



Llywodraeth Cymru
Welsh Government

Sustainable Management Scheme

Working with
nature to secure
a sustainable
future



Cranfa Amsacthyddol Ewrop ar
gyfer Dechlynnu Gwledig
Ffwrp yn Bwlchiad mewn Ardaloedd Gwledig
European Agricultural Fund for
Rural Development
Europe Investing in Rural Areas



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gov.wales/sustainable-management-of-natural-resources-guide.pdf

www.legislation.gov.uk

gov.wales/sustainable-management-scheme-selected-projects-and-map

businesswales.gov.wales/walesruralnetwork/SMSprojectsmap

businesswales.gov.wales/walesruralnetwork/projects-list



The Sustainable Management Scheme (SMS)

The Sustainable Management Scheme (SMS) is delivered by the Welsh Government Rural Communities - Rural Development Programme 2014-2020, which is funded by the European Agricultural Fund for Rural Development and the Welsh Government. This scheme supports direct action on managing natural resources across Wales delivering against the approach and principles laid down in the Environment (Wales) Act 2016 & the Well-being of future Generations (Wales) Act 2015.

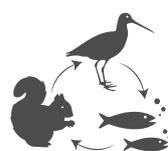
The SMS requires a collaborative approach to develop proposals for projects with a maximum of two to three year delivery phase. The purpose of the SMS is to support collaborative landscape scale projects delivering nature-based solutions to improve the resilience of our natural resources and ecosystems in a way that also delivers benefits to farm businesses and the health and well-being of rural communities. SMS projects are undertaking actions to enhance biodiversity; improve green infrastructure; sustain better land and water management and importantly, facilitate climate change adaptation and mitigation at landscape scale.

SMS collaborations include land owners, farmers and graziers who have seen the benefits working together can bring and have been inspired to work with new and traditional methods.

Projects involve partnerships and collaborations at a local level and landscape scale offering nature based solutions to tackle the decline in biodiversity and to improve the resilience of our ecosystems.

Enabling collaboration at the right scale (site, regional, catchment, landscape or ecosystem) and the right locations is vital to tackling issues and maximising benefits.

The SMS is designed to meet RDP Focus Area 4: Restoring, preserving and enhancing ecosystems dependent on agriculture and forestry by:



Restoring and preserving biodiversity, including Natura 2000 areas and high nature value farming, and the state of European landscapes,



Improving water management,



Improving soil management,



Carbon sequestration in agriculture and forestry.

Environment (Wales) Act 2016

Developing sustainability: tackling the climate emergency and the decline in biodiversity through part 1 of the Environment (Wales) Act and the Natural Resources Policy.

Part 1 of the Environment (Wales) Act sets out the 'sustainable management of natural resources' – an approach to managing Wales' natural resources and ecosystems to ensure that the benefits they provide for our social, economic, environmental and cultural well-being are available now and for future generations.

Why are we taking this approach?

- **It is international best practice for tackling the decline in biodiversity. It is about taking action across the whole landscape to build on our protected site network and our protected species. It also supports action on the threats to biodiversity.**
- **It is a key element in our response to tackling climate risk, complementing our technological solutions. Healthy and resilient ecosystems help to capture and store carbon and play a vital role in adaptation.**
- **When managed sustainably, natural resources and ecosystems are able to deliver a wide range of social, economic and environmental benefits, contributing towards the well-being goals.**
- **It enables the transformative, systemic change needed to tackle the climate emergency, the decline in biodiversity and enable Wales to develop sustainably.**

Between now and the end of the delivery period, June 2023, we expect to see and have seen actions contributing to very clear outcomes;

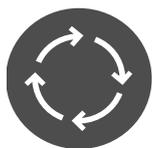
- **Increased carbon sequestration,**
- **Increased biodiversity,**
- **Improved natural flood risk management,**
- **Improved soil health & water quality all through these collaborative landscape scale catchment management projects.**

We also hope to see an increase in tree planting and management of our existing woodlands supporting the commitments to the national forest. All the actions contribute to the wider need for Climate Change Adaptation and to improve our Ecosystem Resilience through the sustainable management of our natural resources.

In addition to these outcomes we are also seeing outcomes for skills development, job creation and the retention of rural skills, heritage and Welsh Language. A number of the projects are now considering and focusing on the health and well-being benefits of the work they are doing, supporting community cohesion and community led local development.



The Sustainable Management Scheme is underpinned by the principles of Sustainable Management of Natural Resources set out in the Environment (Wales) Act 2016 part 1



Manage adaptively by planning, monitoring, reviewing and, where appropriate, changing action



Consider the appropriate spatial scale for action



Promote and engage in collaboration and co-operation



Make appropriate arrangements for public participation in decision-making



Take account of all relevant evidence and gather evidence in respect of uncertainties



Take account of the benefits and intrinsic value of natural resources and ecosystems



Take account of the short, medium and long term consequences of actions



Take action to prevent significant damage to ecosystems



Take account of the resilience of ecosystems, in particular the following aspects:

- diversity between and within ecosystems
- the connections between and within ecosystems
- the scale of ecosystems
- the condition of ecosystems (including their structure and functioning)
- the adaptability of ecosystems

The Natural Resources Policy

Nature Based Solutions

One priority in the Natural Resources Policy is to deliver Nature based solutions. SMS projects deliver the prioritised nature-based solutions and takes a place based approach in their delivery.

Nature based solutions are about using nature and natural processes to address our big challenges:

- **The climate emergency and the decline in biodiversity.**
- **Public health issues like air quality and to support our physical and mental health.**
- **They also form a vital part of our national infrastructure, providing multiple benefits and cost effective solutions to issues like flooding and water quality and supply.**
- **Supporting regeneration, inward investment and vibrant local communities.**

The following types of nature based solutions have been prioritised as they provide most impact for Wales:

- **Urban green infrastructure**
- **Natural flood management and catchment based approaches**
- **Upland restoration for a range of benefits**
- **Resilient ecological networks and**
- **The role of forestry and woodland in providing a range of benefits**



Support the development of resilient ecological networks to maintain and enhance the resilience of Wales' ecosystems.



Support climate change adaptation and mitigation, and flood risk management.



Enable collaboration at the right scale (be that site, regional, catchment, landscape or ecosystem).



Soil management for carbon storage and sequestration, water quality and continued productivity.



Communities are best placed to shape and understand local priorities and opportunities and to find practical solutions that bring the widest possible benefits.

Supporting people and places by taking a place based approach

A key part of the approach is not just ‘what’ we do, but how we do it. This priority is about drawing on the experience of people in their places, working with each other to develop new solutions and making sure that everyone benefits directly from our natural resources.

For example, that could be by working with each other across the landscape, nationally or at a more local level.

It will mean working differently to:



Build relationships across different sectors, organisations and within communities so that we collaborate in taking action.



Learn with and from each other.



Think about the scale that we need to take action, and join up across those scales.



Take new approaches to show if we are moving in the right direction.

SMS projects working with Area statements

Natural Resources Wales’ area statements will play a key role in taking forward place based approaches to help implement the priorities and opportunities in the Natural Resources Policy. They rely on successful collaboration which means NRW will work closely with partners and stakeholders to develop and implement them.



