recovery and holistic solutions. Additionally, responsive sharing techniques should be utilised.

While relationship work is invisible, participants state it is essential, expanding that there are complexities around owner and tenant relationships in upland and suggesting that NE could mediate.

Increased capacity could be gained through number of contractors and contract terms, and through long-term guaranteed funding. It would help if there was increased visibility and connectivity between these funding streams and schemes. It is believed that the government perceive there is more funding available for peatland than in reality, an increase in visibility could help to increase understanding. While better ‘selling’ of peatland habitats to government or investors could improve investment. To further streamline work it is important to identify any constraints early on so mitigations can be designed in.

Finally, participants suggest linking uplands and lowlands for holistic solutions e.g. water quality work on moors being undone by landscape management in-between. For this we need to support people to make changes. Participants state that farm cluster with estate owners, tenant farmers and owners is helping through sharing knowledge, but this won’t ‘solve’ everything.

Lowland
Participants of workshop 2 state that it is time to see change. To be more effective in this, the participants suggest that a paradigm shift needs to occur within IDB boards to open the fixed mindsets which currently blocks change.

To amplify the work being done, there needs to be an agreed upon prioritisation and focus. Two suggestions from workshop participants were to focus on easy wins first or using dynamic systems and collaborating on bigger projects rather than multiple smaller projects. Similarly, it is recommended to have a platform to share knowledge, experiences, advice and ongoing/ upcoming projects to aid in continuous improvement and avoid duplication. For example, knowledge of available mechanisms such as LR/ELM. However, it is important to have enough experts in the right sectors to respond to demand, so therefore continued development and right training available is key.

To ensure the scalability of viable models, it is recommended to perform large-scale integrated trials. Any best practice demonstrations can then be used to facilitate change and “sell rather than tell” to potential new revenue streams. Additionally, responsive sharing techniques should be utilised.

Participants identify that there is currently a lot of finance going into capture and storage, but abatement needs to be factored in. Steps should be made to secure certainty in funding over a longer time period with relative levels of funding in research and development.

3.2.4 Priorities

Following on from the suggestions for complementing and amplifying good work, key priorities and actions were identified and tested in survey 1. Survey respondents gave suggestions for strengthening the proposals as well as providing additional actions to complement and amplify the good work.

Priorities in this area focus on developing a *comprehensive toolkit and guidance* for peatland restoration. Stakeholders suggest creating a flexible, *national “restoration toolbox”* containing all the knowledge, tools, and solutions needed for projects across the UK, including a recognised suite of restoration interventions spanning from initial delivery to long-term management.

Alongside the toolbox, there should be *guidance documents and templates* – for example, model long-term project plans for integrated, multi-benefit outcomes - like combining long term carbon storage, flood mitigation, water quality, biodiversity, cultural and economic benefits.

The importance of building *local capacity and skills* to use this toolbox is highlighted, so that lessons learned are retained on the ground. There is also a call to *encourage innovation and diverse approaches* – enabling experimental techniques, and a “mosaic approach” to farming and land management.

Additionally, stakeholders want better *data sharing and information support* - open data portals and understanding - to help projects develop viable business models, as well as

clear guidance on securing essential agreements such as long-term water management arrangements to support restoration work.

3.2.5 Suggested Steps

From the focus areas and produced priorities, participants in workshop 2 discussing the ideas of management toolboxes for the uplands and lowlands then proposed steps to be taken from now to 2050. To help identify any potential nuance between approach for uplands and lowlands, one small group was formed around each.

Management Toolbox – Upland
These steps focus on equipping upland peatland projects with the support, knowledge, and flexibility needed for success. Main steps include:

Sustaining long-term efforts. Stakeholders stress the importance of *secure, long-term funding and planning* for upland peat partnerships. This includes maintaining partnerships beyond current short project cycles and ensuring contractor availability, for example through multi-year funding that supports training and retention of restoration contractors.

Collating knowledge and resources. A key step is seen as *gathering and integrating existing knowledge* – for example, creating a repository of tools, policies, and resources that upland projects can use. By combining site-specific best practices, policy guidance, training materials, funding opportunities, and relationship-building tactics into one "toolbox," practitioners can avoid reinventing the wheel and accelerate restoration using what's already known.

Improving collaboration and policy flexibility. Stakeholders want stronger *relationships between partners,* including government agencies, to collectively address barriers. There's also a call for practical flexibility in regulations – for instance, having Natural England *allow restoration work during typical restricted periods* (like through ground-nesting bird season) to extend the working window. This would make upland restoration less season dependent.

Engaging landowners effectively. Recognising that landowner buy-in is crucial, steps outline strategies to *"take people with us."* This ranges from demonstrating benefits such as financial or biodiversity gains that make it worth people's while, to knowing when to shift from voluntary incentives to regulatory "sticks." For example, early efforts would focus on fully engaging willing landowners, but if progress stalls, policymakers might consider stronger measures to require participation.

Leveraging science and technology. The upland toolbox also includes using *new technology and scientific research* to enhance restoration. Ideas include using tech to monitor conditions (e.g. water table changes to manage rewetting) and continually defining new benefits of restored peat (carbon storage, water regulation, and others). Upskilling

government staff in peatland science and management is mentioned so that conversations with stakeholders are well-informed.

Boosting public awareness and education. In the long term, a cultural shift is envisioned by participants. The *general public should understand the value of peatlands,* so proposals include embedding peatland topics into school curricula (e.g. geography lessons about peat habitats) and creating accessible, well-managed peatland sites that "show off" the benefits of restoration. By educating future generations and showcasing successes, upland peatlands would gain broader societal support. One aspirational outcome noted was cultivating "a whole bunch of new passionate peatland experts."

Management Toolbox – Lowland

This focus area's steps address the unique challenges of lowland, often agricultural, peatlands by developing practical tools, knowledge, and policies. Ideas highlighted include:

Tackling technical challenges. There is recognition of ongoing engineering and environmental hurdles in lowland rewetting. For example, *innovations in water management* are needed to deal with altered hydrology, including transitions from freshwater to more saline environments in some areas, and to overcome challenges in machinery or harvesting on wet peat. These technical issues are flagged as needing continuous attention as restoration scales up.

Establishing clear metrics and definitions of success. Early steps emphasise getting everyone on the same page about *how to measure success in lowland peat restoration.* This includes reaching consensus on carbon accounting methods and calculators, defining what a "good" restored peatland looks like, and creating an *agreed-upon database* of what constitutes viable land management on rewetted peat. Essentially, practitioners want standard benchmarks to help gauge progress.

Enabling innovation through pilot projects. Stakeholders suggest creating conditions for *demonstration projects* to test new approaches and techniques, including around paludiculture or wetland agriculture. To do this, regulators might provide *bespoke consenting processes* – essentially fast-track or flexible permits – so that experimental projects can proceed despite existing rules that might normally hinder them. Early successes and lessons from these pilots would feed into the toolbox.

Building capacity and adjusting institutions. Like the uplands, lowland restoration requires skilled people and supportive institutions. Steps call for *building up training and skills* specific to lowland peat work and even *reforming institutions* that manage land and water. For example, Internal Drainage Boards (IDBs) and other bodies may need restructuring to support rewetting rather than drainage.

Coordinating regulation and policy. Lowland projects often face fragmented or conflicting regulations. Stakeholders propose a *coordinated regulatory approach*. For

instance, a one-stop *portal for restoration consents* (similar to a planning portal) where various agencies can comment and align their requirements. They also suggest creating forums to discuss how contradictory policies (e.g. agriculture vs. conservation directives) affect restoration. Using *mechanisms like LNRS* (Local Nature Recovery Strategies) to set local priorities and streamline consents were also proposed. Clear standards are needed so that industry schemes (such as certification like Red Tractor for farming) do not work at cross purposes with restoration goals.

Exploring new economic models for rewetted peatlands. In the medium to long term, the toolbox includes exploring *what new crops or products can be produced on wetter peat*. These could include alternative foods, fibres, or other marketable goods that thrive in high water-table conditions. It is important to identify *marketable and profitable uses* for rewetted land to make restoration economically sustainable for landowners.

Scaling up and mainstreaming restoration. Far-sighted steps imagine moving from isolated pilots to landscape-scale changes. This would involve ensuring *infrastructure is in place,* for example, water control structures or digital hydrological monitoring systems. Also possibly establishing a *national peatland restoration commission* to coordinate large efforts. As techniques prove themselves, there's an aim to *develop viable business models at scale,* showing big investors or industries that peatland restoration can work financially - moving from a "£ thousands" scale model to a "£ billions" scale model.

Strategic planning and regular review. Lowland restoration should be built into broader planning frameworks. For instance, linking peatland goals with local development plans and *ensuring restoration priorities appear in regional strategies.* Additionally, there was a proposal to *review and adjust policies every 5 years* - "plan-do-monitor-review" cycle - to respond to new information so essentially embedding continuous improvement into the plan.

Long-term adoption and adaptation. Ultimately, the participants envision that after demonstrations and policy adjustments, *paludiculture and sustainable farming become common practice* in lowlands. Progress should be *measured and monitored* with metrics established from earlier steps to track recovery. Lowland peat management will also need to *continuously adapt to climate change*, for example, dealing with increasing salinity or extreme weather. The overarching goal is moving from small demos to *widespread implementation* of restoration-friendly practices across lowland peat landscapes.

3.2.5 Offers of Action

For the uplands there were five offers made by six participants. These offers ranged from influencing policy, facilitating conversation between stakeholders, helping farmers have more influence, sharing data and partnership working. For the lowlands, there were fifteen offers made by eight different participants. These offers ranged from data, skills, communication and promotion, case studies, influence and funding.

