

Report of: Head of Nature Recovery

Subject: Well-being Objective Deep Dive / Self-Assessment: Conservation – To deliver nature recovery and connectivity at scale, so nature is flourishing in the Park, contributing to the protection of 30% of our land and seas for nature by 2030.

Management Team Leads: Head of Nature Recovery. Director of Nature and Tourism. Head of Engagement and Inclusion. Strategic Policy Manager.

Outcomes for Objective:

- Promote and deliver nature recovery on land and in the marine environment supporting the protection of 30% of our land and seas for nature by 2030.
- Favourable conservation status is achieved on high nature value sites.
- Increase in land managed for nature recovery in the Park (achieved through influencing and working with others and managing our own estate.)
- Increase in ecological connectivity.
- A wide range of people are supported to participate in taking action for nature.
- The management of marine designations has improved through working with partners, nationally and locally.

Outcomes this report is focusing on:

- Promote and deliver nature recovery on land and in the marine environment supporting the protection of 30% of our land and seas for nature by 2030.
- Favourable conservation status is achieved on high nature value sites.
- Increase in land managed for nature recovery in the Park.
- Increase in ecological connectivity.
- A wide range of people are supported to participate in taking action for nature.

Note: This report forms part of the Authority's reporting for Section 6 Biodiversity duty.

1. Progress Assessment

Delivery Plan	Activities [The things that are being done with these resources]	Inputs [The resources (staff, time, money) being put into an intervention]	Outputs [A count of what has happened as a result of these activities]	Outcomes [The immediate consequences and change.]	Impact [The higher level and longer-term results.]
Nature Recovery Delivery Plan: Increase in ecological connectivity	Strategic catchment focused Invasive Non-Native Species (INNS) management programme.	Stitch in Time INNS programme 1FTE INNS Co-ordinator National Heritage Lottery Fund – Nature Networks Fund 2 & 3 Volunteer input	At the end the NNF 2 project: Working across 9 catchments/sub catchments Of the total infestation of INNS recorded: 48% high intensity control is in progress. 25% has now exited the intense control phase and is now under monitoring and maintenance management. 1,682 volunteer hours with a cash equivalent worth of £33,650.	82 ha of land has a significantly reduced area of Himalayan Balsam and increased diverse native wildlife. Increased awareness of invasive species and knowledge of nature. Improved social connections, enhanced skills, personal satisfaction.	Increased resilience through landscape connectivity networks. Increased biodiversity. Future posts are reduced by continual program of management over time. Documented resource for coordinated and collaborative approach for future replication and roll-out to other areas.

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			84 community engagement events		
Nature Recovery Delivery Plan: Increase in land managed for Nature Recovery in the Park Increased ecological connectivity	A competitive land management grant scheme for farmers and landowners.	Connecting the Coast 1 FTE Connecting the Coast Officer SLSP (Sustainable Landscapes, Sustainable Places) funded Significant contributions from Farm Conservation Liaison Officer, Conservation Officer, Lead Ecologist and Conservation Assistant	20,320m of fencing. 75 ha (hectares) of coastal slope managed. 46 ha of hay meadows – managed/created. 61 ha of species rich permanent pasture managed/created. 3 ha of unsprayed arable margins. 150 ha of species rich herbal ley and meadow seed mixes. 2,900m of hedgerows, 750 trees, 6 ponds	More land managed for Nature. 45 landowners engaged in the scheme. Increased knowledge and awareness for land managers. Greater ecological connectivity. Monitoring regime in place, which also increases information, data and evidence.	More resilient ecosystems. Carbon sequestration. Enhanced Park profile in agricultural community

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Nature Recovery Delivery Plan: Favourable conservation status is achieved on high nature value sites. A wide range of people are supported to participate in taking action for nature	Management of Celtic Rainforest at Goulthrop Roads SSSI through the removal of INNS (Rhododendron); creating a nutrient buffer zone and creating future lichen trees.	Funding from Local Places for Nature 6 volunteers planted a new hedge	11.97 ha restored / enhanced Rhododendron treatment (approx. 1 ha treated) 175 hedgerow whips planted as a buffer strip along the edge of farmland. 15 larger tree specimens were planted in 'Cactus' guards 6 volunteer days	Conditions for lichens enhanced through removal of Rhododendron and buffering from nutrients. Provision of trees for future continuity.	Increased resilience of Red data book species Increased biodiversity Increased ecosystem resilience

2. Case Studies

2.1 Conservation on Caldey Island

Caldey Island was managed by traditional farming for many years, but in recent times it has become very difficult to do so. Farming has all but retreated from this special place, which has managed to escape the intensification of agriculture seen on the mainland.