**Cyfoeth
Naturiol
Cymru
Natural
Resources
Wales**

Each Area Statement will evolve with regular updates adding new material and insight as NRW and its networks continue to engage with more people, gather new evidence and learn from implementing new ideas and opportunities. NRW’s website will be the gateway to access the latest insight into how they manage our natural resources more sustainably at a local level, what’s changing and what’s learnt from our engagement and collaboration so far. This in turn will feedback up to the State of Natural Resources Report.

The Well-being of Future Generations (Wales) Act 2015

The Well-being of Future Generations (Wales) Act is about improving the social, economic, environmental and cultural well-being of Wales. It will make the public bodies listed in the Act think more about the long-term, work better with people and communities and each other, look to prevent problems and take a more joined-up approach. This will help us to create a Wales that we all want to live in, now and in the future.



**LLESIANT
CENEDLAETHAU'R DYFODOL
WELL-BEING OF
FUTURE GENERATIONS**

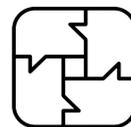
To make sure we are all working towards the same vision, the Act puts in place seven well-being goals.

SMS projects are designed around the WFGA. They implement the ways of working and contribute to achieving the Well-being goals:

'Wellbeing goals'



'Five Ways of Working'



1. Integration



2. Prevention



3. Collaboration



4. Long-term



5. Involvement

Project Outcomes

Each project carries out a wide variety of actions and nature based solutions which all support a wide range of different benefits delivering the following outcomes.



Carbon Sequestration – Facilitating the removal or capture of atmospheric carbon to slow down the accumulation of greenhouse gases through actions to capture carbon within our ecosystems.



Enhanced Biodiversity – Maintaining restoring and enhancing habitats to support a wide range of plant's animal & invertebrates.



Ecosystem Resilience – Increasing the resilience of our ecosystems through improving biodiversity, extent, condition, connectivity and adaptability results in a greater provision of ecosystem services.



Climate Change & Adaptation – Planning and implementing measures to adapt to the climate emergency.



Reduce Flood Risk – Natural processes to reduce the risk of flooding for our communities and landscape.



Rural Skills, Culture & Heritage – Supporting the wider adoption of sustainable or historic rural skills as well as increased awareness of a communities' heritage & language and retaining a greater sense of identity.



Community Cohesion – Supporting the local community, providing benefits through strengthening bonds within communities, building a sense of place, capacity building and encouraging local development.



Health & Wellbeing – Supporting people to connect with nature, building relationships, confidence and reducing stress through accessible green space.



Soil, Air & Water Quality – Implementing actions to reduce pollution, restore habitat, nutrient planning, soil husbandry and tree planting.



Development of Skills, Capacity & Expertise - Encouraging knowledge transfer and innovation for farm businesses and across the sector, building resilience and enhancing sustainability.

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Cambrian Wildwood

Lead organisation: Wales Wild Land Foundation CIC,

Email: admin@cambrianwildwood.org)

Grant Award: £566,024

Location: Machynlleth

Located in Bwlch Corog in the Cambrian Mountains, this project focuses on a 140ha area aiming to restore ecologically degraded and unproductive land to improve the wildlife and natural processes, which will benefit an overall area of 3,000ha and its surrounding communities.

The project will restore habitats connecting woodlands and heathlands helping to increase ecosystem resilience and improve the variety of wildlife. It will undertake activities such as blocking drainage grips and increasing woodland cover to help reduce and manage surface water flow, improve water quality, and increase carbon storage in soils and trees.

The project will also improve access to provide opportunities to exercise and enjoy nature. There are also plans for public engagement, opportunities for skill development, an educational programme for primary schools, courses for teenagers and activities on site, including volunteering.



Woodland management & Planting: 1000 native trees planted, with 2000 more planned

Peatland Restoration: several metres of drainage grips blocked & peatland re-wetting

Habitat restoration: Planned reintroduction of Native Species such as Water Vole

Educational Programmes: Engaged with 9 local primary schools

Sustainable Grazing: Low density grazing scheme with cattle and ponies

Volunteer Programmes: Numerous volunteers involved in habitat restoration activities

Increased access to outdoor spaces: Public rights of way cleared and opened up

Volunteer Programmes: Building a volunteer hub using green infrastructure construction methods

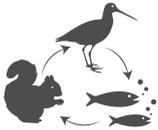
Community Engagement: Nature Arts Drop will distribute activity packs to 600 at risk children and young people



Carbon Sequestration - supported by the restoration and creation of woodland, restoring peatland and introducing low density grazing methods.



Climate Change Adaptation - supported by the restoration and creation of woodland, restoring peatland and introducing low density grazing methods.



Increased Biodiversity - supported by the restoration and creation of woodland, restoring peatland, introducing low density grazing methods and reintroduction of native species.



Ecosystem Resilience - supported by the restoration and creation of woodland, restoring peatland, introducing low density grazing methods and reintroduction of native species.



Reduced Flood Risk - supported by the restoration and creation of woodland and restoring peatland to slow the flow.



Soil, Air & Water Quality - supported by restoration & creation of woodland, peatland restoration and introducing low density grazing methods.



Health & Wellbeing - supported by an education programme, volunteer programmes and clearing of public footpaths.



Community Cohesion - supported by an education programme, volunteer programmes, clearing of public footpaths and building a green infrastructure community hub.



Rural Skills & Heritage - supported by an education programme, volunteer programmes, clearing of public footpaths and building a green infrastructure community hub.



Development of Skills Capacity & Expertise - supported by an education programme, volunteer programmes and building a green infrastructure community hub.

Get Involved – If you would like to be involved in the conservation efforts at Bwlch Corog, you can find more information on their website or the following social media pages, or attend one of their monthly volunteering days once they have resumed.

Managing Resources Sustainably in the Black Mountains

Lead organisation: Brecon Beacons National Park Authority

Email: Bradley.Welch@beacons-npa.gov.uk

Grant Award: £1,004,155

Location: Black Mountains, Brecon Beacons National Park

A collaborative project from the Black Mountains Land Use Partnership, engaging local landowners, graziers and regulatory bodies. The project aims to bring about positive social, economic and environmental change through sustainable land management across the Black Mountains Landscape. Project activities will include bracken management, heather regeneration and the protection of peat resources. Planned improvements to livestock access will help with stock management and provide a better visitor experience to the area.

The focus will be on peatland and bracken management in tandem with improving the visitor experience in the area and engaging local communities who will be involved through developing a rural skills programme, engagement with schools and the creation of employment opportunities.

The partnership aims to improve the resilience of ecosystems in the project area, alongside sustainably managing for grazing livestock, to look at the protection of natural capital such as water and soil, wildlife and biodiversity, and the wellbeing and economic health of those who live and work in this iconic area. Phil Stocker, BMLUP Chair, “Achieving a balance that meets the needs of graziers, tourism providers and landowners, while at the same time protecting the landscape for future generations can only be done through collaboration.



