



Llywodraeth Cymru  
Welsh Government

# Sustainable Management Scheme

Working with  
nature to secure  
a sustainable future



Cronfa Amaethyddol Ewrop ar  
gyfer Datblygu Gwledig  
Ewrop yn Buddsoddi 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](#)

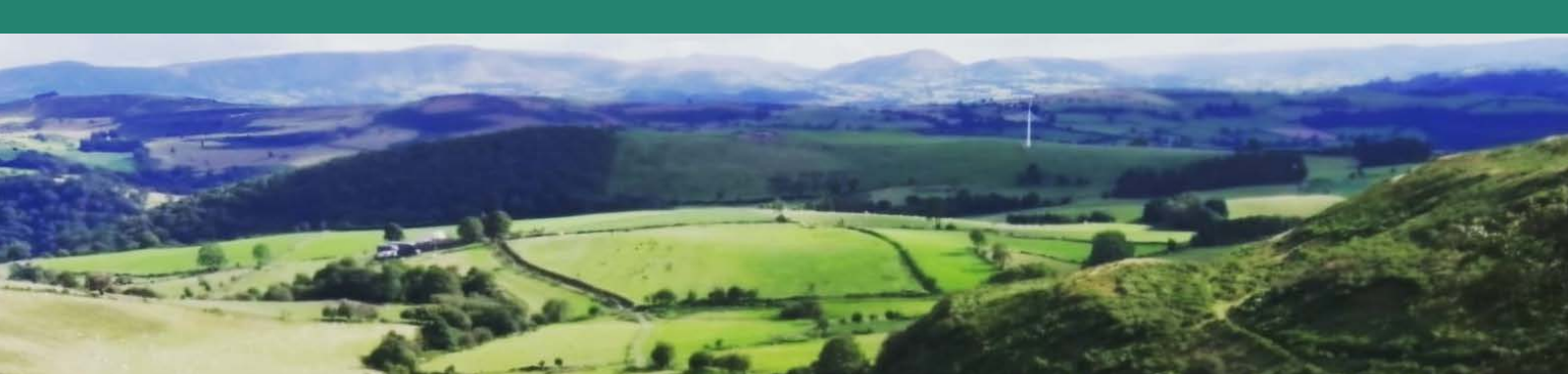
[www.legislation.gov.uk](#)

[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 (RDP) 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 and 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:



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

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**Improving water management,**

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**Improving soil management,**

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**Carbon sequestration in agriculture and forestry.**

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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 and 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.



# Environment (Wales) Act 2016

Developing sustainability: tackling the climate emergency and the decline in biodiversity through part 1 of the Environment (Wales) Act (2016) and the Natural Resources Policy.

Part 1 of the Environment (Wales) Act (2016) 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.**





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

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**Consider the appropriate spatial scale for action**

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**Promote and engage in collaboration and co-operation**

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**Make appropriate arrangements for public participation in decision-making**

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

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

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

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**Take action to prevent significant damage to ecosystems**

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**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

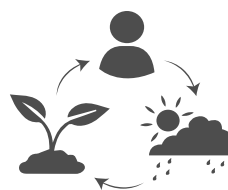
One priority in the Natural Resources Policy (NRP) is to deliver Nature based solutions. SMS projects deliver the prioritised nature-based solutions and takes a place based approach in their delivery.

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 (SoNAR).

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

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



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

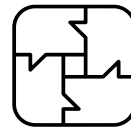
To make sure we are all working towards the same vision, the Act puts in place seven well-being goals.

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**

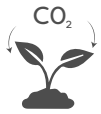


**5. Involvement**



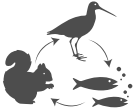
# Project Outcomes

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.

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**Enhanced Biodiversity:** maintaining restoring and enhancing habitats to support a wide range of plant's animal and invertebrates.

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

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**Climate Change and Adaptation:** planning and implementing measures to adapt to the climate emergency.

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**Reduce Flood Risk:** natural processes to reduce the risk of flooding for our communities and landscape.

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

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

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**Health and Wellbeing:** supporting people to connect with nature, building relationships, confidence and reducing stress through accessible green space.

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**Soil, Air and Water Quality:** implementing actions to reduce pollution, restore habitat, nutrient planning, soil husbandry and tree planting.

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**Development of Skills, Capacity and Expertise:** encouraging knowledge transfer and innovation for farm businesses and across the sector, building resilience and enhancing sustainability.

# Sustainable Management Scheme Collaborative Projects

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# Cambrian Wildwood

**Lead organisation:** Wales Wild Land Foundation CIC

**Grant Award:** £566,024

**Location:** Machynlleth

**Email:** admin@cambrianwildwood.org

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 and**

**Planting:** 1000 native trees planted, with 2000 more planned

**Peatland Restoration:** Several metres of drainage grips blocked and peatland re-wetting

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

**Educational Programmes:** Engaged with 9 local primary schools

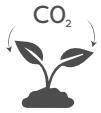
**Sustainable Grazing:** Low density grazing scheme with cattle and ponies

**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



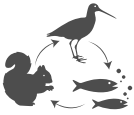
**Carbon Sequestration:** supported by the restoration and creation of woodland, restoring peatland and introducing low density grazing methods.

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

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

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

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

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

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

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

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

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**Development of Skills Capacity and 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.

 [www.cambrianwildwood.org](http://www.cambrianwildwood.org)

 [@coetiranian](https://twitter.com/coetiranian)

 [coetiranian\\_cambrianwildwood](https://www.instagram.com/coetiranian_cambrianwildwood)

 [@cambrianwildwood](https://www.facebook.com/cambrianwildwood)



# Managing Resources Sustainably in the Black Mountains

**Lead organisation:** Brecon Beacons National Park Authority

**Grant Award:** £1,004,155

**Location:** Black Mountains, Brecon Beacons National Park

**Email:** [Bradley.Welch@beacons-npa.gov.uk](mailto:Bradley.Welch@beacons-npa.gov.uk)

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, it's management and it's diversity. Jobs have been created to carry out the extensive landscape management such as peatland restoration, heather and 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 and 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

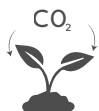
**Training and job creation:** 3 full time jobs created

**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 and opened





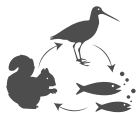
**Carbon Sequestration:** supported by farmer collaboration and partnership working farmers, restoring peatland, rewetting peat and revegetation trials.

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

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

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

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

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**Soil, Air and Water Quality:** supported by peatland restoration and peat rewetting.

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

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**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.

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

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**Development of Skills Capacity and 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.

 [www.blackmountains.wales](http://www.blackmountains.wales)

 [blackmountainslup](https://www.instagram.com/blackmountainslup)

 [@BMLUP](https://twitter.com/BMLUP)

 [@blackmountainslup](https://www.facebook.com/blackmountainslup)



# Collaborative Sustainable Natural Flood Risk Management on the River Clwyd

**Lead organisation:** Cadwyn Clwyd Cyfyngedig

**Grant Award:** £330,000

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

**Email:** sarah.jones@cadwynclwyd.co.uk

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 and 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 and 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

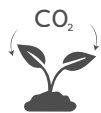
## **Natural flood risk management:**

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.

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**Climate Change Adaptation:** supported by woodland creation.

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**Climate Change Adaptation:** supported by peat sensitive planting.

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

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

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

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

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**Health and Wellbeing:** supported by volunteer programmes.

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**Rural Skills and Heritage:** supported by volunteer programmes and traditional methods.

