Rhaglen Weithredu Genedlaethol ar Fawndiroedd: Adroddiad Blwyddyn 4

National Peatland Action Programme: Year 4 Report

2023/24

Natural Resources Wales, July 2024

(English language version)

Contents

Fourth Year Highlights: 2023/24

National Peatland Action Programme 2023/24 Highlights

>600 ha of restoration activity*

Restoration at Llyn Du, WGWE

>50% of restoration activity spend delivered in collaboration with partners across Wales.

18 partners funded via 3 different grant mechanisms.

New restoration delivery grant awarded.

Doubled the followers of @PeatlandCymru. Social media reach of 230,000.
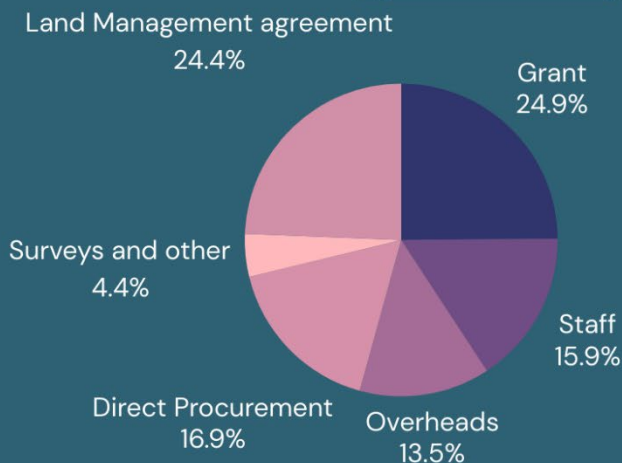
Over 30 practitioners attended the first National Practitioners knowledge sharing event.

Spend summary

- Land Management agreement 24.4%
- Grant 24.9%
- Staff 15.9%
- Overheads 13.5%
- Direct Procurement 16.9%
- Surveys and other 4.4%

*465 ha of hydrological restoration. Reported figures are over 3,000 ha when including tree clearance activity.

Executive Summary

This year could be summarised as running along the dual track of ongoing peatland restoration delivery in parallel with planning the sustainable upscale and acceleration of peatland restoration for the benefit of future generations.

The urgency to address the Nature and Climate emergencies through the immediate delivery of peatland restoration is evident. Whilst, with landscapes that have taken Millenia to form, careful deliberation is also required to ensure that the planning and policies are in place to protect, restore and maintain thriving peatlands long into the future.

In thriving re-wetted peatland, mosses and other organic matter form new layers of carbon-capturing peat at a rate of 1mm annually. Wales is fortunate to have such a cost-effective, sustainable, nature-based solution. With 4% of surface cover, peatland locks in 30% of the land's carbon. Unfortunately, at present 90% of Welsh peatland is damaged which results in harmful greenhouse gas emissions that actively contribute to climate change.

From the outset then, Welsh Government's aim to address the Climate and Nature emergencies and to reach Net Zero targets has been central to the setting up of the National Peatland Action Programme (NPAP), managed through Natural Resources Wales (NRW). This is the fourth year of an initial five-year Programme which aims for 600ha peatland restoration action annually. Well in advance of the end of the Programme, WG has clearly marked a long-term pathway of continuity and upscale, with the announcement by the WG Minister for Climate Change in 2022 of the aim to triple peatland restoration activity by 2031.

This fourth year then has been a combination of delivery and planning strategically for the sustainable structure that will carry the upscale forward as we collectively deliver at an accelerated rate in future years.

Some 2023/24 highlights to be found in this document include:

- 3193 hectares of restoration activity (which includes 466ha of hydrological restoration) over a footprint area of 3105ha. These figures are based on best available data at the time of reporting until the GIS data is fully quality assured and published on the Wales Peatland Data Portal.
- Advances in the strategic reporting and accountability through the restoration layers on the Wales Peatland Data Portal.
- Distribution of £800,000 of funding to 18 peatland restoration partners via 3 grants and £782,000 via Land Management Agreements.
- Appointment of a Policy Lead to formulate the best policy advice to protect peatland for future generations.
- NPAP direct delivery on 153ha, with ongoing collaboration with NRW colleagues on the Forest Resource Plans.
- Compilation of a key document, namely the Glossary description of over 100 intervention techniques, aimed at a common understanding and standardised reporting.

- Coordination of key strategic groups and networks to allow dissemination and input at all levels of peatland restoration, key examples being the Strategic Partners, the Monitoring, and the Evidence groups.
- Leadership through disseminating practitioner good practice e.g. a Practitioners Event and site visits.
- Support of regional networks and partnerships through the NRW Area Statements, such as at Llifo Conwy.
- Collaboration with Farming Connect to provide a 'Welsh Peatland' webinar, as well as providing webinars for Grant applications.
- Wales peatland restoration relevance amplified at COP28 and IUCN UK Peatland Conference.
- Communication with diverse audiences through various events including at the Royal Welsh Agricultural Show, the National Eisteddfod, artistic interpretations, and site visits.

This has also been a year where the delivery partners have increasingly dovetailed their efforts, having seen the value of being part of the sum greater than the parts. This collective action is what we call Wales Peatland Action, with the unifying aim of High Nature Low Carbon. Ultimately, it has been a year of ensuring that the foundations for delivery, funded by Welsh Government, are consolidated and streamlined to ensure the capacity, quality assurance, accountability, and ambition required to deliver more and faster in the years ahead.

1. Introduction

This report describes work undertaken during the fourth year (2023/24) of the National Peatland Action Programme (NPAP).

This is a five-year (2020-2025) Programme funded by Welsh Government (WG) and led by Natural Resources Wales (NRW). Programme details can be viewed on a dedicated section of NRW's website ([Natural Resources Wales / The National Peatland Action Programme](#)).

The Programme recognises the intrinsic link between the carbon storage, greenhouse gas emissions regulation and biodiversity benefits provided by peatlands and aims to increase the ecosystem resilience of Welsh peatlands through an ambitious programme of restoration and sustainable management. In doing so NPAP contributes tangible outcomes to help address both the Nature and Climate emergencies.

In short, the national Programme (Table **1** following) identifies a focus for restoration activity across six priority action themes which represent the primary contexts of peatland degradation in Wales.

- Peat erosion
- Peat drainage
- Sustainable management of degraded upland peatlands
- Sustainable management of degraded lowland peatlands
- Afforested peatland
- Hyper-modified peatlands

An additional three cross-cutting themes provide national coordination across critical areas relating to our collective capacity and capability in Wales to deliver peatland restoration where it is needed most urgently.

- National coordination
- National monitoring and activity capture
- Increasing stakeholder and wider engagement in peatland restoration and its value to society

NPAP was set up as an initial five-year Programme running from 2020-2025. However, the collective efforts of Wales Peatland Action has been given a significant boost in ambition extending beyond 2025, with new targets and budgets to deliver more restoration activity by 2031.

The announcement, to increase the peatland restoration targets, was made by the Climate Minister for Wales, Julie James MS, on 3rd of October 2022. This followed significant national joined-up analysis in the Biodiversity Deep Dive but also reflects the earnestness with which Wales seeks to reflect its global responsibility to address both Nature and Climate emergencies.

Planning for the future expanded programme of delivery is now in progress. The restoration targets will significantly ramp up by 2031.

The impact of the upscale will be seen in the hectares delivered, as well as in the monitoring, surveying and mapping, with associated training support, to reflect the reality of restoration work in Wales. Ultimately, the aim is to ensure that the people of Wales can be confident that peatland restoration is one of the most effective and cost-efficient means of addressing the Nature and Climate emergencies.

In summary, 'planning' is the key word in relation to what can be reported about upscaling the Programme in this Year 4 Report. By referencing this planned upscale it is hoped that others who also support peatland restoration – be they partners, contractors, academics, or those planning for green careers – have a basis to plan ahead to support the accelerated peatland restoration and management delivery in Wales for 2025-2031.

Table 1. Summary of NPAP priority action themes and cross-cutting themes.

NPAP Priority Action Themes

Peat erosion

- Peatland erosion results in the loss of peatland vegetation and part or all of the essential supporting peat deposit.
- Erosion results in significant emissions of greenhouse gases (GHG) and particulate and dissolved carbon.
- Peat erosion also causes significant drainage impacts which extend well beyond the immediate footprint of erosion features.
- Erosion will be exacerbated by climate change and whilst a relatively local and primarily upland issue, urgent action is required to prevent further peat loss and to encourage its redevelopment through a range of techniques.

Peat drainage

- Active drainage remains widespread and is associated with increased GHG emissions as well as causing unfavourable hydrological regimes for active (peat forming) mire habitats.
- Drainage also introduces positive feedback mechanisms through changes in surface topography which result in greater water loss.

Sustainable management of degraded upland peatlands

- Blanket bog is our most extensive peatland habitat, and its landscape scale gives it particular significance in terms of ecosystem resilience, GHG mitigation, carbon storage and natural flood-risk management.
- Peat erosion and drainage are key themes in their own right, but further widespread measures are needed to tackle issues of graminoid or ericoid dominance and the restoration of blanket bog from heavily modified precursors.
- The aim of this action theme is to restore blanket peatlands to a condition where low-cost sustainable management is effective in retaining ecosystem service provision and biodiversity interest, and reducing fire risk.

Sustainable management of degraded lowland peatlands

- Lowland peatlands are a critical resource for peatland biodiversity but are fragmented, with low current resilience.
- Modified lowland peatlands release significant GHG emissions and may store large amounts of carbon per hectare due to the depth of peat deposits.
- This theme focuses on restoring sites to a point where ongoing sustainable management (including seasonal grazing where appropriate) can sustain ecosystem service provision and biodiversity interest.

Afforested peatland

- Afforestation results in increased emissions of greenhouse gases from the peat surface and causes peatland habitat degradation.
- Afforested peatlands are an extensive component of the Welsh peatland resource, mainly in upland contexts.
- The current focus of the Programme will be on restoring areas of peatland with low yield class plantations, and also open ground within the Welsh Government Woodland Estate.

Hyper-modified peatlands

- These comprise our most heavily modified peatlands and include heavily drained areas under improved grassland and arable land use: the most intensive GHG emissions arising from peatlands in Wales are from these categories.

- This priority action will seek to begin through a process of consultation and the use of demonstration sites.

Cross-cutting Themes

National coordination

- National coordination is needed to build capacity and capability in delivering peatland restoration on the part of all NPAP partners.
- The Area Statement process forms an important part of this work, with a national practitioner forum being used to promote best practice across all aspects of NPAP.
- The theme also focuses on developing guidance where needed and helping in the provision of training for both practitioners and contractors to upscale the ability to deliver restoration projects.

National monitoring and activity capture

- A national coordinated programme of activity recording and outcome monitoring is needed, to ensure accurate reporting of project actions and outcomes, for a wide range of reporting drivers.
- This work is also needed to guide and target further effort and ensure a focus on priority locations, across the six priority action themes.
- This priority action theme is supported by a dedicated post within the NPAP structure, namely the Data and GIS Officer.

Increasing stakeholder and wider engagement in peatland restoration and its value to society

- Peatlands are one of Wales' main environmental assets, providing an exemplary aspect of the principle of employing nature-based solutions to deliver Sustainable Management of Natural Resources (SMNR) in Wales.
- This cross-cutting theme works to increase engagement in peatland restoration on the part of stakeholders and the wider community.
- This priority action theme is supported by a dedicated post within the NPAP structure, namely the Communications and Partnerships Engagement Officer.

2. Programme Resourcing

Welsh Government funding for 2023/24 was confirmed at £2.6M for capital restoration works and a revenue allocation of £190k for programme management. Further capital funding of £320,000 was received in-year from WG.