The lack of management on the island has left the fields largely overgrown and lacking biological and structural diversity. It is widely accepted by local conservationists that a revival of traditional farming practices is the key to reclaiming Caldey's wildlife richness.



Conservation grazing on Caldey Island.

Collaboration began when a new island manager was appointed in 2024. It's a new chapter in Caldey's life and one we've been invited to share in for the first time.

Since that time the following has been achieved:

- As part of the Connecting the Coast programme we set up a 5-year management agreement to support the reintroduction of a sustainable grassland management regime, including hay meadows, over 35 hectares.
- We have liaised with a grazier to deliver conservation grazing to the island.
- To aid stock control, Connecting the Coast grant-aided 6 traditional Pembrokeshire gates, made in Cilrhedyn Woodland Centre.



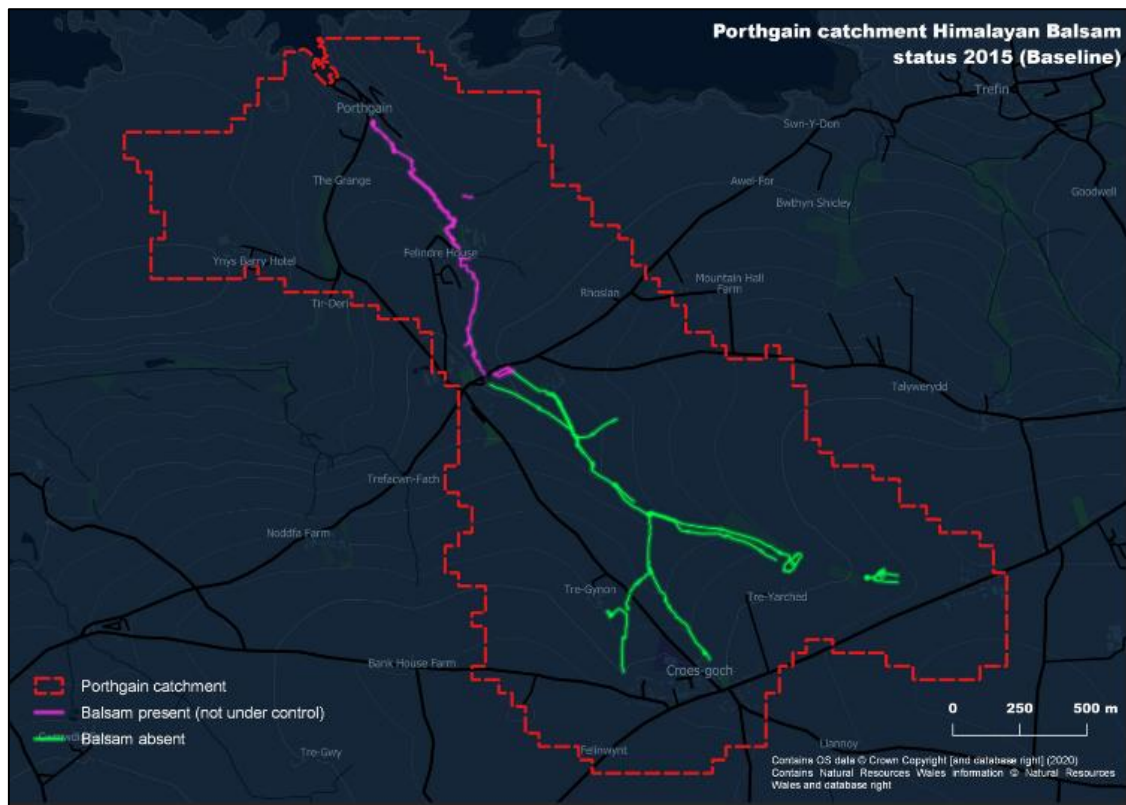
Cilrhedyn made gates, being delivered to Caldey Island.