The project covers an area of 24,600ha and engages with land owners, graziers, Brecon Beacons National Park and the local community. The outputs from the project have delivered significant outcomes for the sustainable management of our natural resources, such as over 200 people have visited the Black mountains through scheduled educational visits, giving the local communities access to the landscape while learning about their environment, its management and its diversity. Jobs have been created to carry out the extensive landscape management such as peatland restoration, heather & bracken management to restore the quality of habitats. Extensive works to control erosion and grip blocking on strategic sites to stabilise peat resources within the National Park. A range of materials will be used for restoration works in eroded peat/mineral soil areas to improve bog condition in erosion scar revegetation trials.

The partnership have developed a successful ambassador programme, positively engaging with local businesses through the ambassador programme helping the partnership to develop a deeper understanding of the communities, the environment and the economies that underpin these types of landscapes. The project has a long term sustainability plan to continue the work this initiative has started enabling future generations to manage, work and enjoy the environment that is the Black Mountains.



Building collaborations & partnerships:

Convening over 50 farmers and graziers

Habitat restoration:

Bracken management programme has covered 490 ha so far

Habitat restoration: Heather habitat and regeneration management

Peatland Restoration: 66 ha of peatland restored and 105 ha of peat rewetted

Educational Programmes: Told the story of the black mountains to 2810 school children

Rural Skills and Heritage: Developing a rural skills programme with 13 qualifications awarded so far

Community engagement: Implementing a Black Mountains ambassador scheme 50 ambassadors

Increased Access to Outdoor Spaces: Increased access and an enhanced visitor experience signage and education boards put up across the landscape

Training & job creation: 3 full time jobs created

Community engagement: 951 people involved in community engagement

Peatland Restoration: 32 peatland plots identified through revegetation trials

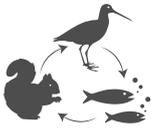
Increased Access to Outdoor Space: 3.2km of access paths restored & opened



Carbon Sequestration - supported by farmer collaboration and partnership working farmers, restoring peatland, rewetting peat and revegetation trials.



Climate Change Adaptation - supported by restoring peatland, rewetting peat and revegetation trials.



Enhanced Biodiversity - supported by a bracken management programme, heather habitat and regeneration management and restoration of access paths.



Ecosystem Resilience - supported by a bracken management programme, heather habitat and regeneration management, peat rewetting and revegetation trials.



Reduced Flood Risk - supported by peatland restoration to slow the flow.



Soil, Air & Water Quality - supported by peatland restoration and peat rewetting.



Health & Wellbeing - supported by engaging with schools, a rural skills programme, increased access to nature and restoration of access paths.



Community Cohesion - supported by farmer collaboration and partnership working farmers, engaging with schools, a rural skills programme, the BM ambassador scheme, increased access to nature, job creation, community engagement and restoration of access paths.



Rural Skills & Heritage - supported by farmer collaboration and partnership working farmers, a rural skills programme, the BM ambassador scheme and job creation.



Development of Skills Capacity & Expertise - supported by farmer collaboration and partnership working farmers, a rural skills programme, the BM ambassador scheme, job creation and revegetation trials.

Get Involved – Brecon Beacons NPA have a long history of working with volunteers, who enjoy a varied mix of activities, from taking part in site surveys to organising ecological data. If you are interested in volunteering with the national park, please phone the Volunteer Development Officer on 01874 624437.

Collaborative Sustainable Natural Flood Risk Management on the River Clwyd

Lead organisation:

Cadwyn Clwyd Cyfyngedig

Email: sarah.jones@cadwynclwyd.co.uk

Grant Award: £330,000

Location: River Clwyd, Pwllglas, south of Ruthin to Bod Petryal, outskirts of Clocaenog forest

A landscape scale project to reduce peak flows into the river Clwyd and improve biodiversity through natural land based interventions and understanding their wider benefits if applied across the larger catchment. The longer term aim is to better understand the opportunity for collaboration between farmers, landowners and the public in habitat creation, reducing flood flows and improving water to benefit the local area. The project will aim to help deliver longer term solutions to the flooding issues affecting people and businesses in the area.

The collaborative group of farmers in the area are planting and restoring hedges, creating small woodlands and building leaky dams on hillside streams to hold back floodwater surges in the upper reaches of the rivers Clwyd and Elwy rivers.

Capital works have been carried out with over 3.5 kilometres of hedgerows planted, and 1,400 trees planted in the strategic small woodland areas with individual trees planted at intervals within the new hedgerows. Much of the planting being done by local volunteers as part of the community engagement work.

The Project focuses on actions, which stimulate grass-root participation, partnership working and innovation, supporting rural communities and sector groups. Working directly with local communities to assist in the development and implementation of projects, which benefit the area's local economy.

Natural flood risk management:

Reduced peak flows into the river Clwyd

Habitat restoration: 8000m of new or renovated hedgerows

Woodland management & Planting:

1400 trees planted in strategic places

Habitat restoration: Building ponds and wetlands

Natural flood risk management:

Shelter belt creation and buffer strips

Woodland management & Planting:

Woodland creation

Soil Quality Management:

Aeration of soil

Reducing Agricultural Pollution:

Work on field boundaries to protect waterways from agricultural pollution

Natural flood risk management:

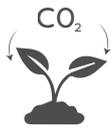
Soft engineering work on areas of river bank erosion

Reducing Agricultural Pollution:

Managing stock access to water courses

Natural flood risk management: Leaky dams and woody debris dams

Volunteer Programmes: Involving community volunteers in the nature based solutions



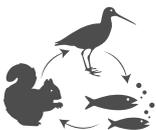
Carbon Sequestration - supported by hedgerow renovation, tree planting, shelter belt and buffer strip creation and woodland creation.



Climate Change Adaptation - supported by woodland creation.



Climate Change Adaptation - supported by peat sensitive planting.



Increased Biodiversity - supported by hedgerow renovation, wetland creation and woodland creation.



Ecosystem Resilience - supported by hedgerow renovation, wetland creation, shelter belt and buffer strip creation and woodland creation.



Reduced Flood Risk - supported by reduced peak flows, wetland creation, soft engineering works, stock access management and leaky dams.



Soil, Air & Water Quality - supported by hedgerow renovation, tree planting, woodland creation, soil aeration, work on field boundaries and stock access management.



Health & Wellbeing - supported by volunteer programmes .



Rural Skills & Heritage - supported by volunteer programmes and traditional methods.



Development of Skills Capacity & Expertise - supported by volunteer programmes.

Get Involved – Cadwyn Clwyd and the North East Wales Local Action Groups (LAGs) are keen to work with other partners from elsewhere in Wales, the UK or wider EU. They are open to discussing possible cooperation projects with other LAGs.

Fferm Ifan Ecosystem Service Improvement Scheme

Lead organisation: Fferm Ifan

Grant Award: £696,352

Email: ffermifan@gmail.com

Location: Upper Conwy catchment

A collaborative farmer led project taking landscape scale action on land management to improve ecosystem resilience and the services they provide. Fferm Ifan is a cooperation of 11 tenant farmers based on the Ysbyty Ifan estate. Fferm Ifan farmers seek to improve and manage natural resources in a more sustainable and efficient way. The project covers approximately 2,456 Ha and includes new targeted land management actions which will also deliver socio-economic benefits to the 11 farms and to the wider rural community Fferm Ifan live within. The farmers have grazing rights to the Migneint, one of the largest areas of blanket bog in Wales, which is designated as a Site of Special Scientific Interest, Special Area of Conservation and Special Protection Area.