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**Development of Skills Capacity and 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

**Location:** Upper Conwy catchment

**Email:** ffermifan@gmail.com

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 and Restoring upland habitat to encourage and 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

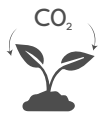
**Woodland Management and Planting:** Creating new woodland, providing 5.3 ha of new tree cover targeted through catchment sensitive planting

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

**Building Collaborations and 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 and Job Creation:** Training on how to effectively monitor the peatland vegetation by the farmers, enabling results to be recorded

**Knowledge Transfer and Innovation (KTandI):** 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.

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

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

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

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

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

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

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

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**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

**Grant Award:** £924,956

**Location:** Pan Wales

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

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 and Innovation (KTandI):** 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 and Job Creation:** Created jobs and implemented a best practice training programme for peatland practitioners

**Knowledge Transfer and Innovation (KTandI):** Development of the Peatland Code

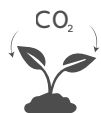
**Building Collaborations and Partnerships:** Peatland action group established and successful partnership with IUCN

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



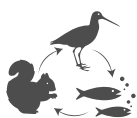
**Carbon Sequestration:** supported by upland and lowland peatland restoration and identification of peatland sites to be brought into favourable condition, locking in carbon and reducing loss.

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**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.

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

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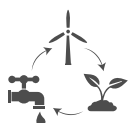
**Ecosystem Resilience:** supported by developing a PES strategy, preparing 10 Peatland Code projects, establishing the peatland action group, lowland peatland restoration and identification of peatland sites to ensure resilience.

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

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**Soil, Air and 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 and lowland peatland restoration and identification of peatland sites.

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

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

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**Development of Skills Capacity and 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](http://www.snowdonia.gov.wales/looking-after/projects/peatland-restoration-in-snowdonia)

 @eryisnowdonia       @Visitsnowdonia

# Powys Moorland Partnership

**Lead organisation:** Ireland Moor Conservation Ltd

**Grant Award:** £600,000

**Location:** Powys

**Email:** [will@irelandmoor.com](mailto:will@irelandmoor.com)

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 and 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 well-being of Wales. Bird recording, arts and 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 and 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 and Job Creation:** 2 full time wardens employed to manage the diversity on the moor

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

**Training and 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

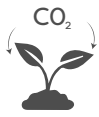
**Community Engagement:** Implementing tools to better explain Open Access, to encourage responsible use of the land

**Habitat Restoration:** Creating a mosaic of heather habitats, ffridd, ponds and 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 and Innovation (KTandI):** 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.

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

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**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.

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**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.

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

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

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**Health and 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.

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**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.

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

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**Development of Skills Capacity and 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](mailto:urmyc.sdnalroomsywop@tcatnoc)

# Golygfa Gwydyr: People and Forest

**Lead organisation:** Golygfa Gwydyr

**Grant Award:** £232,478

**Location:** Conwy

**Email:** rogerd@golygfagwydyr.org

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 and 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 and Planting:**

Restoring and managing land across 2 sites to improve biodiversity

#### **Volunteer Programmes:**

Volunteer programme with green woodworking activities and accredited training courses

#### **Training and 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:**

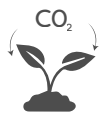
Natural flood risk management including woody debris dams

#### **Woodland Management and Planting:**

Community woodland management and wood-fuel service







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

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

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

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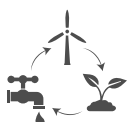
**Ecosystem Resilience:** supported by woodland restoration, removal of invasive species, natural flood risk management and community woodland management.

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

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**Soil, Air and 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.

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

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

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

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**Development of Skills Capacity and 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

**Location:** Llŷn Peninsula

**Email:** [arweljones@gwynedd.llyw.cymru](mailto:arweljones@gwynedd.llyw.cymru)

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 Llŷn 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

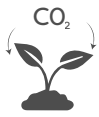
**Coastal Zone Management:** Developing resilience and connectivity along the coastline by working closely with farmers and landowners and implementing diverse habitat restoration

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

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

**Knowledge Transfer and Innovation (KTandI):** 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



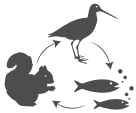
**Carbon Sequestration:** supported by maintenance of diverse habitat, developing connectivity corridors along the coastline, sustainable grazing and developing relations between farmers and specialists to improve soil, air and water quality.

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**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.

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**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.

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**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.

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

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

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**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.

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**Rural Skills and 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.

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**Development of Skills Capacity and 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:

 [www.ahne-llyn-aonb.org/Tir-a-M-r-Ll-n-Project](http://www.ahne-llyn-aonb.org/Tir-a-M-r-Ll-n-Project)



# Our River Wellbeing: Nature Based Solutions in the Dee Catchment

**Lead organisation:** North Wales Wildlife Trust

**Grant Award:** £700,000

**Location:** River Dee catchment in North Wales

**Email:** [helen.carter-emsell@northwaleswildlifetrust.org.uk](mailto:helen.carter-emsell@northwaleswildlifetrust.org.uk)

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 and 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.



© NWWT

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.



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 and 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 and Innovation (KTandI):** Over 300 stakeholders engaged with the project, sharing best practice and success

**Training and 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:** Large scale 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 and prevention in over 30 sites

**Woodland Management and 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.

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**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.

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**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.

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**Health and 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.

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**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.

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**Development of Skills Capacity and Expertise:** supported through Knowledge Transfer and Innovation (KTandI) 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.

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**Health and 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.

**Get Involved:** If you would like to learn more or get involved in the work being done by the River Wellbeing, you can find more information at: [www.northwaleswildlifetrust.org.uk](http://www.northwaleswildlifetrust.org.uk)

 [www.youtube.com/watch?v=I5NKC\\_MUBPU&t=22s](https://www.youtube.com/watch?v=I5NKC_MUBPU&t=22s)

 @North Wales Wildlife Trust



# Building Resilience in Catchments (BRICs)

**Lead organisation:** PLANED

**Grant Award:** £609,549

**Location:** Pembrokeshire

**Email:** paul.renfro@pembrokeshirecoastalforum.org.uk

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, benefiting 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 and 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 and partnerships:** Multiple stakeholder events to inform farm businesses in the area and steering group set up

**Training and Job Creation:** Three jobs created

**Knowledge Transfer and Innovation (KTandI):** 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 and 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 and 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:

 [www.planed.org.uk/projects/brics/](http://www.planed.org.uk/projects/brics/)

 @PLANED.Pembs/

 @PLANED\_Pembs/



# Biodiversity Means Business

**Lead organisation:** North Wales Wildlife Trust

**Grant Award:** £388,438

**Location:** Rural Wards of Holt and Marchwiel

**Email:** [acljones@wildlifetrustswales.org](mailto:acljones@wildlifetrustswales.org)

The focus of this project is centred on the large (550ha) rurally located Wrexham Industrial Estate. NWWT's vision is to make the landscape within and around the industrial estate more habitable to wildlife, more accessible for people, and more attractive to businesses whilst also improving the health and wellbeing of employees and nearby communities. They are achieving this by working with local businesses, partners, workers and the local community so it is inclusive and benefits all.

The project will prioritise on the ground improvement activities and develop a strategic plan for the landscape to help sustain and deliver improvement and benefits into the future. A focus on green infrastructure including planting wildflowers, restoring public footpaths, planting native trees, planting hedgerows and demonstrating soft engineering techniques will help with surface water retention and improve wildlife corridors as well as creating a nicer place to work for employees working in the area.

Engaging with the surrounding local communities and offering volunteering opportunities is part of the projects long term approach. This aims to help create a sense of ownership of the landscape by those working, living and enjoying the leisure opportunities of the area.



The project activities include opening up public nature reserves, installing picnic areas, planting orchards, erecting signage, reducing litter, eye-catching sculptures, colourful wildflower verges and roundabouts, improving access and trails, plus enthusing people about the estate.

The project also offers corporate support to businesses who wish to support environmental improvements in alternative ways on their grounds. The project offers 'Natural Partnerships' to help businesses to realise the benefits of incorporating green spaces into their surroundings. Working with new multiple businesses and local companies across the estate, to develop long-term management plans to implement nature based solutions to enhance habitats and amenity space. Contributing to tackling wider social and environmental issues, supporting staff wellbeing and productivity, lowering costs and bringing the economy, society and environment together.