- Dry stone walls have been repaired in several prominent places. Connecting The Coast funded 46 days of repair work.
- The Local Places for Nature scheme funded a new cut-and-collect machine plus trailer to aid the hay cutting of the fields.
- Instigated the involvement of PCNPA volunteers in conservation projects, through the ranger team. A highlight has been the installation of shearwater and storm petrel nest boxes/audio calling which has attracted these birds to the island for the first time.

The project is breathing new life into the land, with improvements in skylark numbers expected, alongside increased feeding grounds for chough and boosted insect populations. Grassland plant monitoring is also underway. The stone wall repairs have made a long-term improvement to certain areas of the island and benefitted the historic landscape.

2.2 Ten years of Himalayan balsam control at Porthgain

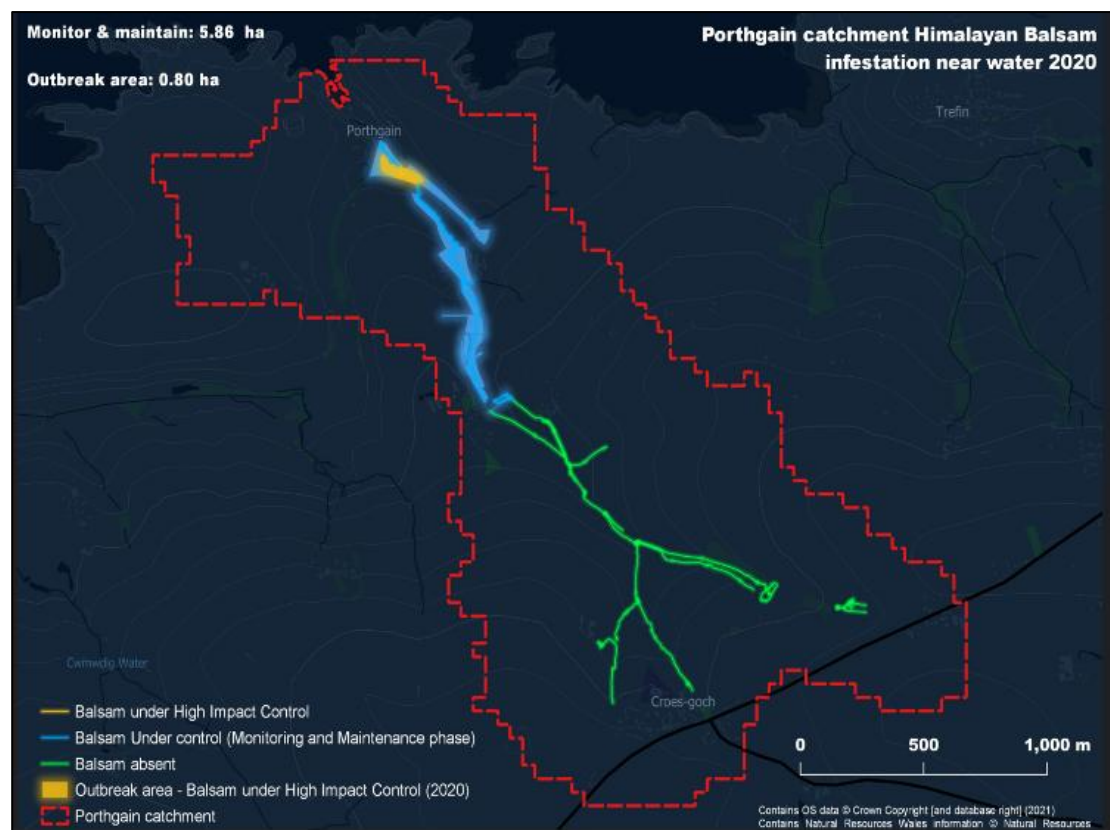
Historic control methods used by PCNPA area ranger and volunteers to control balsam were reliable (hand pulling and cutting with hand tools), however due to the timing and frequency of visits, efforts were in effect piecemeal with limited gains noted from 2009-2015. Control efforts were also limited to the bottom of the river catchment in the wet meadow owned by the Authority.



Catchment map of Porthgain in 2015, highlighting extent of Himalayan Balsam.

The Stitch in Time project launched in 2015 with a strategic, top-down catchment approach to Himalayan balsam control. Initial surveys identified 6.66 hectares of infestation while also confirming balsam-free zones across the catchment.

Between 2016-2019 the Stitch in Time project coordinated contractors, staff and volunteers to deliver thorough and consistent control of balsam from the source of the infestation at Llanrhian through to PCNPA land holding at Porthgain and all areas in between.



Catchment map of Porthgain in 2020, now showing sections under control measures.

In 2020, following the success of this control programme the work shifted from high intensity control to a lower resource phase of monitoring and maintenance where visits cover all areas looking for 'rogue' plants pulling 10s rather than 1000s of stems.

In 2021 monitoring activities noted an outbreak of Himalayan balsam within PCNPA land at the bottom of this coastal catchment which was immediately targeted for control and eradicated. The 2024 monitoring highlighted two small areas of Himalayan balsam which were then eradicated in 2025.

By 2025, the Himalayan balsam infestation in the catchment has been reduced from 6.66 ha (2015) to just 0.055 ha requiring intensive control. The remaining 6.605 ha is now in a near-eradicated state, with only occasional rogue plants needing removal during routine monitoring.

Key to the project's success was full landowner cooperation, consistent contractor presence supported by volunteers and rapid, responsive monitoring.

This coastal catchment is now more resilient, other vegetation such as pink campion can complete its own lifecycle without the competition from this invasive non-native plant. Himalayan balsam is no longer spreading unchecked through the landscape and where Himalayan balsam was present near farm buildings, machinery stores, and gardens, it is no longer a biosecurity risk of further spread to neighbouring catchments.



Himalayan Balsam flowering on the Porthgain catchment.



The same area again following eradication.

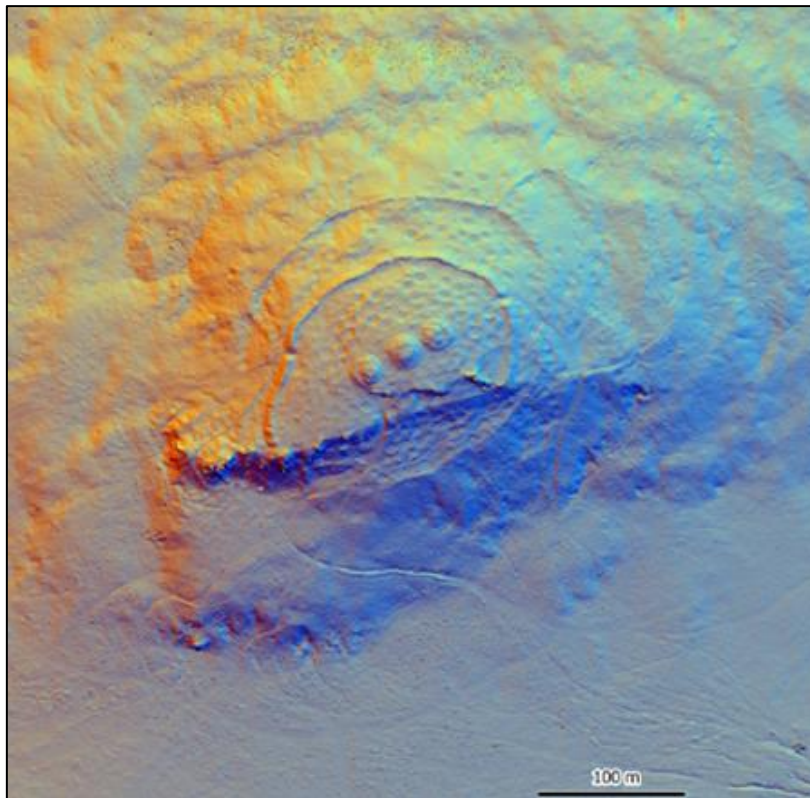


A stream in Porthgain catchment prior to control measures.



The same stream, following concerted control efforts.

2.3 The Arfordir Penfro Lidar Portal



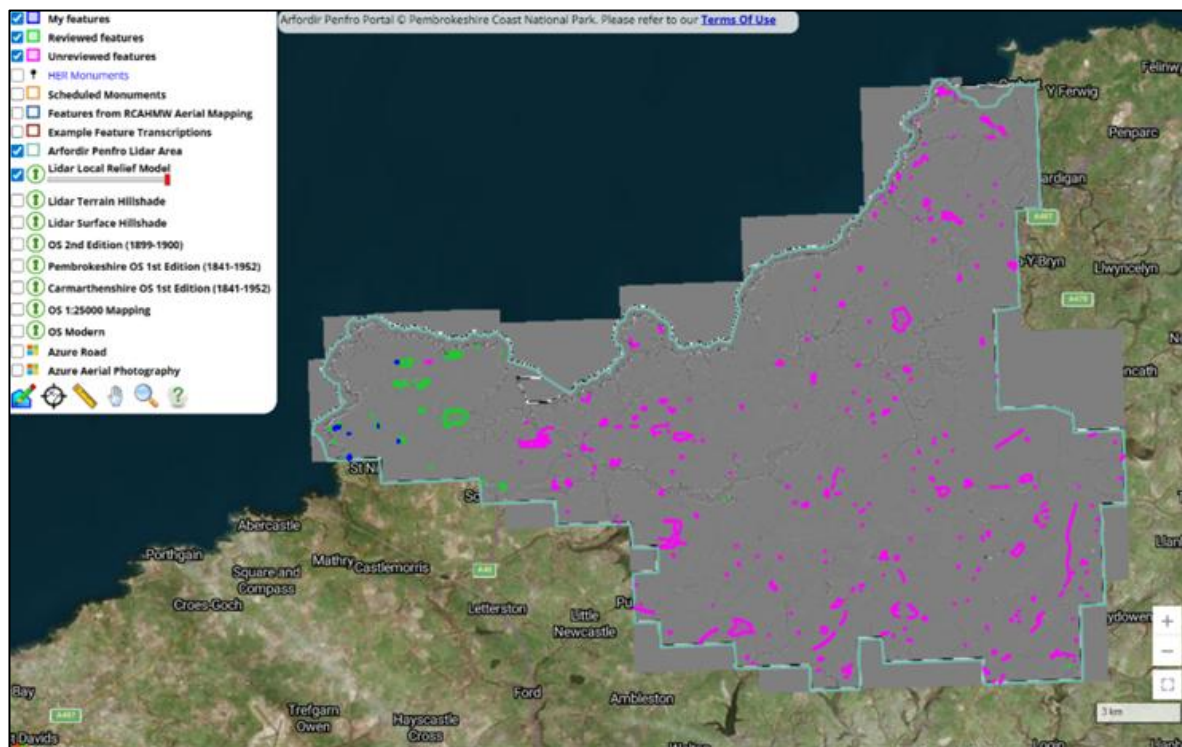
Foel Drygarn Iron Age Hillfort as shown in lidar.

In April 2025, the [Arfordir Penfro Lidar Portal](#) was launched as a citizen science opportunity for people to help improve the National Park Authority's understanding of the historic environment. Using high resolution lidar (Light Detection and Ranging, a remote sensing method) data, aerial photography, historic maps and historic assets data, volunteers can analyse the data to identify potential new archaeological and historical features in the landscape. They can also enhance understanding of known features, including checking they have been mapped correctly and review their extent.

As of November 2025, there were 56 volunteers signed up to the Lidar Portal, with 13 actively mapping. Over 500 features have been recorded and 67 have been reviewed professionally. To support volunteers, online catchup events take place every few months. Since the portal was launched, three catchup sessions have taken place. The portal was recently showcased at the Archaeology Day, to view the talk, visit [Lidar Portal Talk](#). To support the running costs of the portal, a donate page has been setup on the Trust website: [Donate](#).

The lidar portal provides opportunities to enhance the National Park Authority's understanding of the historic environment and for communities and the public to participate. The benefits of lidar are well established for archaeology but has the potential to support the work of the wider Nature Recovery Team, such as land

management practice and approach. Information about past land use can help inform current and future practices that are beneficial for nature in a way that is complementary to landscape character. It can inform agri-environmental schemes, such as Ffermio Bro and the forthcoming Sustainable Farming Scheme. There are likely to be other benefits from this data, but this will require time and investment from staff with the expertise to explore these.



Screenshot of the Lidar Portal showing the data coverage area (in grey) and transcriptions as of Nov 2025 (shown in blue, green and pink).

2.4 Celtic Rainforest at Goultrop Roads

Goultrop Roads, part of De Porth San Ffraid / St Bride's Bay South SSSI, is the only substantial ancient woodland on the open coast in Pembrokeshire and is a superb example of Celtic Rainforest. It is a magical place, with its stunted, twisted oak trees, stunning displays of bluebells, and glimpses of the sea beyond. Locals and visitors make use of this site along the Pembrokeshire Coastal Path to experience calm and tranquillity, even at the height of the tourist season.



Lobaria pulmonaria and Lobaria virens

It is nationally important for epiphytic lichens and is a site where they are thriving. A survey revealed that for many lichen species the site is one of the best in Pembrokeshire and possibly beyond. It holds the largest populations in the county of several Red Data List species and the largest in Wales for the rare *Degelia atlantica*. 10% of the entire Welsh population of *Lobaria virens* a type of lungwort grows here.

Lichens at this site were under threat from the spread of Invasive Non-Native Species (INNS) laurel and rhododendron, casting a dense shade where they grow.

Using funding from Local Places for Nature, the invasive species were stem injected with herbicide by specialist contractors using rope access for some areas. The funding paid for 175 hedgerow whips which volunteers planted along the edge of the woodland, as a buffer from agricultural nutrients between the woodland and the adjacent arable land. In addition, 15 larger tree specimens were planted in 'Cactus' guards on nearby National Trust land at Sheepfields, to provide suitable habitats for lichens in the future (they were selected on account of their bark pH). The site is pony grazed without artificial inputs, which will maintain the light conditions and clean air needed by lichens.



Park Rangers installing Cactus guards.

The History Points website created a page about the lichen community, which the public can access via a QR code on the public footpath sign. This was publicised through social media and History Points reported a good level of views at the time.

Meanwhile, the External Funding team applied to the National Parks Partnership for funds to pay for follow-up INNS treatment. The application was successful, and a high quality, 30 second film was made about the project, which is currently showing in cinemas across the UK to publicise work done by the Pembrokeshire Coast National Park Authority.

The project was a real partnership effort - The National Trust gave permission for us to plant trees on their Sheepfields site. The ranger team all helped with the Cactus guards, as a training exercise with this new product. Six volunteers helped plant the hedge. Lichenologist Jon Hudson volunteered his time to advise the contractors and the project manager throughout the works. Natural Resources Wales passed on vital information about the lichens at the site.

3. Challenges and Opportunities

3.1 Sustainable Farming Scheme

The Sustainable Farming Scheme (SFS) marks a significant shift in farm support and policy, placing a much stronger emphasis on habitat management, tree cover, and long-term environmental outcomes alongside food production. This creates important opportunities, as more farmers and landowners are likely to engage with habitat enhancement and woodland creation, including individuals and holdings that have not previously taken part in conservation schemes. It provides an opening to broaden the reach of good practice and develop new partnerships across the farmed landscape. However, this also brings challenges. There will likely be a surge in demand for advice and practical guidance, at a time when detailed technical information on the scheme is still emerging. Managing this influx, while ensuring consistent, high-quality advice and supporting farmers through a period of considerable policy change, will require careful coordination.

This is where Ffermio Bro becomes particularly valuable. The programme provides a practical mechanism to work directly with these landowners in a positive, place-based way. By supporting collaborative, locally tailored projects we can deliver tangible improvements in habitat quality and connectivity. Ffermio Bro also offers a test bed for developing the collaborative elements of the SFS, showing how local knowledge and trusted relationships can drive better environmental outcomes while strengthening community involvement and confidence in the new system.

3.2 Climate Change

The impacts of and the adaptation to climate change are significant for nature recovery and conservation within the National Park and will continue to present challenges. Typical carbon sequestration opportunities are limited, the National Park having limited peatland habitat, as well as constraints for woodland planting in the context of the landscape (see [Trees and Woodland Guidance - A landscape sensitivity assessment to woodland creation SPG](#)). Ffermio Bro will provide some opportunity as well as looking at meadow creation and management. The marine environment is another potential opportunity, and greater focus for developing this area will be considered over the coming years.

3.3 Funding

Funding will remain a challenge over the coming years; however, the team has consistently adapted to take advantage of short-term opportunities - responding swiftly to last-minute allocations and effectively directing resources toward strategically valuable nature projects (e.g. SLSP, Ffermio Bro and Local Places for Nature), despite very limited planning horizons and significant constraints on revenue and staffing.

Our experience with external funding has evolved through the Nature Networks Fund, culminating in a major cross-departmental initiative under NNF 4. This success opens the door to future cross-disciplinary projects and strengthens opportunities to deepen partnerships with organisations like the National Trust.

Growing sustainable finance remains a challenge, though we've seen some modest successes that we will build upon over the coming year.

3.4 Focusing our work

Alongside our strong emphasis on delivery, we must continue strengthening our strategic approach to Nature Recovery ensuring initiatives like Ffermio Bro are effectively targeted and our grant programmes are underpinned by clear, long-term priorities.

We've recently commissioned a study to evaluate the extent of land within the National Park that is securely managed for nature, supporting our progress toward the 30 x 30 target. At the same time, we're working with the NRW Area Statement team to develop Resilient Ecological Networks for Pembrokeshire. Together, these efforts will help shape and deliver a 10-year Nature Recovery Strategy for the Park.

3.5 Data

As part of responding to Welsh Government indicators on Conservation, the Conservation Team is in the process of reviewing its conservation land management data. The team are setting up a new conservation land management master layer on QGIS, as part of development of a new Conservation Data Framework. This will help support improved data integrity. NNF4 project is also supporting work to engage with volunteers and landowners to look at habitat monitoring and identification of methodologies. The work in these two areas will help with assessing progress and impact once 10-year Nature Recovery Strategy is in place.

4. Contribution to Cross Cutting Outcomes:

Cross Cutting Outcome	Contribution – Activities and Impact
Sustainable Development Principles – 5 ways of working	Long Term – the work delivered contributes to nature recovery at scale, contributing to the 30x30 targets and building ecological resilience for decades. Long term management agreements (the Caldey scheme and ongoing INNS management) secure sustained environmental improvements for the future. The creation of future lichen trees and restoration of Celtic Rainforest habitat contribute to ecological health far into the future. The ongoing monitoring and data collection of these schemes provide long term data sets and measurement of the impact for nature recovery. Prevention – targeted INNS control prevents the spread and potential longer term negative impact on ecosystems and also reduces future management needs. Land management actions such as creating buffer strips, hedgerows, ponds and unsprayed margins prevent biodiversity loss and soil/nutrient issues. The Lidar portal helps identify heritage and landscape features which may be at risk, which supports future management and can also prevent unintended damage. Integration / Collaboration – activities support multiple well-being and environmental goals including nature recovery, climate mitigation via carbon sequestration, enhanced historic landscape knowledge and improved social connections through volunteering. Data and learning from projects will support wider programmes such as Ffermio Bro, SFS and the development of Resilient Ecological Networks. Work is delivered collaboratively with a wide range of partners including NRW, National Trust, farmers, landowners, communities and volunteers. Opportunities to work with new partners is also key to achieving positive outcomes for conservation, for example working with Caldey Island. The Authority continues to be a committed member of the Pembrokeshire Nature Partnership, demonstrating the strength and impact of the

	collective approach towards conservation and nature recovery. Involvement – the wide range of projects involve opportunities to engage with new and existing partners. Extensive volunteer involvement is demonstrated through the INNS work, hedge planting, monitoring and with the heritage mapping as part of the Lidar Portal. Landowners and farmers actively shape land management through grant schemes and grazing agreements. Community engagement events as part of the INNS project increase awareness, knowledge and participation in nature recovery. Public engagement tools such as the QR-code linked lichen information, the cinema-shown film and citizen science portals give diverse groups opportunities to participate.
Public Sector Equality Duty/ Socio Economic Duty / Reducing Child Poverty	The Pathways programme of supported volunteering has been a key delivery mechanism for the Nature Networks Fund 3 project, Cysylltu Natur 25x25. Volunteers have carried out a range of different conservation tasks, learned practical skills and discovered more about nature and ecology. Many volunteers have been able to gain employment elsewhere after spending time on the project.
Promoting Welsh Language	Both the Authority's Farming Conservation Liaison Officer and Ffermio Bro Advisor speak Welsh, and the North Conservation Officer has learnt Welsh to A level and beyond. It is important that we can engage with a range of stakeholders including landowners in Welsh when carrying out nature recovery activities. The Community Archaeologist is also a Welsh speaker. Furthermore, several of the Nature Recovery team have also embarked on learning Welsh.
Section 6 Biodiversity Duty / Sustainable Management of Natural Resources	The Authority's programmes and projects contribute directly to the Section 6 Biodiversity Duty with interventions directly targeted at improving habitat quality, supporting species recovery and restoring natural processes from small scale restoration at SSSIs to catchment wide, as well as landscape scale agricultural schemes. Work clearly advances nature