As part of the work the Centre for Ecology and Hydrology (CEH) are providing guidance on catchment sensitive planting. They will be planting more farmland trees and hedgerows along streams to help protect riverside habitats, reduce soil erosion and alleviate flood risk downstream. Ditch blocking on the Migneint will continue and help raise the water table, store carbon and will also reduce flood risk in the Conwy Valley.

The farmers are also taking part in grazing trials to encourage more biodiversity and wildlife in the peatland. As part of the grazing trials, cattle have been introduced to the Migneint for the first time in living memory and there are plans in place to restore habitat to encourage more lapwings and curlews to breed successfully in the area.

The group is also working closely with a number of partners including the National Trust, Snowdonia National Park Authority, RSPB, Centre for Ecology and Hydrology, Bangor University and Natural Resources Wales in order to share ideas and learn from the expertise and experience of the partners.





An exciting element of the project will be looking into developing new markets for the non-food products of sustainable land management – clean, slow water, carbon storage and thriving biodiversity. The main aim of the group is to work together to ensure that the future generations of these traditional farming families can continue to thrive within this Welsh-speaking upland community.

Habitat Restoration: Identifying & Restoring upland habitat to encourage & sustain lapwing and curlew populations on the Migneint with bird surveys and monitoring ongoing

Peatland Restoration: Restoration of the Migneint Blanket Bog through 10,000m of peatland ditches blocked and 100 ha of land to be re-wetted

Reducing Agricultural Pollution: Fencing off water courses to keep stock out, improving water quality to the river Conwy. Soil testing of approximately 240 improved grassland fields surrounding the Migneint to ensure efficient planning for nutrient, soil and water management

Natural flood Risk Management: Grip blocking and re-wetting, 5.3 ha of new trees planted, 800m of streamside corridors and 10,000m of hedgerows

Sustainable Grazing: Reintroduction of cattle for low level sustainable grazing to increase biodiversity and improve peatland habitat

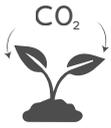
Woodland Management & Planting: Creating new woodland, providing 5.3 ha of new tree cover targeted through catchment sensitive planting

Rural Skills and Heritage: Training courses on traditional and new farming methods with 22 training days already completed

Building Collaborations & Partnerships: Working with organisations to provide guidance and education working with the National Trust, Snowdonia National Park Authority, Brecon Beacons National Park Authority, RSPB, CEH, and NRW to share ideas and learn from the expertise and experience of the partners

Training & Job Creation: Training on how to effectively monitor the peatland vegetation by the farmers, enabling results to be recorded

Knowledge Transfer & Innovation (KT&I): Development of Payments for Ecosystem Services to define, measure and assess ecosystem services and determine market value. Carbon footprint measurement, measuring and looking at the groups' carbon footprint compared to similar farms across Wales



Carbon Sequestration - supported by restoration of blanket bog, catchment sensitive planting and planting of farmland trees and riparian hedgerows.



Enhanced Biodiversity - supported by the reintroduction of cattle and restoration of habitats.



Ecosystem Resilience - supported by the restoration of habitats, fencing along rivers, catchment sensitive planting and the planting of farmland trees and hedgerows.



Reduced Flood Risk - supported by restoration of blanket bog, grip blocking and re-wetting and planting of farmland trees and riparian hedgerows.



Soil, Air & Water Quality - supported by restoration of blanket bog, fencing along rivers, grip blocking and rewetting and planting of farmland trees and hedgerows.



Rural Skills & Heritage - supported by an education programme, volunteer programmes, clearing of public footpaths and building a green infrastructure community hub.



Community Cohesion - supported by job creation, engagement activities with local schools and the general public and development of engagement tools.



Development of Skills Capacity & Expertise - supported by training courses on farming methods and working with organisations to provide guidance and education.



Climate Change Adaptation - supported by restoration of blanket bog, planting of farmland trees and riparian hedgerows.

Get Involved - If you would like to see what the Fferm Ifan farmers have achieved please see the website.

Realising the Natural Capital of Welsh Peatlands

Lead organisation:

Snowdonia National Park Authority

Email: rhys.owen@eryri.llyw.cymru
Marian.Pye@eryri.llyw.cymru

Grant Award: £924,956

Location: Pan Wales

A project, taking collaborative action with stakeholders, including communities, to transform and improve peatlands across Wales. Improvements include ecological stability and long-term sustainable management of peatlands. It is hoped to deliver the project on spatial (e.g. catchments) and sectoral (e.g. protected sites) scales, as well as developing the expertise and capacity of partners to deliver peatland restoration.

This project will help deliver the 2020 target to bring peatlands into sustainable management. Coordinated action will deliver multiple environmental benefits through collaboration with existing mechanisms together with capital works covering the current 'difficult to do' sectors of peatland restoration, leading to longer term sustainable management supported through Payment for Ecosystem Services (PES). Other critical activities will lead to more coordinated and coherent approaches covering external funding, training, education, PES procurement, monitoring and research activities relevant to Welsh peatlands.

On behalf of the Welsh Peatland Action Group, the project is led by Snowdonia National Park Authority, in partnership with Brecon Beacons National Park Authority, Centre for Ecology and Hydrology, IUCN UK Peatland Programme, Montgomeryshire Wildlife

Trust, the National Trust, Natural Resources Wales, and Swansea University. The crux of this project is to secure sustainable management of our peatland resource across Wales, thereby maintaining or setting habitats on the path to good favourable condition; to identify the benefits of building resilience to these ecosystems and deliver a range of critical ecosystem services.

The project provides a strong opportunity to extend on progress with erosion restoration, focussing on re-vegetation, hydrological manipulation to prevent persistent drainage along erosion features, bracken control and visitor management.

This pan Wales project, focus on tackling some of the most 'difficult-to-do' areas of peatland restoration, including:

- **Sustainable management of lowland peatlands**
- **Sustainable management of *Molinia* dominated upland peatlands**
- **Peat soil erosion**
- **Peatland drainage**
- **Sustainable management of heather dominated blanket mire**
- **Afforested peat**
- **Peat heavily modified by agriculture**



Working with Snowdonia Society volunteers - Dan Struthers Photography copyright

Snowdonia National Park holds around 30% of Wales' peatlands, with over 25,000 hectares of peat, and an estimated 17 million tonnes of carbon. The vast majority of these habitats are a globally rare type of peatland: 'blanket bogs' (upland peatlands 'blanketing' the hillsides).

Some 3500 hectares of these peatland habitats are found between the Carneddau peaks in the north of Snowdonia, with large blanket bogs on the slopes of Llwytmor and Foel-Grach. Historically, these peatlands have been heavily grazed which, when combined with the natural drainage off the mountains, has led to significant erosion and loss of carbon. Large peat 'haggs' - bare, cliff like formations that expose the underlying peat soil - have formed on the blanket bogs, draining the peat and triggering a huge release of greenhouse gases.

