New Forest Net Zero

A nature restoration pilot project

National Parks

NEW FOREST NATIONAL PARK

NATURAL ENVIRONMENT INVESTMENT READINESS FUND

Environment Agency

New Forest woodlands © NFNPA

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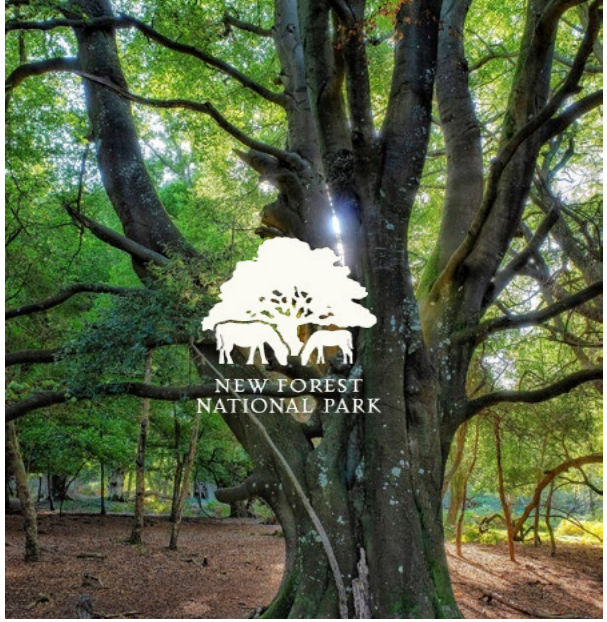
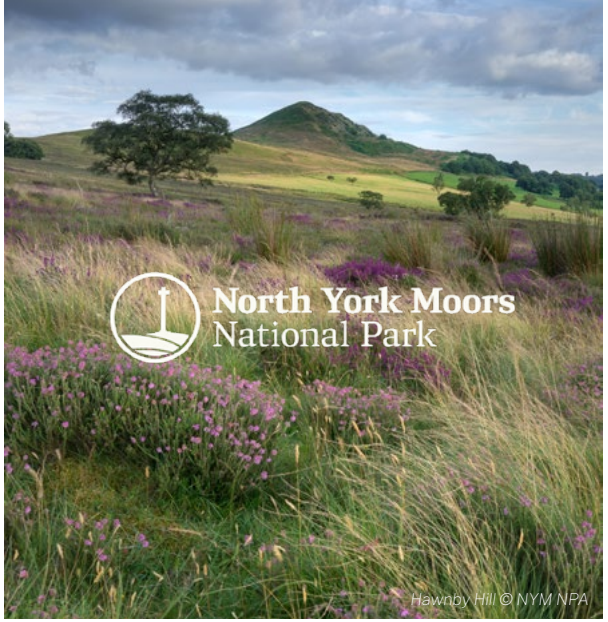


New Forest photo by Richard Loader on Unsplash



Hawnby Hill © NYM NPA

National Parks, in collaboration with Palladium through the Revere initiative (see p20, 'About Revere'), is facilitating several nature restoration projects across the UK.

Two pilots for these projects, in the New Forest and North York Moors National Parks, are funded by the Natural Environment Investment Readiness Fund (NEIRF), the Defra and Environment Agency initiative to encourage the development of environment projects to become viable for private investment.

The two pilot projects have seen the National Park Authority and Palladium teams working closely with local landowners and land managers, Natural Capital Research Ltd data modellers and the Environment Agency, to draw up design cases or business cases based on the creation and sale of various ecosystem services.

Both case studies have provided numerous learnings that will be invaluable to their own parks as they further explore private financing of nature restoration, and also to other schemes and projects across the National Parks network.

This ebook knowledge product takes an in-depth look at the processes, practices and conclusions from the **New Forest Net Zero** pilot scheme, and aims to be a useful resource for future nature restoration projects.

Pilot projects overview

Projects	New Forest Net Zero North York Moors Esk Valley
Funding	Funded by NEIRF, *c*£100,000 for each pilot
Led by	Revere, a collaboration between National Parks and Palladium (see profile **p20**)
Duration	July 2021-August 2022
Aim	Collaborating with landowners to explore the potential role of private investment in nature restoration

What is NEIRF?

The Natural Environment Investment Readiness Fund is a £10 million fund that provide grants of up to £100,000 to environmental groups, local authorities, businesses and other organisations, to help them develop environmental projects in England which both provide environmental benefits and attract private investment. Designed by Defra and the Environment Agency, working with Her Majesty's Treasury, Natural England and Access – Foundation for Social Investment.

Why nature restoration matters

Grant Moir, Chief Executive of Cairngorms National Park Authority, explains why scaling up ecological restoration in the right way is critical not just to the future of National Parks, but also to the wider UK.

"**Ecosystem restoration is incredibly important in the battle against** climate change. Globally, around 50% of man-made CO_2 emissions are removed by vegetation, oceans and soil each year – and in terms of biodiversity, the UK does not come out of the Biodiversity Intactness Index well, so there's an awful lot for us to do. And peatlands in the UK are actually emitting rather than storing carbon – peatlands are responsible for around 20% of Scotland's total CO_2 emissions.

We are in a global nature crisis, with big declines in species and key habitats. In Scotland, there's been a 24% decline in average abundance of 352 terrestrial and freshwater species since 1994, and there's been a 38% decline in the Scottish breeding seabird indicator between 1986 and 2016. These are big decreases in some of the fundamental indicator species, and we've got to reverse that quickly.

There are plenty of other good reasons why nature restoration matters too, from helping flood management to providing jobs for people in rural areas.

The positive news is that that there are lots of examples of nature restoration projects across the UK that are doing good things, but the challenge now is to scale up these efforts to make a difference to the ambitious targets for 2030 and 2045.

New ways of thinking and working

Ecological restoration is not about returning landscapes to a point in the past, it's trying to think of new ways to do things. It's about increasing the amount of land that delivers for nature, improving its ecological functionality, connecting up fragmented habitats – it's regeneration as well as restoration.

One of the key aspects of ecological restoration is trying to let natural processes maybe run more effectively in places, and creating more semi-natural habitats to allow that to happen.

It's really important to remember that National Parks are working landscapes, so you have to take the people with you on this restoration journey – farmers, landowners and land managers. It's not a case of parks being either ecological or working landscapes, we have to bring both aspects together, which is what we're trying to do.

There are lots of varying pressures on nature in different places, and the solutions are going to vary accordingly. What works in the Cairngorms, for example, will differ from what's needed in the South Downs – but the good thing about having the National Parks network is that we can all learn from each other. We've all got to find ways for nature to have more room within our overall approach."

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Thinking big

Thinking about what restored landscapes will look like in the future is really interesting. The new park plan for the Cairngorms, which was approved in June 2022, has got some big targets and some big opportunities. By 2045, we want to see 50% of the National Park principally managed for ecosystem restoration, 35,000 hectares of new woodland, including 10,000 hectares by natural regeneration (80% of that being native woodland), and we're looking for 30,000 hectares of peatland restoration.

It's an exciting agenda, and we've got to work closely with people on the ground to make sure it works with more traditional management, too. That's the crucial bit – scaling up, but also trying to look for new opportunities for people in the future. We've achieved some scale in the Cairngorms and we need to replicate that across all 15 National Parks, because if we start to lead on these things then hopefully other areas in the wider countryside will follow.

We've also got to tie restoration in with things like food production – we're not creating any new land, so we need to work out how we can best deliver on the multiple things that people need from it. We're not trying to transform all our landscapes into places like the Yukon or northern Norway, but we are aiming to turn the dial up on nature.

North York Moors National Park © NYMNPA

National Parks leading the way

As an organisation, National Parks have a responsibility to provide leadership on biodiversity and climate action, but also on the human dimension. A lot of people live and work in the parks. We've got to make nature restoration relevant to people and show how we can deliver that - it's all interconnected.

Thanks to the structure we have in the National Parks, we are well placed to show people what a positive future looks like. If we can show that there are new ways to create big benefits for nature within the parks, it will hopefully inspire similar projects to be rolled out in other areas and we are well placed to try to show what a positive future looks like.

The work we are doing with Revere, raising private finance for nature restoration, is incredibly important. We know there is not enough public money available to carry out all the critical work that needs to be done in the next 25 years.

We know there is private funding available for nature and climate projects and we need to find ways of accessing it. It is essential that we do this with integrity and that the work we do is never greenwashing, and also that the outcomes are beneficial to local areas and communities living within them.

Time to lead

Being able to help move forward on the climate and biodiversity agenda is something which is now at the absolute forefront of what residents, communities and the private sector want from National Parks. They expect us to be experts and leaders. This is an area where we can use our brand and our credibility to make a difference. Now is the time for National Parks to really seize this opportunity to raise our profile and show what we can deliver to society as a whole.

Naomi Conway, Director
National Parks Partnerships

For an in-depth conversation on nature restoration with Grant Moir and Naomi Conway, check out the **Revere Vimeo channel**

We need to work together to trial the various models, see what works, what needs to be tweaked or changed, and how it all fits together. The trial work that we're doing across the National Parks network is absolutely crucial to this. This way, we can make sure that when we roll this out and when we talk to other people, we've got good models that ensure long-term, sustainable private finance doing the right things that provide long-term benefits, locally and nationally.

NEW FOREST
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Project profile

Working woodlands © NFNPA

New Forest Net Zero

NEW FOREST NATIONAL PARK

New Forest Net Zero is investigating new nature restoration revenue streams for public and private landowners in the south east of the New Forest National Park

The aim

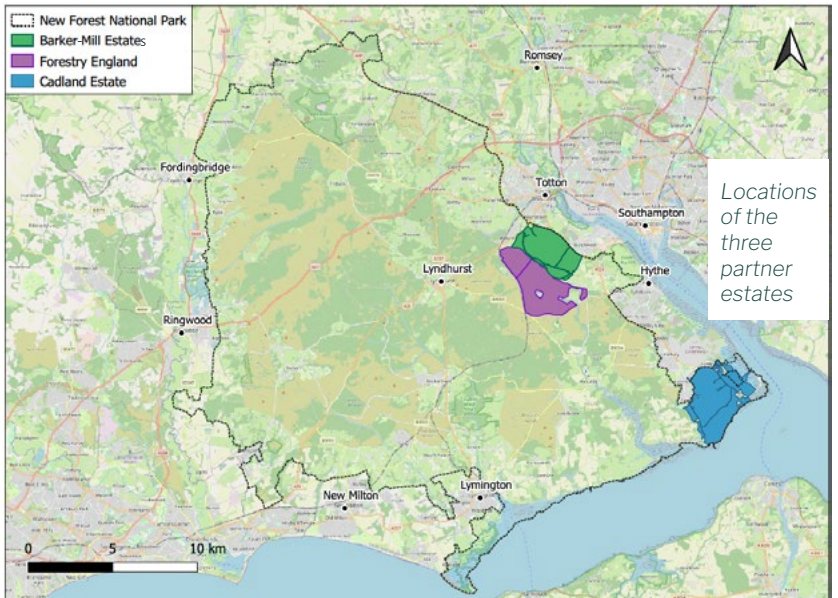
To test whether nature restoration can generate long-term income for landowners through the sale of ecosystem services; working with landowners to design nature restoration cases to be assessed for commercial viability.

The location

The National Park covers around 56,600 hectares (566 km^2) of ancient woodland, heathland, open pasture and coastline in south west Hampshire and south east Wiltshire.

The area is rich with natural assets and is home to several Site of Special Scientific Interest, Special Area of Conservation and Ramsar site designations. It is also located close to high-density urban development around the Solent waterway, including the major cities of Southampton and Portsmouth.

In the east of the New Forest National Park are three land estate owners collectively managing around 2,500 hectares, forming the project area and focus of this restoration investigation: Cadland Estate, Barker-Mill Estates and Forestry England.



Locations of the three partner estates

The challenge

The water environment around the Solent area is recognised as one of the most important for wildlife in the UK.

The New Forest National Park Authority, alongside other authorities in South Hampshire, is responsible for safeguarding these protected ecosystems from possible harm of future development.

Elevated nitrate levels in the water environment is a key area for management, due to a legacy of heavy agricultural land use and sprawling urban development putting the protected natural environment under duress. South Hampshire is also a region of high development pressure.

Currently, developments will only be permitted where a state of nitrate neutrality can be proven. This can be achieved through a number of routes, including woodland and wetland creation or the retirement of agricultural land within the catchment, though suitable sites for such creation or transition must become available.

This pilot project tested the ability for landowners to provide suitable biodiversity improvement and nutrient mitigation sites via nature restoration on their land, funded by private financing through the sale of ecosystem services.

The national picture

The latest Intergovernmental Panel on Climate Change (IPCC) report gives a bleak assessment of the climate impacts we are facing, but states that investing in nature can help to close the emissions gap between current decarbonisation progress and the 1.5°C target. Work to scale up nature-based solutions is therefore urgently needed; the Green Finance Institute calculated a central estimate of £56 billion is required in investment above current public sector commitments for the UK to meet nature-related outcomes in the next ten years.

The future for landowners and farmers is unclear. The UK is currently exiting from the EU farm subsidy payment scheme and transitioning into Defra's Environmental Land Management Schemes (ELMS). Yet many details on how ELMS will work still need to be confirmed. Private payments for environmental outcomes are at an early stage and the rules for how these can combine with public payments are yet to be determined.

Nationally, the UK Government has signalled the need to address the climate and nature emergencies. This includes targets for widespread nature restoration, as set out in the UK's 25 Year Environment Plan and Net Zero Strategy.

The participants

Delivered by Palladium, New Forest National Park Authority, Natural Capital Research Ltd, the Environment Agency and three land estates that comprise the New Forest Net Zero (NFNZ) project area: Cadland, Barker-Mill Estates and Forestry England.

Cattle at Butts Lawn © NFNPA

Cadland Estate

Assessing the ecosystem service potential of restoring nature on traditional high-output arable and game bird land; renaturing landscapes to deliver greater carbon sequestering, bolstering soil health and increasing biodiversity through creation of species rich grassland.

Barker-Mill Estates

Reimagining traditional agricultural land use and incorporating regenerative agriculture approaches; improving soil nutrient retention and reducing nitrate runoff; and increasing habitat connectedness through native woodland cover.

Forestry England

Restoration of native woodland habitat; creation of wet woodlands to return to natural water systems; and enhanced biodiversity with additional improved water quality.

Restoration opportunities explored

Proposed restorations were investigated that could generate valuable nitrate reduction, biodiversity net gain and carbon services, and through the sale of these ecosystem services offer an alternative form of revenue from the land for the estates.

The creation of successful restoration modelling solutions can then progress the National Park Authority's greater Nature Recovery Strategy and Net Zero With Nature ambitions across the park.

The opportunity

This pilot tested the financing of nature restoration via the nascent ecosystem service markets of the national Biodiversity Net Gain scheme and the nutrient neutrality market in the Solent. **Biodiversity Net Gain (BNG)** is an approach to development which means that habitats for wildlife must be left in a measurably better state than they were beforehand. It is set to be mandated in 2024 and will require new development plans to incorporate a 10% biodiversity uplift for successful planning approval, either on-site or off-site, and to be maintained for 30 years.

The **nutrient offsetting market** is similarly regulated through the planning system and requires a nutrient budget and suitable mitigation options to be defined for each development prior to commencement. Neighbouring the New Forest National Park is the Test and Itchen catchment where the Defra-led 'Solent Nutrient Market pilot' is taking place. This pilot is developing a trading platform that will allow nutrient credits to be sold and purchased within the catchment, enabling housing developers to put forward sites requiring mitigation and landowners to supply off-site nutrient reduction sites.

The project also investigated how to access private finance from the **woodland carbon market**, where CO_2 sequestered by newly created woodland can be sold as credits to private or public off-takers.

Grazing brown New Forest ponies © NFNPA

The outcomes

The pilot project has enabled the collection of evidence of the opportunities, challenges and financial viability of nature restoration schemes in the current market, based on the pioneering experiences of the three case study estates in the New Forest Net Zero project area.

These shareable learnings will help inform and guide other interested landowners, future Revere projects, and nature capital investors and policymakers.

Pilot perspectives

Aims of the pilot


Hurst Point Lighthouse © NFNPA

Understanding the Biodiversity Net Gain metric

Biodiversity Net Gain (BNG) is a scheme to enable the natural environment to be left in a measurably better state than it is currently, through the realm of new development. Biodiversity is measured using a habitat-based approach to assessing an area's value to wildlife, which uses habitat features to calculate a biodiversity value. To find out more see the general government guidance or the Natural England's Access to Evidence website.

Olivia McGregor
Net Zero With Nature Programme Manager
New Forest National Park Authority

"The New Forest National Park is one of the most important places for nature in Europe, on account of the conservation sites and reserves contained within it. The size, quality and range of different habitats means it also plays an important role in tackling the climate crisis. It acts as a significant carbon sink, storing more harmful carbon than the surrounding area. Climate change and the loss of nature experienced across the UK means refuges such as the New Forest are ever more important to conserve. We can no longer simply protect nature from harm in the National Park by preserving its special sites and reserves. To build the New Forest's resilience, we need to work across the wider countryside within and beyond the National Park and create bigger, better, more joined-up habitats. The right funding and financing mechanisms are key to achieving this.

The aim of the New Forest Net Zero pilot was to explore the extent to which private finance can support our nature restoration and climate mitigation aims across areas of land we have no direct management responsibility over. It represented a key opportunity to work in partnership with local stakeholders to deliver nature and climate aims across the National Park."

Ashley Gillan
Project Development Associate
Palladium

"This project sought to test whether income generated from restoring land for nature can compete with that of existing land uses for the landowners. For example, could we design a scalable model which will enable landowners to deliver benefits to biodiversity and water quality in the area, whilst enabling them to make a living from the new land use?

The three land estates we worked with in the south east of the New Forest National Park all share an ambition to restore their land for nature. Our task was to design and test a commercial model for nature restoration, financed via private funding through the sale of ecosystem services.

Each of our partner estates has its own set of unique challenges and opportunities, and one of the key elements of the pilot was to test ways in which each estate could access or combine different ecosystem services on one land holding – or 'stacking' ecosystem services – to form a new business case. The project focused on the woodland carbon market, water quality improvement through the nutrient offsetting scheme, and biodiversity uplift through the Biodiversity Net Gain (BNG) scheme."

Who is involved?

New Forest National Park Authority – leading on local expertise, relationships with local stakeholders and land managers, and facilitating the project on the ground.

Palladium – bringing experience of working across the tropical belt to help to scale sustainable business models that empower individuals and communities, reduce pressure on forests, and prevent climate change.

Natural Capital Research Ltd – providing technical capabilities to assess the natural capital and nature restoration potential of land.

Environment Agency / DEFRA – funding the scheme through NEIRF.

Three selected estates - Cadland, Barker-Mill Estates, and Forestry England.

Local stakeholders including New Forest commoners, and farmers who are facing significant changes in subsidies.

Local planning authorities working with land managers and developers to find mitigation solutions.

Buyers of ecosystem services who are keen to know what the local potential is for creating these ecosystem services and to sign off-taker agreements for the environmental services.

New Forest National Park: context

The New Forest National Park is located in an area of high development pressure on the South Coast of England, opposite the Isle of Wight and close to the urban centres of Southampton and Bournemouth.

The greater Solent catchment, within which the park is located, is a water environment that is recognised as one of the most important for wildlife in the UK. It is protected by a number of local and international designations for the water environment, conservation of habitats and species regulations. Due to a legacy of human activity, nitrates and phosphates within the waterbodies of the Solent are at concentration levels where they are causing harm to the protected ecosystems and the environment is impacted by this process, which is known as eutrophication.

In response to this situation, new developments are no longer granted planning permission within the Solent area unless they can evidence they are not adding to the problem with their additional waste water. Natural England designed a scheme called Nutrient Neutrality where, through a calculator tool, developers can estimate their nutrient input into the water system and therefore how much they are required to remove from the system to remain 'neutral'.

There are a number of mechanisms for reducing nutrients entering the catchment, such as directly reducing input via the retirement of agricultural land or creation of wetland habitats for active removal. This creates a market opportunity for land managers who can restore their land for nature, funded by developers looking to undertake projects within the same area.

The New Forest has the highest proportion of protected areas within any English National Park, and also a high density of population: there are about 35,000 residents within the park, 1.7 million living very close to the border, 16 million people within a 90 minute drive, and an estimated 15–16 million day visits each year.

Three estates, three challenges

Ashley Gillan
Project Development Associate
Palladium

"The three estates we worked with presented an interesting opportunity for us to test the market for each ecosystem service from different perspectives, starting with a different combination of natural assets, constraints and land management priorities.

Two of the estates are privately owned, one of which currently exists as predominantly intensively-farmed arable land. As part of this pilot project, we modelled the land as a renatured biodiverse landscape to see what that would look like and what sort of natural capital assets could be generated. We also tested what ecosystem services and their associated revenues could be received through that restoration scenario. This made for a useful comparison to the business-as-usual land use of the estate.

On the second private estate, we looked at more of a mosaic landscape, combining a number of different ecosystem services in a number of different ways, either horizontally or vertically stacking them, whilst maintaining areas with low intensity agricultural use.

The third estate is owned by the Crown and managed by Forestry England. Here, we wanted to test if and how land that is already managed to a high environmental standard, could access private financing through the ecosystem services markets, and how a public body could interact with the newly created market that is ecosystem services."

BNG and Nutrient Neutrality – useful links

Defra Consultation on Biodiversity Net Gain Regulations and Implementation

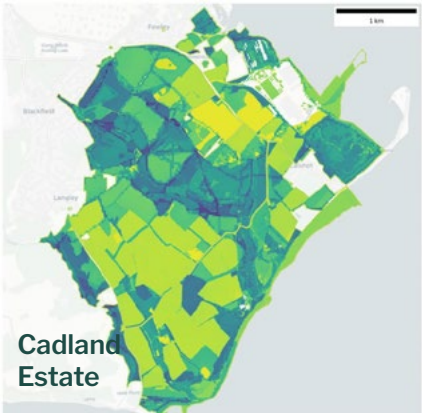
Policy paper – Nutrient pollution – Reducing the impact on protected sites

Natural England sustainable development blog

Hampshire & Isle of Wight Wildlife Trust – Reducing nitrates in the Solent

The State of the Park Report for the New Forest contains a wealth of information about the National Park

Pilot processes



Baseline assessment maps from the three selected estates.

Natural Capital Research Ltd produced a detailed baseline assessment for each of the three estates, mapping the existing natural assets and ecosystem service flows on each site.

This mapping included:

- **Carbon storage potential**
- **Carbon sequestration potential**
- **Soil erosion prevention potential**
- **Flood risk reduction services**
- **Recreation value**
- **Pollination value**
- **Important biodiversity habitats**
- **Nature networks**

The next stage of the process was to work closely with the landowners and create **two restoration scenarios for each estate** for modelling. The first scenario was a **'realistic landowner-led' restoration case**, which looked at renaturing areas such as less profitable field margins and land already designated for renaturing. The second scenario was a **'high ambition' restoration scenario**, where a more ambitious case was modelled and areas of land that would be considered for restoration 'if the price was right'.

Alongside the restoration modelling, detailed market research was undertaken for each ecosystem service to understand the accessibility of the market and what potential buyers might exist for the scenarios.

Key discussions were progressed with the local stakeholders including:

- **New Forest District Council**
- **New Forest National Park Authority**
- **Water utilities**

Based on the economic modelling and restoration case data, and consultation with the estates on preferred restoration outcomes, next-step plans were presented and discussions with off-takers initiated.

Ecosystem services assessed

Biodiversity Net Gain (BNG)
Requirement of new developments to incorporate a minimum 10% biodiversity gain for successful planning approval. Can be achieved on-site or off-site and must be maintained for 30 years. Currently only as a recommendation, becoming mandatory in 2024.

Water quality
The sites drain directly into the Solent. Agricultural runoff is contributing to extreme levels of eutrophication, biodiversity loss and ecosystem damage in the Solent estuary. Developers must prove nitrate neutrality and pay for the reduction or removal in nitrates to the system.

Carbon
Woodland creation is a means of capturing carbon and is harnessed to assist in the UK's journey to Net Zero. Woodland Carbon Credits can be sold to the government's auction scheme or to the private market.

Market research conclusions

After detailed scoping research into the ecosystem markets, it was found that **woodland carbon was the most accessible and possibly reliable ecosystem service** for the land managers to engage with at this point, whilst BNG and nutrient offsetting promised higher financial returns but a higher risk in securing buyers.

The **Woodland Carbon Code** is the government-backed quality assurance standard for woodland creation projects in the UK which generates independently verified carbon units.

Photo by Annie Spratt on Unsplash

Sharing knowledge – Terrasos visit

During the pilot process, Colombian habitat-banking organisation Terrasos visited the New Forest National Park on a knowledge-sharing mission. Members of the Terrasos, New Forest National Park Authority and Palladium teams exchanged perspectives, experiences and ideas around their respective nature restoration and habitat banking practices for biodiversity.

Photo by Andy Newton on Unsplash

Ashley Gillan
Project Development Associate
Palladium

"It was fantastic to hear how a biodiversity payment market that is habitat banking, is in full swing and transforming farmers' lives in Colombia to such a successful level that they've expanded 10-fold. If we could introduce such a scheme in the UK, not only are you benefitting biodiversity and helping bring it back from crisis point, you're also allowing farmers and land managers to confidently see a financial future in this changing subsidy environment."

Mariana Sarmiento
Founder and general manager
Terrasos

"One of the key things about the habitat banking projects we're involved in, is that they're mostly being created in areas that are under-represented within the National Park system; we're able to bring in private investment for setting up projects, and then we sell biodiversity credits."

New Forest Net Zero project timeline

AUG 21
Funding awarded by DEFRA

New Forest Net Zero selected as a pilot project by Revere; estate partners selected

SEP 21
Kick-off site visit and onboarding of the three partner estates

NOV 21
Baseline natural capital assessment for each of the sites underway

JAN 22
Landowner workshops: restoration design planning at each site

FEB 22
Kick-off meetings with potential local buyers and facilitators

MAR 22
Landowner workshops: update on project findings including local and regional market analysis, and the key opportunities and challenges for accessing ecosystem services on their estates

MAY 22
Hosted a visit from market leaders in South America to share learnings and approaches to natural capital payments for biodiversity

JUN 22
Landowner workshops: run through of the bespoke economic models for restoring nature at the three estates based on their chosen restoration plans

JUL 22
Project mop-up with summary of findings, key lessons and next steps to take the New Forest National Park Authority into the next stage of implementing these learnings. Project learnings shared with NPAs and wider sector

Photo by Liam Charmer for Unsplash

© NFNPA

Next steps

New Forest National Park Authority to encourage land managers and owners to get involved and share pilot learnings with sector peers and local landowners.

Project economics

Private payment opportunities in the New Forest National Park

Palladium engaged with local and national private sector organisations, along with planning authorities and infrastructure companies, to establish the scale of current opportunities to receive private payments for delivering environmental outcomes in the New Forest National Park. A summary of opportunities, as determined in 2022, across the three key natural capital markets is set out here.

CARBON

Presence and viability of a marketplace

- The voluntary market for carbon credits generated from woodland creation is growing rapidly and there are many buyers within the UK.
- UK-based native woodland creation projects are very popular with buyers, due to their high integrity and traceability of outcomes.
- Woodland Carbon Credits are currently selling for £25-40/tCO_2e (July 2022).

Conclusion

An accessible revenue stream for private payments for nature

- Several project developers, brokers and NGOs are working with landowners across the UK to support connection with buyers of Woodland Carbon Credits and arrangement of payments for delivering and managing woodland creation projects.

BIODIVERSITY NET GAIN (BNG)

Presence and viability of a marketplace

- New Forest District Council and NFNPA are already implementing the not-yet-mandatory BNG requirements on certain new developments within the New Forest.
- However, there is yet to be a formal mechanism for land managers to identify and access developers seeking off-site mitigation sites.
- The proposed Natural England net gain register would fulfil this role; it is anticipated to be made available when BNG becomes mandated in winter 2023.
- BNG Biodiversity Units are reportedly being sold between £9,000 and up to £25k across England (July 2022).

Conclusion

A potential revenue stream for private payments for nature if buyers can be secured

- Biodiversity Units generated from converting arable land into neutral grassland hold significant potential financial value.
- The challenge comes down to identifying local buyers and coordinating agreements that are compatible with the estate's future use vision and other revenue streams the estate may want to access.
- Habitat banking will likely be the most suitable approach for the project landowners: it allows land managers to create habitats in advance and 'bank' the resulting units for sale in the future, reducing the dependency on upfront buyers.

WATER QUALITY

Presence and viability of a marketplace

- The Solent catchment is comparatively advanced with its market of water quality payments due to the sensitivity of the ecosystems and degree of legacy pollution.
- Proving nutrient neutrality is required by developers within the catchment and is generating significant incentive for owners of potential mitigation sites.
- Nitrates are the applicable contaminant of concern for the project estates.
- Nitrate credits are on average being sold at £3,500 per KgTN within the New Forest catchment (July 2022).

Conclusion

A potential revenue stream for private payments for nature if buyers can be secured

- Renaturing agricultural land into natural habitats such as woodland can generate significant nitrate avoidance credits, as demonstrated within this project.
- Similarly to BNG, however, it is difficult for landowners to identify and access developers seeking nitrate reduction credits, particularly at the scale the landowners are looking to deliver. Currently, agreements are being signed on a piecemeal basis between developers, the Local Planning Authority and landowners.
- A platform model would benefit the market where buyers and sellers could be aggregated, eg, the Solent Nutrient Market Pilot which is currently being tested in a neighbouring catchment.

Pilot outcomes

Ashley Gillan
Project Development Associate
Palladium

The final stages

"The final key stage of the pilot project was our workshop with the landowners, where we presented to them their bespoke cost revenue models.

These took all of the quantified data for the restoration scenarios that we'd worked with them on and looked at how much it would cost to restore the land for nature in their individual designs, and then how much potential revenue they could get from that transformation.

We spent a couple of hours with each estate partner and talked through the model in detail.

This process included making sure they were happy with the general assumptions we'd made on costs, what rate they may be able to sell ecosystem services at, and who's going to buy them. We also explored with them anticipated sale schedules, what that means for the project cashflow and potential need for loans, how the cashflow changes over the 30-year project period and ultimately the income statement.

The sessions were really useful as it gave us an opportunity to stress test the models and let the estates see their restoration designs through a financial lens. The response was positive, and the partner estates were interested to know when they might be able to start actioning some of the designs.

The models are currently pretty unique as far we as we know, in that they combine multiple different ecosystem service revenues on one estate plan. Two of the ecosystem markets are still nascent and pool together detail on how much it costs to access the markets, what scenarios are compatible, and how much combined income you can generate over a project lifetime. Current cost revenue models tend to focus on either the creation of one or two habitats and access to public funding, or accessing an ecosystem service market and the specific costs that come with it. Feedback revealed that by having access to a streamlined tool which combines multiple cost revenue options, land managers are able to make better informed decisions.

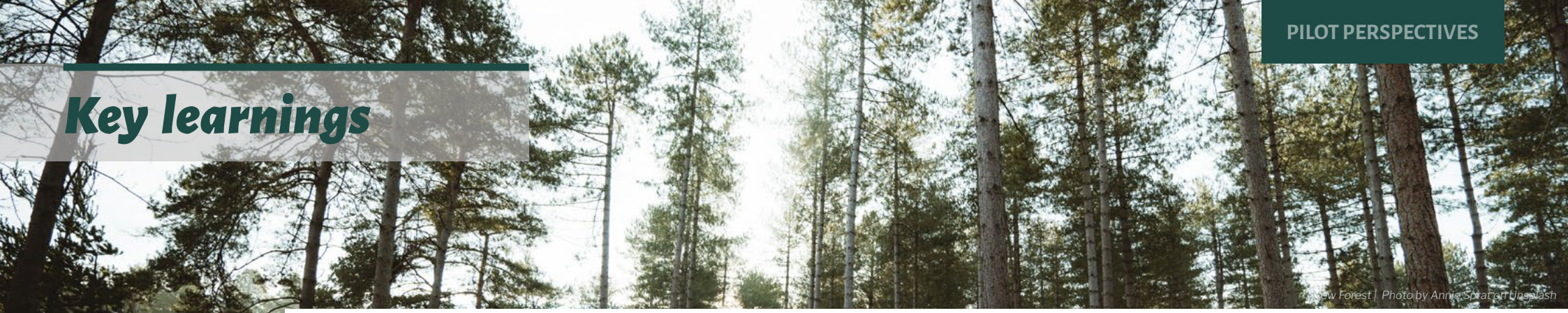
Feedback has been that having a streamlined tool that combines multiple cost and revenue options is really useful for the land managers to make informed decisions with.

Project conclusions

Based on the workshop feedback, we went away and tweaked the models to update assumptions, expand areas and streamline others. We also collected some key feedback on potential risks and opportunities from the estate's perspectives in carrying out these restoration projects. The final models and a summary of the anticipated opportunities, risks and suggested next steps, forms part of the final output of the project reporting.

Looking at the implementation of the restoration designs for these landowners, and to the wider New Forest community getting involved with similar projects, a final aspect of the project has been examining the future role of the National Park Authority (NPA) in facilitating this land use change. One possible route is to set up a central, integrated platform, headed by the NPA and with Revere's involvement, where buyers, investment and multiple project sites would be brought together and can smoothly enable nature restoration via private financing across the park."

Key learnings



New Forest | Photo by Annie Spratt on Unsplash

Ashley Gillan
Project Development Associate
Palladium

"We've learned a lot of really useful information during the course of the pilot, and some key areas of improvement needed for the future of the markets.

One of the key things that has become apparent is that the **guidance is often designed for the developer, rather than the land manager.** For donor sites or land managers who are trying to sell their ecosystem services, a lot of the guidance is left up to interpretation, and it can be difficult to provide the right level of information in order for the auditor to approve their site for mitigation.

Another key observation is that **not all land is eligible for accessing private finance ecosystem services**. A key example of that is if a site is designated a Site of Special Scientific Interest, as a lot of National Park land is, it's not eligible for additional Biodiversity Net Gain payments.

A really key, positive learning has been that **having an overarching strategy for the landscape of the National Park is very helpful** for landowners to engage with and shape their ideas of restoration around. It allows them to see the bigger vision and also benefit from higher nature uplift which can translate financially. Creating a positive, strategic bigger picture helps to encourage more nature restoration."

Olivia McGregor
Net Zero With Nature Programme Manager
New Forest National Park Authority

"The project has been a really interesting learning experience for the New Forest National Park. It's the first time we've had the chance to **explore in detail what private finance has to offer in terms of funding nature restoration**, and it's helped us to understand what part it can play currently in our move towards net zero. We've established that the provision of certain ecosystem services, like carbon removal via tree planting, net gains in biodiversity and the removal of nitrates from waterways, can be funded privately.

We've also learned that it's likely that **other types of nature restoration could be funded by private finance** mechanisms in the future, such as salt marsh and soil improvements; which is good news.

The pilot has also helped us uncover some of the **current constraints**. One example is a landowner who is keen to create a wetland but is not eligible for the privately funded nitrate removal scheme, due to the lower volume of nitrates in the waterway in that location. Some markets are quite locally defined, and the size of schemes is also a factor – nature restoration funding opportunities can be dependent on the timing and location of local developments and their offsetting requirements.

It's not clear at the moment how private funding can be matched with public funding schemes in all cases, and that the private finance market still has some way to go in terms of development."

What's next?

Andrews Mare Pond © Nick Lucas

Ashley Gillan
Project Development Associate
Palladium

"As the project reaches its conclusion, the final steps have been to disseminate the learnings effectively to the landowners, the wider community, and all the stakeholders who have a vested interest in the project and findings.

For the landowners specifically, we provide them with a cost revenue model which will act as an aid for future business planning and for any restoration designs that are being taken into implementation."

Olivia McGregor
Net Zero With Nature Programme Manager
New Forest National Park Authority

"The economic model that Palladium has provided enables us to have constructive conversations about current and future opportunities with the three pilot landowners, and how nature restoration opportunities compare with how they currently manage their land.

We will also disseminate the learnings amongst our stakeholders, fellow National Parks, AONBs and everyone who has an interest in this project.

We'll also be able to provide detailed feedback to Defra about what we've discovered about the state of the markets currently, and how easy or difficult it is for people to participate in it.

Beyond that, we really hope the project becomes a springboard for lots more interesting work to come, and enables us to continue and develop the conversation with other interested landowners in the New Forest."

About Revere

Revere is a collaboration between UK National Parks and Palladium

> *When it comes to restoring nature at scale, we need to explore all the possible avenues for funding, because there's a climate emergency. For the National Parks, though, exploring private finance has to be done really carefully, putting nature and communities first, with a fair and equitable system for landowners and everyone involved in this new economic model.*
>
> **Naomi Conway, Director, National Parks Partnerships**

REVERE
INVESTING IN NATURAL CAPITAL

Revere is a collaboration between UK National Parks and Palladium that combines the National Parks' ecological expertise with Palladium's commercial acumen to develop innovative solutions that work for nature, investors and communities.

Palladium
MAKE IT POSSIBLE

Palladium is a global positive impact company operating in over 90 countries, working with governments, businesses, and investors on collaborative models and systemic approaches to solve the world's most pressing challenges. Revere is a core part of Palladium's vision to restore and protect nature by catalysing private finance and creating new partnerships.

National Parks Partnerships

National Parks Partnerships (NPP) devises and manages UK-level partnerships between the 15 UK National Parks and the private sector. The 15 National Park Authorities are the members of NPP, and NPP is managed by a board that consists of both National Park and independent representatives.

Esk River, North York Moors National Park © NYMNPA

Revere's vision

Revere's vision is that private finance is deployed at an unprecedented scale to restore nature for the long-term and create livelihood opportunities for communities across the diverse working landscapes of the UK's National Parks.

To do this, Revere works with existing land managers, farmers and communities to design nature restoration projects, raise private capital to finance them, and generate revenue by selling ecosystem services.

Revere distributes the revenue earned between the parties involved in each restoration project.

Investments in natural capital transform ecosystems into a healthy state and accelerate progress towards the UK's net zero and biodiversity targets.

What Revere does

Designs restoration projects

Raises private capital

Sells ecosystem services

Revere designs and delivers projects that restore degraded peatlands, grasslands, woodlands and wetlands.

These projects generate ecosystem services, which can be fairly valued and paid for by the companies and organisations that benefit from them.

An ancient tree © NYMNPA

> *There's not enough money in the public purse to address the climate and nature emergencies – private finance has to be the way to go.*
>
> **Emma Davies, Senior Partnerships Manager Nature-based Solutions, Palladium**

Find out more at **Revere.eco**

Unlocking investment

Revere's current projects are categorised into three separate portfolios that will unlock investment and deliver nature restoration at scale:

Peatland carbon portfolio

Natural capital innovation portfolio

Woodland carbon portfolio

Further information

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Dark Water estuary at Lepe Beach, New Forest National Park © NFNPA

Websites

New Forest National Park Authority
newforestnpa.gov.uk

Palladium
thepalladiumgroup.com

Revere
revere.eco

Defra
gov.uk/government/organisations/department-for-environment-food-rural-affairs

Environment Agency
gov.uk/government/organisations/environment-agency

Natural Capital Research
natcapresearch.com

Forestry England
forestryengland.uk

Terrasos
en.terrasos.co

The Workshop
theworkshop.co.uk

Further reading

Biodiversity Net Gain

- Defra Consultation on Biodiversity Net Gain Regulations and Implementation
- About the consultation
- General government guidance
- Natural England's Access to Evidence

Nutrient Neutrality

- Policy paper – Nutrient pollution: reducing the impact on protected sites
- Natural England sustainable development blog
- Hampshire & Isle of Wight Wildlife Trust – Reducing nitrates in the Solent

Woodland Carbon Code

- Woodland Carbon Code

NEIRF

- First round of funding
- Second round of funding

New Forest

- Common grazing rights
- State of the New Forest report

Green Finance Institute

- Finance Gap For UK Nature Report

To access a library of knowledge-sharing video discussions recorded through the duration of the pilot project, visit **Revere Vimeo channel**