2.1. Funding mechanisms used to deliver the 2023/24 programme

In order to ensure effective delivery of the allocated budget within a challenging timescale, NPAP made use of a variety of funding mechanisms to reduce project risks.

NPAP used the following mechanisms to fund and deliver capital projects:

- grants,
- direct procurement, and
- land management agreements.
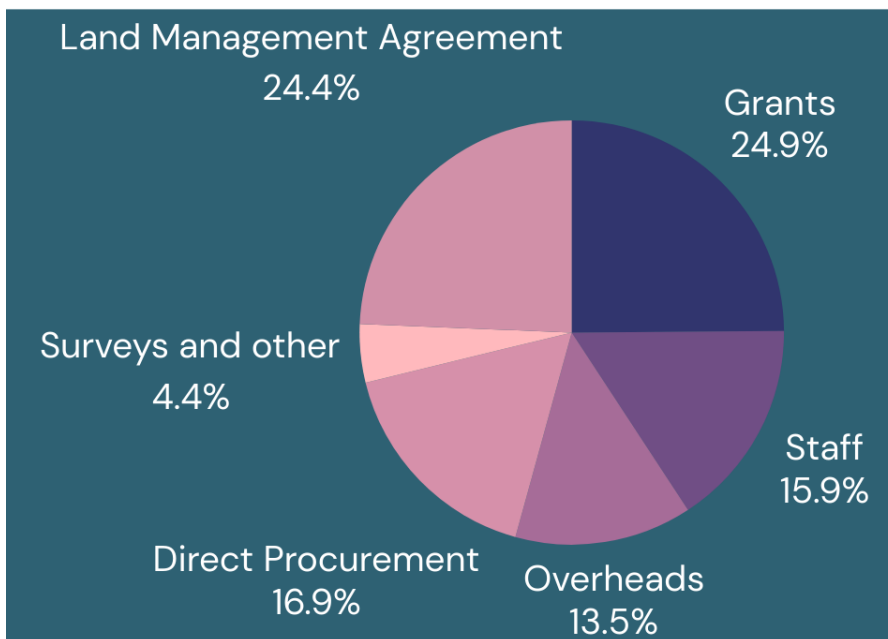
Figure 1. Pie chart showing breakdown of spend areas for 2023/24.

2.2. Grant aid

Delivery of the National Peatland Action Programme requires the concerted and coordinated input of a wide range of partner bodies, many of whom have significant expertise in peatland restoration.
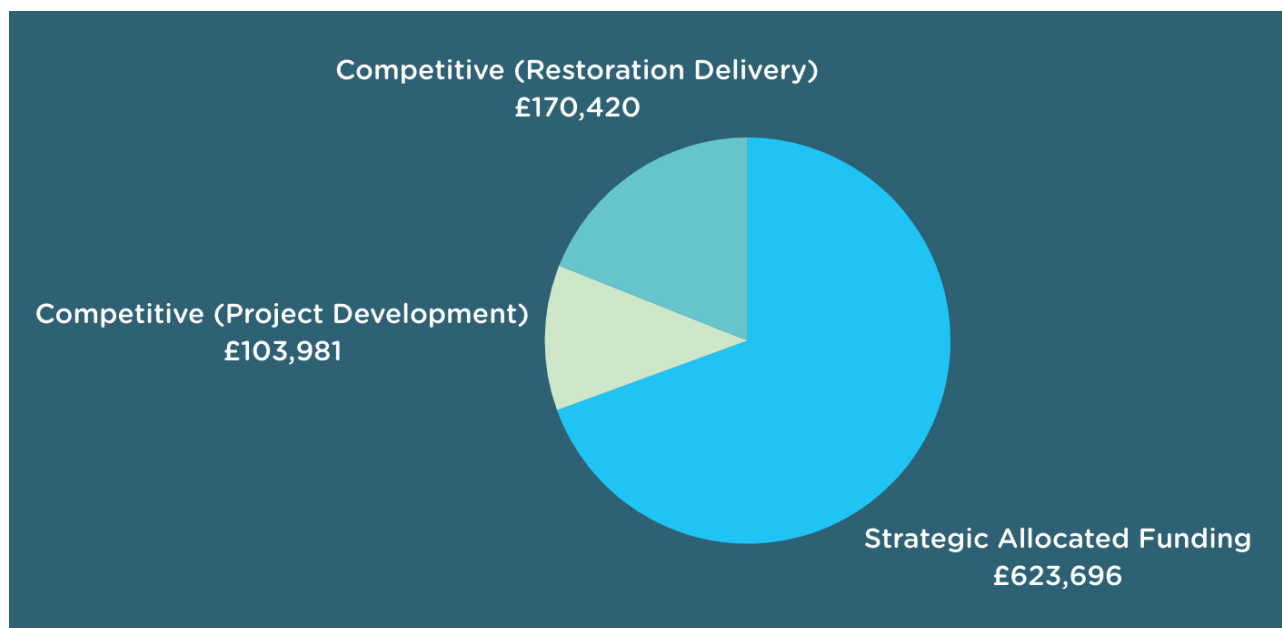
Grant aid represents a key means of partner engagement, enabled by NRW's grant mechanism portfolio. NPAP allocated a total of £898,097 across 18 recipients via 3 separate grants in 2023/24, with actual spend slightly less at £798,668.

Pie chart data:
- Competitive (Restoration Delivery) £170,420
- Competitive (Project Development) £103,981
- Strategic Allocated Funding £623,696

Figure 2. Pie chart showing total value awarded under each of the three separate grants.

2.2.1 Strategic Allocated Funding

The Strategic Allocated Funding (SAF) mechanism is designed to enable delivery of NRW priority work by strategic partners, with budgets allocated between partners according to a formula based on objective criteria. In 2023/24 NPAP used SAF to allocate grants to a range of grant recipients over two years (2023/24 and 2024/25), with nine accepting the SAF offer.

Figure 3. Both chart and associated table below show peatland restoration funded through the Strategic Allocated Funding (SAF) Grant in Year 4 (2023/24). The total allocated to partners through SAF being £700k for 2023/24, the total accepted was £623,696 and the total spent by partners coming to £545,295.
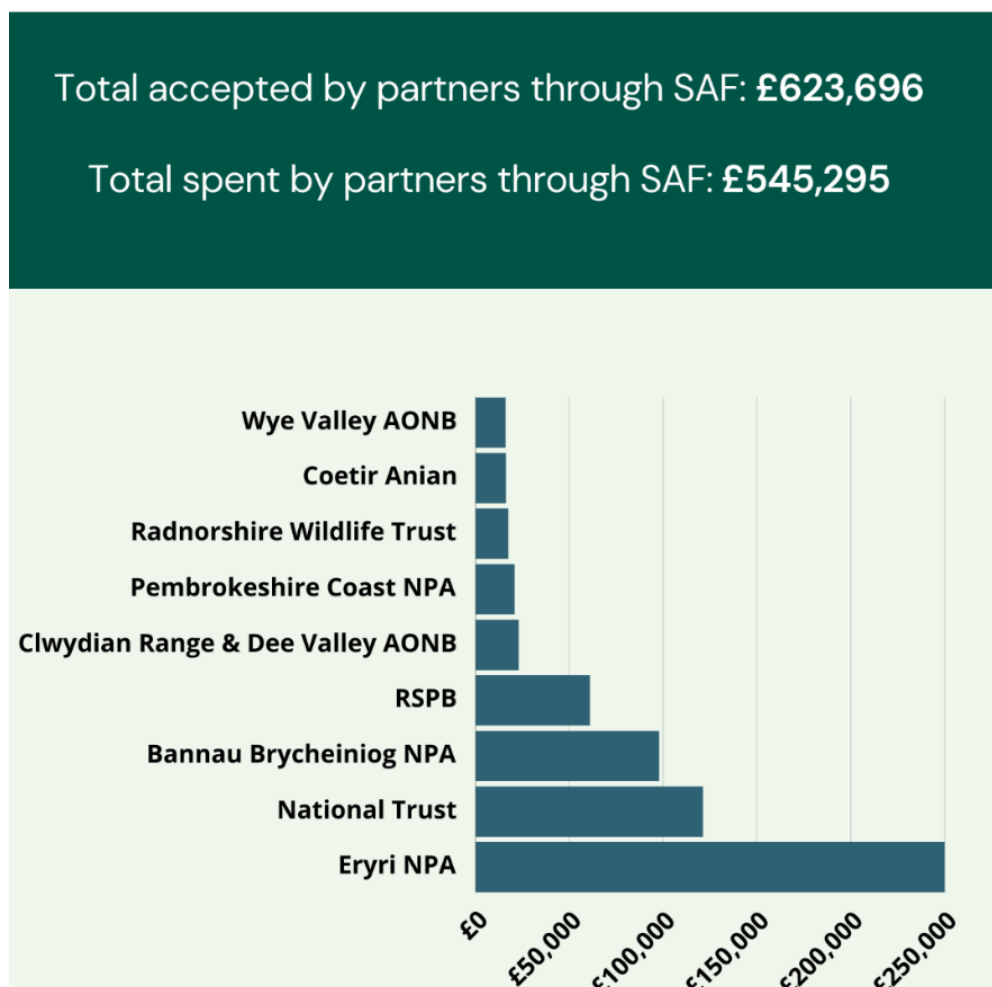
Strategic Allocated Funding	2023/24	2024/25
Wye Valley AONB	£16,122	£16,122
Coetir Anian	£16,309	£16,309
Radnorshire Wildlife Trust	£17,596	£17,596
Pembrokeshire Coast NPA	£20,985	£20,985
Clwydian Range & Dee Valley AONB	£23,218	£23,218
RSPB	£61,064	£61,064
Bannau Brycheiniog NPA	£98,041	£98,041
National Trust	£121,325	£121,325
Eryri NPA	£250,000	£250,000

2.2.2. Competitive grants

October 2023 saw the launch of the third round of the competitive Development Grant, offering between £10,000 and £30,000 to support individuals and organisations in planning peatland restoration projects. This Development Grant helps new partners to take key steps in assessing their peatland/s before submitting an action plan to support future restoration. Given the interest in the first round, a second round was launched in November 2022 with five grants awarded in June 2023 and concluding the work by end March 2024. Grants in the second and third rounds were awarded to both private individuals and organisations. Examples of actions taken to prepare for shovel-ready peatland restoration included gathering data on sites including GIS data on peat depth and artificial drainage, preparing to re-establish sphagnum moss, and community liaison and securing permissions. The third round of the Development Grant initiated in 2023/24 for delivery in 2024/25, will be reported in the 2024/25 Report.