The project are looking to run a series of events to introduce the wilder side of the Wrexham Industrial Estate and are actively managing two areas of the industrial estate that have public access, opening up footpaths for visitors and workers to discover and exercise.

The project is successfully delivering nature based solutions to help promote biodiversity and social well-being and engagement across this unusual site.



**Increased Access to Outdoor Spaces:** Developing Green Infrastructure and visitor access established at multiple sites all having way-marked paths, benches, 10 picnic tables, bird feeding stations, bug hotels and signage. With 3.5 km of access paths created or restored

**Habitat restoration:** Orchard planting, hedge laying, with 600m of wildflower verges and 8 roundabouts created, meadows managed through seeding and cutting and 2500 reed plants planted on banks of a meander on the River Dee all to support the 1000 species found in the area

**Building collaborations and partnerships:** Up to 200 stakeholders engaged; members of the local communities, businesses, farmers and landholders, community groups and environmental and conservation organisations receiving advice, guidance and information through the project

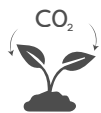
**Volunteer Programmes:** 125 volunteers are registered to carry out litter-picking, hedgerow restoration, tree planting, landscaping, restoring access areas and creating habitats while supporting the health and wellbeing of the local community

**Woodland Management and Planting:** 9ha of woodland created and supported through planting of 600 native trees, coppicing and glade creation, placement of nest boxes, orchard creation and woodlands enhanced for wildlife, mapping of veteran trees and instalment of TPOs where appropriate

**Sustainable Grazing:** Low intensity grazing at strategic sites with native breeds aimed at reducing the height of the grass sward to enable wildflowers to grow throughout the spring and summer months

**Training and Job Creation:** Welsh language awareness training and river safety courses run with 3 jobs safeguarded, with the wider aim of attracting economic growth to the industrial estate

**Knowledge Transfer and Innovation (KTandI):** Undertaking an evaluation based on Social Return on Investment (SROI) principles, a framework for measuring and accounting for this much broader concept of value; it seeks to reduce inequality and environmental degradation and improve wellbeing by incorporating social, environmental and economic costs and benefits



**Carbon Sequestration:** supported by orchard planting, hedgerow laying and restoration, wildflower and tree planting, meadow management, habitat creation, woodland creation and support, coppicing, glade creation, mapping of veteran trees and sustainable grazing.

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**Climate Change Adaptation:** supported by orchard planting, hedgerow laying and restoration, tree planting, meadow management, habitat creation, woodland creation and support, coppicing, glade creation and sustainable grazing.

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**Enhanced Biodiversity:** supported by bird feeding stations and nest boxes, bug hotels, orchard planting, hedgerow creation and restoration, wildflower, reed and tree planting, litter picking, habitat creation, woodland creation and support, glade creation and sustainable grazing.

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**Ecosystem Resilience:** supported by bird feeding stations and nest boxes, bug hotels, orchard planting, hedgerow creation and restoration, wildflower, reed and tree planting, litter picking, habitat creation, woodland creation and support, glade creation and sustainable grazing.

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**Health and Wellbeing:** supported by creation and restoration of access paths, conservation volunteering opportunities, landscaping and undertaking an evaluation based on Social Return on Investment.

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**Community Cohesion:** supported by creation and restoration of access paths, stakeholder engagement, providing advice and guidance to local communities, conservation volunteering opportunities, Welsh language awareness training, safeguarding of jobs and undertaking an evaluation based on Social Return on Investment.

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**Rural Skills and Heritage:** supported by Welsh language awareness training, conservation volunteering opportunities, hedgerow laying and restoration, wildflower and tree planting, meadow management, landscaping, coppicing and glade creation.

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**Development of Skills Capacity and Expertise:** supported by stakeholder engagement, providing advice and guidance to local communities, Welsh language awareness training, running river safety courses and undertaking an evaluation based on Social Return on Investment. Working with new multiple businesses and local companies across the estate.

**Get Involved:** If you would like to learn more or get involved in the work being done by North Wales Wildlife Trust NWWT you can find more information at:

 [www.northwaleswildlifetrust.org.uk](http://www.northwaleswildlifetrust.org.uk)  @northwaleswildlifetrust  @northwaleswildlifetrust

# Cynllun Dalgylch Yr Afon Eden Catchment Project

**Lead organisation:** Snowdonia National Park Authority SNPA

**Grant Award:** £815,444

**Location:** Eden Valley, Gwynedd

**Email:** Rhys.Owen@eryri-npa.gov.uk

A farmer led project centred on improving ecosystem resilience of the Afon Eden and its tributaries at catchment scale, improving water quality and restoring habitats.

A group of 19 farm businesses and landowners in this area of special conservation collaborated on the project and with the help and support of SNPA they undertook a range of measures to tackle agricultural pollution and to improve ecosystem resilience across the landscape. Through implementing nature based solutions and a host of on-farm capital works all aimed at improving the water quality of the river catchment with a focus on the management of the endangered freshwater pearl mussel which is found in the area.

Collaborative working allowed for strategic interventions to be implemented at scale such as planting and managing native deciduous trees, restoring natural habitats and looking at erosion prevention aimed at improving biodiversity across the catchment. Replacing aging infrastructure, restoring coniferous 'shelter belts' to native woodland, and improving riparian habitats along the Afon Eden and its tributaries have been all been carried out.

Another key element the project was to develop the existing local tree nursery at Plas Tan-y-Bwlch in order to be able to provide quality native trees of local





provenance to landowners as part of this project, and to others throughout the National Park.

The project looked at further issues within the wider catchment and worked in partnership with the relevant authorities to address them. This led to the construction of a new bridge over the Afon Eden in place of an existing ford that had regular vehicle crossings, this infrastructure reduced the impact and water quality of the Eden.

The project also looked at ways to improve the design of the commercial plantations in the area and surrounding habitats and planned their removal in peatland areas and where appropriate allowing natural regeneration and planting with native trees.

Plans were made for looking at the feasibility of creating a multi-user path linking the community of Trawsfynydd with the nationally renowned mountain bike centre at Coed-y-Brenin to improve the visitor experience and recognise the outdoor recreation and tourism that the area offers.

The project have raised awareness amongst the local and wider community, providing ample opportunities for volunteering and learning; engaging the local community. The project has also offered work experience and internships allowing individuals to develop their skills for a career in the sector whilst contributing positively to the objectives of the project.



**Habitat Restoration:** Historic traditional boundaries, with over 7km of hedgerows planted and 3.5km of linear dry-stone walling completed

**Training and Job Creation:** Landowners and project staff undertook various training courses, including emergency first aid, project management, horticulture, brush cutter, wood chipper, chainsaw and pesticide use

**Habitat restoration:** Significant conifer clearance has been completed in afforested peatland areas. Unwanted conifer regeneration, in an approximate area of over 120ha has been cleared; with native natural regeneration encouraged

**Natural Flood Risk Management:** Approximately 1-1.5km of artificial drainage grip blocking has been completed

**Training and Job Creation:** Full-time Project Officer post created with 3 people for work placement, 2 of whom have gone on to fill other roles in SNPA, transferring their skills and knowledge

**Volunteer Programmes:** Volunteer days with the Snowdonia Society held through the SMS Eden's on-farm works scheme, during which volunteers planted 800 native trees

**Increased access to outdoor spaces:** For walkers, infrastructure and open access improved; bridges and footpaths upgraded with signage and education boards linking to the existing cycle and footpaths



**Reducing Agricultural Pollution:** Implementing sustainable infrastructure such as the low-level crossing constructed, improving a heavily used ford used by vehicles therefore reducing the pollution risk and disturbance to the river ecosystem and the construction of a settlement pond to intercept any sedimentation and associated pollutants before they reached the Eden

**Woodland Management and Planting:** Development of Snowdonia's tree nursery, allowing trees to be home grown and resilient to their environment, new polytunnels, equipment and training of staff in horticulture