3.3 What Does ‘Restored’ Look Like?

3.3.1 Vision for success in 2050

There is improved understanding of different desired restoration states, the unique elements of each site as well as how to manage the water table. Restoration and ecosystem health objectives are aimed high and delivered through a balance of approaches. There is an understanding that not everywhere will be fully restored and we are moving away from a binary of good and bad. The end goals for both lowland and upland restoration are a success despite their different needs and requirements.

The impact of restoration has been measured and quantified and there is a clear expression of natural function. This has come in the form of bare peat areas becoming revegetated, resilient and no longer emitting carbon. As a result, species recovery has been a success and biodiversity has increased.

3.3.2 What is already working well?

The IUCN and the Peatland Restoration Roadmap (PRR) are providing opportunities to discuss and develop standards of peatland restoration, such as ‘what counts as restored’. The PRR is also providing opportunities to identify areas of peatland that need to be prioritised and progressed to achieve the restoration ambition. In addition, a data collection approach is being adopted where consensus is better than waiting for perfect solutions.

Another thing that is working well around this focus area is moving the roadmap away from measuring and reporting interventions, to measuring actual conditions on the ground - a lot of data is being collected, and the development of standards is evolving. This is reflective of standardisation occurring in other areas, such as UK GHG and the Peatland Code.

Finally, restoration is moving beyond SSSI limitations and factoring in nature and climate resilience which is helping revegetation become the focus for many areas of bare peat.

3.3.3 Suggestions for complementing and amplifying good work

Suggestions for complementing and amplifying good work were collected through the regional workshops as well as workshop one and two.

Different understandings of what is meant by ‘restored’ and ‘degraded’ exist. It is recommended that a consensus definition is created for these terms as soon as possible so that we can move on to understanding and remedying the causes of degradation.

For ‘restored’, participants suggest collating data guidance and evidence to put boundaries around what good looks like. Some of this evidence could come in the form of hydrology modelling for sites now and in the past and applying climate change scenarios to identify

the range of possibilities. However, as highlighted by participants, it is important not to get into a narrow mindset based solely on a climate model and there should not be a one size fits all approach.

3.3.4 Priorities

Following on from the suggestions for complementing and amplifying good work, key priorities and actions were identified and tested in survey 1. Survey respondents gave suggestions for strengthening the proposals as well as providing additional actions to complement and amplify the good work.

Stakeholders discussing this focus area in detail identified priorities around *defining and measuring successful peatland restoration.* They suggest developing *clear national guidance on restoration targets* – for example, outlining the characteristics of priority sites and end-state conditions to aim for – while still allowing flexibility for each site's unique needs.

A major goal is to *build consensus on what a fully restored, functioning peatland ecosystem looks like.* This includes agreeing on a definition of 'restored' at different sites - such as a peatland that is functioning as a wetland with all its ecosystem services - and avoiding 'shifting baselines' by clearly documenting what the reference healthy state should be at a given location. To support this, stakeholders call for *widespread, standardised monitoring and evaluation methods.* In practice, that means establishing common protocols to measure progress (water levels, vegetation recovery, carbon metrics, etc.) and ensure clear decision-making based on data. Understanding the *broader system context* – especially underlying water management – is part of this, so that restoration work is informed by how water flows and peatlands function in the landscape.

There is a strong emphasis *on long-term monitoring and research.* Stakeholders want flexible, ongoing monitoring programs that can track peatland recovery over decades, and they stress the importance of securing funding commitments for this. Some solid ideas include setting up *control sites* (unrestored reference areas) to compare against restored sites and understand what would happen without intervention. However, they note that any control sites must be chosen so they don't cause undue environmental harm, and indeed some stakeholders are cautious. A few believe there should be fewer monitoring sites or even no control sites, underscoring a debate about how to balance monitoring with practical execution.

Overall, this focus area's priorities aim to *clarify the end goals of restoration and ensure there is a robust, evidence-based system to track and prove success.* Defining "what restored looks like" and measuring outcomes consistently, can guide projects to achieve resilient, long-lasting peatland recovery.

3.3.5 Suggested Steps

From the priorities that were produced in workshop 1, participants discussing this focus area in workshop 2 then proposed steps aligning with the priorities which could be undertaken from now to 2050.

This focus area is about defining targets and outcomes – knowing what successful peatland restoration means in clearly defined terms – and setting up ways to measure and achieve that success. The steps are all about *clarity, monitoring, and iterative improvement* and can be summarised as follows

Defining "good" restoration. A primary step is to *collate data, evidence, and guidance to pin down what a restored peatland looks like.* This means reviewing scientific data and expert opinion to set clear *boundaries or criteria for success* – creating a definition of "done" or "healthy" for peatland restoration. It could involve metrics like water table depth, vegetation types, carbon, and others, but importantly it provides a goal for projects to aim at. Alongside this there is a call to *review what's been learned so far* and incorporate knowledge from elsewhere to inform this definition. This could include for instance, peat restoration techniques used in Europe or international best practices.

Recognising different contexts. The steps acknowledge that *"restored" may look different in lowland vs upland peatlands.* Lowland peat that has been used for agriculture might never resemble an undisturbed upland bog, and that is okay. The outcomes might be different, for example a wet agricultural system with certain crops vs. a wild peat bog. The steps suggest keeping these contexts separate when defining success, to have realistic and site-appropriate goals.

Stabilising and setting interim goals. Particularly for lowlands, an immediate aim is to *"stabilise where we are"*, to stop any further degradation, like soil loss or emissions. Then, *establish a restoration trajectory and prioritise actions timewise.* Basically, lay out a phased plan for improvement over the next 10, 20 years and beyond. This includes looking at what current grant schemes can achieve in that timeframe, and what new interventions might be needed as we move along.

Aligning policy with science. A significant theme is ensuring *government policy is lined up with what restoration science deems achievable.* For instance, setting realistic *targets for lowland peat* in policies, backed by scientific evidence, so that policy isn't demanding the impossible and science can inform adjustments to those targets. There's also mention of keeping policy flexible – *setting up flexible responsibilities* so that as we learn more, roles or approaches can adjust. Essentially, policy should not be static, it should evolve as our understanding of "what good looks like" improves.

Public communication and transparency. Defining success isn't just an internal exercise, it also involves *communicating to the public what the plan is and what progress is being made.* A suggested near-term step is to improve *communication with the public to*

demonstrate what the government is doing and why for peat restoration. The idea is that if people understand the end goals - this is what a healthy peatland will look like and here's why it matters - they will be more supportive. Public-facing progress updates, perhaps via reports or online dashboards, could be part of this transparency.

Robust monitoring and standards. Hand-in-hand with defining success is being able to *measure progress toward it.* Steps include developing *monitoring standards and networks* – for example, agreeing on which indicators to monitor (water levels, vegetation cover, carbon emissions, etc.), and possibly creating a *monitoring network* that collects data from various sites to show improvements over time. New technologies are encouraged here. For instance using *hyperspectral imaging, Artificial Intelligence, or other advanced tools* for monitoring could increase efficiency and data quality. Also noted and suggested was the *use of citizen science* – involving volunteers or local communities in monitoring efforts to both gather data and increase awareness and engagement with peatland.

Securing long-term monitoring funding. A practical concern raised is around *changing how monitoring is funded so it's secured for the future. Often* projects have short-term monitoring that ends when funding ends, but here stakeholders call for dedicated, possibly centralised funding to continue tracking peatland health over the long term. This might mean government allocation for ongoing monitoring or integrating it into project budgets. Without continuous monitoring, it would be hard to know if "restored" conditions are maintained, so this step is critical for sustained success.

Inclusive and trusted monitoring efforts. The plan emphasises working with *trusted partners* and keeping monitoring inclusive rather than top-down only. This could mean partnerships with universities, conservation charities, or local groups to conduct monitoring, helping ensure transparency and shared ownership of the data. The aim is to have a collaborative approach where everyone interested, including the public, can access and trust the information.

Iterative review and policy feedback. Perhaps the most recurrent theme in the suggested steps is *iteration – continually refining what "restored" means as we learn more.* The steps propose regular *checkpoints or progress records* that not only log achievements but also feed into policy updates. For example, every few years, a review might suggest tightening a standard, changing a funding priority, or introducing a new technique based on evidence gathered. Phrases like "constantly refine…and be dynamic" capture this spirit of never considering the plan finished. It is a loop of implementing restoration, monitoring results, then *reviewing and adjusting policies or definitions* accordingly. An example given is reviewing what has been learned on a site-by-site basis as knowledge improves.

Innovation and research for improvement. Achieving the vision of a restored peatland involves ongoing *research into new methods.* One longer term step suggested funding research for *crops that serve dual purposes* - producing economic value while keeping water tables high for peat. This acknowledges the need for innovation particularly in

lowland agricultural contexts. There's also the broader point of *"build in what other techniques we could use"* – always scanning for technological or methodological advancements that could enhance restoration or monitoring. By staying open to innovation, the definition of "restored" can evolve to include new best practices. For example, if a new species of wetland crop is found to be excellent for peat, future restoration success might include planting that crop.

Evidence-driven success. In the long term, these steps envisage a scenario where *evidence collected from restored sites directly informs and improves policy*. For instance, if monitoring shows a certain practice yields better peat conditions, that evidence might lead to a change in agri-environment policy or guidance. Stakeholders expressed the desire for *evidence to create policy change* – highlighting that the entire effort comes full circle. Starting with policy enabling restoration and ending with restoration outcomes reshaping policy for the better.