Peatland restoration development projects – Development Grant

Total allocated through Development Grant: **£103,981**
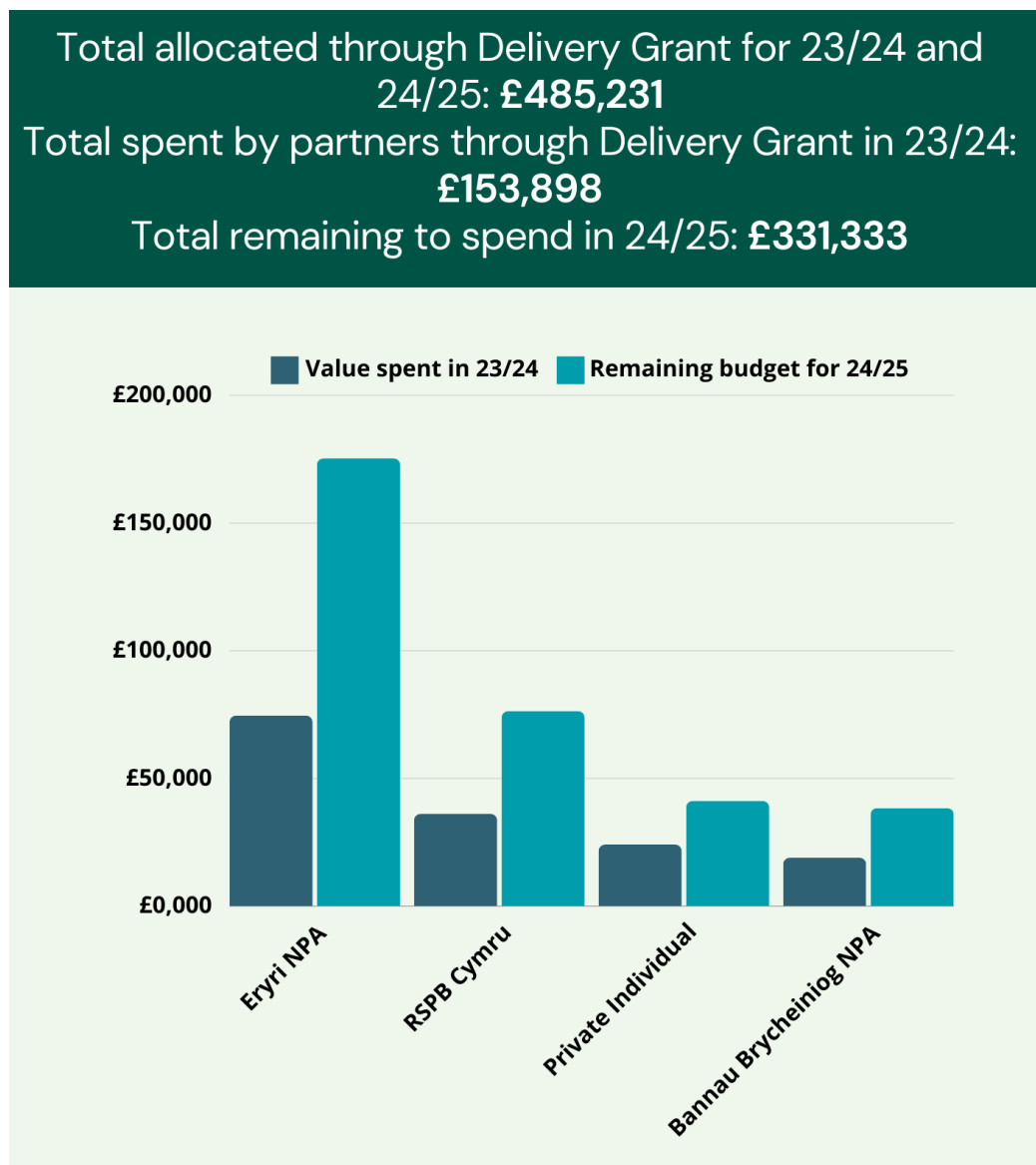Total spent by partners through Development Grants: **£99,475**
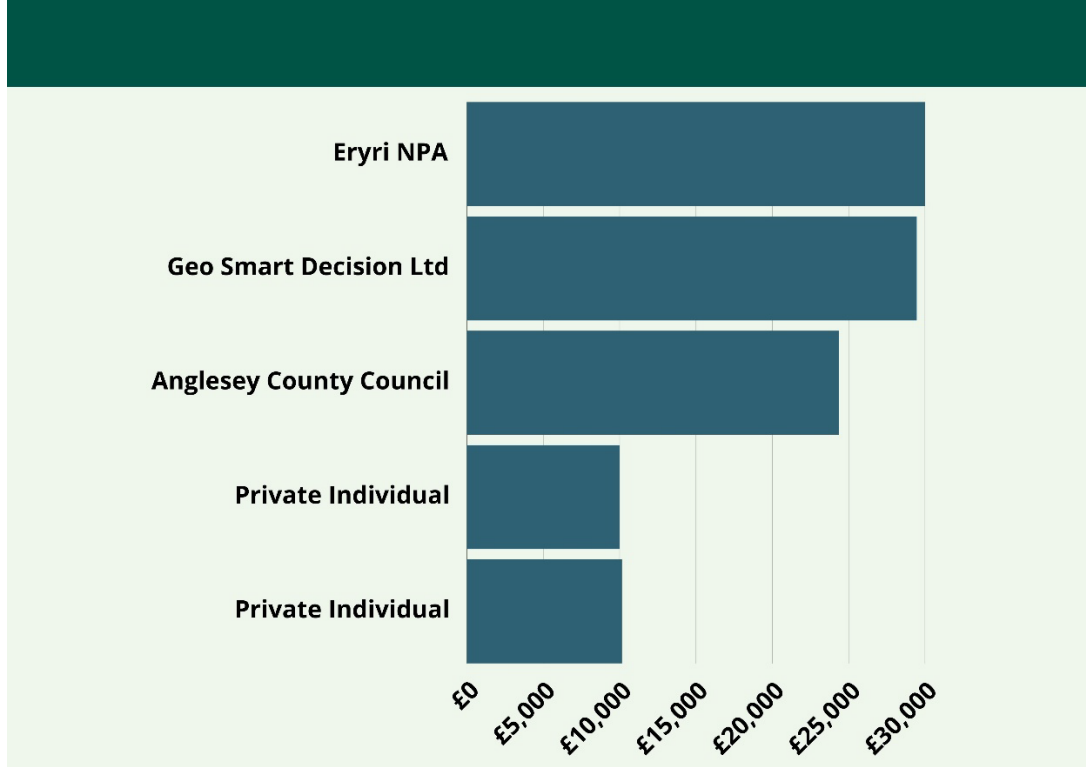
Figure 4. Awards of the Peatland Development Grants to develop plans for shovel-ready restoration.

A new competitive grant for restoration Delivery was also launched in March 2023 and awarded to four successful applicants in September 2023, with completion expected by January 2025. Recipients of the Delivery Grant include existing partners and private landowners. Results will be reported in the 2024/25 Report.

Proactive engagement has continued between NPAP and all 18 grant recipients. Engagement focused on supporting grant recipients with the grant process, resolving any issues that might arise, facilitating knowledge sharing between partners, and developing NPAP's understanding of how different grant partners interact with peatland restoration. Engagement has taken the form of regular meetings, reviews and site visits.

Total allocated through Delivery Grant for 23/24 and 24/25: £485,231
Total spent by partners through Delivery Grant in 23/24: £153,898
Total remaining to spend in 24/25: £331,333

Figure 5. Awards of the Peatland Delivery Grants to deliver peatland restoration.

2.3. Direct procurement

Figure 6. Drone image of Llyn Du site, Tywi, WGWE.

Direct procurement of restoration groundworks again focused on areas of the WGWE. Afforested peatland sites were selected following discussion with NRW's National Forest Planning Team and direction from the Land Stewardship Department to focus on areas of low yield class (<10) and existing open ground (as defined through the Forest Resource Planning process).

NPAP continues to establish, develop and maintain close positive working relationships with NRW colleagues working on the WGWE. This includes: identifying potential areas for restoration on NRW-managed land, building collaboration between the NPAP team and established forestry management/policy teams, developing further work programmes, developing ways of working and sharing knowledge on sites, and identifying processes and governance (e.g. timber sales process).

NPAP has also funded works on Special Areas of Conservation (SAC) Natural Nature Reserves (NNRs) supported by local NNR and integrated workforce teams. NPAP directly purchased works through NPAP's framework agreements.

2.4. Section 16 Land Management Agreements

Direct funding by NRW of restoration or management activity on third-party land is generally governed by a Section 16 Management Agreement[1] (S16 LMA).

In 2023/24 restoration works were funded via five separate land management agreements.

Figure 7. Large-scale upland blanket bog restoration on Hengae, Cwm Elan Valley**.**

Photo: Dinsdale Moorland Services

3.3.1 Land Management Agreements on non-designated land

In 2023/24 NPAP worked across NRW to establish new processes that allow NRW to enter into S16 agreements with landowners on land that is undesignated. Previously, NRW processes only allowed for agreements on land designated for conservation value such as SSSIs and SACs. New agreements on undesignated land to allow for peatland restoration are underway.

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[1] See Environment (Wales) Act 2016 - Explanatory Notes (legislation.gov.uk)

3. Overview of work delivered during Year 4 of the Programme

Following are some key project summaries with figures illustrating some of the main areas of delivery achieved in 2023/24.