**Knowledge Transfer and Innovation (KTandI):** Several feasibility studies carried out and Forest Resource Plans have all been completed and shared with relevant stakeholders

**Woodland Management and Planting:** 113ha of woodland management, 15ha of new tree planting as well as a further 19ha of natural woodland regeneration

**Habitat Restoration:** 0.6km of sensitive river restoration work completed, utilising innovative methods including boulder replacement, work gravel seeding and large woody material introduction

**Volunteer Programmes:** Training and volunteer days held in order to engage new interest in sustainable land management and natural resources

**Building Collaborations and Partnerships:** Engaged with 120 stakeholders through a range of stakeholder engagement activities

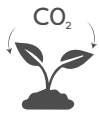
**Community Engagement:** Through contracted work the project has supported 89 different businesses, 90% of which were locally based. In this way it has contributed over £600,000 to the local economy and the local community

**Sustainable Grazing:** Introduced cattle to graze dense Molinia dominated areas, with infrastructure implemented to support the habitats while cattle graze

**Educational Programmes:** Through a Moorland Indicators of Climate Change Initiative (MICCI), 3 schools have been involved in various engagement activities, including environmental monitoring fieldwork and sustainable craft activities

**Knowledge Transfer and Innovation (KTandI):** The project has hosted site visits for students from University College London and has had representatives at local agricultural shows, in order to raise awareness of the work being conducted. Additionally it has held a project open day where stakeholders were updated on the progress achieved and site visits were conducted across the catchment

**Building collaborations and partnerships:** Partnership of 19 local farm businesses and landowners, SNPA, NRW and eNGO's coming together to work collaboratively to achieve multiple goals and benefits



**Carbon Sequestration:** supported by hedgerow planting, conifer clearance on peatland, grip blocking, tree planting, habitat and river restoration, woodland management and regeneration at catchment scale.

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**Climate Change Adaptation:** supported by sustainable grazing, conifer clearance on peatland, grip blocking, tree planting, habitat and river restoration, woodland management and regeneration at catchment scale, development of tree nursery, horticulture training.

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**Enhanced Biodiversity:** supported by hedgerow planting, conifer clearance on peatland, tree planting, infrastructure, habitat restoration, river restoration, woodland management and regeneration, sustainable grazing all at catchment scale.

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**Ecosystem Resilience:** supported by hedgerow planting, conifer clearance on peatland, tree planting, infrastructure, habitat restoration, river bank restoration, woodland management and regeneration, sustainable grazing all at catchment scale.

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**Reduced Flood Risk:** supported by drainage grip blocking, peatland restoration, creation of a low level crossing and settlement pond and river restoration work.

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**Soil, Air and Water Quality:** supported by hedgerow planting, conifer clearance on peatland, tree planting, infrastructure, habitat restoration, river bank restoration, woodland management and regeneration, sustainable grazing all at catchment scale.

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**Health and Wellbeing:** improvement of open access and outdoor recreation, cycle routes and footpaths and school engagement activities supported by training courses on first aid and safe use of equipment. Volunteer days and training and community engagement activities.

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**Community Cohesion:** supported by training courses, creation of full time and work placement roles. Volunteer days, feasibility studies conducted and shared with stakeholders. Butterfly conservation training days, stakeholder engagement activities, contracting work with local businesses, school engagement activities and a project open day.

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**Rural Skills and Heritage:** supported by hedge laying, dry-stone walling, training courses and woodland management. Volunteer days focused on native tree planting, development of Snowdonia's tree nursery, conservation training days, contracting work with local businesses, utilising sustainable grazing techniques and school engagement activities and education.

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**Development of Skills Capacity and Expertise:** supported by training courses, creation of full time and work placement roles. Volunteer training, feasibility studies conducted and shared with stakeholders, site visits from UCL and a project open days.

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**Get Involved:** If you would like to learn more or get involved in the work being done by Snowdonia National Park you can find more information at:

# Dunes to Dunes: Sustainable Management of Bridgend Coastal Landscape

**Lead organisation:** Bridgend County Borough Council

**Grant Award:** £312,541

**Location:** Kenfig National Nature Reserve, Bridgend

**Email:** Mark.Blackmore@bridgend.gov.uk

This project area spans the dune landscapes of the Kenfig Burrows and Merthyr Mawr Warren dune systems in South Wales and are designated a National Nature Reserve (NNR) and a Special area of conservation (SAC). Once a massive dune system these two important ecosystems are now separated by the Porthcawl Coastline, two golf courses and settled farmland.

The Dunes 2 Dunes project aims to form a collaboration of NNR managers, local landowners, golf clubs and farmers to sustainably manage the coastal landscape, improving ecosystems, increasing biodiversity and connectivity to explore the benefits of this for people, local businesses and communities.

Significant habitat restoration and management alongside sustainable grazing have contributed to the resilience of the dunes ecosystem and their long term sustainability. Extensive scrub clearance, large scale drystone wall restoration, hedge-laying and coppicing, have all contributed to some outstanding results. A significant increase in biodiversity has been recorded through species counts. A record year for the fen orchid survey with 3000+ fen orchid, an increase from a few 100 in the baseline studies; showing resilience, better connectivity and dune stability just in this short amount of time.



The project will also work collaboratively with local businesses such as golf clubs supporting them with their ongoing sustainable performance with the ambition to achieve the GEO Certified Eco label

The project have implemented education work with local schools and work placements with students studying targeted countryside management at Kenfig National Nature Reserve and the adjoining coastal areas. As part of their work experience placements, they take a break from their studies in the Biology Department of Swansea University to learn about the practical ways Bridgend County Borough Council manages its National Nature Reserves and enhancing the ecology of the coastal zone.

The project also aims to maximise the health and well-being opportunities of the area through improving green infrastructure. Accessible well maintained walking routes, focusing on promoting and developing the coastal path and encouraging visitors to the quality green spaces. Educating the public through signage on the impact they can have on this environment and how they can help keep this incredible place safe.



**Habitat Restoration:** Winter habitat management at Kenfig NNR, with the creation of a significant new dune scrapes and extensive scrub clearance

**Volunteer Programmes:** 87 people attending volunteer training courses, with 191 people cumulatively having participated so far

**Training and Job Creation:** 135 training days held, including mini digger use to invertebrate ID and monitoring

**Building collaborations and Partnerships:** 20 different organisations have engaged with over 60 people from local landowners and farmers to eNGO's through partnership events

**Building collaborations and partnerships:** Through the support of the project the two golf clubs on this landscape have achieved the prestigious GEO Certification

**Woodland Management and Planting:** Improving the boundaries on Sker farm, planting a 250m stretch of over a 1000 trees with a 15 year commitment to grow them into a traditional hedgerow

**Training and Job Creation:** Hosted 12 work experience university students, providing practical countryside management training undertaking scrub clearance, dry-stone walling, hedge-laying and coppicing

**Rural Skills and Heritage:** Over 60m of traditional dry stone walling completed by local contractors contributing to the local economy

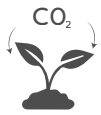
**Educational Programmes:** Engagement with local schools, with educational material produced and visits to see the coastal landscape and the local farms

**Increased Access to Outdoor Spaces:** Focus on promoting and developing the coastal path with upgraded educational signage, bins and infrastructure

**Sustainable Grazing:** Summer grazing with cattle and managed sheep grazing in the winter

**Knowledge Transfer and Innovation (KTandI):** Online material reaching over 14k people with hundreds of project video views and shares





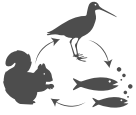
**Carbon Sequestration:** supported by tree and hedgerow planting.

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**Climate Change Adaptation:** supported by partnership events and attainment of GEO certification.

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**Enhanced Biodiversity:** supported by habitat management at Kenfig NNR, with the creation of a significant new dune scrapes and extensive scub clearance, hedgerow planting and sustainable grazing.

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**Ecosystem Resilience:** supported by habitat management at Kenfig NNR, with the creation of a significant new dune scrapes and extensive scub clearance, hedgerow planting and sustainable grazing.

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**Health and Wellbeing:** supported by coastal path development.

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**Community Cohesion:** supported by training courses, partnership events, attainment of GEO certification, hosting students for work experience, hiring local contractors for dry stone walling, engaging with schools, coastal path development and sharing online material.

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**Rural Skills and Heritage:** supported by training courses, hosting students for work experience and hiring local contractors for dry stone walling.

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**Development of Skills Capacity and Expertise:** supported by training courses, partnership events, hosting students for work experience, engaging with schools, coastal path development and sharing online material.

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



[www.youtube.com/watch?v=Pik6G10Ab4c](https://www.youtube.com/watch?v=Pik6G10Ab4c)



@dunes2dunes

# Dolau Dyfi Meadows

**Lead organisation:** Pont Cymru

**Grant Award:** £467,114

**Location:** Lowland area of the Dyfi catchment, Gwynedd

**Email:** [julia.korn@pontcymru.org](mailto:julia.korn@pontcymru.org)

The Dolau Dyfi Projects stretches across the Dyfi Biosphere area from the sea at Aberdyfi to the foothills of the Cambrian Mountains and includes parts of Ceredigion, Powys, Gwynedd and Snowdonia National Park authority (SNPA). This collaborative project is focused on joining up natural resources with health and well-being benefits in the Dyfi area.

The collaboration includes Local Authorities, landowners, farmers, SNPA, RSPB, Montgomery Wildlife Trust, and Keep Wales Tidy, Dyfi Biosphere Outdoor Health Project and aims to grow as the project develops with input from the public and surrounding communities.

The project focusses on the management of grasslands, peatland, and ffridd in the area. Lowland semi-natural grassland has suffered dramatic losses in the UK and only fragments of lowland meadows, heathland and bogs remain. The Dyfi area

has significant areas of these habitats and the project will undertake work to reverse the decline locally and so improve and restore habitat that local people and visitors can enjoy creating new opportunities to engage with nature.

The project aims to help tackle local challenges by restoring targeted areas of the landscape while connecting people with nature. Investment will be made in 35 areas to improve ecosystem resilience. Works include managing scrub, bracken and gorse, late hay cutting, INNS removal, fencing and other infrastructure to enable sustainable grazing plans to be implemented. Practical help will be offered to local land managers to monitor and evaluate the impact of the work undertaken and a Dolau Dyfi Meadows Group will be established to support land owners to manage the natural resources in the area in the long term.





Further activities include establishing a local volunteer network, setting up art projects and a “walking to health” programme to benefit health and wellbeing. The project will agree a programme of work to improve access routes and opportunities in the project area. Materials and social media promotion will be commissioned to encourage locals and visitors to utilise the outdoors for health benefit and the project will create and promote safe spaces and enjoyable places to visit.

Using the Ivy-leaved Bell Flower as a poignant symbol of wildflowers that are special in the area, the Dolau Dyfi will undertake work with local groups, organisations and individuals to develop ideas for improved access and arts activities as the project progresses.

Working with the Dyfi Biosphere Outdoor Health project being delivered by Ecodyfi, Coed Lleol and others to provide opportunities for people to join led walks and other activities to improve health and well-being. This will be linked to the new social prescribing scheme being developed in the area and a number of those involved will be supported to take part through referral from their GP or other health provider.

User friendly walking guides will be produced to help people access the existing coastal and mountain paths, with easy guides showing distance covered, walking time and challenge level, helping people access recreation safely in the area.

The project will offer supervised volunteering opportunities including practical habitat restoration, footpath management, arts and other activities looking to improving well-being and skill development. Plans to host art workshops and volunteer events centred on creating material that is relevant to the farming, nature and wild flower theme of the project providing various opportunities for people to get involved, building on community cohesion.





**Peatland Restoration:** Restore and reconnect lowland peat bog. 15 ha of non-SSSI lowland peatland restored

**Habitat management:** 639 hectares over the project area managed and restored. Maintaining flowering habitat; neutral, acid and marshy grassland, heath and peat bog in favourable and recovering condition

**Volunteer Programme:** Practical conservation management work by 20 volunteers

**Developing Green Infrastructure:** Restored attractive flowering landscape with breeding farmland birds adjacent to public access opportunities

**Habitat Restoration:** A programme of work tackling gorse bracken and rank vegetation clearance completed on various sites by landowners and contractors. Work undertaken on 10 sites with owners/managers for the sites signing a 5-year management agreement which will help secure the favourable management beyond the end of the project date

**Community engagement:** Facebook used to promote activities and engagement, The Dolau Dyfi film has been completed, and a “film premiere” was held on the Dolau Dyfi Facebook page to support engagement activities and educational programmes

**Community engagement:** 8 health walks, 3 volunteer maintenance walks, 1 history walk, 2 volunteer/community training activities carried out to date with more to come

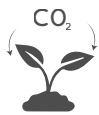
**Educational Programmes:** Virtual “Arty Party” at 3 different schools with children signing up to the workshops through their schools. Materials were collected by parents for children to join educational nature activity sessions with 65 children signed up to the online workshops

**Increased Access to Outdoor Spaces:** Improvement works have been undertaken on 4 paths totalling 5.87km of enhanced access. To improve accessibility to all users 12 galvanised self-closing gates have been used

**Rural Skills and Heritage:** Two teams of forestry ponies with bracken rollers worked on difficult sites, rolling 8ha of bracken

**Sustainable grazing:** Plans on various sites to maintain and enhance restored habitat

**Building collaborations and Partnerships:** Working collaboratively, joint initiatives with RSPB who are working in kind on the project and input from organisations in the area such as the Dyfi Biosphere group, Tourism groups and sub-group meetings all to inform the project



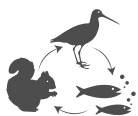
**Carbon Sequestration:** supported by the Peatland Restoration, restoring and connecting lowland peat bog. Habitat Restoration of 639 hectares over the project area being managed and restored. Maintaining neutral, acid and marshy grassland, heath and peat bog in favourable and recovering condition.

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**Climate Change Adaptation:** supported by supported by the Peatland Restoration, restoring and connecting lowland peat bog. Habitat Restoration of 639 hectares over the project area being managed and restored. Maintaining neutral, acid and marshy grassland, heath and peat bog in favourable and recovering condition.

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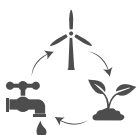
**Enhanced Biodiversity:** supported by Developing Green Infrastructure, Peatland and Habitat Restoration, sustainable grazing plans and long term commitment from landowners and famers.

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**Ecosystem Resilience:** supported by the Peatland Restoration, restoring and connecting lowland peat bog. Habitat Restoration of 639 hectares over the project area being managed and restored. Maintaining neutral, acid and marshy grassland, heath and peat bog in favourable and recovering condition, developing Green Infrastructure, sustainable grazing plans and long term commitment from landowners and famers.

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**Soil, Air and Water Quality:** supported by the Peatland Restoration, restoring and connecting lowland peat bog. Habitat Restoration of 639 hectares over the project area being managed and restored. Maintaining neutral, acid and marshy grassland, heath and peat bog in favourable and recovering condition, developing Green Infrastructure, sustainable grazing plans and long term commitment from landowners and famers.

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**Health and Wellbeing:** supported by the Volunteer Programme with 20 volunteers, developing Green Infrastructure Managing areas for public access opportunities, though Community engagement, supervised health walks, and educational programmes with 65 children signed up and increasing Access to Outdoor Spaces.

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**Community Cohesion:** supported by the Volunteer Programme with 20 volunteers, developing Green Infrastructure, Managing areas for public access opportunities, though Community engagement, supervised health walks, and educational programmes with 65 children signed up and increasing Access to Outdoor Spaces. Working collaboratively across all the sectors engaging the local community through steering groups.

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**Rural Skills and Heritage:** supported by the habitat management and the long term commitment of the local farming community, through promoting forestry ponies and other landscape skills.

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**Development of Skills Capacity and Expertise:** supported by Volunteer and job and training programmes covering practical conservation management work. Working collaboratively with stakeholders sharing best practise and innovation.

**Get Involved:** If you would like to learn more or get involved in the work being done by Dolau Dyfi Meadows you can find more information at: [www.pontcymru.org/dolau-dyfi/](http://www.pontcymru.org/dolau-dyfi/)

 [www.youtube.com/channel/UCGjUzOTxkGgAjsnDloMwz1g](https://www.youtube.com/channel/UCGjUzOTxkGgAjsnDloMwz1g)

 [@twitter.com/pontcymru](https://twitter.com/pontcymru)

 [@eryrisnowdonia](https://www.facebook.com/eryrisnowdonia)

# South East Wales Resilient Uplands

**Lead organisation:** Torfaen County Borough Council

**Grant Award:** £399,000

**Location:** Torfaen, Caerphilly and Blaenau Gwent

**Email:** [alvin.nicholas@torfaen.gov.uk](mailto:alvin.nicholas@torfaen.gov.uk)

The South East Wales Resilient Uplands (SEWRU), project covers an area of some 200sq km on land which is over 200m in altitude within Torfaen, Caerphilly and Blaenau Gwent.

The upland landscape across Torfaen, Caerphilly and Blaenau Gwent faces a number of challenges from landscape crime, loss of habitats and key species to poor infrastructure and fragmented communities. Building on previous wide scale community engagement the project will take forward new collaborative action to improve the uplands, support farm enterprise, improve visitor experiences and create more resilient communities.

The project's collaborative approach is led by Torfaen Council with Caerphilly and Blaenau Gwent Councils, Gwent Wildlife Trust, Natural Resources Wales, Police, Fire and Rescue Services and the Brecon Beacons National Park all supporting and working with the commons associations, action groups, farming unions and the local communities.

SEWRU's focus is delivering the priority actions from the Landscape Institute award winning Natural Resource Management Plan (NRMP) for South-east Wales Uplands which was produced in 2015.

- To deliver land management to improve soils, water quality and regulation, grazing, biodiversity, and carbon storage.
- Strengthen relationships between stakeholders and commoners to support upland communities.
- Build capacity through volunteering, training and community engagement.
- Increase farm competitiveness and viability through diversification and development of innovative business opportunities.
- Tackle the underlying causes of upland degradation caused by poor land management and anti-social problems such as fly-tipping, arson and illegal off-roading.
- Provide opportunities for quiet recreation and enhance the area's tourism offer.





To date the project has identified and begun peatland restoration pilots, identified tree planting opportunities, produced common land management plans, installed physical barriers to reduce landscape crime and managed important upland heathland to reduce fire risk and facilitate sustainable grazing. SEWRU is also currently working with Gwent Police and others to produce upland-focussed landscape crime management plans.

As a SEWRU project partner, Gwent Wildlife Trust have delivered a number of activities during 2020 to promote the uplands as a place to visit for tourism and recreation whilst also promoting the sustainable use of the area. Running a photography competition called *Hill Life Through a Lens* and holding a series of free guided walks and training courses throughout the project, aimed to highlight the wonderful wildlife of the uplands and practical skills needed to manage it.



**Knowledge Transfer and Innovation (KTandI):** Developed and Produced a SE Wales wildfire plan for uplands to tackle wildfires and mitigate risk

**Building collaborations and partnerships:** 2 new networks created through producing and implementing two upland landscape crime management plans for each common with Gwent Police and other partners

**Building collaborations and partnerships:** Developed and managed a Commons Watch Scheme to deter fly tipping and rural crime equipping ten key commoners with body cameras, dash cameras and trail cameras to tackle landscape crime

**Training and job creation:** Provided 40 days of training; dry stone walling courses undertaken in partnership with Gwent Wildlife Trust. Training for farmers through the Hill Farming Training Scheme to deliver ecological land management advice

**Community engagement:** A comprehensive programme of walks and activity developed and an uplands photography competition promoted

**Training and job creation:** Project manager supported by an ecological specialist and a monitoring scientist all appointed to manage the project, carry out peat bog restoration and to capture ongoing evidence

**Building collaborations and partnerships:** Created SE Wales Resilient Uplands Steering Group and round table group to help inform the project share best practise

**Knowledge Transfer and Innovation (KTandI):** Feasibility study completed on barriers to IT use. SEWRU and Gwent Police are investigating how we can deliver IT training to farmers and potentially equip hill farmers with smartphones if required, to enable better communication around landscape crime

**Community engagement:** Drone surveys and fly through videos commissioned to facilitate peatland feasibility studies and monitoring and used to create publicity and promotional videos to inform the public

**Habitat restoration:** More than 120ha of heather and bracken managed, the project provided a flail mower for scrub management to reduce fire risk and to facilitate sustainable grazing to improve biodiversity, as well as pond and wetland restoration

**Educational programmes:** SEWRU is working across four areas to tackle landscape crime and illegal off-roading; Enforcement, Engineering, Engagement and Enabling using this framework agencies can enforce and tackle illegal activity and engage and educate the public on how to enjoy the access to recreation in a way that doesn't have a detrimental effect on the landscape

**Developing Green Infrastructure:** 5km of commons boundaries have been repaired and boulders, boom barriers, bunds, new gates, ditches and signage in various key locations throughout the SE Wales commons have been installed in pilot areas to tackle landscape crime

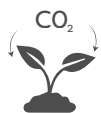
**Educational programmes:** Establishing a landscape crime-focussed website to assist the public and other stakeholders, improve communication and publicise current work and a project promotional video to highlight the issues and the work being undertaken to tackle them

**Peatland restoration:** Three peatland restoration feasibility studies completed covering four sites with 10ha restored over two sites

**Increased Access to Outdoor Spaces:** Several open days and guided walks looking at a wide range of habitats and species connecting people and nature and to showcase the uplands, raising awareness both locally and nationally of the area as a valuable and rewarding resource in which to work, play, visit and live

**Volunteer programmes:** Volunteer opportunities through project partner Gwent Wildlife Trust

**Woodland Management and Planting:** 1,800 native trees were planted and removed circa 1,000 feral conifers trees have from peatland habitat to help with re-wetting. Woodland opportunity mapping exercise done identifying over a hundred hectares where tree planting could be possible



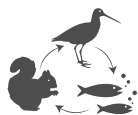
**Carbon Sequestration:** supported by habitat and peatland restoration, woodland management and planting and sustainable grazing.

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**Climate Change Adaptation:** supported by habitat and peatland restoration, woodland management and planting and sustainable grazing.

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**Enhanced Biodiversity:** supported by habitat and peatland restoration, woodland management and planting and sustainable grazing, Training and job creation and Developing Green Infrastructure.

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**Ecosystem Resilience:** supported by habitat and peatland restoration, woodland management and planting and sustainable grazing, Training and job creation and Developing Green Infrastructure.

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**Reduced Flood Risk:** supported by habitat and peatland restoration, woodland management and planting and sustainable grazing.

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**Soil, Air and Water Quality:** supported by habitat and peatland restoration, woodland management and planting and sustainable grazing, Training and job creation and Developing Green Infrastructure.

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**Health and Wellbeing:** supported by Educational programmes, Community engagement, Volunteer programmes and Increased Access to Outdoor Spaces.

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**Community Cohesion:** supported by Educational programmes, Community engagement, Volunteer programmes and Increased Access to Outdoor Spaces, Knowledge Transfer and Innovation (KTandI).

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**Rural Skills and Heritage:** supported by Educational programmes, Knowledge Transfer and Innovation (KTandI), Community engagement and Training and job creation.

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**Development of Skills Capacity and Expertise:** supported by Educational programmes, Knowledge Transfer and Innovation (KTandI), Community engagement, Building collaborations and partnerships and Training and job creation.

**Get Involved:** If you would like to learn more or get involved in the work being done by South East Wales Resilient Uplands you can find more information at: [www.gwentwildlife.org/South-East-Wales-Resilient-Uplands-Project](http://www.gwentwildlife.org/South-East-Wales-Resilient-Uplands-Project)

 [www.youtube.com/channel/UCGjUzOTxkGgAjsnDloMwz1g](https://www.youtube.com/channel/UCGjUzOTxkGgAjsnDloMwz1g)

 [@gwentwildlife](https://twitter.com/gwentwildlife)

 [@gwentwildlife](https://www.facebook.com/gwentwildlife)

 [@gwentwildlifetrust](https://www.instagram.com/gwentwildlifetrust)

Contact: [info@gwentwildlife.org](mailto:info@gwentwildlife.org)



# Connecting Communities with Nature: Halkyn Mountain

**Lead organisation:** Flintshire County Council

**Grant Award:** £285,000

**Location:** Halkyn Mountain, Flintshire

**Email:** tom.woodall@flintshire.gov.uk

The Halkyn Mountain project is set on a 2,000 acre common, designated for its wide range of habitats shared between five communities. The common and its natural resources are central to the future prosperity of these communities. The Project's collaborative approach is led by Flintshire County Council with Natural Resources Wales, North Wales Wildlife Trust, the Fire and Rescue Service all supporting and working with landowners.

The project improved the economic value of the common and invigorated farm businesses. The common has been grazed for centuries but has experienced a continual decline of the practice over the years. A key priority of the project is to improve the quality of the common by re-engaging graziers, and helping to encourage a younger generation into the grazing tradition.

The aim is to manage key habitats and species to be in favourable condition. Gorse and bracken will be cleared to enable grassland and heathland to re-establish, providing additional grazing and therefore reducing overgrazing that occurs on parts of the common. Explore the potential to develop a marketable product in the form of Halkyn compost from the vegetation management, to supply local communities and thus reduce the need for peat base composts and improving the economic viability of the Common.



The project also supports sustainable grazing practices of the commoners by encouraging the activation of underused grazing rights and the installation of cattle grids to encourage graziers to stock parts of the mountain that were previously avoided for fear of animals wandering off along roads away from the common cattle grids to enable access in key areas.

The project has encouraged local people and visitors to use and enjoy the common in appropriate and responsible ways by improved interpretation and awareness raising activities will enable walkers and riders to follow less sensitive routes. This will reduce potential disturbance to grazing stock and provide an opportunity to tackle recreational pressures.

The Common is a popular local amenity site frequently used for traditional recreational activities such as walking, cycling and horse riding. The varied and challenging landscape could lend itself to more contemporary forms of exercise, for example green gyms and outdoor boot camps. By addressing the challenges facing the Common the project aims to create a good quality, well managed common land opening up recreational opportunities for the surrounding communities, develop skills to help enrich their lives, leading to more resilient and healthier communities.

**Sustainable Grazing:** Delivery of 5 cattle grids to target cattle grazing on parts of the hill to improve biodiversity

**Training and job creation:** Project Officer employed for duration of the project

**Habitat restoration:** 20ha gorse cut. 39ha scrub cut

**Habitat Restoration:** 74ha bracken crushed. 5ha heathland enhanced

**Building collaborations and partnerships:** Supporting commoners has led to 10 grazing right activated leading to larger areas being managed sustainably

**Building collaborations and partnerships:** 3 Police and Fire coordination exercises held per annum

**Community engagement:** 6 community action days per annum (including volunteering activity, litter picks, bowl turning event and a Wildlife Photography workshop held in conjunction with RSPB

**Community engagement:** 19 recreation and exercise events and 15 Public engagement activities carried out

**Protection from invasive species:** Cotoneaster and Himalayan Balsam control was carried out in the area to prevent the spread of seed further; surveying and monitoring will continue

**Community engagement:** Orienteering course and a guided walk on the mountain for members of the Friends of Hilbre taking in some of the key points of interest



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

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**Community Cohesion:** supported by volunteer programmes, training courses, and recreational programmes. Project collaborators include Local Authorities, Natural Resources Wales, North Wales Wildlife Trust, the Fire and Rescue Services and landowners.

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**Rural Skills and Heritage:** supported by woodland restoration, volunteer programmes, training courses, citizen science, recreational programmes, community woodland and bracken management.

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

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**Collaboration:** North Wales Police and North Wales Fire Service will implement a range of measures to tackle key issues problems of misuse such as arson, illegal 4x4 activities and dog attacks on livestock on the Common.

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**Education Programmes:** schools participated around national curriculum themes based on the environment. Using the common to promote health and wellbeing to encourage outdoor exercise on the common.

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**Rural Skills and Heritage:** embracing low impact tourism development, based on a quality product has the potential to bring economic benefit to local communities and safeguard and sustain local services.

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**Community Cohesion:** engaging effectively with a wide cross-section of the community and communicate and educate on the significance of the activities being undertaken and the relevance to the Common.

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**Rural Skills and Heritage:** use the common as an education resource, to allow residents to gain skills and to benefit from the free resources of Halkyn in a sustainable way.

**Get Involved:** Come and explore Halkyn Mountain and enjoy fabulous views over the Dee Estuary and the Clwydian Range. For further information, please contact the Halkyn Mountain Ranger: 01352 703900.



Free guided walks available via Explore Halkyn webpage.  
[www.halkynmountain.co.uk/explore-halkyn](http://www.halkynmountain.co.uk/explore-halkyn) website: [www.halkynmountain.co.uk](http://www.halkynmountain.co.uk)



# Farming the Gwent Levels Sustainably

**Lead organisation:** RSPB Wales

**Grant Award:** £554,953

**Location:** South East Wales Wetlands

**Email:** [Fiona.Walker@rspb.org.uk](mailto:Fiona.Walker@rspb.org.uk)

A project taking collaborative action with stakeholders including farmers and other partners such as Gwent Wildlife Trust and Bumblebee Conservation Trust (BBCT) to develop the understanding, knowledge, skills and experience need to deliver the sustainable management of natural resources within the Gwent Levels.

Participating farmers and project partners have taken action to improve the natural resources in the area, particularly water and soil management. Outcomes include habitat improvement and creation, offering significant potential to improve soil condition, and establishing habitat strips for pollinators, which will also act as buffers alongside water courses. Taking advantage of the flat geographical nature of its area the project seeks to maximise opportunities for traffic free cycling, as well as existing access and recreation facilities on farms, and creation of new facilities.

The overarching aim of the Sustaining the Gwent Levels (SGL) SMS project:

- Establish best practice sustainable land management and in doing so identify land use/management that will reverse damage to ecosystems and then continue to maintain them in a healthy state.
- Influence and establish mechanisms to facilitate sustainable land management at the landscape scale to secure healthy ecosystems.



These objectives were achieved through:

- Capital works and vegetation management such as ditch management, orchard restoration, pollarding, establishment of herbal leys, construction, and erection of nesting boxes.
- Preparation of an advisory booklet for farmers on key management actions for Sustainable Land Management on the Levels.
- Facilitating access to externally funded advisory services including Nutrient.
- Management Plans (funded by Farming Connect) and Water Quality Assessments (funded by NRW).
- Commissioning feasibility studies which included Impact of underdrainage on hydrology, Opportunities for Payment for Ecosystems Services, Costings for wetland landscape restoration and maintenance in the Gwent Levels, and the impact of environmentally sustainable farming practice on profitability and financial viability.
- Ecological modelling and monitoring.
- External communications.



**Training and job creation:** One new full-time member of staff employed for the duration of this project and facilitated three (PES) workshops completed with a minimum of 60 attendees

**Community engagement:** Engaging stakeholders including 10 farming families, NRW, Farming Reps and NGOs, and diverse local communities; 60 individuals, 30 farmers, policy and decision makers through advocacy visits and demonstration days

**Woodland management and planting:** 150 Tree Sparrow nest boxes have been erected on the Caldicot Levels. 8 Barn Owl boxes have been built and erected. 10 Kestrel boxes have been built. 24 Little Owl built. 259 nest boxes sited in suitable habitats

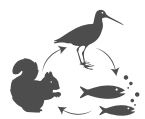
**Community engagement:** Organised community litter pick in Parc Taff Bargoed around the lake in conjunction with Keep Wales Tidy, Councillors and staff of local Assembly Member. Project also participated in Commons Clean up event arranged by Gelligaer and Merthyr Commons Ranger and attended by many local and governmental agencies

**Community engagement:** 26 volunteers involved (25 landowners engaged) with making nest boxes and monitoring, including a workshop with young people



**Community engagement:** engaging stakeholders, farmers and families, NRW, Farming Reps and NGOs, individuals, policy and decision makers through advocacy visits and demonstration days.

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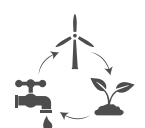
**Habitat restoration:** positive management of SSSI features, including ditch work, willow pollarding and orchard management and assessments for water, nutrient and pollinator habitat improvements and positive action to secure water quality, nutrient management improvements and provision of pollinator habitat carried out on multiple farms.

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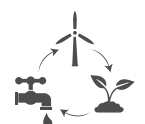
**Developing Green Infrastructure:** a study to develop bespoke local PES schemes, and an investigation into the impacts of underdrainage on the landscape of the Gwent Levels undertaken, and an Ecosystem Services Assessment of the project area completed.

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**Soil Quality Management:** Nutrient Management Planning three farms benefited from free nutrient management planning service through farming connect. These farms were given written reports addressing savings on time and cost as well as contributing to water quality targets.

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**Educational Programmes:** Water Quality Assessments – some farms involved in the project are dairies and the farm infrastructure of these operations were scrutinised by NRW's water quality assessment project. Two farms have received recommendations which will help them with any new water quality regulations.

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**Educational Programmes:** shrill carder bee monitoring shows the extent of this monitoring, including, photographs of sites surveyed, a map of sites visited, and an explanatory document. The monitoring was carried out with advice from Sinead Lynch from Bumblebee Conservation.

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**Woodland management and planting:** establishing and re-establishing orchards across the Levels by using local variety fruit trees to establish new orchards. Purchasing local variety fruit trees to help re-establish orchards that have fallen into decline, using contractors to clear orchards that have become overgrown with scrub and are as a consequence, unproductive and finally, donating fruit trees and giving advice to orchard owners.

**Get Involved:** If you would like to get involved with work on the Gwent Levels, contact the Living Levels Partnership [www.livinglevels.org.uk/whats-on](http://www.livinglevels.org.uk/whats-on)

 RSPB Cymru [www.rspb.org.uk/about-the-rspb/at-home-and-abroad/wales/](http://www.rspb.org.uk/about-the-rspb/at-home-and-abroad/wales/)  
Celebrating the Gwent Levels [www.livinglevels.org.uk](http://www.livinglevels.org.uk)

 [RSPB@natures\\_voice](mailto:RSPB@natures_voice)

 [@rspb\\_love\\_nature](https://www.instagram.com/rspb_love_nature)



# Wye Ithon and Severn Ecosystems (WISE)

**Lead organisation:** Wye and Usk Foundation

**Grant Award:** £530,215

**Location:** Llandrindod Wells to Knighton

**Email:** [simon@weuskfoundation.org](mailto:simon@weuskfoundation.org)

This collaborative project worked with an established catchment partnership, including landowners and local communities to improve the natural resources in four smaller and three larger catchments covering a large landscape travelling down a stretch of the Wye catchment. Action was taken to improve soil quality in agricultural land create woodland to maximise the potential for reducing flood risk, habitat improvement for better biodiversity and water quality and improved infrastructure on farmyards to reduce pollution.

The project involved the rural communities and agricultural businesses in the area to help them understand and take action to ensure long term improvement of ecosystems. Also to understand the services these ecosystem provide that are vital for helping address the impacts of climate change and flooding, and in turn provide opportunities for improved health and wellbeing. The project has also explored the potential for private investment to deliver benefits for water quality and carbon storage. Activities undertaken by the project are supported by a comprehensive monitoring programme during the active project phase and after completion.



The project is in partnership with Severn Rivers Trust and has tackled nutrient management, soil health, water quantity and biodiversity. As well as delivering environmental value, effective land management can also improve water quality in rivers, reduce flood risk, improve soil quality, enhance biodiversity, and improve carbon sequestration.

Catchment Advisors from both rivers' trusts will be working with farmers to find practical ways in which they can change agricultural practices to benefit both their business and the aquatic environment, such as;

- Hedgerow and tree planting
- Leaky dam installation
- Improving soil quality
- Attenuation ponds/green swales
- Clean and dirty water separation
- Soil testing including organic matter levels
- Soil structure assessment and infiltration tests
- Risk mapping.

The project has developed a scheme that pays farmers to mitigate against flooding, thereby reducing the need for costly "hard" defences further downstream. "Natural flood management" involves working with hydrological and morphological processes, features and characteristics to manage the sources and pathways of flood water. These techniques are often simple, small scale and cost-effective for both the environment and farm business.

**Water Quality.** The project is also working with Tesco's suppliers within the project area on nutrient management, providing advice and grant funding to reduce the risk of diffuse and point source pollution and to improve soil health. This will have benefits to other users of the Wye catchment and the project will develop catchment scale markets for phosphate and hopefully flood and drought management. This is how our environment will be managed in the future and developing these markets will allow for the external costs of pollution (such as fishing days lost to algal blooms) to be monetised and reduced, improving the state of the whole of the Ithon and main stem of the Wye.

#### **Building Collaborations and Partnerships:**

8 NFM farm visits including farm scale opportunity mapping, soil testing, compaction assessments and infiltration tests completed

Two evening sessions delivered to 37 attendees promoting woodland planting was delivered alongside Farming Connect

Project has visited at least 275 farms covering 41,000 hectares of agricultural land in mid Wales

**Community Engagement:** Project has engaged with 1255 stakeholders

#### **Woodland Management and Planting:**

35ha of Woodland supported, 1.8ha new woodland planting. Total 15,701 trees planted

#### **Woodland Management and Planting:**

1428m hedgerows planted and 3.6ha new riparian woodland planted



**Ecosystem Resilience:** provided a tailor-made farm report and opportunity maps developed for the use of the farmer, which highlight existing benefits the farm is contributing to the environment and wider society as well as additional opportunities.

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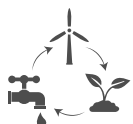
**Reduce Flood Risk:** local flood risk maps will be produced identifying natural flood management opportunities.

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

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**Soil, Air and Water Quality:** supported by hedgerow renovation, tree planting, woodland creation, and soil testing and assessment.

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**Rural Skills and Heritage:** supported by volunteer programmes and traditional methods.

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**Health and Wellbeing:** providing information that are vital for helping address the impacts of climate change and flooding, and in turn providing opportunities.

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**Ecosystem Resilience:** the project involved the rural communities and agricultural businesses in the area to help them understand and take action to ensure long term improvement of ecosystems and understand the services these ecosystems.

**Get Involved:** Volunteering for many of the above activities is a very satisfying way of enjoying the outdoors and getting to know the rivers. If you are interested in voluntary work, please complete the following form to register with the Foundation. [www.wyeuskfoundation.org/forms/volunteerregistration](http://www.wyeuskfoundation.org/forms/volunteerregistration)

Contact [admin@wyeuskfoundation.org](mailto:admin@wyeuskfoundation.org) +44 (0) 1874 711714



[www.wyeuskfoundation.org/the-wye-ithon-severn-ecosystems-wise-project](http://www.wyeuskfoundation.org/the-wye-ithon-severn-ecosystems-wise-project)