3.3.6 Offers of Action

There were eighteen offers of action made by eight different participants. These offers ranged from partnership working, reviewing, monitoring, research, innovation, knowledge, modelling and advocating for policy change.

3.4 People to do the work

3.4.1 Vision for success in 2050

There is an increase in a local, skilled workforce for peatland restoration which helps to maintain peatland past 2050. Funding and contractors help to support long term monitoring and evaluation. Resources and information are pooled across regions, such as an efficient distribution of contracts and machinery. There is an increase in climate change and water level rise discourse as well as funding to increase resilience where all parties are rewarded for delivering restoration.

3.4.2 What is already working well?

The University of Cumbia has piloted apprenticeships in forestry and creating a post graduate route for project management after securing funding for an additional year. This can highlight future careers in the environmental sector, but further work needs to be done. Funding living wages for trainees, apprentices and interns was also identified as important, and too many voluntary roles leads to higher staff turnover.

SWW have worked to build up contract capacity by tailoring apprenticeships and graduate schemes towards nature-based solutions and purchasing machinery through NCPGS to enable local contractors to perform restoration work. This has occurred alongside a rise in

skilled and knowledgeable practitioners. Remaining at a local level, farms and other land managers have workers who understand the landscape and could be upskilled to undertake restoration work.

On a national policy level, consideration of the environment is helping shape GCSEs that will inspire children to future careers in the environment sector. Lastly, there is more government department-level collaboration. For example, the EA national peatland team can influence DEFRA and political agendas.

3.4.3 Suggestions for complementing and amplifying good work

Suggestions for complementing and amplifying good work were collected through the regional workshops as well as workshop one and two.

Stakeholders perceive a gap in staff resources and suggest suggested setting up framework agreements and developing career pathways to support progression. Similarly, participants of workshop 1 identified that project manager cohorts are not currently working in peatland restoration and need to be influenced by the environment sector to believe that it is a viable career. However, they may need baseline technical knowledge before working in the sector.

In order for people to do the work, participants highlight the need for a plan. This plan should be developed through partnerships and contain farmer led approaches. Additionally, there should be access to reliable contractors and peatland officers who are paid well.

Participants are calling for more variety of knowledge and skills in peat partnerships to ensure continued progress, as well as a method to retain and share knowledge. One area identified for development noted was business skills for Peat Partnerships and contractors. A suggested way to share knowledge could be through best practice demonstration projects to showcase what restoration can be like.

3.4.4 Priorities

Following on from the suggestions for complementing and amplifying good work, key priorities and actions were identified and tested in survey 1. Survey respondents gave suggestions for strengthening the proposals as well as provide additional actions to complement and amplify the good work.

This focus area's overarching priority is *developing and sustaining a skilled workforce* to carry out peatland restoration. Stakeholders note that without people equipped to implement projects, even the best plans will fall short.

A priority is to *build capacity through education and training.* Suggestions include offering funded internships, apprenticeships, and incorporating peatland management into curricula to attract and train new talent. There is also an emphasis on *retaining and expanding the workforce by* providing long-term job security. For instance, ensuring restoration projects have funding to keep skilled workers employed over many years, not just short periods or contracts.

Volunteers are another important resource. Stakeholders encourage creating opportunities for volunteers and local community members to get involved, which can both expand the workforce and build public support.

Importantly, *engaging farmers and other local land managers* in the work is highlighted, since they often have knowledge of local conditions and traditional management practices. Providing avenues and incentives for them to participate in restoration work is important.

Additionally, raising *broader awareness and education* about peatlands (starting with schools and universities) is seen as necessary to cultivate the next generation of knowledgeable practitioners and to help ensure there are sufficient hands and minds to meet restoration goals.

3.4.5 Suggested Steps

From the actions and priorities that were produced, participants in workshop 2 then proposed steps informed by the priorities for this focus area which could be undertaken from now to 2050. This focus area is about ensuring that human capacity is in place to carry out peatland restoration at the needed scale. The steps outline how to build, support, and retain a skilled workforce.

Long-term workforce planning. A clear message from stakeholders is the need for *certainty and clarity in the long-term plan* so that those working on peatland restoration have stability. One proposal is for Defra to develop a dedicated *"people plan"* as part of the peatland roadmap, breaking down the human resource needs and strategies over the life of the restoration program. By knowing the plan spans decades, contractors, NGOs, and young professionals can commit to the field and see it as a viable long-term career.

Extending the working season. Peatland restoration work is largely seasonal due to for example weather, ground conditions, or wildlife breeding seasons. Steps here suggest finding ways to *"extend the year"* of work, meaning increase the number of months per year when restoration activity can happen. This could involve *adjusting practices or obtaining permissions* to work in periods that are usually off-limits and improving how work is scheduled. The benefit would be more continuous employment for restoration crews and faster progress on projects, rather than stopping and starting with the seasons.

Fixing procurement and contracting challenges. The administrative side of hiring people and companies to do restoration also needs attention. Stakeholders want to

address tendering and framework agreements. In other words, reform how contracts for restoration work are bid and awarded. The aim is to make timelines more realistic and flexible. Current contracts might be too short or only allow work at suboptimal times. By improving these processes, contractors can plan better, invest in necessary equipment and personnel, and not be rushed into delivering in an impractical timeframe.

Training and upskilling. To grow the sector, *significant investment in training and skill-building* is required. This includes creating *clear career pathways* for new entrants so someone can see how to progress in a peatland restoration career; offering *upskilling opportunities* for existing workers, like new techniques, certifications; and possibly cross-training people from related industries such as forestry, agriculture, or ecology to work on peat projects. Essentially, making sure the workforce has the right expertise – from machinery operators skilled in wet conditions to ecologists who understand peat – and that individuals see a future in this field.

Creating specialist support networks. Another idea is to set up a *specialist advice hub*. For example, DESNZ appointing a body like the Carbon Trust or other experts to provide guidance to projects. This would give practitioners a place to turn for advanced expertise, ensuring high-quality work and troubleshooting help. It also helps disseminate best practices quickly as the experts can share knowledge across all regions.

Scaling up in a sustainable way. There's awareness that ramping up restoration shouldn't happen overnight in a way that overwhelms capacity. The suggestion is to *rapidly scale up the sector in chunks*, so that the system can absorb growth - more workers, more projects - without collapsing. This means perhaps recruiting and training in stages, increasing funding in a step-by-step fashion, and monitoring the strain on the workforce and supply chains. This phased growth helps avoid problems like worker shortages, safety issues, or poor-quality work due to stretching crews too thin.

Retention and continuity. In the long run, the goal is to *retain skilled people and build a continuous workforce* for peatland restoration. This implies creating conditions that keep people in the sector. These include competitive wages, a sense of job security, and a community of practice that people want to remain part of. By avoiding the loss of experienced workers who might leave if work is patchy or funding dries up, the restoration effort can maintain momentum and not lose institutional knowledge. Once trained and seasoned, these professionals should have reasons to remain engaged year after year, mentoring new entrants and steadily advancing restoration across the country.

3.4.6 Offers of Action

There were seven offers of action made by six different participants. These offers ranges from supporting upskilling, networking and business skills.

3.5 Funding and Finance

3.5.1 Vision for success in 2050

Restoration is not dependant on government changes or short wins and new legislation ensures that climate change is incorporated into business. There is a new normal of peatland use- particularly in the lowlands- and there is no taxation for doing the wrong thing. Subsidies for restoration efforts are no longer required and there is a consistent, quantified and joined up approach. Restoration decisions are made based on what's known, important and stable and there is a developed ecosystem of public and private finance.

Funding is available to start and maintain new restoration work, but there is no funding for degrading practices such as peat extraction. Land has been regraded. There is also long term, sustainable funding for sustainable management as well as a package of funding to achieve restoration and revenue to support ongoing maintenance.

There is certainty in investing in nature markets. The carbon market is no longer voluntary and there is a national infrastructure commission for carbon. As a result, offshore carbon impacts have been prevented. Additionally, nature neutral, biodiversity positive and carbon neutral labelling has become more mainstream.

3.5.2 What is already working well?

There are more peatland sites coming up for sale which is increasing opportunities to manage them in a different way. For example, Durham wildlife trust took on and managed a grouse moor in an alternative way, and National Landscapes have nature-based solutions teams looking at opportunities. Additionally, tax off-sets by some wealthy owners' fund management of the land for restoration. The Nature North project has been funded by Esmee Fairburn Foundation and is a work in progress.

The public and private sector are coming together and talking at scale, for example the Great North Bog partnership took the lead going to 25 FTSE companies. As a result, there are many interest groups with conservation as part of their remit which could match with others of similar interests. As people are increasingly looking for income generation from the land, there is a rise in collaboration instead of competition for funding.

Alternative ways of fundraising are also gaining prominence. One mentioned was working with a booking company who ask their clients to donate to restoration works. Another strategy is building an industry model making the move to paludiculture affordable for farmers; as well as mirroring other sectors initiatives, such as renewable energy.

3.5.3 Suggestions for complementing and amplifying good work

Suggestions for complementing and amplifying good work were collected through the regional workshops as well as workshop one and two.

Stakeholders would like to see the government creating favourable conditions to encourage investors. Investment markets need to be clear, understandable and individual, and there needs to be financial justification for investment.

Insurance companies and people wanting to buy land to ‘do good’ are potential investment streams. This involves finding new land and determining if there is scope to fund requisition, lease and community purchases, as well as land management payments.

A bespoke, long-term agri-environment scheme is needed for peatland habitats. However, some believe that it is too unique and sporadic, would get lost in landscape recovery and is not suitable to fund operations. An extension of NCPGS or similar funds to cover people working on peatland restoration would reduce the need for upfront payment by scheme applicants. Additionally, participants would like to see farm level access to natural capital accounting, and some suggested there should be packages of funding for commoners to help gain and keep their support, with fair incentives moving beyond break even.