Nowadays, the mountain landscapes of the Carneddau are grazed at much lower levels, with protections in place for delicate montane habitats and, of course, the iconic Carneddau ponies.

To reverse the effects of erosion work will be undertaken to re-vegetate vulnerable areas, slow the flow of water and restore the peatland. The work will greatly reduce the greenhouse gas losses as well as improving water storage in the surrounding peatland.

Knowledge Transfer & Innovation (KT&I): Development of a Payment for Ecosystem Services (PES) strategy and a research platform for peatlands that enables better coordination of research efforts

Peatland Restoration: Identified over 40 peatland sites across Wales and prepared and validated Peatland Code projects available for investment and restoration

Training & Job Creation: Created jobs and implemented a best practice training programme for peatland practitioners

Knowledge Transfer & Innovation (KT&I): Development of the peatland Code

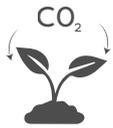
Building Collaborations & Partnerships: Peatland action group established and successful partnership with IUCN

Habitat Restoration: Peatland restoration action focussing on the core 'difficult-to-do' areas of lowland peatlands

Educational Programme: Engagement activities have been delivered with school pupils, students and the general public

Community Engagement: Development of engagement and interpretation tools

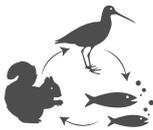
Training & Job Creation: Development of training and delivery of a standards charter for peatland restoration



Carbon Sequestration – supported by upland & lowland peatland restoration and identification of peatland sites to be brought into favourable condition, locking in carbon and reducing loss.



Climate Change Adaptation – supported by developing a PES strategy, preparing 10 Peatland Code projects, establishing the peatland action group, lowland peatland restoration and identification of peatland sites to ensure resilience.



Enhanced Biodiversity – supported by establishing the peatland action group to share best practice, upland & lowland peatland restoration and identification of peatland sites across Wales.



Ecosystem Resilience – supported by developing a PES strategy, preparing 10 Peatland Code projects, establishing the peatland action group, lowland peatland restoration and identification of peatland sites to ensure resilience.



Reduced Flood Risk – supported by identifying locations where peatlands could play a role in sustainable flood risk management schemes. Through the PES strategy, upland & lowland peatland restoration and identification of peatland sites across Wales.



Soil, Air & Water Quality – supported by developing a PES strategy, preparing 10 Peatland Code projects for investment developing the Peatland Code, establishing the peatland action group, upland & lowland peatland restoration and identification of peatland sites.



Health & Wellbeing - supported by engagement activities with local schools and the general public. Engaging people with nature through open access peatland sites.



Community Cohesion - supported by job creation, engagement activities with local schools and the general public and development of engagement tools.



Development of Skills Capacity & Expertise - supported by developing a PES strategy and job creation. Sharing best practice and innovation through the peatland action groups.

Get Involved – The Snowdonia National Park Authority have many volunteering opportunities and will provide any training and equipment required for the role.

 www.snowdonia.gov.wales/looking-after/projects/peatland-restoration-in-snowdonia

Powys Moorland Partnership

Lead organisation:
Ireland Moor Conservation Ltd

Email: will@irelandmoor.com

Grant Award: £600,000

Location: Powys

A large landscape scale project to encourage moorland restoration through bottom-up collaborative action driven by communities living and working on and around the moors. It seeks to realise multiple benefits including public health, skills sharing and education. Key stakeholders including landowners, farmers, and communities have created a vibrant moorland environment to boost biodiversity, delivering economic and social benefits. The project aim was to create an exciting strategic initiative in Powys and realise the full potential of nearly 20,000 acres of moorland stretching from the Llan Valley in the South to Beguildy common in the North. This area is enjoyed by local communities as well as tourists.

The project was built around four main aims; to promote moorland biodiversity, to better manage heather habitats, to balance moorland recreation with natural resources and wildlife and to engage with local communities.

The decline in the moorland biodiversity was due to a combination of factors and through a series of moorland management practices and new conversations with the surrounding community, the aim was to reverse that decline through a collaborative approach.



The project put a management plan in place to restore the health of the landscape. Red grouse are a key indicator species on the heather moorland and are in fact the only wild indigenous bird to live there 12 months of the year. Not only can the condition of the moorland be restored to improve the breeding opportunity for ground nesting birds, brown hares and multiple invertebrates, but it also aimed to deliver ecosystem services including carbon sequestration, water retention and flood risk alleviation.

Typically the vegetation on these moorlands comprises a mosaic of dwarf shrubs such as ling, bilberry, crowberry, and bell heather interspersed with bracken, common sedge and gorse. In the wetter areas cross-leaved heath, purple moor-grass, bog asphodel, cotton grass and the insectivorous sundew can be found with an under storey of mosses, often including carpets of sphagnum species.

The Powys moors are used extensively by walkers, horse riders, dog walkers, motorbike riders, 4X4 vehicles and the project are running a programme of talks to educate each group so that their recreation is not at the expense of the wildlife or damaging the landscape. By implementing innovative tools to better explain Open Access to encourage people to use the land responsibly particularly during the spring bird breeding season.

A key principle of the project is to achieve a workable and long-term balance between nature and people, through a collaboration of all interested parties, engaging with & generating participation from multiple local stakeholders so that everything from bird life to tourism has an opportunity to thrive.

The Powys Moorland Partnership aligns to the Wellbeing of Future Generations Act (2015) seeking to improve the social, economic, environmental and cultural wellbeing of Wales. Bird recording, arts & music, wellbeing workshops, citizen science, and traditional skills of the uplands are some of the activities that the project attracts to help people understand some of the challenges that our landscapes face. Working with mental health charity MIND, the project is taking groups out onto the various moorlands to help improve the wellbeing of people who don't normally get out into this beautiful landscape.

As the project comes to a close PMP have been reflecting on their project and how the collaboration and the landscape can be supported for the future ensuring long term sustainability.

Building Collaborations & Partnerships:

Facilitating the Powys Moorland partnership bringing landowners and graziers together to achieve multiple goals

Habitat Restoration: Upland heath restoration and bracken management programme, helping to restore major areas of the 24,600 ha sites.

Training & Job Creation: 2 full time wardens employed to manage the diversity on the moor

Natural Flood Risk Management: Pond & Swale creation for ground nesting birds on the hills

Training & Job Creation: Provision of training courses to support sustainable management of the uplands

Sustainable Grazing: Native Carneddau pony grazing across the hill to improve biodiversity

Educational Programmes: Connecting local school children with moorland keepers, graziers, storytellers and historians

Community Engagement: Working with mental health charity MIND, taking groups for walks around the moorlands

Community Engagement: Implementing tools to better explain Open Access, to encourage responsible use of the land

Habitat Restoration: Creating a mosaic of heather habitats, ffridd, ponds & swales to improve resilience across the moor

Habitat Restoration: Sensitive rotational cutting and burning to help regenerate heather, reduce bracken growth and reduce fire risk

Knowledge Transfer & Innovation (KT&I): Started a wader protection scheme and seasonal bird counts to survey biodiversity, monitor success and share best practice

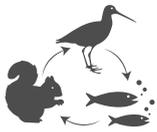
Community Engagement: Running recreational activities and a programme of talks to educate various groups of land users



Carbon Sequestration – supported by upland heath restoration, a bracken management programme, pond and swale creation and sustainable pony grazing.