	recovery, strengthens ecosystem resilience, and supports the 30x30 target, delivering multiple benefits. The integrated, multi-benefit approach exemplifies SMNR in practice.
Engagement with Communities and Stakeholders	The various projects and schemes include extensive engagement with communities, landowners, volunteers, and partner organisations, covering multiple catchments, coast areas, high value conservation sites and the farmed landscape. A wide range of activities take place to support this engagement (INNS control, land management grant schemes, habitat restoration, volunteer supported tasks, management agreements, community events, citizen science) and significant volunteer involvement underpins much of this work. New relationships have been built (Caldey Island, new landowners and farmers, volunteers through the Lidar Portal) broadening the base of engaged stakeholders, partners and communities. The impact of this engagement has strengthened ecological connectivity, expanded land managed for nature, contributing to nature recovery across the National Park.
Staff Development / Volunteering Opportunities	Staff have gained experience and developed skills through collaboration, specialised conservation tasks, training embedded in practical activities (Ranger team and cactus tree guards). The range of varied and meaningful volunteering opportunities is significant, with 1,600 hours dedicated to INNS control, 84 community events taken place, habitat restoration work and citizen science opportunities (Lidar Portal). These activities help build ecological skills, social connections and public participation in nature recovery.

5. Overall Assessment and Next Steps

There has been strong and evidenced progress towards the Authority's Nature Recovery objectives, with many key achievements across all outcomes - favourable conservation status on high-value sites, increased land managed for nature,

ecological connectivity and public involvement - some of which are highlighted in this deep dive report. This demonstrates the Authority's meaningful contributions towards the 30x30 targets and compliance with the Section 6 Biodiversity and Ecosystem Resilience Duty.

The work delivered reflects how critical it is to shift from short term, sometimes isolated interventions towards long term, strategic system strengthening approaches and how key these are to delivering at scale and with impact. High value partnerships and volunteering are key to achieving the Authority's objectives. The Authority continues to develop and deepen existing and new collaborations, which has expanded our capacity and reach, as well as unlocking other resources not available to the Authority.

The Authority is demonstrating innovation and adaptability, using citizen-science technology, broadening public participation and enhancing historic and natural environment datasets. The ability to respond rapidly to funding opportunities is a key strength of the Authority, but sustainable long-term financing remains a challenge.

Other strategic **challenges** include the SFS transition. SFS creates major opportunities for habitat expansion and will need structured support mechanisms and prioritisation. Ffermio Bro delivery will prepare and inform the Authority for SFS. The 10-year Nature Recovery Strategy will integrate the NRW Resilient Ecological Networks work, identify priority landscapes, species and pathways for 30x30, and provide direction for project work.

Next steps will focus on completing and then embedding the 10-year Nature Recovery strategy; preparing for SFS scaling; building sustainable long term funding models, including exploring blended finance opportunities and developing clearer business cases demonstrating ecosystem service returns (e.g. carbon sequestration, water quality, heritage benefits and others).

Monitoring, evaluation and data integration will be strengthened by continuing to build standardised monitoring protocols across land-management schemes. Opportunities for using Lidar outputs and data to inform wider nature recovery work will be explored. The development of dashboards and an annual state of nature recovery dashboard for clear and simple reporting will also be explored.

Opportunities for supporting marine nature recovery work, including for carbon sequestration will be explored in greater detail over the coming year.

Community and volunteer participation will be continued, linking nature recovery work with volunteering and Engagement and Inclusion Teams. Growth of youth and inclusive engagement (Pathways, accessible volunteering, bilingual engagement) and wider partnerships will continue to be developed and enhanced.