Stakeholders suggested longer term government funding commitments to gain contractor commitment. And there needs to be a reality and honesty about what happens at the end of schemes - limited income earning opportunities for restored peat. Funding should be forever as restoration creates irreplaceable habitat which needs to be maintained. Rewards for restoration and ‘good condition’ habitat should be implemented as well as penalties for not restoring. Additionally**,** regulation around peatland soil value needs to be stronger.

Participants would like to see less prescriptive carbon funding**.** Organisations like the National Trust, and water companies have huge carbon off-setting demands - can or should government force companies to invest in high quality or attainable schemes such as carbon credit or net zero?

Determine who keeps carbon credits in partnerships and how the funding filters down to for example the water companies, tenant farmers, others involved. Improve BNG financial gain for landowner, for example using a model like the blue carbon credit system. Another suggestion was that associated capital grants could fund graduated payments for raising the water table over a 30-year period.

Current monitoring initiatives are underfunded. There is a need for low-cost monitoring options which might increase as tech advances and supporting investment for landowners.

3.5.4 Priorities

Following on from the suggestions for complementing and amplifying good work, key priorities and actions within this focus area were identified and tested in survey 1. Survey respondents gave suggestions for strengthening the proposals as well as providing additional actions to complement and amplify the good work.

Stakeholders prioritised establishing *long-term financial stability* for peatland restoration. They emphasised working toward a *100-year vision* (or more in lowlands to factor in climate change), alongside short-term goals. This would help ensure *predictable funding* and stability for land managers, contractors, and 'green' jobs.

A key priority is to create *reliable, sustained funding sources* such as grants for both core project costs and on-the-ground restoration work. These funding mechanisms should reflect the true value of peatland benefits and cover supporting needs like communication, education, research, and monitoring. Reliability also comes from ensuring timely payment.

There is also an emphasis on *government involvement*. Having the government underwrite green finance initiatives can help investors and land managers have confidence in long-term restoration efforts. In addition, government initiatives can help ensure fair and dependable financial incentives for farmers to support food security and local communities. Ensuring grant access and availability for small groups or individual land owners/managers would also be beneficial.

Developing and enhancing the commercial viability and appeal to investors of lowland peat restoration is seen as important for unlocking private funding. Here the CO2 price would need to be higher and guaranteed to secure long term investments. Carbon market conditions which are robust and transparent would also help channel funds into restoration.

Participants would like to see funding and grant requirements allow projects the flexibility to involve to co-design restoration with multiple stakeholders, rather than pre-decide on approach and project outcomes.

3.5.5 Suggested Steps

From the actions and priorities that were produced, participants in workshop 2 then created a timeline of suggested steps which could be undertaken from now to 2050. This focus area's steps centre on establishing robust financial support for peatland restoration. Key actions include:

Creating enabling frameworks and incentives. Develop government-led frameworks, for example a national *green finance framework,* and economic incentives like a *carbon tax* and a dedicated *Peatland Commission* to drive investment. Standard-setting bodies,

like BSI, could be involved to help ensure carbon credit schemes meet rigorous requirements.

Diversifying funding sources and business models. Identify and promote *alternative business models* for peatland management such as purchase/lease arrangements, or new market opportunities, so landowners have viable economic options. Public sector funding is expected to play a role (e.g. *long-term public funding for delivering public goods* on peatlands), alongside private investment through biodiversity net gain (BNG) and nutrient neutrality credits.

Providing clarity and confidence for investors and land managers. Steps highlight the need for clear rules and information - such as clarifying what opportunities exist on peatland habitats and using tools like *land-use frameworks* with defined protection zones via Local Nature Recovery Strategies - to give confidence in local priorities. This ensures stakeholders know where restoration is a priority and what standards must be met.

Ensuring long-term financing and maintenance. Several proposed steps aim at sustained support over decades. Examples include establishing a dedicated *peatland fund or agri-environment scheme* to finance restoration and securing funding for the *long-term maintenance* of restored peatlands, so any gains are not lost.

Strong policy signals for the future. Long-range steps call for clear policy commitments that emphasise peatland importance. These could include *signalling a phase-out of agriculture on peatlands* over time and encouraging innovation in alternatives. By providing early notice of such shifts, these steps aim to drive investment in new practices and reinforce that peatland restoration is a long-term national priority.

3.5.6 Offers of Action

There were three offers made by four participants. Thes offers centred around championing peat specific agri-environment schemes, developing business models and gathering data and case studies.

3.6 Effective Collaboration at Landscape/Restoration Level

3.6.1 Vision for success in 2050

Clear communication, collaboration, standards and timetables. There is shared agreement of the fundamentals of a healthy peatland environment as well as sharing of resources and information between groups. There is holistic thinking in relation to food security and biodiversity and an acceptance that restoration is iterative. Long term vision and confidence increases as integrated landscape scale restoration is underway.

3.6.2 What is already working well?

There is enthusiasm about restoring peatland, including in the political agenda across party lines. Strong, innovative restoration partnership are working and building involvement. An example being the Duchy of Cornwall and National Trust becoming part of SWPP. Catchment partnership formation is leading to success in some areas. Together these foster sharing of best practices and improved collaboration with other organisations. Demonstrations of this can be found in peatland officers advising Wildlife Trusts, or NE and land managers helping peatland partnerships. There are also examples of water companies helping at a strategic level to unlock opportunities for restoring peatland.

Grassroots-led conversations with all involved stakeholders early in the process, such as commoners' representatives, also help to build trust and relationships beyond the conservation sector. This is demonstrated through farmers having a sense of soil custodianship and providing a space for farming and conservation to work together for mutual benefit.

The focus on carbon is enabling other wider environmental organisations to work across bigger areas and bring stakeholders together. This carbon capture interest also leads to landowners buying land to offset emissions.

3.6.3 Suggestions for complementing and amplifying good work

Suggestions for complementing and amplifying good work were collected through the regional workshops and workshops one and two.

Stakeholders explained that there are likely to be situations where strategic prioritisation is required. This requires a shared understanding of a common goal and clear communication and transparency. They feel that all public goods in a system should be identified rather than focussing on one. Projects feel that to learn and progress they should demonstrate multiple benefits, have sustainable long-term R&D, as share evidence to support and set policy directions. Participant also see the need for oversight and responsibility for communications to help streamline projects.

Participants highlighted the need to articulate goals in a way that is meaningful at different scales (e.g. farm, soil health, landscape, water management, site buffering) and how they are learning from continued progress. Stakeholders recognise that there will be different approaches for uplands and lowlands, but common themes will run between them.

When it comes to carbon management, participants would like to see it considered relative to the different scales, and to understand the full carbon cost throughout the whole process. An example given was for the cycle of growing crops, making products, and consumption. Here this helps identify the places where carbon savings can be made, and areas where creation of peat (e.g. on mineral soils) can help offset costs.

3.6.4 Priorities

Following on from the suggestions for complementing and amplifying good work, key priorities and actions were identified and tested in survey 1. Survey respondents gave suggestions for strengthening the proposals as well as providing additional actions to complement and amplify the good work.

This focus area centres on building a strong *culture of partnership* among all actors involved in peatland restoration. Stakeholders highlighted the need to *adopt collaborative governance and ethics* so that organisations work jointly to design and deliver projects, inspiring each other and accelerating restoration through shared effort.

A priority is to *recognise and include the contributions of all groups* – for example, acknowledging the expertise and support provided by academics, NGOs, and established peatland partnerships – to ensure continuity and broad support for projects.

Landowners and farmers are considered crucial partners. They should either collaborate with others to find and implement solutions and sharing in the benefits, or be empowered to lead and drive positive, multi-benefit peatland management themselves.

There is an emphasis on everyone *adhering to common plans or schemes*. All delivery partners need to stay committed to agreed approaches and understand each other's roles. Particular care to respect and integrate the role of farmers is needed while partnerships mature and build collective expertise.

Stakeholders also cautioned against siloed efforts, urging teams to *avoid single-objective projects* so that broader consensus is maintained, and different goals (e.g. ecological, economic, social) are balanced.

In addition, a collaborative culture means facilitating *peer-to-peer learning and knowledge exchange* among practitioners. For instance, supporting farmers and land managers in sharing their experiences and skills will help spread best practices and build capacity across the communities involved in restoration.

3.6.5 Suggested Steps

From the focus area priorities produced at workshop 1, participants discussing this in workshop 2 suggested steps to deliver these priorities which could be undertaken between now and 2050. These steps emphasise building partnerships, aligning efforts, and ensuring all stakeholders move forward in tandem for peatland restoration to enable successful collaboration.

Different approaches for different contexts. It is acknowledged that *upland and lowland peatlands may need distinct strategies.* Stakeholders suggest developing *separate route maps or tailored approaches* for these contexts under one umbrella vision. This ensures

that restoration efforts are relevant to local conditions. For instance, agriculture is a bigger factor in lowlands, whereas uplands might centre around moorland management.

Securing sustained resources and progress checks. Collaboration will falter without consistent support, so participants call for *long-term funding that blends capital and revenue support,* ensuring that partnerships have the resources to continue over many years. Additionally, establishing a habit of *regular review meet-ups or check-ins* is seen as important so all partners can assess progress and adjust plans regularly, rather than waiting until problems arise. Essentially, make collaboration an ongoing process, not a one-off focus.