Climate Change Adaptation – supported by upland heath restoration, a bracken management programme, pond and swale creation and sustainable pony grazing.



Enhanced Biodiversity – supported by upland heath restoration, a bracken management programme, pond and swale creation, sustainable pony grazing, creating a mosaic of heather, rotational cutting and burning and a wader protection scheme to monitor the diversity.



Ecosystem Resilience – supported by upland heath restoration, a bracken management programme, pond and swale creation, sustainable pony grazing, creating a mosaic of heather, rotational cutting and burning and a wader protection scheme.



Reduced Flood Risk – supported by natural flood risk management, pond and swale creation and slowing the flow.



Soil, Air & Water Quality – supported by upland heath restoration, sustainable grazing and pond & swale creation.



Health & Wellbeing – supported by training courses, educational programmes, collaboration with mental health charities, implementing tools to explain open access, running recreational activities and a programme to educate groups of land users.



Community Cohesion – supported by upland heath restoration, employing wardens, training courses, seasonal bird counts, educational programmes, collaboration with mental health charities, implementing tools to explain open access, running recreational activities and a programme to educate groups of land users.



Rural Skills & Heritage – supported by upland heath restoration, employing wardens, training courses, engaging with local stakeholders, educational programmes and running recreational activities.



Development of Skills Capacity & Expertise – supported by employing wardens, training courses, engaging with local stakeholders, educational programmes, implementing tools to explain open access and running a programme to educate groups of land users.

Get Involved - If you would like to get involved with the Powys Moorland Partnership or have some ideas to contribute, please contact Catherine on urmyc.sdnalroomsywop@tcatnoc

Golygfa Gwydyr: People and Forest

Lead organisation: Golygfa Gwydyr

Email: rogerd@golygfagwydyr.org

Grant Award: £232,478

Location: Conwy

Golygfa Gwydyr is a social enterprise based in Llanrwst, North Wales. They are a non-profit, community led organisation. Within the context of local community and place, their aim is to enhance social, environmental and economic resilience and to provide opportunities for personal growth and vibrant community relations.

This project has restored, developed and managed a 3 hectare arboretum and sustainably manage an 11 hectare mono-culture conifer plantation (Caerdroia) plot delivering multiple benefits for the environment and the local community. This project is a community focused project which is hoping to build on the skills, development and capacity building started and achieved under the Welsh Government's Nature Fund. At its heart is the management and usage of land resources to improve bio diversity, create resilience of our ecosystems while improving recreation facilities, access, and build communities with enhanced wellbeing and sense of place.

The need of the project stems from the wide floodplain of the Conwy Valley it mostly accommodates increased flows, but in times of very high rainfall, run-off from the north-east of Gwydyr Forest it can accumulate on the Afon Conwy flood plain between the river and B5106 road contributing to increased instances of flooding in this area of the Conwy Valley.



The project will use innovative solutions to slow down the flow of water from the forest by attenuation by natural flood risk management measures such as woody debris dams. Success will be indicated by reducing the quantity of water reaching the valley floor over a given period of time. The project will aim to use natural forest resources, felled trees and brash, and design and create areas for water retention.

The aim of this SMS project is to increase the biodiversity within the site by managing the woodland with a greater focus on amenity and biodiversity as opposed to the production of timber. This will create a valuable community/ tourism facility delivering resources for wellbeing and economic return for the community.

The predicted community, health & wellbeing outcomes of the project are; to increase individual and community participation in projects by addressing barriers to participation, to promote and develop skills within the community, to support social inclusion, to provide opportunities for advancing individual and community wellbeing, to provide opportunities for volunteering and training, to further the principals of Social Forestry in Wales.

Citizen Science will also be utilised to encourage local schools and community groups to take part in monitoring flows and rainfall to determine efficiency of the NFRM measures and to provide evidence for future projects.

Woodland Management & Planting:

Restoring and managing land across 2 sites to improve biodiversity

Volunteer Programmes:

Volunteer programme with green woodworking activities and accredited training courses

Training & Job Creation:

Running a job club and providing training courses to improve skills and support the local community

Protection from Invasive Species:

Removal of invasive species within the Conwy catchment

Community Engagement:

Running recreational programmes and utilising citizen science to monitor flows and rainfall

Natural Flood Risk Management:

Natural flood risk management including woody debris dams

Woodland Management & Planting:

Community woodland management and wood-fuel service

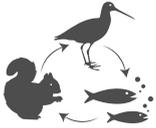




Carbon Sequestration – supported by woodland restoration, natural flood risk management and community woodland management.



Climate Change Adaptation – supported by woodland restoration, citizen science to monitor rainfall, natural flood risk management and community woodland management.



Enhanced Biodiversity – supported by woodland restoration, removal of invasive species, natural flood risk management and community woodland management.



Ecosystem Resilience – supported by woodland restoration, removal of invasive species, natural flood risk management and community woodland management.



Reduced Flood Risk – supported by woodland restoration, nature based solutions, citizen science to monitor rainfall and natural flood risk management.



Soil, Air & Water Quality – supported by woodland restoration, removal of invasive species, citizen science to monitor rainfall, natural flood risk management, community woodland management and a wood-fuel service.



Health & Wellbeing – supported by volunteer programmes, training courses, citizen science, recreational programmes and a job club.



Community Cohesion – supported by woodland restoration, volunteer programmes, training courses, citizen science, recreational programmes and a job club.



Rural Skills & Heritage – supported by woodland restoration, volunteer programmes, training courses, citizen science, recreational programmes, community woodland management and a wood-fuel service.



Development of Skills Capacity & Expertise – supported by volunteer programmes, training courses, citizen science, a job club, community woodland management and a wood-fuel service.

Get Involved - The project is based in rural Conwy and will be open to all Conwy residents. People will be needed to help manage these sites and develop projects to get people together and out in the woods. Please refer to the volunteering section of their website if you wish to help.

Tir a Môr Llŷn – Land and Sea

Lead organisation: Cyngor Gwynedd Council

Grant Award: £700,000

Email: arweljones@gwynedd.llyw.cymru

Location: Llŷn Peninsula

This collaborative project led by the Llŷn Landscape Partnership brings together statutory, environmental, economic and social groups. The project is centred on addressing the challenges impacting on the natural resources in the area that communities within the Llŷn Peninsula rely on.

The landscape of the Llyn peninsula is recognised as An Area of Outstanding Natural Beauty (AONB). This designated exceptional landscape with its distinctive character and natural beauty is of significant importance and is to be safeguarded in the national interest. Despite this, the coastal belt has become progressively pressured over the decades in the face of several changes, including agricultural improvement, abandonment of grazing on common land, visitor pressure and environmental factors including climate change.