3.1. Peatland restoration through capital delivery
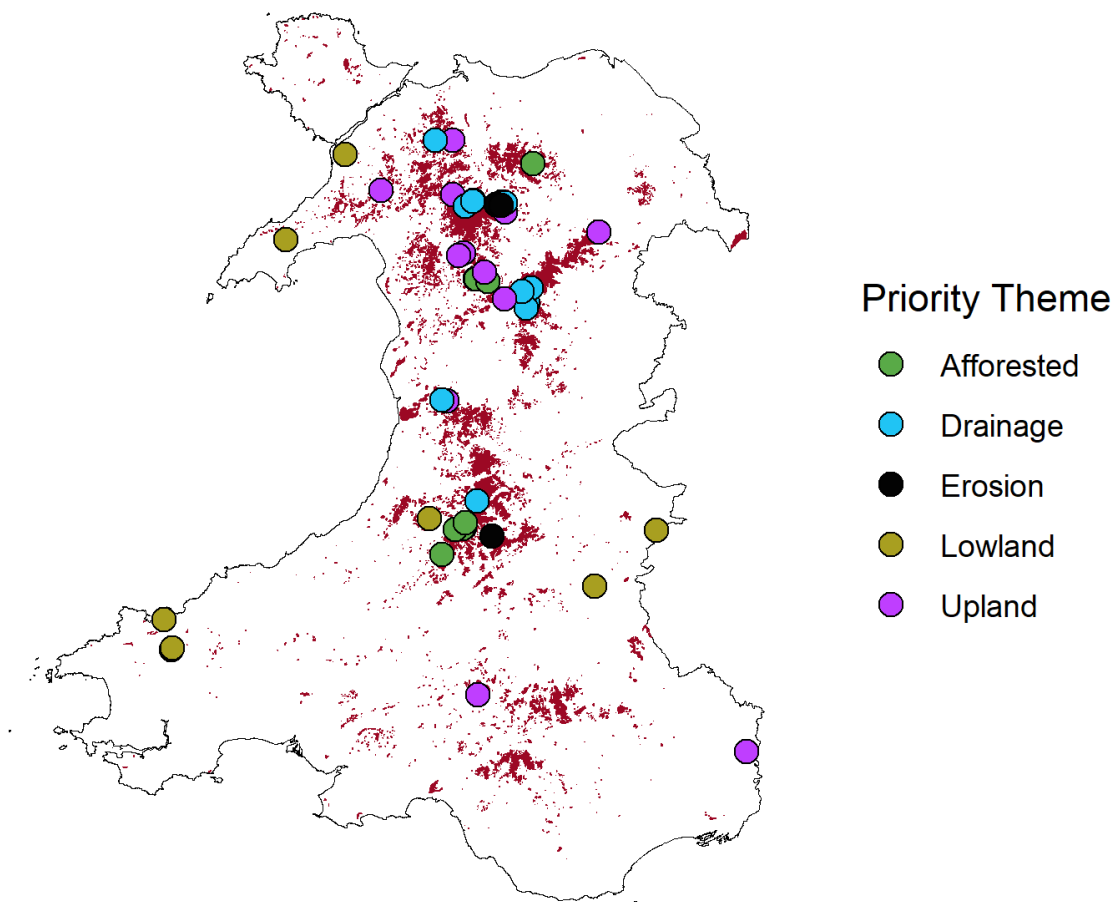
Figure 8. Map layer showing the location of restoration activity in 2023/24, and the main priority theme addressed at each, overlain on the Wales Peatland Map.
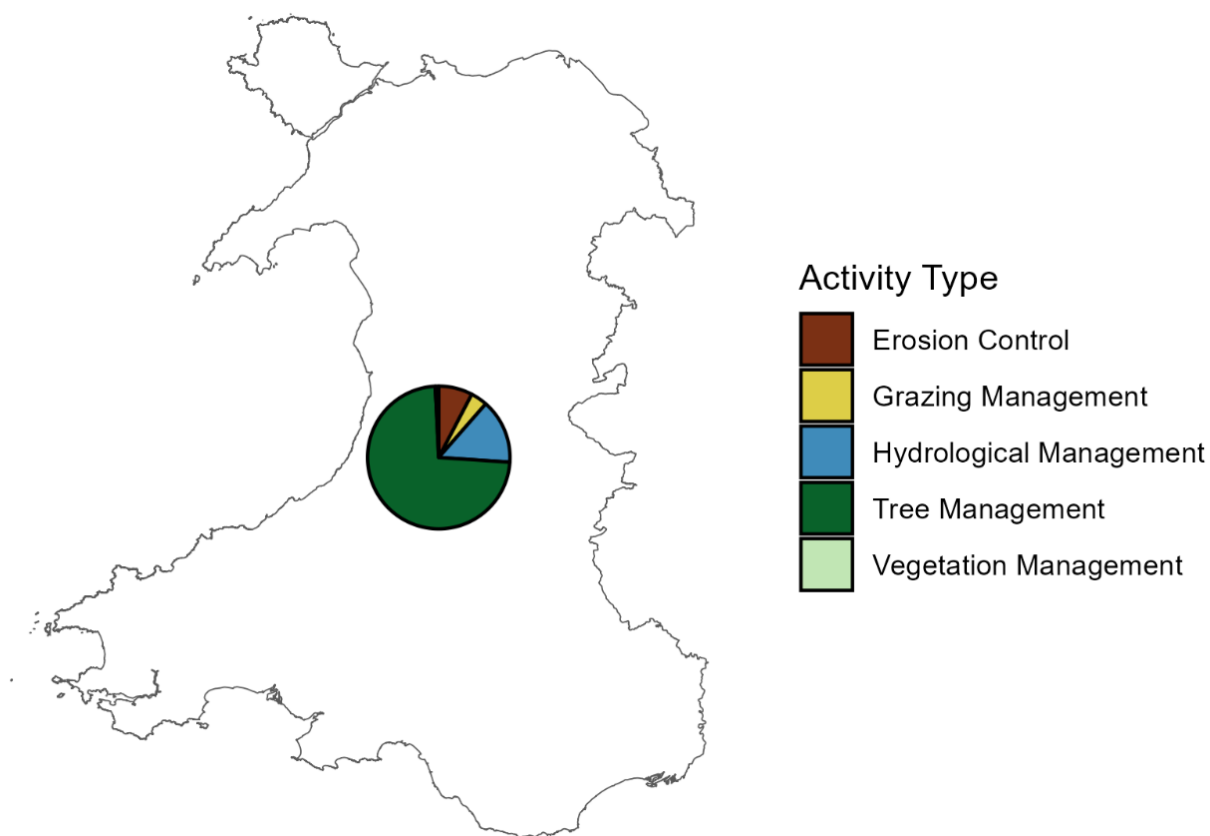
Figure 9. Pie chart on a map, and linked table, show summary of spend across broad restoration activity types targeted in 2023/24.

Restoration activity:	Hectares
Hydrological Management	466
Erosion Control	245
Vegetation Management	25
Tree Management	2336
Grazing Management	121
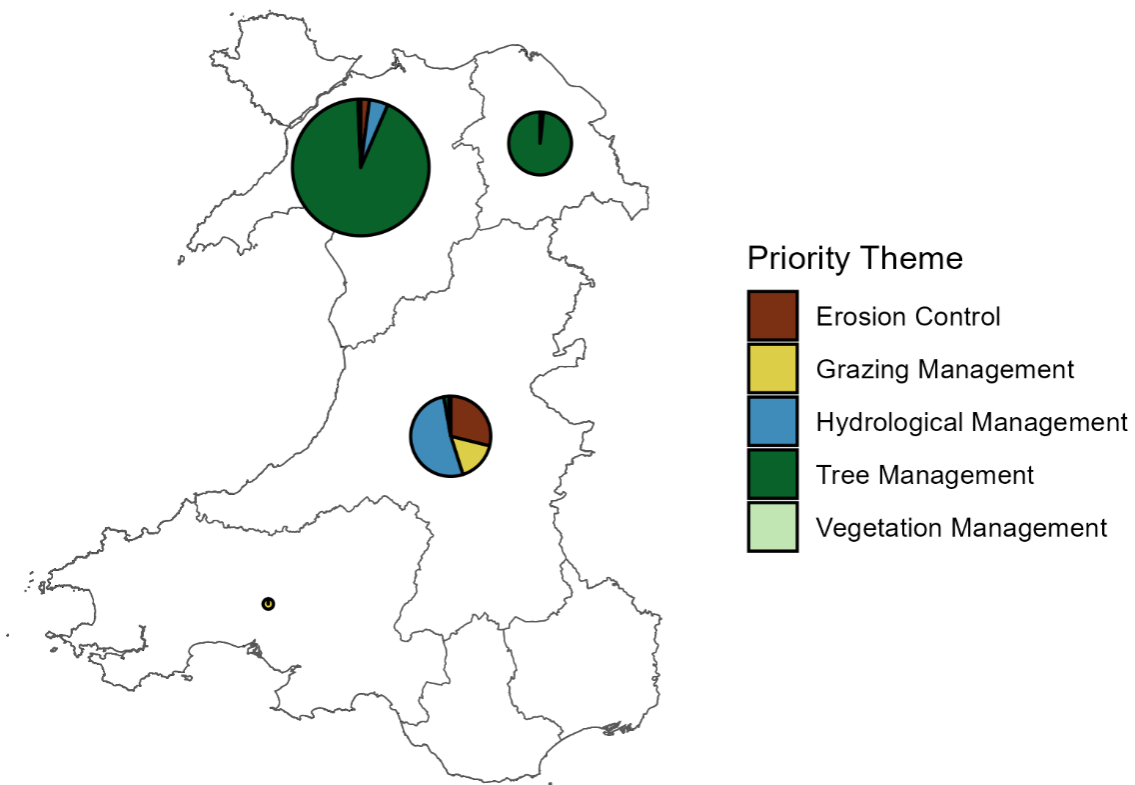
Figure 10. Pie charts on a map, and linked table, show summary of spend across broad restoration activity types, by operational area, in 2023/24.

Operational Area	Erosion Control	Grazing Management	Hydrological Management	Tree Management	Vegetation Management	Total Hectares
Mid Wales	203	114	367	14	6	705
North East Wales	0	0	8	425	0	433
North West Wales	42	0	91	1897	14	2044
South West Wales	0	12	0	0	0	12
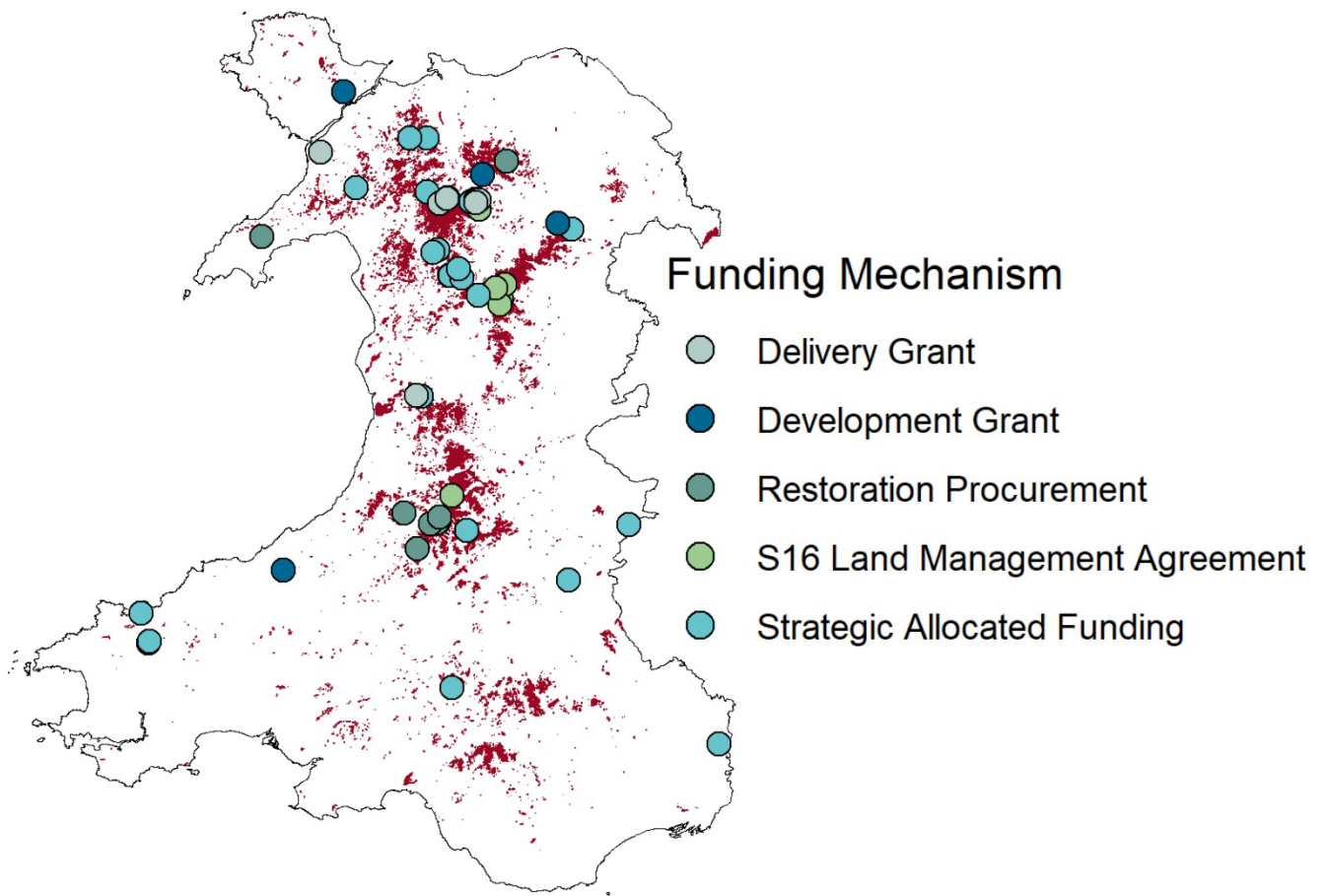
Figure 11. Map layer showing the location of restoration activity in 2023/24, and the funding mechanism used for each project, overlain on the Wales Peatland Map.

Table 2. Breakdown of the ground delivery against mechanism used 2023/24.

Mechanism	Reported ha*	Main priority themes addressed
Strategic Allocated Funding Grant	1925	• Peatland drainage • Peat erosion • Sustainable management of upland peatland
Delivery Grant	61	• Peatland drainage • Peat erosion
Section 16 Land Management Agreement	333	• Peatland drainage • Peat erosion • Sustainable management of upland peatland
Direct procurement of groundworks	130	• Afforested peatlands • Sustainable management of lowland peatlands

* ha figure is subject to review to bring it in-line with NPAP recording methodology and has some missing data. 466ha of hydrological restoration was delivered. Figures in this table reported for SAF grants includes substantial hectarages where the main activity has been *sitka* seed-in removal.

3.2. Eryri National Park SAF
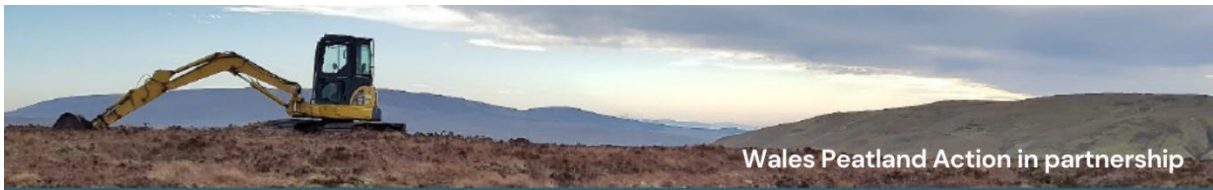
Wales Peatland Action in partnership

Funded by NPAP through SAF grant **1360 ha**
*of restoration activity

Tree Management
Hydrological Restoration
Erosion Restoration
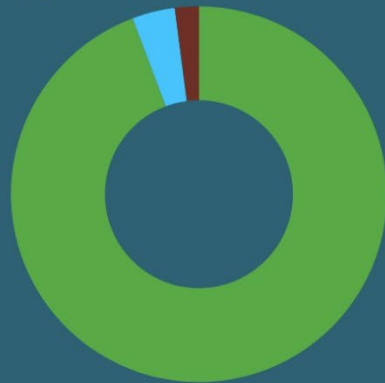
Before

After
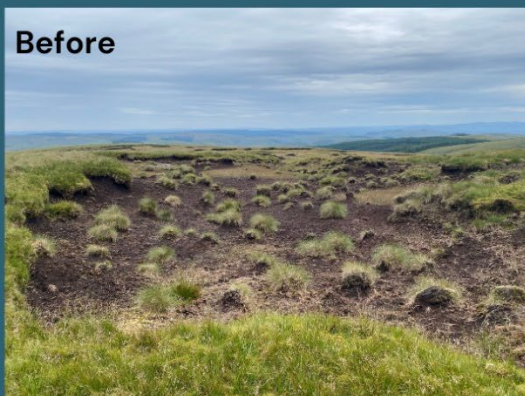
Before

After

*NPAP is working to improve consistency of reporting ha under restoration activity

3.3. Bannau Brycheiniog NPA SAF

Wales Peatland Action in partnership

Funded by NPAP through SAF grant

7.6 ha

of restoration activity*

*NPAP is working to improve consistency of reporting ha under restoration activity

3.4. National Trust SAF

Wales Peatland Action in partnership

Funded by NPAP through SAF grant

16.5 ha of restoration activity*

Ymddiriedolaeth Genedlaethol National Trust

5.1 km haggs re-profiled

304 bunded pools created
93 pools & scrapes created

*NPAP is working to improve consistency of reporting ha under restoration activity

3.5. RSPB SAF

3.6. Restoration work funded through the SAF grant (all less than £25k in value)

3.7. Land Management Agreements

3.7.1 Cwm Elan Valley

Wales Peatland Action in partnership

Funded by NPAP through Section 16 Land Management Agreements

Ymddiriedolaeth Cwm Elan
Elan Valley Trust

28 ha

of restoration activity*

Photo: Dinsdale Moorland Services

*NPAP is working to improve consistency of reporting ha under restoration activity

3.7.2 RSPB

Wales Peatland Action in partnership

Funded by NPAP through Section 16 Land Management Agreements

Cerniau, Rhiwargor, Gadfa & Hafod

305 ha
of restoration activity*

▼ Immediately after works

6 Months post groundworks ▲

*NPAP is working to improve consistency of reporting ha under restoration activity

3.8. NRW direct procurement

4. Coordinating and supporting delivery

The distinction between NPAP's strategic role and delivery role is shown in Figure 12. NPAP delivery informs strategy as does the communication with external and internal partners. Conversely, the strategic role allows NPAP to provide cohesion and facilitate best practice in delivery and reporting by internal and external partners.
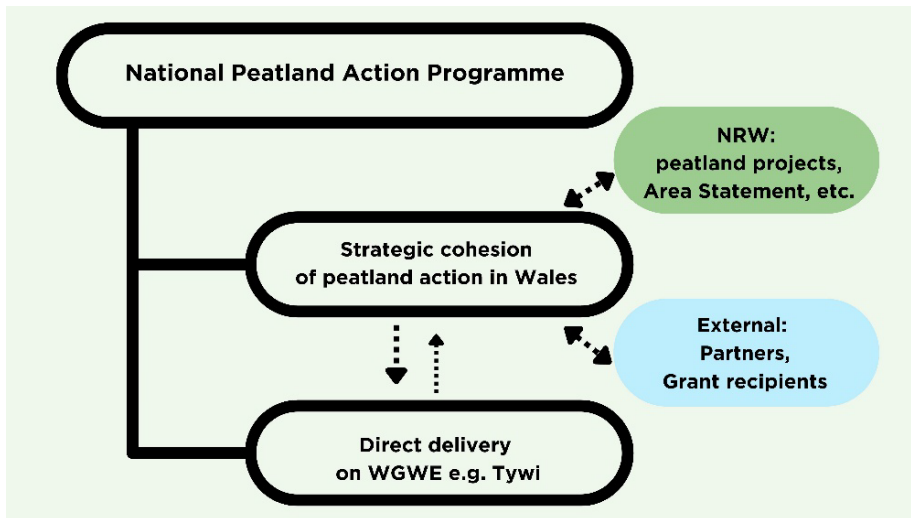
Figure 12. Showing two distinct roles for NPAP – strategic lead and direct delivery.

NPAP's strategic role is enabled through the support of many external and internal partners focused on peatland restoration. Although they function under different organisations, they are integrated by the funding provided by Welsh Government and the strategy led by NPAP. Collectively therefore this activity reflects Welsh Government ambition and investment in tackling the Climate and Nature emergencies through peatland restoration and is seen as Wales Peatland Action (see Figure 13). Therefore, as well as the direct delivery of NPAP, the success of this wider Wales Peatland Action in partnership is reflected in this report.
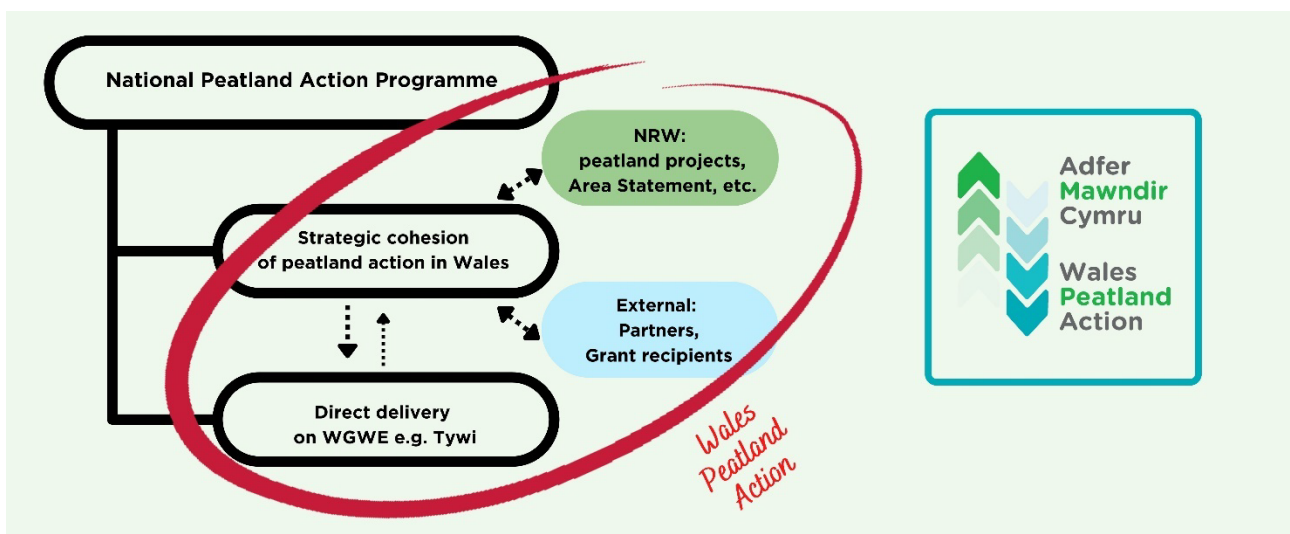
Figure 13. Showing that Wales Peatland Action is a partnership approach and includes all peatland restoration action funded by Welsh Government.

4.1. Strategic partnerships

To maximise both time and cost effectiveness, and the long-term impact of peatland restoration action, NPAP has mapped out key partnership or network groups.

NPAP as a Wales Peatland Action Hub
Through stakeholder groups and meetings NPAP facilitates:

External Stakeholders / Networks.
Direction & best practice exchange

Internal and/or direct benefit Stakeholders.
Information sharing & best practice dissemination

Welsh Government – direction & funding

NRW Board, CEO & SMT – keep informed for strategic direction

Regional

Wales Peatland Action **Strategic Delivery** Partners Group (joined-up approach)

NPAP leads, initiates, facilitates, records

← →

Wales Peatland Action

NPAP Board – reporting and direction

Wales Peatland Action **Site Delivery - Practitioners** Network (best practice & 'how to' information exchange/record)

Delivery Partner & Stakeholders – through grant launches, award of contract, site briefing (influence best practice in delivery)

Four Nations Peat Delivery Group Wales Peatland Action/NPAP initiated and representing Wales. (technical focus, e.g. common standards on monitoring)

Contractors – outreach (secure contractor & equipment availability / competitive costs, and quality delivery)

IUCN & network – Wales Peatland Action (Peter Jones NRW / James Cooke WG as Wales representatives)

NRW Peat Delivery Group (NPAP leading to streamline NRW approach for NRW peatland projects, for an impact of sum greater than the parts)

Monitoring for Peatland Action Group (for joined up monitoring)

Area Statement / People & Places (information sharing for opportunities, localities, landowners, and cohesive local nature strategies)

Wales Peatland Evidence Group (for research collaboration opportunities)

NRW functions with interest in peatland restoration Annual Report – presentation and communication exchange to, e.g. environment reps, water, decarbonisation & climate change (open invite to NRW)

External Area Statement / People & Places stakeholders (developing through AS activity opposite)

In addition NPAP contributes peatland expertise to many other **external** groups.

In addition NPAP contributes to many other **internal NRW** groups.

Figure 14. The relationship chart and the linked tables following provide an overview of NPAP's strategic role. They map the External and Internal partnerships, stakeholder groups and networks convened or contributed to by NPAP.

External partnerships, stakeholder groups and networks		
Name	**Aim**	**Dates / regularity**
Welsh Government liaison	NPAP reports and WG provides strategic direction and funding.	Regular as per need
Wales Peatland Action Strategic Delivery Partners Group	Joined up strategic approach. Support information exchange, joint recognition of priorities, strong partnership working and identify other funding opportunities.	6 months
Wales Peatland Action Site Delivery – Practitioners Network	Best practice on-site learning with 'how to' practical information exchange of what worked and lessons learnt.	2-day event in south Wales 2023. Event in north Wales planned for April 2024
Four Nations Peat Delivery Group (Wales Peatland Action/NPAP initiated and representing Wales)	Address common challenges through collaboration, with initial priority focusing on reporting standards and methodologies.	As per need, annual.
IUCN UK Peatland Programme Steering Group (Dr Peter S Jones NRW/NPAP and James Cooke WG as Wales representatives)	Support work of IUCN UK Peatland Programme. Provide input to wider IUCN engagement through articles / presentations or at conferences.	Membership of Programme Steering Group (PSJ) and attendance at quarterly meetings.
Wales Monitoring for Peatland Action Group	Develop & gain from peatland restoration monitoring with view to sharing best practice and standardising.	1 meeting 2023/24, planned for every 6 months moving forward.
Wales Peatland Evidence Group	Develop & gain from peatland research, identifying research gaps, funding, as well as opportunities for partner collaboration and dissemination.	1 meeting 2023/24, planned for every 6 months moving forward.
External Area Statement / People & Places stakeholder meetings	Relationships developed with external groups through the internal NPAP & AS teams collaboration.	As required, following opportunities identified by AS teams.

Name	Aim	Dates / regularity
Soils Policy Technical Advisory Group	Ensure collaborative working between NRW/Welsh Government. NPAP provides updates.	4-6 weekly
Land Use, Land-Use Change, and Forestry (LULUCF) – Peat Data Sub-group	Ensure peat restoration activity can be used for national greenhouse gas inventory reporting.	Annually
GGR-Peat (Greenhouse Gas Removal by Accelerated Peat Formation) Expert Advisory Group	Project is examining the potential for accelerating carbon accumulation in certain types of highly modified peatland.	6 months
Peatland & Historic Environment Group	Identify overlap and dovetail common issues to be addressed.	Occasional
Peatland Code Technical Advisory Board	UK approach to Peatland Code – feedback on development in Wales.	6 months

Internal stakeholder groups and networks

Name	Aim	Format / regularity
NRW Board, CEO & Senior Management Team	Keep informed for strategic direction & support.	Reports, presentations and site visits.
NPAP Board	Reporting and oversight.	Every 2 months. In 2024 this transitioned into the NPAP Board for upscale.
Delivery Partners & Stakeholders	Ensure best practice and quality delivery on all NPAP-funded peatland restoration.	Ongoing in conjunction with funding awards, contract management, site briefings, and reviews.
Contractors	Secure contractors & equipment availability. Verify competitive costs and quality delivery.	Ongoing in conjunction with procurement framework, contract management, site briefings, and reviews.
NRW Peat Delivery Group	Foster a cohesive NRW approach to peatland restoration interventions and opportunities.	3 months and interim contact of sub-groups.
Area Statement / People & Places	Cohesive local peatland nature strategies. Information sharing on People & Places/NPAP projects, opportunities, localities and landowner interest. Leading to engagement with external stakeholders as per Area Statement recommendation.	With individual Area Statement teams. In 2023/24 with the areas with the highest peatland coverage, the Mid Wales and North West Wales teams.

Name	Aim	Format / regularity
NRW functions with interest in peatland restoration (e.g. environment, water, decarbonisation & climate change)	Effective communication across NRW functions with a catch-all opportunity for any employee in NRW who has links or an interest in peatland restoration to join a presentation and Q&A on NPAP's work.	Webinar open to all staff in 2023/24 followed by Q&A session. Recording available on the internal webinar series library for on-going reference.

NPAP also supports other teams and colleagues across NRW, typically with advice relating to peatland management and restoration.

4.2. Highlighting some key Wales and UK partnerships

NPAP has continued to develop and deliver its ambitions communication, engagement and partnership approach in 2024/25. Figure 15 summarises key engagement events across three main theme areas and below is an overview of some of 2023/24 highlights.
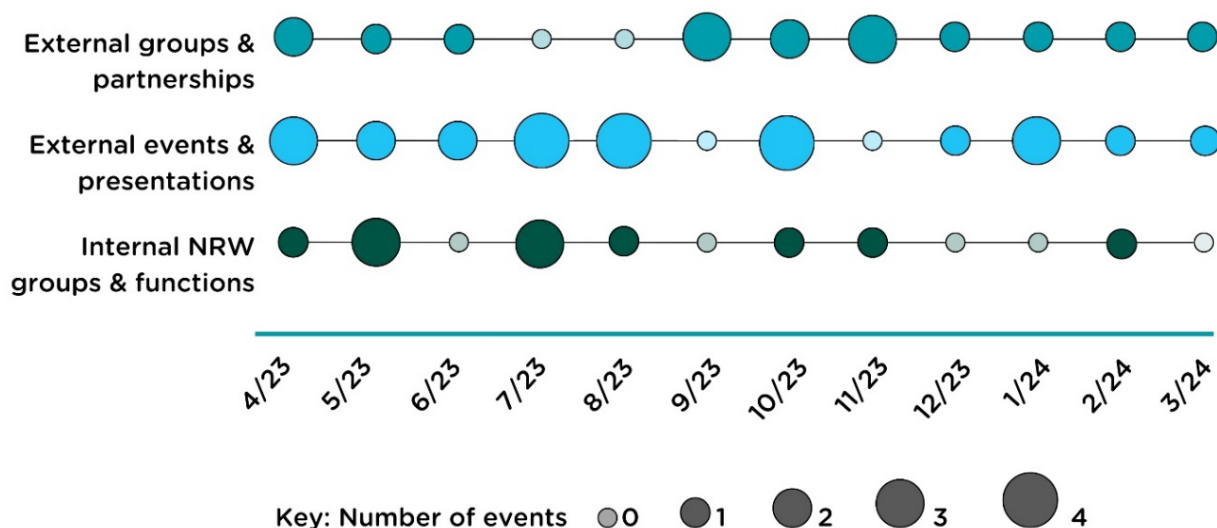

Figure 15. 2023/24 Summary of group, partnership and engagement by event type.

Wales – Area Statement Partnerships place-based engagement

Coordinating, supporting and helping to enable restoration delivery by partners features as one of the three cross-cutting themes of NPAP. The importance of Area Statements is recognised in WG's Natural Resources Policy and is enshrined in legislation as Section 11 of the Environment (Wales) Act 2016.

The Area Statement (AS) approach underpins NPAP's work in this area. The six terrestrial AS partnerships (see Figure 17) provide existing groupings of stakeholders NPAP can use to ensure a collaborative approach to the development of restoration programmes at the most appropriate scale and at the right locations within the overall guiding framework of the national Programme.

This place-based approach is a cornerstone of the AS philosophy and helps to ensure NPAP builds capacity and capability in those parts of Wales or in those sectors where relatively little activity is taking place to-date.

2023/24 initiatives between NPAP and the AS teams include project development with the NW Wales and Mid Wales teams around engagement, restoration opportunities, and exploring grazing interest on peatland.

Figure 16. Peat restoration practitioners at the 'Llifo Conwy' meeting mapping and discussing peatland restoration projects in the area. Led by NW Area Statement team as part of wider catchment engagement, the peat group can convene in the context of wider landscape discussions.
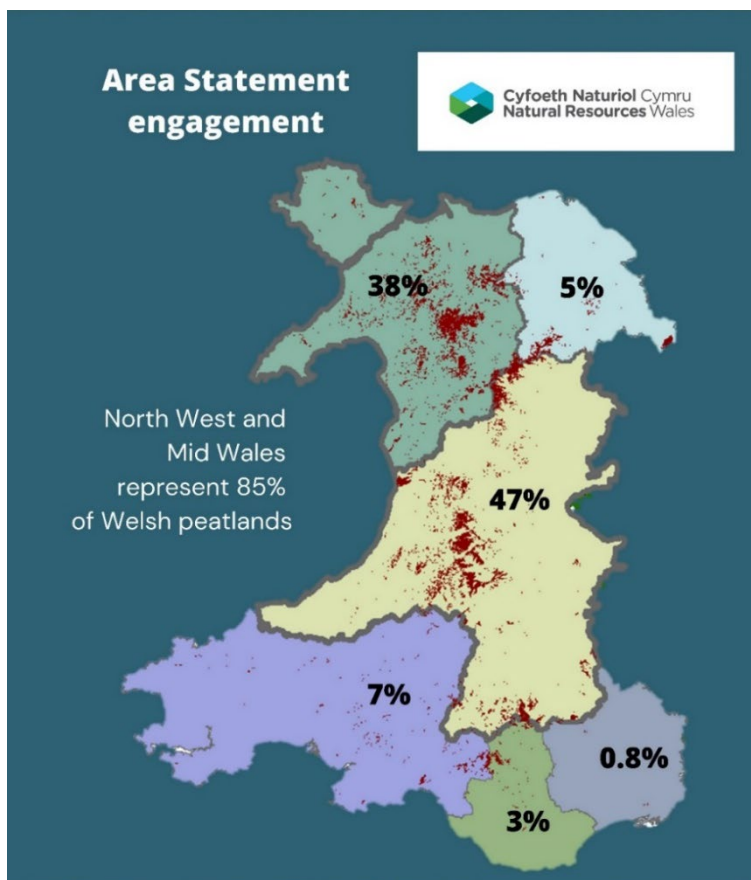
Figure 17. Welsh peatlands are well represented in the Mid and North West Wales Area Statements where NPAP's main focus of engagement has been so far.

Wales Peatland Action Strategic Delivery Partners Group

The aim of this top-level partnership group is to ensure a joined-up strategic approach. This is enabled through information exchange, joint recognition of priorities, strong partnership working and support, as well as identifying other funding opportunities. The group also provides a means of supporting the identification and resolution of key blockers to improving the ecological resilience of Welsh peatlands.

Two meetings were held in June and November 2023 enabling information exchange at a strategic level including with a representative for Welsh Government. Themes included NPAP grant launches and strategic funding, Peatland Code, role of peatland in the Sustainable Farming Scheme, future planning, and fire management. Collaboration on a regional or landscape level feed back into this Strategic Group, to provide a better overview of all-Wales activity.

An important distinction to note, although some organisations' representatives span two all-Wales groups, the all-Wales Practitioners Group is distinct yet complements the Strategic Group. The Practitioners Group focuses on establishing on-the ground delivery best practice through direct practitioner information exchange and site visits. A very successful and over-subscribed 2-day Practitioners Event was held in April 2023 involving site visits, presentations, and best practice information exchange.

Wales Peatland Practitioners Group

NPAP hosted a 'first of its kind in Wales' event aimed at restoration practitioners. Through NPAP's partnership and grant working, a gap in information exchange and peer support across organisations at the level of restoration delivery was identified. The two-day event looked at practical restoration in two contexts (forest-to-bog and upland bog sites by partner hosts) alongside presentations from NPAP on the peat resource as a whole in Wales. The event was over-subscribed by restoration practitioners attending from all over Wales. 32 practitioners attended from 15 different delivery projects/organisations. Practitioners delivering on-the-ground action could share common challenges, learn about different ways of working, discuss approaches that work and don't work in different contexts and build relationships for on-going practical peer support.

Feedback from the event was overwhelmingly positive, here are a few examples:

> "Field trips were fantastic, I have learnt so much today – thank you! Content, timing and space to discuss was great."

> "Really useful to see practical examples of delivery on the ground inc a range of projects and timescales post restoration."

> "Everything very smoothly run, some excellent and informative discussions, broad range of interventions and response times at sites."

> "It's been amazing to have the chance to network, share ideas, discuss any issues, things that work and see what everyone's take is on it."

Figure 18. Photo of the first all-Wales peatland restoration Practitioners Event, visiting Pen y Cymoedd, Lost Peatlands, Bannau Brycheiniog National Park and National Trust restoration sites.

Wales Monitoring for Peatland Action Group

The first meeting was held in November 2023 and included an introduction to NPAP's monitoring role, feeding into Welsh Government strategy, as well as providing opportunities for practitioners to explore issues they face in achieving standardisation.

Wales Peatland Evidence Group

A meeting held in March 2024 with esteemed academics and specialists, was an opportunity to explore the Terms of Reference for the Group, hear updates by members on current and proposed evidence programmes, as well as explore prospects for collaboration.

UK – IUCN

NPAP provides the strategic Wales input to support the role of the International Union for Conservation of Nature (IUCN) UK Peatland Programme. Input is provided through meetings, conferences, and updates and news for the IUCN's website.

UK – Four National Peat Delivery Programmes Group

First convened by NRW in July 2022, the group addresses issues specific to the remit of each of the four programmes such as national monitoring and reporting methodologies, the challenges involved in upscaling programmes, and addressing hypermodified peatlands.

4.3. Contractor engagement

Following successful contractor engagement actions in NPAP's second and third years (See previous reports for more detail), in 2023/24 NPAP trialled groundworks contract review sessions. These sessions involved contractors and contract managers reviewing contract outcomes on the ground in the summer following delivery. This enabled reflective evaluation of 'on the ground' works, discussing what worked and what didn't, as well as reviewing contract management, communication, and agreeing lessons learned.

These review sessions with contractors post works delivery have been positive and resulted in increased awareness of NPAP's longer term objectives. They also helped identify improved ways of working between contractor and contract manager, in order to enable positive 'on the ground' outcomes.

4.4. Communicating

Extensive engagement to convey the benefits and opportunities of peatland restoration is important for the Programme's strategic role. NPAP coordinates over 10 key partnerships, groups with interest, or networks, and contributes peatland expertise to over 10 associated groups. Individuals contact the Programme directly through npap@cyfoethnaturiolcymru.gov.uk and NPAP benefits from strong delivery partner relationships with increasingly collaborative engagement activities.

In addition to engagement with peatland restoration delivery sites, NPAP has held over 120 engagement meetings, presentations, and in-person or digital outreach events in 2023/24. Of these, 91 involved external engagement. NPAP is both proactive with offers of engagement and responsive to requests. The events and activities reflect the range of parties with an interest in peatland restoration, very broadly summarised as follows:

- Public interest – through public events such as the Royal Welsh Agricultural Show and the National Eisteddfod, media events, and an in-depth art project at Cors Bodeilio which included engagement at the National Eisteddfod in Llŷn and Eifionydd 2023, with both on-site activities and off-site bog walk.
- Landowners, farmers, communities, anyone with potential interest in peatland restoration – directly as individuals, in outreach events, and through publicity around new grant launches, including online guidance webinars. The Delivery Grant was launched in 2023 as well as the third round of the Development Grant which is funding to develop a plan for follow-on shovel-ready delivery of peatland restoration. Dual language webinars were produced to support this outreach: Development Grant Webinar 2023 / Gweminar Grant Datblygu 2023 and the Delivery Grant Webinar 2023 / Gweminar Grant Cyflawni 2023. Furthermore a dual-language Welsh Peatlands training webinar was provided to Farming Connect as a briefing for advisers supporting farmers in their planning for peatlands.
- Existing delivery partners – through the partnership groups outlined previously but also through direct contact and online guidance webinar for the Strategic Allocated Funding grant applicants.
- Professional experts and academics – through partnership groups outlined but also proactively and directly to share best practice, recent research, new technological advances, etc. Links with universities were strengthened in 2023/24 through formalising the Wales Peatland Evidence Group. As NPAP also liaises the Wales

Monitoring for Peatland Action Group, the strategic bridging mechanism is also in place to enable monitoring to reflect research priorities in Wales.

- Policy makers and officials – through data, reports and meetings, NPAP feeds into the collective Welsh Government Net Zero aims.
- NRW colleagues – through strategic and delivery groups outlined previously but also through direct contact with specialists working across the organisation on peatlands, species, forestry, hydrology, etc. Communication processes also feature in internal engagement, as NPAP is supported by key internal functions that enable the Programme's success.

Events & Presentations: As outlined, NPAP regularly makes presentations on location or on-line, the most notable platforms used to share messages around Wales Peatland Action in 2023/24 were as follows.

- Wales-wide: the webinar presentations, local engagement, and a looped Wales peatland video at the Royal Welsh Agricultural Show and the National Eisteddfod.

- UK-wide: keynote and specialist presentations at the CIEEM conference and supporting input for the IUCN UK Conference.

- Worldwide – COP28: NPAP work was covered in the virtual Peatland Pavilion 2024 by the IUCN, a presentation by Welsh Government's James Cooke on 'Natural Carbon Sequestration' at a COP28 side event, and as one of the "High-level climate champions" in the Yearbook of Global Climate Action 2023 prepared for COP28.

Messaging, channels and data

To ensure understanding around the need for, and benefit of, peatland restoration, clear public messaging was shared:

- The 4% of the surface of Wales that is peatland has the capacity to hold 30% of our land-based carbon.
- Unfortunately around 90% of Welsh peatland is in a damaged state and in this condition is accelerating climate change by releasing greenhouse gases.
- The solution is relatively simple and cost-effective: restoring peatland to a functioning water-retaining biodiverse landscape for future generations.
- Besides addressing the Nature and Climate emergencies, peatland restoration can also help mitigate other impacts of climate change, such as flood and fire risk.

The messaging is simplified in two social media hashtags as #WalesPeatlandAction #HighNatureLowCarbon (#AdferMawndirCymru #NaturUwchCarbonIs).

All Welsh Government funded peatland restoration partner projects are encompassed under Wales Peatland Action. Partners are required to acknowledge public funding and provide restoration data through NPAP to ensure accountability and fulfil Welsh Government's reporting requirements.

To complement the in-person partnership and public engagement, other key communication channels are: the webpage, social media, media, and videos. Analytics data from these sources shows a significant increase in interest and engagement in peatland restoration topics during 2023/24.

5. Monitoring programme

5.1. NPAP's monitoring strategy

Our approach to monitoring is based on being able to demonstrate change in relation to two core sets of outcomes, namely ecological change (which is expected to mainly comprise biodiversity improvement) and predicted changes (generally reductions) in greenhouse gas (GHG) emissions. This approach is summarised in Figure 19.
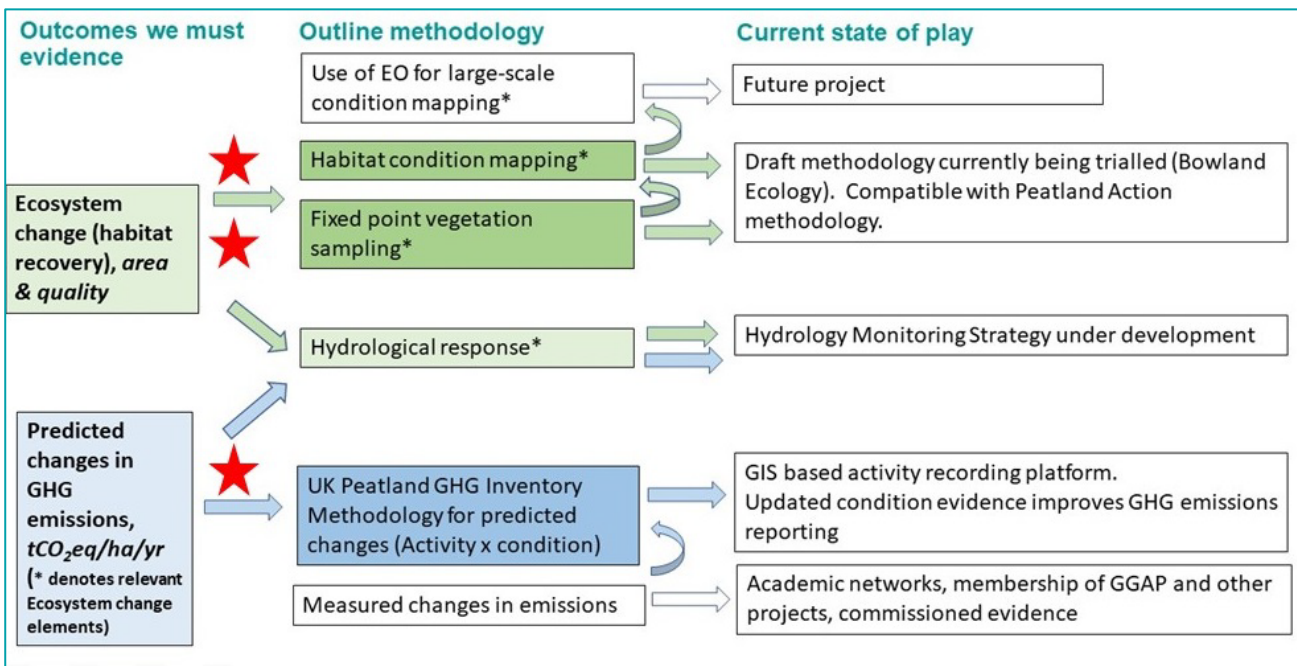

Figure 19. Summary of NPAP's approach to monitoring the outcomes of peatland restoration. Only elements marked with a red star are current areas of work.

Assessment of predicted changes in greenhouse gas emissions is covered by NPAP's work to develop a comprehensive restoration activity recording system – see annual report for 2022/23 6.2.2. Work to further develop the monitoring of hydrological responses is planned for the future, once additional project resources are in place. In 2023/24, targeted condition monitoring was undertaken on three sites.

Peat surveys on the Welsh Government Woodland Estate

The fourth year of the Programme continued the surveying of afforested peat on the WGWE to inform the upcoming Forest Resource planning process (as described in the Year 2 Report). Every 10 years, NRW reviews the long-term management plans for each forest area. These are compiled in a new Forest Resource Plans, or used to evidence a need to change plans if required.

Peat survey data collected as part of this process will also feed back into the updates of the Peatlands of Wales maps series, to improve mapping of the peatland resource in Wales. In 2023/24, four additional forest blocks were surveyed using the Peatland Toolkit methodology, covering a combined area of 115ha, and identifying a total of 54ha of restorable peat in the WGWE.
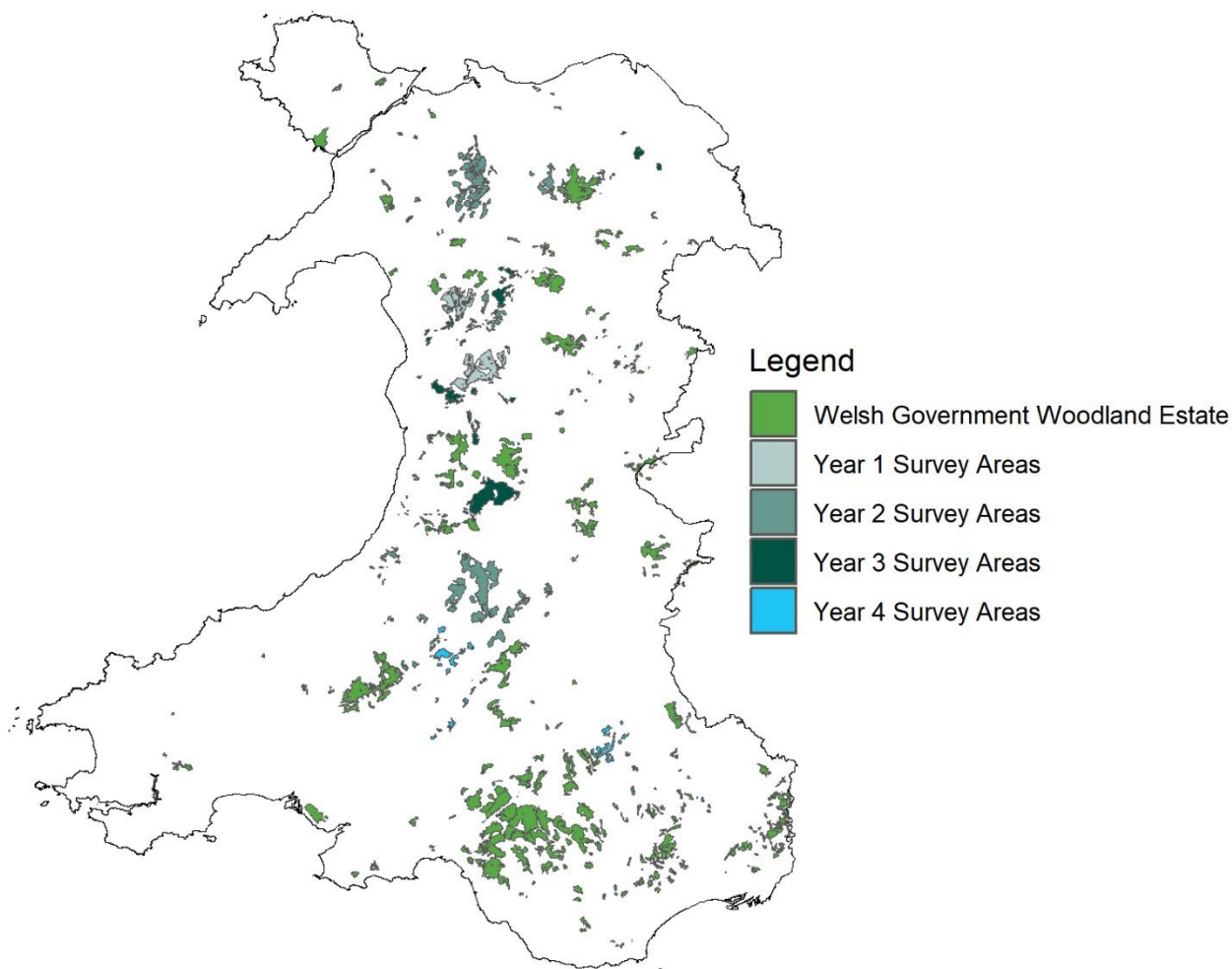
Figure 20. Map of forest blocks surveyed to date, using the afforested peat toolkit, funded by NPAP.

5.2. Recording, reporting and sharing of peatland action

Activity recording and reporting

In February 2024, NPAP published the first iteration of the peatland restoration activity geospatial/GIS layers. This dataset is the first of its kind, as it offers comprehensive national coverage of peatland restoration efforts, as well as being bilingual. This was made possible through the development of a robust monitoring protocol, providing detailed GIS training to partners, and developing specialised resources to support the reporting process. This ensures a high quality, standardized output that can be used confidently by the public, peatland practitioners and researchers.

The activity layers have been designed to be updated annually at the end of each fiscal year. These updates will include all NPAP-funded projects and will expand to incorporate projects from other funding mechanisms as well as historical restoration activity.

The layers have proven to be an effective tool for highlighting the scale of restoration activities undertaken by Welsh practitioners. They have already been used in several UK-wide reporting projects, such as the UK Centre for Hydrology and Ecology's Erammp (Informing, Monitoring and Evaluating Sustainable Land Management) programme and the UK LULUCF (Land Use, Land-Use Change and Forestry) emissions calculations.

The bilingual layers have been made publicly available on the Wales Peat Data Portal. Detailed descriptions of the activity reporting methods are available in the Year 3 Report and the data can be downloaded from Data Map Wales – including full technical metadata.
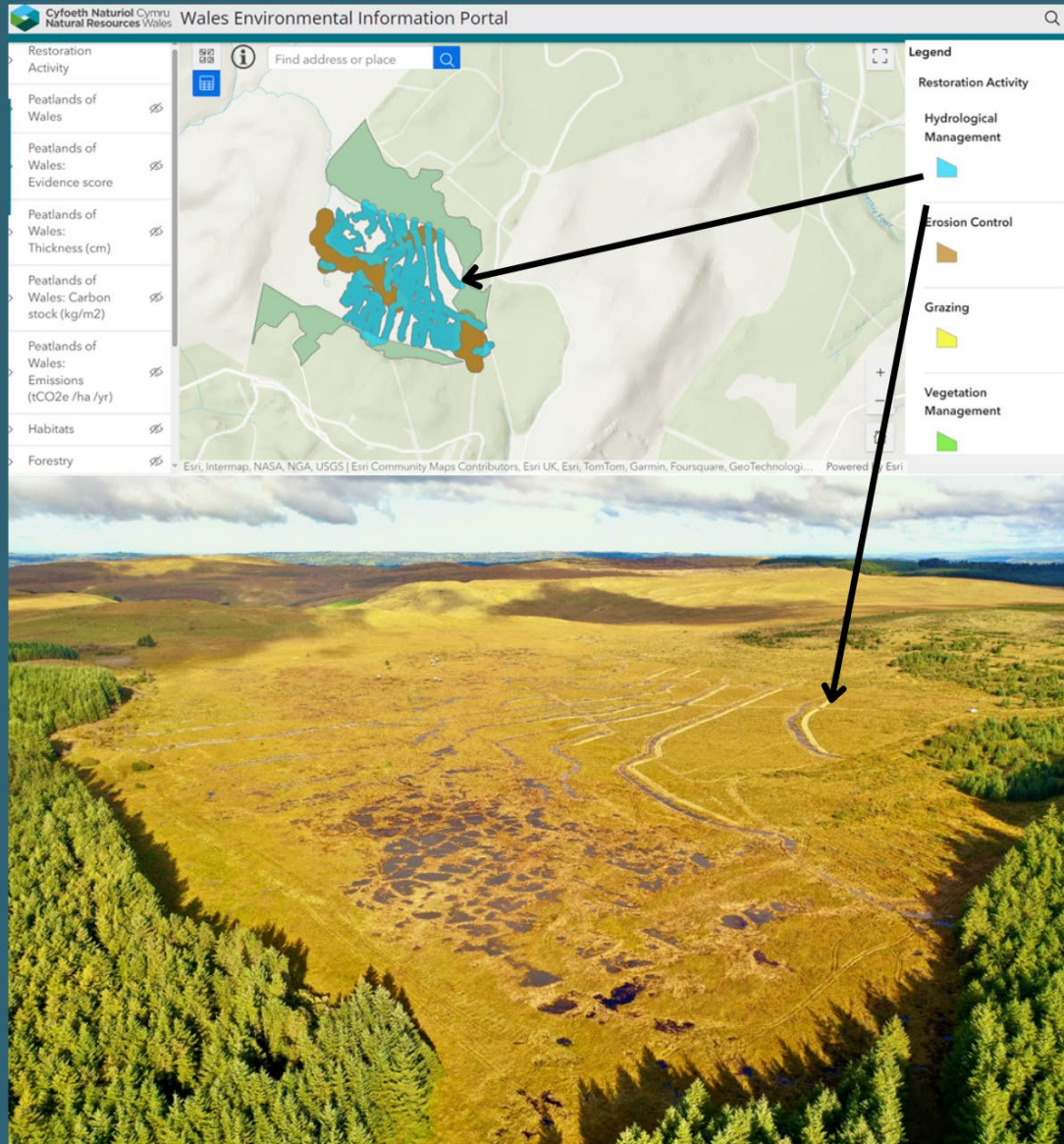
Figure 21. An example illustrating how the peatland restoration layers are presented on the peat portal. The data layer is then compared to drone imagery collected post restoration. It indicates the complexity of restoration projects, with sites often combining several interventions to achieve the desired outcome.

NPAP activity recording and reporting methods apply the 'measure once, use many times' principle whereby standardised recording to capture activities in the same way everywhere can serve reporting to multiple stakeholders. Stakeholders have a range of interests in peatland restoration, from engagement with people and places to metrics used to track impacts and recovery in the Nature and Climate emergencies.

NPAP has also developed the [Peatland Restoration Activities Glossary](#), an [illustrated guidance document](#) to support with categorising different restoration actions and data submission. The glossary includes a classification and coded checklist of restoration activity types. This bilingual resource was developed to support grant participants with their reporting requirements, helping to standardise restoration activity monitoring across Wales, it also doubles as an education resource to facilitate the wider dissemination of technical knowledge.

Hydrological restoration – dams

Ditch blocking or 'grip blocking' involves the installation of dams into linear ditches Dams may be installed with or without back filling with material such as heather brash or peat. Pipes are sometimes used to allow water to pass through rather than over the dam, usually to reduce the risk of dam failure or where some drainage function needs to be retained. Rather than create a separate dam type here, we ask that the use of pipes in this way can be included in the comments column when mapping these features.

Peat dam no infill

Dams constructed of peat for the purpose of raising water levels within ditches and where the length of the ditch between dams is not infilled or reprofiled. Lines should represent sections of ditches where water levels have been raised using peat dams. Points can be added to record each dam location.

Please indicate in the comments whether pipes were also included in the dam along with details on the material and height at which the pipes were installed.

Activity code: **damptni**

GIS data type: polyline (and optional points)

Plastic dam no infill

Dams constructed of sheets of interlocking plastic for the purpose of raising water levels within ditches and where the length of the ditch between dams is not infilled or reprofiled. Lines should represent sections of ditches where water levels have been raised using plastic piling dams. Points can be added to record each dam location.

Please indicate in the comments whether pipes were also included in the dam along with details on the material and height at which the pipes were installed.

Activity code: **damppni**

GIS data type: polyline (and optional points)

Plastic piling raising water levels in an old peat cutting. Cors Fochno, Ceredigion. Photo: P.S. Jones.

Timber dam no infill

Timber dams in ditches not infilled or reprofiled. Dams constructed of timber for the purpose of raising water levels within ditches and where the ditch is not infilled or reprofiled. Lines should represent sections of ditches where water levels have been raised using timber dams. Points can be added to record each dam location.

Please indicate in the comments whether pipes were also included in the dam along with details on the material and height at which the pipes were installed.

Activity code: **damtini**

GIS data type: polyline (and optional points)

A timber dam used to block a former forestry drain in in the vicinity of the Nant Gwinau on a forest to bog restoration site in the Cambrian Mountains, with the intention of raising the water table of the surrounding peat.

Broad Activity Group	Activity_Type	Description of Activity	GIS data type	Activity_Code
Hydrologic restoration - Dams	Peat dam no infill	**Peat dams in ditches not infilled or reprofiled.** Dams constructed of peat for the purpose of raising water levels within ditches and where the ditch is not infilled or reprofiled. Lines should represent sections of ditches where water levels have been raised using peat dams. Points can be added to record each dam location.	Polyline (and optional Points)	damptni
Hydrologic restoration - Dams	Plastic dam no infill	**Plastic piling dams in ditches not infilled or reprofiled.** Dams constructed of sheets of interlocking plastic for the purpose of raising water levels within ditches and where the ditch is not infilled or reprofiled. Lines should represent sections of ditches where water levels have been raised using plastic piling dams. Points can be added to record each dam location.	Polyline (and optional Points)	damppni
Hydrologic restoration - Dams	Timber dam no infill	**Timber dams in ditches not infilled or reprofiled.** Dams constructed of timber for the purpose of raising water levels within ditches and where the ditch is not infilled or reprofiled. Lines should represent sections of ditches where water levels have been raised using timber dams. Points can be added to record each dam location.	Polyline (and optional Points)	damtini

Figure 22. Shows example pages from the Peatland Restoration Activities Glossary, the same interventions are presented in the extract of the reporting template which was the previous guide to the NPAP reporting protocol.