Highlighting and sharing multiple benefits. To motivate people to work together, steps stress the importance of *articulating the full range of benefits* peatland restoration provides – from carbon storage and biodiversity to *natural capital, water management, and even historic environment preservation. By* recognising these co-benefits, more diverse partners including climate groups, archaeologists, and water companies, will see their interest in the cause. The use of *case studies showing successful projects with multiple benefits* is suggested to inspire and demonstrate that 'it works' and is worth investing in.

Government as a committed partner. A recurring theme is that *government should not be an adversary ("us vs them") but an active partner in peatland initiatives.* This involves advocacy to get strong, *long-term commitment from government* – both in policy and funding. It also means integrating efforts across government departments in a *holistic approach* so that, for example, agricultural policy, climate policy, and planning policy all support peatland goals rather than conflicting with them. One step specifically mentioned aligning with the *National Planning Policy Framework (NPPF)* to ensure development decisions reflect standards for water use.

Incentivising participation of land managers. To bring farmers and landowners into collaborative efforts, one idea is to *provide payments for their time and input* – for example, paying land managers to attend meetings or planning sessions. This acknowledges that their involvement has a cost and shows respect for their contribution. This would help test if more landowners will engage voluntarily when they're compensated, which could be weighed against the alternative of imposing regulations. Stakeholders also note the importance of *evaluating the balance of voluntary vs. regulatory approaches* over time. If paying and encouraging participation doesn't achieve results, then stronger rules might be needed.

Developing shared tools and understanding. Collaboration can be aided by solid tools, so a proposal is to create a *"collaborative toolkit" or menu for implementation* that anyone involved in rewetting (from project facilitators to land managers) can use. This could include best practices for managing water, coordinating across property boundaries, or templates for agreements among partners. Along with that sits a suggestion to *clarify green finance options* for everyone. Meaning partners should have a clear understanding

of funding streams like carbon credits, grants, or private investment opportunities that they can tap into together.

Embracing a cooperative culture. Many steps address the softer side of collaboration – the culture and mindset. There is an explicit call to *move away from an us versus them attitude,* whether that's conservationists vs. farmers, or local vs. national. Instead, building trust and working towards shared goals is paramount. One step talks about understanding the *"mosaic" nature of the landscape* – that is, appreciating that peatland restoration has to coexist with some continued agricultural and other land uses. By acknowledging each other's needs such as sustainable farming alongside habitat restoration, stakeholders can find common ground.

Adapting and setting standards for the future. Looking ahead, the group anticipates that collaboration will involve *adapting techniques to different peat areas* and being clear about goals. For instance, developing specific tools or mapping methods for particular regions (an example cited is a soil opportunity mapping tool) and *defining what the end-goal looks like.* For lowlands in particular this means 'what does a re-wetted agricultural peat landscape ideally become?' A long-term step is to establish some form of *accreditation or standard for peatland restoration* – a quality mark or certification that projects or professionals can attain. This would formalise best practices and signal a mature, collaborative industry standard for restoration and rewetting efforts.

3.6.6 Offers of Action

There were eight offers of action from five different participants. These offers ranged from education and outreach, data analysis, opportunity mapping, providing case studies, and lobbying work.

3.7 Culture of Learning and Innovation

3.7.1 Vision for success in 2050

New and flexible approaches are underway as we look beyond Britain for examples of what restoration could look like. There is a unity and resetting of ideas around peatland restoration as techniques adapt to the evidence. Additionally, there are advancements in fuel to help run restoration machinery.

3.7.2 What is already working well?

Continuous improvement of innovative techniques in areas such as mapping, farming, restoration and water management are helping to pave the way forward. At the same time, established restoration techniques, such as those in Dartmoor, are well known and giving teams confidence to undertake and achieve restoration works.

Stronger understanding, knowledge, evidence and education has been important. Forms include partnerships hosting outreach programs to allow everyone to share knowledge. The example was shared of South West Peatland Partnership working with University of Exeter to build understanding of what fully functioning peatland looks like. In general participants feel that there is more research and data collection, especially around paludiculture.

Restoration efforts are building on learning from other partnerships, and experienced innovative people are involved in delivering restoration efforts. This has helped to move away from heavily prescriptive schemes and to take systems thinking approaches.

3.7.3 Suggestions for complementing and amplifying good work

Suggestions for complementing and amplifying good work were collected through the regional workshops as well as workshop one and two.

Workshop participants stated that a holistic approach to learning and innovation is needed. To achieve this, organisations and partnerships should include a wide and balanced range of stakeholders to get a clear understanding of knowledge gaps and how land, nature and people interact. This can include other bodies taking a landscape scale view, such as IBDs, catchment partnerships and people who work the land. Participants feel that there is much new knowledge around peatland landscapes and management, so any work that is done needs to ensure that it takes advantage of this.

So much learning comes from experience. As such, participants suggest engagement and outreach work with wider groups, communities, and the public to increase awareness and support for peatland landscapes. Similarly, they express the need to change educational culture to value nature.

To deliver learning and innovation, participants talked about the need for specialist knowledge and resources (including finances and land), and the need to factor in social justice. In particular they see a need for sustained funding for bodies delivering work and engagement, and they see policy and government support for peatland as vital for this.

In order to streamline work, workshop participants suggest developing a mechanism to agree work delivery. There is already bottom-up work happening around this, but some feel it requires a body, such as Defra, to review existing legislation, update it and put new mechanisms in place.

3.7.4 Priorities

Following on from the suggestions for complementing and amplifying good work, key priorities and actions were identified and tested in survey 1. Survey respondents gave

suggestions for strengthening the proposals as well as providing additional actions to complement and amplify the good work.

Priorities here focus on fostering an environment where *continuous learning, knowledge-sharing, and innovation* drive peatland restoration.

Stakeholders propose forming a *national community of interest or forum* that brings together a mix of people including practitioners, scientists, and local experts, to openly discuss challenges and solutions. This community could operate under agreed terms of reference or governance and be backed by strong science – ensuring that discussions and shared insights support all aspects of peatland benefits.

A key aspect is valuing *diverse forms of knowledge*. Moving beyond conventional conservation science, this means integrating local knowledge, traditional practices, and other perspectives to build a more complete understanding of what peatlands need. Stakeholders want to *build consensus on peatland management* by recognising these varied inputs, ensuring everyone is on the same page about restoration goals.

Another priority is establishing a *central hub for knowledge* - ideally a government-funded national repository of data, research, and evidence related to peatland restoration. Such a hub would be regularly updated and possibly curated by a government agency or peatland partnership. That way decision-makers and project teams across the country can rely on a shared, up-to-date evidence base.

Finally, promoting innovation is seen as vital: stakeholders suggest *sharing case studies of successful, economically viable new practices* to inspire others. For example, ‘wetter’ farming or paludiculture for crops on peat. By showcasing these innovations where farming and restoration goals align, the aim is to encourage land managers to adopt creative approaches that benefit both the ecosystem and livelihoods, embedding a culture that learns from new experiences and can adapt.

3.7.5 Suggested Steps

From the priorities that were produced, participants discussing this focus area in workshop 2 then suggested steps to be taken up to 2050. This focus area’s steps aim to create an environment where information flows freely, new ideas are tried, and the peatland community constantly learns and improves. Key elements include:

Continuous knowledge sharing. There’s an emphasis on breaking silos and encouraging *“cross-pollination of information”* among all stakeholders. This means actively sharing new research findings, lessons from projects, and updates on techniques. Maintaining *up-to-date resources (websites, databases)* is mentioned as an ongoing effort, as is promoting peatland *education* more broadly. The idea is that everyone working on peatlands should have easy access to the latest knowledge and each other’s experiences.

Standardising how information is captured and shared. To support learning, stakeholders suggest creating common formats and platforms for documenting projects. For example, developing a *standard template or checklist for case studies* so that whenever a restoration project is written up, key information is included in a consistent way. In the near term the EA natural flood management compendium or Natural England conservation evidence base, could be used or expanded as *central hubs for peatland case studies.* Additionally, establishing a *"peat condition" data hub and a restoration register* is seen as a near-term step – a nationwide system where data on peatland condition and restoration activities can be stored and accessed by all. Early agreement on consistent data collection methods, across regions or the whole UK, is advised so everyone measures and reports things in comparable ways.

Simplifying partnerships and collaborative efforts. Innovation can be stifled by complex bureaucracy, so one step proposes *making partnership working easier* – possibly through creating facilitation tools or frameworks that help different groups work together. The details are not fully spelt out but could be a guide or a dedicated support service to form partnerships. Along similar lines, a *catchment-based or cross-catchment approach* is suggested, meaning coordinating efforts by geographical areas which can spur information sharing among projects in the same region. Underpinning this, stakeholders note the need for *top-down support (policy, funding, frameworks)* combined with empowering *local groups* to deliver solutions. These recognise that innovation happens best when local initiative is backed by high-level endorsement and resources.

Encouraging research and technological innovation. Embracing new technology is a recurring theme. For instance, *using drones, remote sensing (LiDAR), or Artificial Intelligence* to collect data about peatland status more efficiently. Such tech can monitor large or hard-to-reach areas and provide fine-grained data - one longer term idea is seasonal drone flights to gather data regularly. At the same time, there is caution to be aware of limitations, implying that technology should complement not completely replace, on-the-ground expertise. *Research and development* of new methods, most likely in restoration techniques or monitoring tools, is encouraged. An openness to global knowledge, learning from international experiences and even sharing England's lessons abroad, is also suggested. Periodic updates to foundational data – like an *England peat map every 10 years* – would be welcomed so that everyone is working from the latest information.

Identifying gaps and incentivising engagement. A novel step in this area is to *map out where buy-in is lacking* - identifying which relevant regions or stakeholder groups are not yet engaged with peatland restoration. By identifying these gaps early, targeted efforts like outreach or support could help bring those people on board. In addition, providing *early financial incentives* is proposed – possibly small grants or rewards to encourage participation in pilot projects, data sharing, or trying new practices. *Stewardship programs* are also noted, which could mean mentoring or support networks to guide newcomers. All

of this fosters a culture where more people feel motivated to join and contribute to peatland initiatives.

Coordinated communication and public engagement. Innovation and learning aren't just internal within projects or organisations, there's recognition of the need to *coordinate external communications* too. A longer-term step proposes a *government-funded communications hub* that provides ready-made outreach materials and aligns messaging across regions. By having consistent, science-based communications, the peatland community can better educate the public and media about their work. Building *public buy-in and support for restoration* is a goal - when the public understands the value of peatlands, they become allies in the effort and may even contribute, for example through citizen science or advocacy.

Broad stakeholder involvement and ownership. Ensuring a culture of learning means making it inclusive. Steps include *bringing in diverse types of knowledge and practitioners* – from Defra policymakers to on-the-ground practitioners, academics, and local knowledge holders – and agreeing on who 'owns' which aspects of the peatland challenge. By clarifying roles and responsibilities in an open way, everyone knows how they fit into the bigger picture, which helps sustain passion and avoid burnout. There was also talk of *global knowledge sharing*, meaning not only learning from other countries but contributing lessons learned in England to the wider peatland community, reinforcing the concept that restoration is a collective learning journey.

Monitoring and feedback loops. A learning culture relies on feedback. Several steps suggest that *monitoring is built into projects and programs*. For example, making monitoring a standard part of any funded project, and having a national register or map showing progress. For instance, creating a *map of peatland condition improvements* over time using aerial imagery can visualise progress. Importantly, the data collected shouldn't disappear into a void. Stakeholders would like to see *monitoring data linked back to the case studies and results shared with the community.* By doing so, successes can be celebrated and imitated, and failures or challenges can be learned from.

3.7.6 Offers of Action

There were seven offers of action made by six individual participants. These range from input into a shared data hub, to case studies and frameworks for rewetting viability.

4 Conclusion and Next Steps

4.1 Conclusion

This project set out to identify priorities and ways for Natural England to achieve its peatland restoration goals by 2050. This was done in a participatory way, identifying and involving stakeholders and wider perspectives through deliberative workshops and surveys.

Through this process, the deliberative group identified several key challenges and barriers to restoration. These are summarised as:

- need for long term funding which covers more than just restoration activity
- time required for and complexity of consents and permissions for restoration work
- misalignment between regulations and policy, and uncertainty especially over the longer term
- effectively collaborating with and involving a wide range of stakeholders
- handling and overcoming technical restoration issues
- finding and engaging a workforce with the right skills and capacity
- dealing with and adaptively planning for environmental and ecological challenges including climate change and competing demands on water

Asked to identify what they feel needs most attention, participants arrived at seven focus areas which they went on to discuss in more detail. Each of the focus areas sets out the principles, priorities, and steps to inform the road map for the future of England peatland restoration. These encapsulate the hopes, experiences, and ambitions of those who took part in the process.

The seven focus areas are:

- Consents and permissions
- Management toolbox - with differing focus for upland and lowland
- What does ‘restored’ look like?
- People to do the work
- Funding and finance
- Effective collaboration at landscape/restoration project level
- Culture of learning and innovation

Common Themes

Common themes run throughout the focus areas. These appear repeatedly highlighting the interrelations and interconnectedness of peatland restoration and related solutions. Identified common themes are:

- Long-term funding and investment
- Multi-stakeholder collaboration and partnership
- Policy and regulation alignment
- Training, capacity building and skills
- Knowledge sharing and case studies
- Public awareness and education
- Clear outcomes, monitoring and evidence-based action
- Innovation and technology

The extent to which these can be realised is not defined at this stage. What is certain is the willingness of many participants to offer support to the community of stakeholders in their ongoing and forward-looking work. This resulted in 64 offers of resources and knowledge taking many forms, which could be drawn on as this work progresses.

4.2 Ongoing Collaborative Working

Guiding principles

Stakeholders participating in this process highlighted the need for long-term thinking, planning and target setting which recognises the need to act because of climate change. Participants also believed that an innovative and open minded ‘no regrets’ approach that doesn’t wait for perfect should be undertaken. This approach should be evidence and outcome based with case studies that demonstrate benefits and protect the work and knowledge that has already been input. There should be a holistic approach which allows local nuance and facilitates change. This will facilitate a just transition where people are fairly compensated and adequate support is available. Additionally, people should be included in a collaborative and shared learning methodology.

Participants would like to see the roadmap used as a product which leads to a journey of adaptation and updating with an iterative, flexible and cross-governmental approach which takes on lessons learnt to improve practices and celebrate success through dynamic assessment.

Including a broad range of perspectives

Workshop participants shared that there is a need to involve landowners and persuade them that peatland restoration is worth their input and help them to understand how

restoration will affect them – particularly younger generations of farmers and farmers groups. Farmer attendance should be compensated for the cost of additional staff on the farm as we need people who will tack action on their land. Recreation users of peatland should also be included in the discussion as there is tension between them and restoration.

There is also a desire to bring everyone along using a range of communication methods such as open days, steering groups, events and education in school. To help with these communication efforts, a range of online methods including online meetings and social media should be used.

Importantly, there needs to be safe spaces for different interests to contribute and get behind restoration efforts. Therefore, people need to lead the process with a balance of bottom up buy in and top-down incentives and policy, as delivery relies on collaboration. Finally, participants would like to see feedback and commenting options on the PRR draft and outputs being made widely available.

Annex 1 Priorities and Steps by Focus Area

Consents and Permissions

Priorities informed by workshop and survey	New/additional ideas
1. Get the balance right between heavily prescriptive schemes and focus on positive land management.	• Enforcement to reverse damaging activities • Have penalties for negative actions in Gov prescribed areas • Acknowledge the role, responsibility and regulations of internal drainage boards • Have accountable, dynamic and iterative funds • Will need lots of standardised monitoring and regulation • Clarity on what evidence is needed from consenting bodies • Include peat partnerships, eNGOs and other delivery partners • Should be farmer led • Consider other drivers as well as peat management • Emphasise outcomes instead of focusing on the process • Make these more specific to aid clarity • Rewrite as actions rather that principles • NE advisors need agreed steps/guiding principles so they can consent
2. Streamline consenting and licenses (e.g. water management consenting) with a broad and flexible strategy which fosters innovation, action learning, trials, research, and faster restoration; Provide support through managers, peers and legislation and enable farmers and land managers to deliver integrated multi-benefit outcomes.	
3. Accept a degree of risk, informing decisions by best available evidence but not stalling for lack of complete evidence.	
4. Create a list of safe, pre-approved activities supported by well written guiding principles, to speed local decision making and implementation. Care is needed though to avoid a one size fits all approach.	
5. Provide clear communication and rules from regulators to land managers and farmers about streamlined consenting and permitting procedures. The outcomes of restoration projects should be shared internally and externally.	

Suggested steps:

Ongoing:

- Iteration across whole roadmap. Continual learning process. E.g. Scotland can widen window for restoration, can we adopt in England?

Near:

- Communicate the process and reasons behind the processes e.g. why consents are needed
- Defra, EA, NE teams streamlining and bringing everything together
- Cross party sign up to overall policy for the whole vision
- Signalling clear policy certainty
- Clarifying link of peatland to LNRS
- Training for local authorities on how to consent for peatland restoration
- Conflict resolution between statutory bodies and a panel to make decisions based on understanding the implications when there is difference evidence
- Lowland peat is on the irreplaceable habitat lists. There is better protection and planning for lowland peat soils by removing consent for damaging activities.
- Case studies on the consents needed and timelines so people can factor them into their restoration plans

Far:

- Collection, communication and incorporation of evidence with groups of stakeholders to aid with the comms
- Signal the risk of legal obligation and what will happen in the future

Long term:

- Legal obligation for landowners to protect their peat

Management Toolbox

Priorities informed by workshop and survey	New/additional ideas
1. Create a comprehensive, informed, flexible and economically viable peatland restoration toolbox to hold all the tools/knowledge/solutions for a project UK wide.	• Implement a traffic light system for trees on peatland • Easy, open and interactive restoration map

Priorities informed by workshop and survey	New/additional ideas
2. Build local knowledge and skills to use the toolbox and to retain learning.	• Clarity on the role of expert advice at local levels • IUCN UK Peatland Program to coordinate ongoing work • Better comms and understanding • Address forestry issues • Increase protected land • Manage across the 'peat body' • Water management is essential • More funding, research and monitoring • Add some of the relevant mechanisms for delivering the change • Be more ambitious • Mechanisms for better accountability and feedback • This is too ambitious- small steps first • Need adaptation at local levels • Recognise that restoration is iterative • Look internationally for experience and evidence
3. Include a nationally recognised suite of interventions to include the delivery stage and ongoing management.	
4. Include guidance on principles and mechanisms for co-ownership and benefit sharing of the impacts.	
5. Include long term delivery plan templates for integrated and multi-benefit outcomes (e.g. peatland restoration for locking up carbon, flood mitigation, water quality and management, enhanced biodiversity, social, heritage/cultural and economic benefits.	
6. Enable 'mosaic approach' to farming and land management.	
7. Enable innovation and experimentation.	
8. Provide better, open data and understanding to enable projects to develop viable business models.	
9. Provide guidance on how to secure long term water management agreements.	

Upland suggested steps:

Near:

1. Sustaining peat partnerships longer term plans and funding
2. Secure funding long term to allow for investment (contractor capacity) will support training of new contractors and sustain knowledge

3. More relationships between partners (inv. Gov) to encourage work understand barriers and policy matters act on them
4. Collate knowledge, resources that already exist
5. Combine site specific policy, training skills, funding, contractor capacity, relationship building and knowledge for peatland restoration
6. NE to let contractors work through ground nesting bird season. Less seasonal work

Far:

7. To take people with us: Make it worth their while (money/biodiversity), have continuity of advice and longer-term relationships, as well as educate them
8. Finish all the “quick wins” and move onto harder sites. Restored sites are still maintained
9. Finding ways to engage landowners:
    a. Traditional, large landowners have a strong connection to land and are more able to see on ground benefits, despite the long time it takes to see benefits. seeing progress and benefits overtime will help encourage less keen landowners to get onboard. Mindset changes take time and unlikely to encourage with regulation.
    b. Fully engaged landowners tend to be target first, so we need ways to engage with less engaged landowners
    c. Determine the point where we need the stick rather than the carrot e.g. If carrots keep being upped will people wait?
10. Ongoing management of peatlands e.g. wildfire risks
11. Upskills government workers to encourage conversation
12. Using technology to encourage greater benefits and understand things like water table changes will better support outcome evidence and funding
13. Newly defined benefits of restored peatland considered

Long term:

14. Science to improve what is good and better help public perception
15. The general public understand the importance of peatland habitats
16. Embed peatland habitats in geography at GCSE level
17. Accessible peatlands that “show off” great habitats in a responsible way and peatland aligned with education to reduce damage. E.g. Discover how to ensure long term protection and maintenance rather than just farming or restoring.
18. A whole bunch of new passionate peatland experts

Lowland suggested steps:

Ongoing:

- Engineers + harvesting challenges to overcome
- Considering freshwater to saline

Near:

1. Practical decision and framing
2. Consensus on measuring carbon and carbon calculators. Understanding how we baseline and creating start points
3. Clarity of measure what is success
4. Understanding what good peatland look like and how to measure it
5. An agreed data base on what constitutes viable land management
6. For demo projects to see what works they need bespoke consenting to be able to get permission to work
7. Funding clarity
8. What areas to rewet/trial- depends on quality of land - opportunity mapping
9. Building capacity, training and skills
10. Reform IDBS the critical path e.g. reform IDBs and other systems like food and energy, supply chain
11. Draft toolbox
12. Regulation on standards setting. Red Tractor can't supersede Gov decisions
13. Co-ordinated regulatory approach - portal e.g. Using planning approach allow others to comment.
14. Create a portal or discussion concerning how contradictory policy/regulation affects restoration vs rewetting.
15. Mechanism for local prioritisation to enable clear consenting approach. LNRS could be that mechanism
16. Improve monitoring to make use of info from other sectors I.e. Military (access) (now and ongoing)

Far:

17. Demonstration projects to show what's possible. need for regulatory coordination to allow research
18. What's achievable + What can you grow in wetter conditions? Need to broaden crops grown.
19. What's marketable? Food, textiles, other market?
20. Infrastructure in place to allow hydrological control. Digital task of hydrology.
21. Do we need to create a national restoration commission.
22. Continuous testing of whether we need to grow, should we grow and what's the benefit
23. Develop viable business models- being able to demonstrate to big businesses to achieve scale
24. Tackling issues of scale- Does £K model work for £Bill ish model?
25. Strategic planning – power is getting written in crop or local plans- link LNRS and local plans - ongoing need to influence
26. Build in steps to review if policy change is working and review every 5 years (plan-do-monitor-review-adapt-repeat)

Long term:

27. Starting to measure progress
28. Paludiculture and sustainable farming more prevalent
29. Continue on-going adaptation to climate change (salination)
30. It's all happening from demonstration to widescale implementation

What does restored look like?

Priorities informed by workshop and survey	New/additional ideas
1. National guidance on the characteristics of priority areas to focus on while respecting site-specific needs.	• Recognise the role of wooded habitats • Recognise ongoing restoration work • Get funders to care about long term visions • Reduce GHG by changing crops and raising the water table • Must be integrated into national landscape character area descriptions • Create a 'peat panel sign off' to recognise local difference • Define and visualise restoration • Have a pragmatic approach to what is possible • Needs a definition of what 'degraded' means • Ensure coordination of data • Look beyond Britain for examples
2. Build consensus and agreement of what an intact and fully functional peat habitat looks like with clear information and evidence and avoiding shifting baselines. There is understanding that every site will look different restored e.g. definition of 'restored' is 'functioning as a wetland'.	
3. Establish widespread and standardised methods of monitoring, measuring and describing with clear decision making. Understand the wider system and underpinning water management looks like to support restoration However, some believe there should be fewer monitoring sites.	
4. Undertake flexible, long-term monitoring and support current, ongoing research with funding commitments.	
5. Create control sites (i.e. as a comparison) to understand what would have happened anyway. Control sites must	

Priorities informed by workshop and survey	New/additional ideas
not have an environmental cost, and some believe there should be no control sites.	
6. Balanced approach and research into what restored looks like alongside land usage.	
7. Emphasis on measured outcomes and reporting trajectories.	

Suggested steps:

Near:

1. Collation of data guidance, guidance evidence to put boundaries around what good looks like
2. Review what we've learnt and decide what good looks like
3. Become up to date with what's done elsewhere e.g. Europe, pluvicultures
4. Communication with the public to demonstrate what the government is doing and why
5. Monitoring
6. Lowlands restored in agricultural systems look different to uplands and recognise the outcomes might look different.
7. Stabilise where we are in the lowlands
8. Make sure government policy is lined up and get science behind policy – ensure lowlands targets are achievable
9. Set up flexible responsibilities
10. Develop monitoring standards
11. Understand where the gaps are in our knowledge/understanding
12. Establish restoration trajectory and prioritise timewise
13. Look at current grant schemes and what can be achieved in 10 - 20 yrs and new interactions
14. Build in what other techniques we could use. e.g. hydro spectral & AI as monitoring opportunities. Look at innovations
15. Change in how monitoring is funded so it is secured for the future. Requires concerted the monitoring covenants e.g. less hand-to-mouth
16. Desire to work with trusted partners. Monitoring should be equally inclusive. Not just an overarching body
17. National policy on monitoring what is needed rather than doing everything everywhere. Simplify monitoring

18. Use of citizen science in monitoring. Public have role and adding to evidence base
19. Public understanding of important habitats. Incorporated into education. Opportunities to look at this locally
20. Monitoring network showing improvements and showing data
21. Build in data check

Far:

22. Review what we've learnt and decide what good looks like. Communicate with the public, demonstrate what gov is doing and why (Monitor)
23. Constantly refine, citizen science and be dynamic
24. Keep lowland, upland separate
25. Have a checkpoint or progress record which gives evidence to create change policy
26. As knowledge improves iterate, come back and review on site basis
27. Funding research into crops for dual role of food product and water table needs for lowlands

Long term:

28. Review what we've learnt and decide what good looks like. Communicate with the public to demonstrate what gov is doing and why
29. Monitoring, checkpoints and progress record gives evidence to change policy
30. Evidence has created policy change; Review what we've learnt and decide what good looks like; Communicate with the public demonstrate what gov is doing and why e.g. monitor

People to do the work

Priorities informed by the workshop and survey	New/additional ideas
1. Build a workforce with the capacity and skills to enable peatland restoration through funded internships, education, curriculums and apprenticeships. 2. Fund and pay the existing workforce long term. 3. Encourage volunteers and expand jobs in these sectors and provide opportunities	• Acknowledge traditional management skills • Give confidence in the market and coordinate materials/resources across restoration projects • Learn from other areas/programs • Think about the wider system

Priorities informed by the workshop and survey	New/additional ideas
for farmers and others to undertake restoration work. 4. Improve outreach and education in schools and universities on land management and peatland restoration to increase the expertise, knowledge, capability and capacity of those undertaking restoration work	

Suggested steps:

Near:

1. Certainty and clarity of plan over lifetime of roadmap
2. Defra need a people plan and subsections of this plan
3. Do the work to 'extend the year'
4. Address/look at tendering, and framework agreements for more realistic timing
5. Upskilling, training, career paths etc

Far:

6. Specialist advice hub: Turn to people who do have the knowledge e.g. Carbon Trust appointed by DESNZ
7. Rapid scale up of sector in chunks so it doesn't collapse

Long term:

8. Continuity and retaining of skills

Funding and Finance

Priorities informed by workshop and survey	New/additional ideas
1. Work to a long-term vision (circa 100 years) as well as short term visions to provide predictable financial stability for land managers, contractors, 'green' jobs and investment in alternative machinery.	• Long term monitoring/data gathering need to be 20+ years • Mention food security and impacts on local communities

Priorities informed by workshop and survey	New/additional ideas
Restoration delivery time must be longer for the lowlands to ensure visions work alongside climate change.	• Peat must be recognised as irreplaceable • More thought given to the security and economic viability of flood defences • The scale of the problem must be recognised by the FC and FE • Ensure designs are agreed on before they are implemented in projects • Act faster • Prioritise nature-based solutions
2. Create long term, reliable funding sources and grants covering both core project costs and restoration delivery costs with the assurance that money represents the value. Grants are used as scholarships for research and ideas. Long term funding is generated for comms, education, research and monitoring. Green finance is underwritten by the government.	
3. Provide public funding for targeted grants to pump prime, catalyse and sustain projects.	
4. Ensure that funding and grant requirements enable projects the freedom to co-design the restoration project with other stakeholders (no longer having to pre-decide the approach and outcomes upfront, in order to get funding, and thereby undermine co-design and delivery of restoration projects). Grants are paid timely and available to small groups. Funding must acknowledge restoration is iterative and work with DEFRA commitments to internal drainage boards. There is an emphasis on landscape-scale funding and current/ongoing land management.	
5. Build commercial viability and investable proposals for lowland peatland restoration- including quantifiable, increased and guaranteed CO2 price so that there is clarity to make long term investments. Peatland is included in national	

Priorities informed by workshop and survey	New/additional ideas
infrastructure/capital investments and a baseline carbon price is implemented now.	
6. Funds for peatland restoration require multi-benefit outcomes and both restoration and maintenance of peatlands.	
7. Ensure there is fair, long-term and dependable financial incentives for farmers and land managers.	
8. Biodiversity Net Gain funds from new development can go to peatland restoration.	
9. Robust and transparent carbon market which channels money into restoration and covers restoration costs. This carbon price is subsidised to CO2 savings.	

Suggested steps:

Near:

1. Government Framework must set green finance rules and regulations e.g. standards, monitoring, and accountability
2. Peatland Commission
3. Carbon tax
4. Financial additionality carbon codes alongside other initiative
5. BSI setting standards, so each code has to meet this and audit requirements (Nature Investment Standards)
6. Clarity of opportunities on peatland habitats
7. Land use framework has clear zones of protection and LNRS gives people confidence in local prioritisation
8. Government/public sector to fund people working on delivery of Public Goods long term. Need the right funding models for right situation
9. Long term guidance on BNG and nutrient neutrality
10. Set Clear rule

11. Alternative business models and/or delivering: purchase, legislation, lease. Need more opportunities and appeal to more situations
12. Considering emissions from grazing or peat in net zero commitments
13. Identifying business models for different peatland areas

Far:

14. BNG and nutrient neutrality had NE and EA buy in so able to have more confidence in peatland code has IUCN and Defra backing so confidence
15. Have a peatland fund/agri – environment scheme
16. Development of a government scheme that goes beyond eco system services to keep buy and restore peat – access to low-rate finance backed by government
17. Long term finance to maintain restored peat

Long Term:

18. Long term policy signalling about the importance of peat: drive innovation for alternatives that needs funding
19. Plan for phasing out of agriculture on peat
20. Accumulation of peat through maintained habitats needs to be recognised/funded

Working together collaboratively

Priorities informed by workshop and survey	New/additional ideas
1. Adopt, foster and maintain a culture, governance and ethic of working collaboratively to jointly develop and deliver projects and guide, inspire and speed restoration activity Acknowledge the role and contributions of academics, NGOs and peatland partnerships to increase support and continuity.	• Need more resources • Emphasise government support and the need for local solutions • Focus on public benefits • Reference the underpinning science in a formal adaptive management framework • Legislation should push change • Support nature friendly agriculture • Mention gamekeepers in this focus area • Implement transition funding for farmers • Keep people informed • Guarantee food security
2. As appropriate, landowners and farmers either work together with others to find and implement solutions and share in benefits, or they lead, own and drive forward the positive and multi-benefit management of peatlands themselves.	

Priorities informed by workshop and survey	New/additional ideas
The scheme must be adhered to by all delivery partners which understand the role of farmers while allowing partnerships to develop expertise Avoid single-objective projects and ensure consensus doesn't break down.	• Ensure a small minority doesn't dictate the process • Rewrite this to instil passion in the cause • Be more specific
3. Support farmers/land managers' peer to peer learning, knowledge exchange, and upskilling to ensure that they know what restoration is best for the land	

Suggested steps:

Ongoing:

1. Different route map for Lowlands and Uplands
2. Funding
3. Sustained and access to regular review at regular points and ongoing throughout

Near:

4. Recognition of multiple benefits and articulation e.g. Natural capital benefits, historic environment, nature, food and water
5. Funding long term and sustained which is a mix of capital and revenue
6. Water balance e.g. knowing what's available, where it will come from and how
7. Having case studies with multiple benefits to share that it works to get collaborative working
8. Advocacy to get government to commit to long term
9. Payment for landowners/managers to engage e.g. paying for them to attend meetings- Test of voluntary engagement vs need for regulation
10. Holistic approach across government and policy- NPPF – development needs to reflect standards for water use e.g. use of grey water
11. Collaborative Toolkit/menu for implementation facilitator, land managers or whoever manages hydrological unit
12. Clear understanding of green finance options
13. Government should be in partnerships
14. Move away from 'us vs them' and change approach to working together

15. Understanding the mosaic landscape, agricultural sustainable use and habitat restoration
16. Voluntary vs Regulation – need to review if its working

Far:

17. Adapting techniques to develop tools relative to peatland areas e.g. Penland soil opportunity map – adapt and use for Uplands / other Lowland areas
18. Knowing what your aiming for Lowlands and what the practice looks like e.g. at what scale and where

Long term:

19. Accreditation and Standard for restoration/ rewetting

Culture of Learning and Innovation

Priorities informed by workshop and survey	New/additional ideas
1. Adopt, foster and maintain a culture, governance and ethic of working collaboratively to jointly develop and deliver projects and guide, inspire and speed restoration activity Acknowledge the role and contributions of academics, NGOs and peatland partnerships to increase support and continuity.	• Need more resources • Emphasise government support and the need for local solutions • Focus on public benefits • Reference the underpinning science in a formal adaptive management framework • Legislation should push change • Support nature friendly agriculture • Mention gamekeepers in this focus area • Implement transition funding for farmers • Keep people informed • Guarantee food security • Ensure a small minority doesn't dictate the process • Rewrite this to instil passion in the cause • Be more specific
2. As appropriate, landowners and farmers either work together with others to find and implement solutions and share in benefits, or they lead, own and drive forward the positive and multi-benefit management of peatlands themselves. The scheme must be adhered to by all delivery partners which understand the role of farmers while allowing partnerships to develop expertise	

Priorities informed by workshop and survey	New/additional ideas
Avoid single-objective projects and ensure consensus doesn't break down.	
3. Support farmers/land managers' peer to peer learning, knowledge exchange, and upskilling to ensure that they know what restoration is best for the land.	

Suggested steps:

Ongoing:

- Cross pollination of information
- Understanding of new info sharing of info
- Effort required to keep resources and website up to date
- Education

Near:

1. EA API, EA NFM knowledge compendium, NE conservation evidence website as a platform for case studies to inform actions
2. Create a template/checklist for case studies to standardise information going into case study and determine what is going to be done about finances
3. Create something that simplifies partnerships
4. Catchment, or cross catchment, based approach
5. Need high level top-down drive and local groups to deliver. Need funding, support, a framework for local groups and a commission early on - Make use of existing networks
6. Peat Condition standardised data hub and monitoring and restoration register.
7. Establish if there will be consistency across UK early on
8. Conversation re mechanism for agreeing responsibilities to retain passion in NE
9. Research and innovation of data collection e.g. drones, AI. But be aware of limitations
10. Mapping of where we have not got buy in early on
11. Financial incentives early
12. Stewardship

Far:

13. Early comms and media alignment across regions with a government funded hub of comms material. Pool comms together with organisation doing work on peatland and use innovative interactive comms activities.
14. Outcome metrics baselines
15. Agree ownership of issue and bring in different practitioners, knowledge types. E.g. DEFRA, practitioners, drainage boards, recreational users, IUCN and people and peatlands
16. Public buy in and support restoration ambition
17. Global knowledge and lesson sharing
18. Terms of reference on data collection and the development of a data hub over time
19. Review of England Peat map every 10 years
20. Seasonal drone flies for LIDAR data fine grain

Long term:

21. Map of conditions showing progress made using aerial photography
22. Link case studies to data that has been collected
23. Monitoring as part of the framework
24. Feedback sharing back to community re innovation. Have a cyclical input back to case study

Annex 2 Methods

During the regional and national workshops several methods were used to help stakeholders share, identify and discuss issues and ideas, and work together on priorities. Dialogue Matters seamlessly combine evidence-based methods and approaches including:

- **A co-creation approach:** to enable participants to work as equals and share knowledge and solutions to develop the contents of the Peatland Restoration Road Map - and then share in the benefits as well.
- **Consensus Building methods**: to help people find what they agree about and make progress on the merit of points (not power, hierarchy, forceful or dominant behaviour) to arrive at shared, well considered, and well supported priorities.
- **Systems Thinking methods:** so that system patterns, connections and links are surfaced - reducing the risk of unforeseen consequences or negative effects on the interests of others.
- **Constructive Dialogue:** so that participants build on, amplify, and add to the good work that is already underway. Evidence shows this reaps psychological dividends with people feeling their current endeavours are recognised and valued - in turn fostering a can-do attitude and increased ambition.

- **Futures methods:** This includes Three Horizons and other foresight techniques. They will bring into view what is changing in and around peatland restoration, to factor in resilience and adaptation potential.
- **Deliberative dialogue:** defined by the UN Brisbane Convention as “when there is sufficient and credible information for dialogue, choice and decisions, and when there is space to weigh options, develop common understandings and to appreciate respective roles and responsibilities.”

To sort and analyse the outputs collected through the workshops and survey Dialogue Matters used an inductive method of coding qualitative data called ‘emergent processing’. This enables threads and themes to emerge from the stakeholders’ discussions.

Further analysis was carried out with the aid of AI based coding tools to identify connections between different bodies of text and different focus areas. These tools include ChatGPT 4o and 1o based plug-ins for deep research and data analysis under the prompting and checking of a DM consultant.

www.gov.uk/natural-england