The Tir a Môr Llyn project has counteracted some of these threats and has developed and delivered targeted actions to maintain and expand an extensive continuous strip of diverse habitat around the coastline. This will provide an invaluable resource that will help to safeguard the marine and terrestrial environments as well as developing a significant economic and social resource when aligned with the development of the Wales Coast Path.

The partnership has developed a collaborative and cooperative approach on a local level, allowing all involved to engage, develop and implement practical work plans. Time will be spent on engaging the wider community through holding local events and engaging local schools to raise awareness of the benefits of the work.



The Project will also be exploring the concept of ‘payment for outcomes’ with the help of three National Trust tenant farmers. The aim is to create a model and encourage the wider community to pilot and run the new approach.

This project trials different interventions such as herbal leys and hay meadows, making the case for undertaking further strategic action to protect, restore and connect this vulnerable habitat in partnership with landowners and graziers in the future.

The Payment for outcomes’ model, with the help of three National Trust farms, aim to create a model and encourage further farms to pilot and run the new approach, it is hoped this will result in implementing a whole farm result based agri-environmental scheme that rewards farmers for delivering environmental outcomes and benefits.

Empowering farmers to develop, implement and self-monitor their actions to deliver economic, environmental and social objectives on their farms to sustain their business. Implementing multi-agency delivery models to improve water quality on river catchments that bring wider benefits to the marine and coastal environment.

The project really aims to disseminate lessons learned from the project to a wide variety of stakeholders, using traditional and digital methods.



Habitat Restoration: Maintain and expand a continuous strip of diverse habitat along the Llŷn Peninsula, creating connectivity corridors linked to the Wales coastal path

Protection from Invasive Species: Develop good practice in catchment management and invasive species control

Community Engagement: Holding local events and engaging local schools with beach cleans by the local community

Coastal Zone Management: Developing resilience and connectivity along the coastline by working closely with farmers and landowners and implementing diverse habitat restoration

Sustainable Grazing: Managing land effectively by sustainable grazing with cattle and ponies wherever possible

Building collaborations & partnerships: Developing a stronger working relationship between farmers and specialists to improve soil, air & water quality

Knowledge Transfer & Innovation (KT&I): Developing and implementing the first Welsh Payment for Outcomes farming trial, working with farmers to develop, implement and self-monitor their actions to deliver economic, environmental and social objectives on their farms

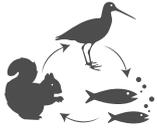
Educational Programmes: Developing new educational resources with project partners to share a greater understanding of the connectivity between the terrestrial and marine environments



Carbon Sequestration – supported by maintenance of diverse habitat, developing connectivity corridors along the coastline, sustainable grazing and developing relations between farmers and specialists to improve soil, air and water quality.



Climate Change Adaptation – supported by maintenance of diverse habitat, developing connectivity corridors along the coastline, sustainable grazing, development of a Payments for Outcomes farming trial and developing educational resources to increase understanding of the interconnectedness of terrestrial and marine environments.



Enhanced Biodiversity – supported by maintenance of diverse habitat, invasive species control, developing connectivity corridors along the coastline, sustainable grazing and creating educational resources to increase understanding of the interconnectedness of terrestrial and marine environments.



Ecosystem Resilience – supported by maintenance of diverse habitat, invasive species control, engaging local schools with beach cleans, developing connectivity corridors along the coastline and creating educational resources to increase understanding of the interconnectedness of terrestrial and marine environments.



Soil, Air & Water Quality – supported by maintenance of diverse habitat, beach cleans and developing relations between farmers and specialists to improve soil, air and water quality.



Health & Wellbeing – supported by maintenance of diverse habitat along the Wales coastal path and creating educational resources to increase understanding of the interconnectedness of terrestrial and marine environments.



Community Cohesion – supported by maintenance of diverse habitat, holding local events, engaging local schools with beach cleans, developing relations between farmers and specialists and creating educational resources.



Rural Skills & Heritage – supported by engaging local schools with beach cleans, working with farmers and landowners to develop connectivity corridors along the coastline and encouraging historic farming techniques.



Development of Skills Capacity & Expertise – supported by invasive species control, engaging local schools with beach cleans, development of a Payments for Outcomes farming trial and creating educational resources to increase understanding of the interconnectedness of terrestrial and marine environments.

Get Involved – If you would like to learn more or get involved in the work being done by the Llŷn Landscape Partnership, you can find more information at:

Our River Wellbeing: Nature Based Solutions in the Dee Catchment

Lead organisation:
North Wales Wildlife Trust

Email: helen.carter-emsell@northwaleswildlifetrust.org.uk

Grant Award: £700,000

Location: River Dee catchment in North Wales

As part of North Wales Wildlife Trusts Living Landscape strategy, the Our River Wellbeing Project was created to embody the NWWT's approach to the movement of people working together for wildlife with the project focusing on the health and wellbeing of Volunteer River Guardians while tackling invasive non-native species (INNS) for the sustainable management of the Dee Catchment.



The project focuses on the control, removal, and the prevention of the spread of INNS within this large catchment. The River Dee catchment is 110km long containing the Rivers Dee, Alyn, Alwen, Clywedog, Ceiriog, Wych and Tryweryn and Lakes Bala, Brenig, Celyn and the Alwen Reservoir. There is a significant amount of designated areas throughout the catchment, an Area of Outstanding Natural Beauty, a RAMSAR site, three National Nature Reserves, three Special

Areas of Conservation and thirty three Sites of Special Scientific Interest. The area is also renowned for its landmarks, as well as its excellent fishing and canoeing hotspots, all of which bring in visitors from all over the world.

INNS have been recognised as one of the top threats to biodiversity they can:

- Compete with native species for space, light, water, and food
- Increase our environments vulnerability to further invasions
- Reduce our ability to access and enjoy water bodies for sport and recreation
- Negatively impact tourism & the local economy
- Slow down the flow of rivers and increase flood risk and damage infrastructure.



The project collaborate with several action groups and have developed a River Guardian Network; a group of dedicated volunteers who meet regularly carrying out a wide variety of activities, including vital survey work along the River Dee and its tributaries collecting data to allow for strategic interventions to be most effective. Large scale INNS removal is implemented by the project clearing significant areas of invasive species such as Himalayan Balsam and Japanese Knotweed.

Volunteers through the project funding are given the opportunity to access accredited and unaccredited training. The project regularly runs volunteer sessions in traditional skills such as coppicing, scything, tool use and health and safety alongside surveying monitoring and data capture skills to improve career prospects and helping to build capability and skills in the community.



© NWWT

Alongside this large scale INNS management there are opportunities for members of the local communities as part of the volunteer network to take part in sessions in mindfulness, bush craft and outdoor activities to boost their wellbeing through nature connection.



Volunteer Programmes: the Volunteer River Guardians initiative brings over 50 individuals together to carry out INNS removal and surveys, with sessions run weekly around health and wellbeing, traditional skills such as coppicing, hazel hurdle making, tool use and care, and fire lighting

Building Collaborations & Partnerships: Meetings with more than 15 other organisations to share knowledge of the work NWWT are doing in the project, to collaborate and work together/deliver joint sessions and events, to recruit volunteers and share ideas/ways of working

Knowledge Transfer & Innovation (KT&I): over 300 stakeholders engaged with the project, sharing best practice and success

Training & Job Creation: 238 training days have been delivered by the project with more scheduled

Educational Programmes: 30 individuals gaining a qualification through the project

Increased Access to Outdoor Spaces: 200 days of activities and enabling people to enjoy nature and to utilise natural resources for health

Protection from Invasive Species: largescale interventions across the catchment, river guardians carry out surveys for INNS along the River Dee and its tributaries this data allows for strategic effective targeted INNS removal & prevention in over 30 sites

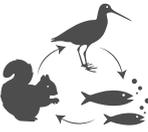
Woodland Management & Planting: Approximately 100 trees have been planted

Protection from Invasive Species: 5 Biosecurity Panels introduced to inform the public on INNS and how to protect our ecosystems from them

Habitat Restoration: where INNS has been controlled monitoring has shown species recovery, native species such as Meadowsweet, Buttercup, Daisy, Dandelion, are all now able to colonise those areas creating a more resilient ecosystem



Climate Change Adaptation: supported through Protection from Invasive Species, largescale interventions across the catchment, strategic effective targeted INNS removal and prevention in over 30 sites



Enhanced Biodiversity: supported by Habitat Restoration where INNS has been controlled monitoring has shown native species recovery, such as Meadowsweet, Buttercup, Daisy, Dandelion, are all now able to colonise those areas creating a more resilient ecosystem



Ecosystem Resilience: supported by Habitat Restoration where INNS has been controlled monitoring has shown native species recovery, Approximately 100 trees have been planted and strategic effective targeted INNS removal and prevention in over 30 sites



Health & Wellbeing: supported through Volunteer Programmes bringing over 50 individuals together to carry out INNS removal and surveys, and sessions run weekly around health and wellbeing, traditional skills such as coppicing, hazel hurdle making, tool use and care, and fire lighting



Community Cohesion: supported by Building Collaborations and Partnerships with more than 15 organisations to share knowledge of the work NWWT are doing in the project, to collaborate and work together, delivering joint sessions and events, to recruit volunteers and share ideas/ ways of working throughout the wider community



Development of Skills Capacity & Expertise: supported through Knowledge Transfer & Innovation (KT&I) over 300 stakeholders engaged with the project, sharing best practice and success. 238 training days delivered by the project with more to come. Educational Programmes with 30 individuals gaining a work place qualification through the project



Health & Wellbeing: supported through Increased Access to Outdoor Spaces, 200 days of activities and enabling people to enjoy nature and to utilise natural resources for health

Building Resilience in Catchments (BRICs)

Lead organisation:
PLANED

Email: paul.renfro@
pembrokeshirecoastalforum.org.uk

Grant Award: £609,549

Location: Pembrokeshire

A project, led by PLANED, delivering landscape scale collaborative action, working in partnership with Natural Resources Wales and Dwr Cymru to bring together farmers, industry, supply chain, environmental organisations and local communities in order to implement “Building Resilience into Catchments” (BRICs).

BRICs is a research project that is taking an innovative approach to managing natural resources in the area, benefitting both communities and businesses in the locality. It will also contribute to sustainable economic development in the area by allowing businesses to grow whilst reducing the overall level of nutrients entering the Milford Haven and Cleddau Catchment.

PLANED will be working with farms above the Llys Y Fran reservoir, Pelcomb Bridge and Winterton Marsh looking at the catchment as a whole enabling the project to identify where optimum strategic measures can be implemented to improve soil health and water quality. Targeted measures include nutrient soil mapping, innovative methods and interventions, precision farming and integrated constructed wetlands all aiming to build resilient ecosystems by reducing agricultural pollution.

The project offer expert advice, guidance and support to farmers including nutrient focused advisory plans and help to secure funding for targeted nutrient soil mapping, precision farming and where applicable constructing farm wetlands.



The project works closely with partners Dwr Cymru who are actively involved in contributing to the work. Dwr Cymru's match funding to the project is to monitor and share water quality data from the Pelcomb Brook and Llys y fran sub-catchments helping to inform the project.

The project are looking at the possibility for future investment opportunities in Pembrokeshire by developing a framework for creating an enterprise capable of running a nutrient based trading scheme that is able to potentially pay land managers for undertaking actions that benefit the natural environment beyond regulatory requirements to secure sustainable economic development and future investment opportunities in the area.

The measures will also enable farmers to be prepared for extreme weather events and flood risks mitigating climate change alongside allowing for green growth and opportunities for habitat connectivity improving biodiversity.

The Pembrokeshire Coastal Forum will showcase the benefits from the actions undertaken on the pilot farms looking at economic benefit and future investment opportunities for the farmers in the area. The value of a cleaner Milford Haven Waterway to future industrial investors could pave the way for a nutrient trading scheme, paying farmers and land managers to create cleaner water, allowing future commercial development and reversing environmental decline.

Ged Davies, BRICs Co-ordinator at PLANED said "With all the uncertainties facing farming and the pressures on the environment, this project could not have been better timed. The project will assist with improving farm resilience to climate change, improving farm performance economically and environmentally."

Paul Renfro from Pembrokeshire Coastal Forum said "It is important that beyond the on the ground improvements to water quality that will be made during this project that a framework or process is established allowing for a new income for landowners, jobs and growth in Pembrokeshire, while benefiting the environment".

The partners aim to make best practice common practice showing how working together can benefit farm businesses and communities helping deliver long term sustainability for the area.



Reducing Agricultural Pollution: over 20 farms involved receiving farm resilience plans with 880ha of land soil sampled and conductivity scanning carried out. A pilot constructed wetland is now complete in Llys y Fran with a feasibility study ongoing, supporting research into its effectiveness

Training & Job Creation: over 60 participants across the catchment attending awareness and training events on soil health and water quality and safe storage and disposal of slurry

Building collaborations & partnerships: Multiple stakeholder events to inform farm businesses in the area and steering group set up

Training & Job Creation: three jobs created

Knowledge Transfer & Innovation (KT&I): develop a framework for creating an enterprise capable of running a nutrient based trading scheme that is able to potentially pay land managers for undertaking actions that benefit the natural environment beyond regulatory requirements to secure sustainable economic development and future investment opportunities in the area



Climate Change Adaptation: supported by targeted nutrient soil mapping, precision farming and where applicable constructing farm wetlands



Ecosystem Resilience: supported by implementing targeted measures include nutrient soil mapping, innovative methods and interventions, precision farming and integrated constructed wetlands



Soil, Air & Water Quality: supported by implementing targeted measures include nutrient soil mapping, innovative methods and interventions, precision farming and integrated constructed wetlands



Development of Skills Capacity & Expertise: supported by the actions undertaken on the pilot farms looking at economic benefit and future investment opportunities for the farmers in the area through a nutrient trading scheme; paying farmers and land managers to create cleaner water, allowing future commercial development and reversing environmental decline

Get Involved – If you would like to learn more or get involved in the work being done by BRICS, you can find more information at: