

Natural England Commissioned Report NECR292

Natural Capital Investment Opportunities for North Devon

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Foreword

Natural England commission a range of reports from external contractors to provide evidence and advice to assist us in delivering our duties. The views in this report are those of the authors and do not necessarily represent those of Natural England.

Background

The 25 Year Environment Plan (HM Government, 2018) aims to improve the state of the environment within one generation. The North Devon Landscape Pioneer was one of four pioneers tasked with testing and trialling new approaches set out within the 25 YEP. One specific ask of the pioneer was to explore new ways of funding environmental action. This work was commissioned to help explore this ask.

The pioneer was led by Natural England, but delivered in collaboration with a wide range of partners. The pioneer trialled a participative natural capital process to understand and agree priorities for North Devon and develop ideas to support and enhance them. The partnership identified a range of ideas which could be funded and would provide benefits to people and nature.

A short list of four of the ideas suggested by partners have been investigated further. They are presented here as investment opportunities. New models for funding these are also discussed.

This report forms part of the trial of a natural capital approach by the North Devon Landscape Pioneer. The Natural England Research Report Number 083 – A Natural Capital Strategy for North Devon – discusses the wider process, evidence, natural capital priorities and strategic responses in more detail.

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Further information

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Natural Capital Investment Opportunities for North Devon

Final Report

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Disclaimer

Eunomia Research & Consulting has taken due care in the preparation of this report to ensure that all facts and analysis presented are as accurate as possible within the scope of the project. However no guarantee is provided in respect of the information presented, and Eunomia Research & Consulting is not responsible for decisions or actions taken on the basis of the content of this report.

Executive Summary

E.1.0 Introduction

This report was produced to support a Natural Capital Strategy for North Devon, planned for adoption by partners involved in the North Devon Landscape Pioneer later in 2019. It was commissioned by Natural England in response to fears that several key habitats in North Devon, providing essential services to the wellbeing of people and wildlife in the area, were under pressure and that these pressures could be addressed, using natural capital approaches, by making a case for more and better co-ordinated investment.

Making the case to a wider set of investors, private companies and other organisations for investment that builds natural capital - the environmental assets of nature that provide life-support services and well-being - is difficult. A healthy environment is first and foremost a public good. Most of the investment to protect and improve natural capital is provided by either publicly funded environmental budgets, charitable giving or from responses to correct damage, in line with the polluter pays principle.

E.2.0 Findings

This report presents opportunities to trigger more and better investment in natural capital priorities in North Devon. This is done by highlighting opportunities to demonstrate the economic and social value of improved natural capital to a broad range of potential investors. This report also suggests ways of combining small contributions from the many organisations that would reap some direct benefit from improved natural capital, to create an investment budget that can support more significant natural capital projects in the long-term.

The opportunities presented in the report were developed through research and stakeholder engagement carried out during 2018 and early 2019 as part of the North Devon Landscape Natural Capital Pioneer project. Out of many potential ideas, four investment opportunities were chosen as exemplars that could demonstrate the case for wider investment. These are:

- 1) developing and marketing local food networks that promote sales of produce from farms that maintain and improve natural capital;
- 2) creating a new carbon offsetting standard for priority North Devon carbon storage habitats;
- 3) creating a woodland management support hub; and
- 4) developing an ecotourism standard that will promote habitat restoration on the river Torridge.

For each of these opportunities, the report:

- provides a description of the opportunity in the specific context of North Devon, and what an initial investment would buy;
- discusses the returns and benefits, specifically how the opportunity would help North Devon's natural capital priorities, other wider benefits that would arise, and how extra funds could be generated and used; and
- outlines ways to 'make this happen', by identifying potential investors, the readiness and risks of investment and where available, examples of where similar opportunities have been realised elsewhere.

E.3.0 Conclusions and next steps

There is a growing appetite for a broader range of green investment opportunities, amongst both investors and government. Despite this growing interest there are currently few examples to point to. The major barriers are a lack of property rights relating to many environmental benefits and the difficulty of quantifying the impacts of a natural capital investment. Progress will depend on more demonstrations of the art of the possible.

On a positive note, there is scope for a range of projects and mechanisms to be developed in North Devon that could strengthen the business case for a wider range of organisations to invest in natural capital enhancement.

The four opportunities outlined in this report could be developed within a budget of £1 million which would help to:

- recover the quality and extent of natural capital priorities in North Devon;
- generate ongoing funds to accelerate this recovery; and
- deliver wider economic benefits to North Devon.

To make these opportunities come to life, and to create a funding co-ordination mechanism that made such an investment affordable, a broad coalition of North Devon partners should come together to:

- further develop the investment opportunities outlined here, including debate on the best locations for interventions; and
- discuss creation of a joint investment fund and associated governance mechanisms.

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1.0 Introduction

1.1 North Devon’s natural capital investment gap

The quality of life in North Devon is intimately linked to its natural capital. Natural capital assets, in the form of different habitats and land uses, provide services that are vital to wellbeing and prosperity. They provide people with fresh water to drink, can protect from the impact of flooding events, mitigate climate change, as well as many other benefits which boost our economy and wellbeing.

Despite this value, we take most of the benefits that nature provides for granted. Sometimes we prioritise one service (for instance, food production) whilst inadvertently damaging other valuable services. This means that investment in the environment is under-prioritised and our quality of life is threatened because we are taking more than we are putting back.

Table 1-1 shows pairings of habitats and the priority services they could provide that were identified by stakeholders in North Devon in 2018 as targets for more investment.

Table 1-1 Natural capital investment priorities for North Devon (shaded)

Priority habitats / Priority services	Arable land	Improved pasture	Permanent grassland	Culm grassland	Woodland ¹	Coastal margins (including saltmarsh)
Protect and improve water-quality						
Minimise flood risk						
Increase carbon capture and storage						
Manage tourism and recreation pressure						

Notes: ¹Specifically for minimise flood risk, this relates to deciduous woodland

1.2 Closing the investment gap

Encouraging more investment in natural capital is not easy.

The ability to attract potential investors can depend on the promise of a clear return (either financial or for the wider good of society). But it can be difficult to clearly

demonstrate the links, and assign a value, between investment to improve natural capital and measurable benefits.

Investments would work best if they supported a landscape-scale approach, as this would improve multiple services, provide benefits to a wider range of investors and would have a positive effect on biodiversity. But this requires a high degree of co-ordination.

Consequently, the approach to building more investment in North Devon's natural capital requires projects that have the potential to:

- deal with the investment priorities
- demonstrate the potential for natural capital investments to generate returns
- demonstrate the potential for funds for natural capital investments to be pooled to generate multiple benefits and better value for money.

1.3 This document

This document identifies opportunities for investment that align with the priorities set out in Table 1-1. If adopted, these ideas will not definitively solve the shortfall in investment to tackle all aspects of the priorities, but they could start the journey for investment in North Devon's natural capital in a more integrated way.

The document is structured in four further sections:

- potential new sources of funds for natural capital investment in North Devon,
- four opportunities to attract new funds for natural capital investment in North Devon,
- ideas for mechanisms to co-ordinate investment from multiple sources, and
- recommendations.

2.0 Potential sources of new funds for natural capital investment

2.1 Attracting new funds for investment

To enhance North Devon's priority natural capital, we need to attract additional funding. Currently most investment comes from land managers and owners, the public sector and water companies. Enhancing existing funding and accessing new funds – from sources such as commercial investors, organisations whose goals are affected by natural capital, or organisations with philanthropic/corporate social responsibility aims – requires a case for investment to be made in terms of the goals of this wider pool of potential investors and funders.

Investments in natural capital will improve ecosystem service flows but they need to be described in terms of tangible benefits that are more instantly recognisable, and attractive, to a wider pool of funders, so this means linking the outcome of natural capital investments to benefits such as:

- reducing the cost of operations,
- reducing business risk by increasing long-term resilience and security of supply,
- creating revenues through new or increased economic activity, and
- fulfilling or extending delivery of regulatory requirements or Corporate and Social Responsibility obligations.

2.1.1 Broadening the case for natural capital investment

In 2018, an outline business case prepared for Defra¹ used this broader approach to screen the attractiveness of opportunities for investing in natural capital. The report identified six priority investment themes, chosen on the basis of their track record as successful delivery models and their likelihood of generating a revenue stream, as outlined in Box 2-1.

¹Vivid Economics and Environmental Finance, Outline Business Case for a Natural Environment Impact Fund, report prepared for Defra, June 2018.

Box 2-1 Priority Investment Areas for a Natural Environment Impact Fund²

- New woodland creation, supported by revenues from timber and carbon credits. *Benefit to cost ratio of between 1.6 (timber planting) and 2.9 (peri urban planting).*
- Peatland restoration, supported primarily by carbon credits. *Benefit to cost ratio of between 1.0 (drained peatland) and 10 (actively eroding peatland).*
- Biodiversity and natural capital net gain, where developers pay for creating or enhancing natural capital assets to mitigate the impacts of construction schemes. *Benefit to cost ratio of 0.5 (see footnote below as to why this ratio does not capture the full value).*
- Place-based strategic investment, where a charity or social enterprise manages a natural capital asset portfolio, such as urban parks, beaches or a woodland, under a mandate to balance ecosystem services, including monetisable and non-monetisable (public health, amenity value, improvement of air quality) benefits. *Benefit to cost ratio of 2.2.*
- Catchment services, where there is an opportunity to improve coordination between providers of water quality, water resource, flood management services and other catchment services. *Benefit to cost ratio of 2.0.*
- Sustainable Urban Drainage Systems (SUDS) in schools, where water company and other spending on drainage and flood defence is diverted towards green infrastructure. *Benefit to cost ratio of 6.4.*

Source: Vivid Economics and Environmental Finance (2018)¹

2.2 Potential additional funders in North Devon

By applying this idea of marketing broader benefits from improvements to the priority natural capital services identified for North Devon (previous section, Table 1-1), it is possible to identify a range of additional funding sources for raising investment.

Table 2-1 assesses the “investment attractiveness” of enhancing the Natural Capital services identified as priorities for North Devon taking into account how the resulting benefits might match the needs of a range of potential funders.

² The report only includes benefits for which credible estimates were easily available. So a range of benefits were not monetised, hence Benefit:Cost ratios understate the total potential return to society.

Table 2-1 Size of benefits that potential funders could gain from investment in North Devon’s priority natural capital services

Priority services	Protect and improve Water quality	Minimise flood risk	Increase carbon capture and storage	Manage tourism and recreation pressure
Potential funder				
LEP/Growth Deal Organisation				
Local Authority - Highways, Drainage and Flooding				
Local Authority - Public Health/Social Services/Clinical Commissioning Group				
Local Authority - Education				
Flood Authorities				
Housing Developers				
Water Company				
Tourism Sector				
Other North Devon Businesses				
Large Infrastructure Projects in North Devon				
Food Processing and Retail Sector				
Companies with CSR/Carbon Trading Obligations				
Philanthropists				
Insurance companies				

Size of benefits to potential funders is estimated on basis of a 10% increase above current baseline in provision of services from natural capital in North Devon. Assessments based on previous research carried out by Eunomia Research & Consulting and stakeholder workshop debate for this project in November 2018.

High - >£1m per annum	Medium £100k- £1m per annum	Low <£100k per annum
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With this analysis in mind, potential investment opportunities that deliver for the priority services can be presented to emphasise these links, making the chances of gaining funding much higher.

3.0 Four opportunities to attract new funds for natural capital investment

3.1 Defining the opportunities

Although the opportunities presented in this section will not fully address the natural capital priorities for North Devon, they present a tactical starting point to focus action to generate new funds for natural capital improvements. It is expected that more detailed business cases will be developed as part of the future governance to progress these opportunities going forward. If these opportunities can demonstrate success, then a broader range of investors can be attracted and the goal of making more and better investment in natural capital will be achievable.

3.1.1 How ideas for investment opportunities were generated

The four opportunities were derived from a long list of over 50 project ideas generated in a workshop with local partners who were encouraged to ‘think big’ to attract investment wider than the traditional sources of funds for environmental projects. Box 3.1 summarises the process and criteria used to create and short-list ideas (further details are provided in Appendix A1).

Box 3-1 Process and criteria for creating and short-listing ideas for investing in North Devon’s natural capital

<p>Step 1 Generating ideas. Local partners were asked to identify big ideas that would:</p> <ul style="list-style-type: none">• be your dream solutions to address the problems in North Devon• be something that could make the greatest contribution to improving the natural capital status in North Devon• be generated from a strategic perspective assuming that we all work together collaboratively• NOT be inhibited by thoughts of how we do things currently, or the solutions already discussed. <p>Step 2: Short-listing to identify five big ideas. Local partners shortlisted the project ideas, to identify big ideas that would meet these criteria:</p> <ul style="list-style-type: none">• Tackle at least one of North Devon’s natural capital priorities• Be good for biodiversity• Have a positive impact on natural capital asset (for instance, soil, water or vegetation cover) state• Have a positive effect on multiple ecosystem services (for instance, regulating water availability, providing timber or providing cultural value).• Be different from current practice in approach, scale or ambition.• Tackle the issue as close to the root cause as feasible.
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- Be able to identify measurable benefits that would attract investment from the public or private sector.
- Have a clear overall benefit to cost ratio.

3.1.2 The opportunity selection process

Project ideas were shortlisted to identify opportunities that were the most:

- **Desirable** (would have the most positive effect on the natural capital priorities in terms of scale and intensity of impact).
- **Viable** (could provide an opportunity for local action and innovation, with potential to attract new funding sources including private investment).
- **Feasible** (reflecting the timescale to initiate and implement proposed ideas, for example, by avoiding major barriers to implementation, such as central policy change).

The short-listing process also considered which ideas could usefully be further combined and could add value to existing work, since, unsurprisingly, the ideas identified to enhance natural capital priorities incorporated actions that overlap, with each other and with on-going initiatives.

The four opportunities emerging from the selection process were:


- 1) Develop and market a natural capital farm system into local food networks.
- 2) Create a carbon offsetting standard for priority North Devon carbon storage habitats.
- 3) Create a woodland management support hub.
- 4) Develop an ecotourism standard around habitat restoration activities on the river Torridge.

These opportunities, together with how they link to the natural capital priority services and biodiversity aims for North Devon, are outlined in Table 3-1.

Table 3-1 Investment opportunities’ links to North Devon natural capital priorities and biodiversity

Natural capital priority	Protect and improve water quality	Manage flood risk	Increase carbon capture and storage	Manage tourism and recreation pressure	Enhance biodiversity
Investment opportunity					
1. Develop and market a natural capital farm system into local food networks		*	✓	*	✓
2. Create a carbon offsetting standard for priority North Devon carbon storage habitats	*	*		*	✓
3. Create a woodland management support hub	*	*		*	✓
4. Develop an ecotourism standard around habitat restoration activities on the river Torridge	✓	✓	✓		✓

Table key:

 Main priority this investment opportunity was designed for

✓ Would provide positive impact

* Could provide positive impact dependent on design or location of intervention

Judgements were made using expert opinion and evidence contained within the North Devon Natural Capital Strategy (In press).

The case for investing in each opportunity is explained in further detail below under the following headings:

- 1) Description of the initial investment
 - Context
 - What would the initial investment buy?
- 2) What sort of returns/benefits could occur?
 - How the opportunity generates extra funds
 - How the opportunity tackles natural capital service priorities
- 3) Making it happen
 - Who might invest?
 - Readiness and risk
 - Examples of similar ideas applied elsewhere

3.2 Develop and market a natural capital farm system into local food networks

3.2.1 Summary

What the money would be spent on	Creating campaigns, distribution options and branding for locally produced food, sourced from farms that adopt practices that maintain and enhance natural capital.
Measuring investment success	No direct financial return to investor, success to be measured in terms of: <ul style="list-style-type: none"> • Scale of land covered by farms with plans to maintain and enhance natural capital • Sales of local food • Feedback from tourism surveys identifying local food as a visitor attraction
Link to North Devon natural capital priorities	Improved water quality by reduced diffuse pollution from agriculture
Main investor	Local government tourism and economic development departments

3.2.2 Description

Context

Farms that maintain and enhance natural capital – by reducing chemical inputs and investing in infrastructure to improve the soil and reduce losses of fertiliser/pesticide – may find this approach difficult to sustain in a world where the price for their produce is driven down by competition.

There are some funding incentives from central Government to support appropriate actions - secured via countryside stewardship agreements designed under the EU’s Common Agriculture Policy - but the model for calculating incentive payments (income foregone) does not always cover the total costs to farmers, nor the value of the wider benefits to society.

One way to provide more financial incentive is to create new markets and demand higher prices for products and services produced by farms which maintain and enhance natural capital. This may encourage producers to farm in such a way, so that they can access these higher value markets.

A new (post EU) Environmental Land Management Scheme is under development. Government policy, at the time of writing this report, is to offer payments under this scheme that are more in proportion to the wider societal goods that can be created by farms. If farmers are already seeing value from actions that maintain and enhance North Devon's natural capital, then there would potentially be an increase in the uptake of the new incentive scheme, creating a positive feedback loop.

What an initial investment would buy

The aim of the initial investment would be to fund actions that generate markets for the products and services created by a cluster of farms that maintain and enhance natural capital. It would initially involve recruiting a range of farmers with significant engagements in Countryside Stewardship mid-tier (and above) schemes to become part of a network of "exemplar natural capital farms". Once recruited, and subject to demonstrating continued commitment to maintain and improve natural capital, the produce and practices of these farms will be promoted to the local community using a range of marketing and tourism information campaigns. If farms begin significant transition towards approaches that protect and enhance natural capital, then they would become eligible to have their produce marketed in the same way. Standards to ensure inclusion would be developed, and should be compatible with agri-environment schemes.

The scale of this initial initiative, which would likely involve an initial investment of around £100k, would be insufficient to tackle all the pressures caused by current farming models (since it would only include a small proportion of the farms in North Devon), but it would act as a beacon for encouraging more widespread adoption and reward for the wider public goods delivered by farming that enhances natural assets.

3.2.3 Returns and benefits

How extra funds could be generated and used

As a result of making this investment, extra funds linked to improved natural capital could arise in a number of ways:

- Farms could generate more sales into local food networks, attracting a price premium, with demand developed as part of North Devon's tourism marketing
- More farmers could enter contracts under the Government's Environmental Land Management Scheme to provide natural capital goods, including the restoration of soil quality and reduced water pollution

How will this help North Devon's natural capital priorities?

Converting a whole farm estate, or a cluster of linked farms/ farm areas to a lower input and more nature-friendly system will lead to reduced water pollution, as illustrated by various initiatives already promoted in North Devon through initiatives such as

Catchment Sensitive Farming and the Taw River Improvement Plan³. These approaches encouraged targeted use of buffer strips and woodland planting as part of the farm system, meaning natural flood management gains could be achieved as well as increased carbon storage as well as supporting increases in biodiversity.

It is possible for major estates to radically switch to a more extensive form of farming along with diversification to maintain profitability and deliver extensive natural capital gains, a model illustrated by the Knepp Castle Estate in West Sussex⁴. However, the different land ownership patterns in North Devon make such a shift unlikely.

What wider benefits could arise?

The main additional benefits that will arise from this initiative will be for the farmers themselves, plus the towns and communities in close proximity to the promoted farms. These are:

- The local food branding/marketing, and any visitor centre development, will lead to increased values of sales of produce from promoted farms and create a marketing opportunity for North Devon Tourism.
- Increased visitation to farms could potentially broaden North Devon's non-coastal tourism offer.
- Local communities would have access to potential benefits in:
 - Opportunities for education; and
 - Opportunities to take part in active on-farm projects, such as hedge laying, that increase cardio-vascular fitness, reduce risk of diabetes and improve mental health and well-being.

There are also other possible opportunities which could arise at a small scale, which are mentioned here to highlight the wider spirit of helping farmers make a greater connection to the value of growing natural capital:

- Farms could generate educational and wellbeing offers that attract funds from philanthropic organisations and bigger companies in the food supply chain that wish to demonstrate a commitment to North Devon, to benefit through education and well-being as well as enhancing its natural assets.
- Farms could generate funds from local authority and public health organisations that wish to set up educational and wellbeing programmes that connect to nature.

³ <https://www.northdevonbiosphere.org.uk/taw-river-improvement-project.html>

⁴ <http://publications.naturalengland.org.uk/file/2321316>

3.2.4 Making this happen

Who might invest in this?

Although this is a small-scale initial idea, owing to the broad mix of economic growth, local brand enhancement and water quality improvements, there is scope for many types of organisation to make a contribution to the start-up investment:

- Philanthropic green investors,
- Food production and retail organisations,
- Tourism sector promotion organisations,
- Local authority economic development/ growth partnerships, and
- Water companies.

Readiness and risk

The key to enabling this initiative is to work with farmers. Farm clusters could act as a framework and have been used as such in similar, natural capital enhancing catchment projects.⁵ Several farm clusters involving farms with significant countryside stewardship agreements are being developed by the National Trust.

The key risk would be the ability to effectively identify an initial market and a suitable cluster of farms to provide sufficient produce. Based on some initial conversations with partners, a location near Bideford would be a possibility. There are three cluster groupings around the Bideford area, Torridge Headwaters, Braunton Facilitation Group and Taw Valley. The National Trust have indicated that opportunities also exist around Holsworthy and Hatherleigh, so these could be incorporated as well.

Similar examples

Knepp Castle Estate Farm in Sussex is an example of how one farm estate made the transition to a more natural capital focused model, with the development of a premium “wild meat” product⁶.

An example of how marketing to promote local food markets could occur is outlined in Box 3-2. A similar approach could be linked to new tourism initiatives that promote North Devon’s food, such as the North Devon Food Trail⁷.

⁵ http://www.exmoor-nationalpark.gov.uk/_data/assets/pdf_file/0008/364067/Wimbleball-project-summary-for-web-July-2013.pdf

⁶ <https://www.kneppestate.co.uk/wild-range-meat>

⁷ <https://northdevonfoodtrail.co.uk/>

Box 3-2 Developing demand for local, sustainable food

Open food Networks – Tamar Valley



The Open Food Network (OFN) is a growing network of small to medium food enterprises across the UK. The food is sold via varying means: farmers markets, retail shops, buying groups, wholesale distributors; and, also, through transparent online marketplaces, which aim to help create relationships between growers and buyers. The marketplace allows customers to search by neighbourhood for independent shops selling seasonal foods, making it easier for locals to buy local food. The Tamar Valley Food Hub is an OFN which aims to:

'Promote and encourage increased availability of sustainable and affordable local produce in the Tamar Valley and the surrounding areas'⁸

Its food production can be closely characterised to its distinctive landscape, which is as an Area of Outstanding Natural Beauty. The majority of producers which supply the hub are certified organic or offer some other sort of environmental credential, their produce is sold through an online marketplace and local cafes. Further to their aims of establishing better relationships with buyers, the Hub offers opportunities for customers to visit producers and take part in food related activities.

Alongside the food hub *Tamar Grow Local (TGL)*, the umbrella Community Interest Company behind the Hub, facilitate the Community Supported Agriculture initiative whereby consumers buy produce from farmers at a fixed rate, agreed in advance. The idea being that the rate is usually below the open retail price but above the price a farmer would expect to receive from a wholesaler.⁹ TGL have also set up cooperatives for honey and apple juice, giving farmers more market power.¹⁰ In 2013 TGL received the best enterprise award at the Local Food Awards. The project aims to expand into new areas, working with partners, to ensure local produce is sold in larger urban settlements such as Plymouth.

⁸ *Tamar Valley Food Hubs*, accessed 18 February 2019, <http://tamarvalleyfoodhubs.org.uk/about.html>

⁹ *Community Growing | Tamar Grow Local*, accessed 18 February 2019, <http://www.tamargrowlocal.org/community-supported-agriculture>

¹⁰ *Tamar Grow Local CIC | Co-operatives UK*, accessed 18 February 2019, <https://www.uk.coop/directory/location/tamar-grow-local-cic-r001448>

3.3 Create a carbon offsetting standard for priority North Devon carbon storage habitats

3.3.1 Summary

What the money would be spent on	Designing a verifiable carbon standard for carbon credits generated from positive land management change on Culm grassland (purple moor grass and rush pastures) and saltmarsh habitats in North Devon.
Measuring investment success	No direct financial return to investor, success to be measured in terms of: <ul style="list-style-type: none"> • Carbon credits offered and sold by land owners for Culm restoration and saltmarsh creation.
Link to North Devon natural capital priorities	Improved carbon sequestration and restoration/extension of priority habitats on the Culm and saltmarsh.
Main investor	A university via Government research funds or philanthropic investor with climate change mitigation goals.

3.3.2 Description

Context

The aim of this initiative is to create a verifiable standard for carbon storage and offset. This already exists for woodland habitats in the UK and other countries, however, there are other habitats which sequester large amounts of carbon. Therefore creating a verifiable standard and offset which could be sold for these other habitats could provide opportunity for raising funds for habitat restoration via land use change. Saltmarsh and Culm are examples of habitats for which this could be developed¹¹.

¹¹ A standard for crediting carbon sequestered in the creation for woodland already exists, The Woodland Carbon Code. The Peatland Code is a standard for another habitat but this can only be used for reporting, for example in annual GHG reports, and cannot be presented as carbon offsets <http://www.iucn-uk-peatlandprogramme.org/sites/www.iucn-uk-peatlandprogramme.org/files/160930%20FAQs.pdf>

According to Chmura et al (2003)¹², saltmarsh sequesters around 2 tonnes of carbon per hectare per year in the UK. Restoring Culm from intensively managed grassland delivers carbon reductions both from the restoration of the habitat, and the reduced stocking density per hectare. Semi-natural grassland restored from other land uses can sequester around 11 tonnes per hectare (according to De Dyn et al, 2010)¹³; more research is needed to understand the sequestration rate for Culm grassland and how this may change over time in areas restored from improved or semi-improved grassland.

The concept of including a carbon credit for saltmarsh created in North Devon is also covered in a report for WWF published by Vivid Economics in 2018¹⁴, as part of Defra's pioneer project looking at natural capital in North Devon's marine environment.

There are already standards and initiatives to promote woodland creation as a form of carbon storage. Defra's 25-year plan for the environment commits to introducing a framework for businesses to start using UK-valid offset units.¹⁵ These will be verified through a 'Forest Carbon Guarantee' scheme and the 'Woodland Carbon Code' (WCC).¹⁶ This scheme paves the way for businesses to offset their emissions through domestic credits, at a cost of £10 to £15 per tonne of carbon.

What an initial investment would buy

Work to develop an accredited standard would require research, verification and piloting. This would require at least £200k of research investment and take at least two years.

The policy framework for developing and accrediting such standards already exist. Once accredited an exchange platform will need to be developed to allow businesses to purchase these credits and land managers to deliver the land use change interventions.

3.3.3 Returns and benefits

How will this help North Devon's natural capital priorities?

Sales of accredited offsets would encourage greater creation and restoration of Culm grassland, woodland and saltmarsh habitats. This would sequester carbon, thus helping mitigate climate change. If new habitats were located in the right place, it could also

¹² Chmura, G.L., Anisfeld, S.C., Cahoon, D.R., Lynch, J.C. 2003 Global carbon sequestration in tidal, saline wetland soils. *Global Biogeochemical Cycles*. 17, 1111.

¹³ De Deyn, G.B., Shiel, R.S., Ostle, N.J., McNamara, N.P., Oakley, S., Young, I., Freeman, C., Fenner, N., Quirk, H., Bardgett, R.D. 2010. Additional carbon sequestration benefits of grassland diversity restoration. *Journal of Applied Ecology*. doi: 10.1111/j.1365-2664.2010.01925.x.

¹⁴ <http://www.vivideconomics.com/publications/sustainable-financing-mechanisms-for-marine-protected-areas-in-north-devon>

¹⁵ Defra (2018) *A Green Future: Our 25-year plan to improve the environment*, available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/693158/25-year-environment-plan.pdf

¹⁶ Forestry Commission (2018) *The Woodland Carbon Code*, available at: <https://www.forestry.gov.uk/forestry/infd-8jrm37>

reduce water flows, attenuate wave action and store water, thereby reducing flood risk and helping improve water quality, through natural attenuation of pollutants. Alongside this, biodiversity gains would also arise, again providing that the right habitat is created in the right place, for example, not planting trees on Culm.

How extra funds could be generated and used

Companies wishing to offset their carbon impacts are willing to pay the market rate for carbon offsets, this therefore creates funds to support restoration projects that sequester carbon. The income this generates could be used to fund, or co-fund, projects to extend Culm grassland and saltmarsh.

Any organisation wanting to offset their carbon emissions could contribute funds by purchasing carbon offsets. This is only likely to happen if the projects for Culm and saltmarsh enhancement were backed by a verified standard. In terms of investing to create the standard, then central and local government and philanthropic organisations would likely have a stake. There is also potential for businesses with carbon offset requirements, both in North Devon and further afield, to be encouraged to support development.

What wider benefits could arise?

Since the resulting investments that will be generated by the standard are likely to promote habitats that reduce flood risk if correctly located, then flood authorities connected to the Environment Agency and Devon County Council could also have an interest and could potentially contribute extra funds to habitat creation projects.

3.3.4 Making this happen

Who might invest?

The most likely investor for this work would be Government via either a department budget or from central research funding. Academic institutions, such as the University of Exeter, may be able to secure further research funding to provide underpinning science for the standard.

Philanthropic organisations, farming organisations or corporate companies, looking to develop alternative carbon offsetting approaches or to develop the brand of the North Devon Biosphere reserve, could also potentially be encouraged to contribute.

Readiness and risk

The learning from development of other carbon codes and the availability of data on carbon sequestration potential of key local habitats would suggest that this work could commence quite rapidly and move to at least a pilot output within two years. However, the timescale required to generate benefits and returns to natural capital will run to several decades.

A key risk will be whether there are sufficient opportunities to turn the accredited standard into a scheme where credits are purchasable by UK or EU- based companies.

Some current schemes are not able to be used for mandatory emissions reductions schemes but are for voluntary purchases. For this to be the most successful it would need to be purchasable for businesses who have a formal requirement to offset their emissions.

Examples from elsewhere

There are several carbon offsetting standards and schemes across the globe. One example, from where this idea has worked on a broad range of farming systems, is shown in Box 3-3.

Box 3-3 Developing standards and funds to encourage carbon reduction from agriculture¹⁷

Australia's Carbon Farming Initiative/Emissions Reduction Fund

Running from 2011 to 2014, the Carbon Farming Initiative (CFI) aimed to incentivise emission reductions before being integrated in 2015 with the Emissions Reductions Fund (ERF). The project opened up new revenue streams, incentivising land management approaches which provide the ecosystem service of sequestration.

This is achieved through verification and provision of credits, which can then be sold to individuals and businesses as a means to offset their emissions. The CFI (now under the ERF) has a range of accepted approaches which it recognises for sequestering carbon, allowing landowners to choose contextually appropriate methods. These include active sequestration in soils, trees and other biomass and approaches that reduce or avoid current emissions (such as methane capture).

Any CFI offset project must use a methodology that is recognised by the Australian Government to calculate emissions. The methodology is then assessed by an Integrity Committee, which must give certification for the credits to be approved. There are several other elements of CFI legislation that have been designed to minimise fraudulent behaviour and to ensure that credits are guaranteed.

Over three years of operation, the CFI sequestered 10 million tonnes of carbon through a A\$2.55 billion fund. In its current form as the ERF, the majority of Australian Carbon Credit Units are purchased by the government, for a price ranging between A\$12 and A\$18 (£6.62 - £9.93) per tonne of carbon.

¹⁷ <http://www.environment.gov.au/climate-change/government/emissions-reduction-fund/methods>

3.4 Create a woodland management support hub

3.4.1 Summary

What the money would be spent on	Build a new centre for woodland management, with machinery and/or equipment to enable sustainable woodland management and creation of woodland products. Employ staff to communicate, train and help establish markets.
Measuring investment success	Some financial return to investor could be created from sales of venue services, machinery hire and sales of woodland products.
Link to North Devon natural capital priorities	Increased management of woodland could store more carbon and, in some locations, reduce flood risk.
Main investor	Local government economic development departments.

3.4.2 Description

Context

The Biosphere Reserve’s existing strategy and policies for creating a woodland enterprise zone¹⁸ suggests a range of initiatives to promote the commercial value of woodland to enable extension and better management of woodland.

The aim of this initiative would be to build on the learning of the Ward Forester initiative, and address some of the recent recommendations on enhancing sustainable woodland management published in 2019 by the Royal Forestry Society¹⁹, in particular:

- Encouragement of co-operative management and marketing to stimulate local timber markets for construction and wood fuel.
- Acquisition and sharing of capital items (for example milling equipment and charcoal kilns) and infrastructure to enable cost-effective use of woodland products.

¹⁸https://www.northdevonbiosphere.org.uk/uploads/1/5/4/4/15448192/north_devon_biosphere_reserve_forest_policy_framework_v7.pdf

¹⁹ <https://www.rfs.org.uk/media/552717/woodland-management-missed-opportunities-in-england-and-wales.pdf>

As a consequence, a greater area of woodland would be brought into active, sustainable management which would lead to a greater provision of a number of benefits to people.

What an initial investment would buy

The initial investment would be of the order of £500,000 to £750,000 to pay for facilities (including construction of a building for the centre), woodland management capital equipment and staffing to prepare and implement the plans required to make the idea of a woodland hub a reality. Key components to develop for the hub will be plans to deliver:

- advocacy for sustainable woodland management with woodland managers and prospective buyers of products,
- multidisciplinary advice base for woodland management,
- a centre for collaborative or cooperative forest operations such as a machinery ring,
- contractor facilitation,
- direct labour facilitation,
- market facilitation,
- market development,
- on-site processing to extract more added value locally, and
- co-location of woodland related enterprises, such as vocational training.

3.4.3 Returns and benefits

How will this help North Devon's natural capital priorities?

Healthy woodland provides multiple environmental benefits. It cleans our air, sequesters carbon (figures for Exmoor estimate²⁰ a net gain in carbon dioxide storage of 9.7 tonnes/hectare/year for coniferous and 4.1 tonnes/hectare/year for broad-leaved woodland) and can mitigate flooding since trees intercept or use water in many ways, depending on species, size and location of woodlands.

Woodlands are recognised as providing a wide range of important habitats for wildlife. Many of the species associated with these habitats are dependent on woodland condition.

Active management—which may include preserving ancient trees and deadwood, or thinning to allow light to reach the woodland floor—is essential to conserve and enhance biodiversity.

This initiative will increase the area of woodland under sustainable management. The benefits of more sustainable management are primarily recreational and for biodiversity.

²⁰ http://www.exmoor-nationalpark.gov.uk/_data/assets/pdf_file/0005/426722/Exmoor-Woodland-Carbon-Final-Draft-Report.pdf

The improved management could also lead to more carbon storage²¹ and reduced flood risk, as woodland is very effective at attenuating water flows if located in the right place²².

How extra funds or economic returns could be generated and used

Over time, a range of economic returns could arise that increase the investment attractiveness of this opportunity, including:

- sales of woodland products,
- business rents from building space associated with the enterprise hub,
- parking fees growing from increased recreational use of well managed woodland, and
- carbon and biodiversity offset fees paid for by businesses and developers.

Surveys by the Forestry Commission have noted that social enterprises related to woodlands, which carry out a range of activities ranging from crafts, charcoal making, training and provision of conference space, can commonly earn trading incomes from £10,000 to £100,000 per year²³.

What wider benefits could arise?

In addition to the recreation, biodiversity, carbon sequestration and flood risk benefits from enhanced woodland provision, local communities will experience potential benefits from increased:

- Opportunities for education, including Forest School approaches²⁴ which are connected to wider improvements in wellbeing, a key issue with the current focus on children's mental health.
- If openly accessible, then provision of more locations for recreation, which delivers benefits for physical and mental wellbeing.

3.4.4 Making this happen

Who might invest?

The core funding for this initiative is likely to come from rural business and enterprise grants from local growth funds, or local grants related to vocational education and training. Grants related to woodland management and creation would also be suitable. The Plunkett Foundation is leading a major programme to promote local woodland social

²¹ <https://www.highweald.org/downloads/publications/uk-landscape-research-reports/1045-high-weald-woodlands-carbon-report/file.html>

²² The species and location are critical to achieving the benefits

²³ <http://www.sharedassets.org.uk/wp-content/uploads/2014/01/Woodland-Social-Enterprise-in-England-Final-Report1.pdf>

²⁴ <https://www.forestschoollassociation.org/what-is-forest-school/>

enterprise through its Lottery funded programme, Making Local Woods Work. A range of case studies can be found on their website²⁵.

Since the long-term benefits of well managed woodland improve flood risk and water quality, then cashable savings to the budgets of the Environment Agency, Devon County Council's flood risk departments and South West Water - subject in all cases to there being a clear link to pressures that they would otherwise be trying to solve via more costly investment approaches - could be converted into cashflows that repaid investment requirements for the support centre.

Readiness and risk

As noted initially, the Biosphere Reserve has already developed thinking behind the idea of a Woodland Enterprise Zone which could be used to initiate action. There are several locations in North Devon where a hub support centre could be launched as a pilot, with South Molton being particularly promising owing to its proximity to markets and community woodlands.

A key risk that could hinder the securing of wider investment would be the need to create a suitable financing mechanism that reflected the potential proportion of benefit each potential funder received, an issue covered in section 4 of this report. This in turn would mean that clear benefits would need to be demonstrated through monitoring. The commercial viability of generating incomes via conferences and courses from the creation of a potential host venue would need to be carefully considered, as this would be a significant investment.

²⁵ <https://www.makinglocalwoodswork.org/case-studies>

Examples from elsewhere

Box 3-4 Developing woodland enterprise in Sussex²⁶

Woodnet - Linking Timber Growers with Wood Users in South East England

Woodnet was established in 1996 as a partnership of woodland owners and timber processing companies wishing to make better use of locally-sourced materials. Funding to set up the centre came largely from European funds to promote vocational education and training, together with support from various woodland based charities and nearby local authorities.

A number of initiatives came out of this collaboration, including WoodLots (a business to business trading exchange), a wood fair and a Woodland Enterprise Centre which acts as an Innovation Centre for the timber sector demonstrating both wood in construction and renewable energy from local timber.

Woodnet also works in partnership with Plumpton College at Flimwell to provide a range of training courses about the management and use of wood and timber. The short courses can range from 1 to 5 days and are designed for woodland owners and managers, those interested in woodland skills and wood crafts, rural businesses, and those interested in timber design and construction.

Woodnet also help create markets for timber products and wood fuel. For instance, they hosted a Kent Downs Woodfuel Pathfinder and High Weald AONB partnership with Ignite to offer a new training course on wood fuels.

²⁶ <http://www.woodnet.org.uk/wec/>

3.5 Develop an ecotourism standard around habitat restoration activities on the river Torridge

3.5.1 Summary

What the money would be spent on	Creating an ecotourism standard with campaigns, that promote tourism business that restore habitats.
Measuring investment success	No direct financial return to investor, success to be measured in terms of: <ul style="list-style-type: none"> • Increases in tourism business turnover • Feedback from tourism surveys identifying river-based tourism and ecotourism accredited businesses significant visitor attractions
Link to North Devon natural capital priorities	Improved water quality (through riverine habitat restoration) and increased recognition of tourism opportunities away from pressured coastal margins
Main investor	Local government tourism and economic development departments

3.5.2 Description

Context

The natural features of the Taw and Torridge valleys, with their links to the Tarka Trail, are a key part of the natural tourism offer of North Devon and they are at the heart of North Devon’s natural capital priorities relating to water quality²⁷. By investing in nature recovery areas along the rivers, these destinations could attract more local economic activity for tourism support businesses and reduce pressure on the coastal margins.

Visually striking species such as the salmon and otter, or internationally rare and fascinating freshwater pearl mussels (*Margaritifera margaritifera*), represent iconic natural assets to attract visitors to the area.

²⁷ <https://www.northdevonbiosphere.org.uk/nature-improvement-area.html>

The core element of this idea is to develop an ecotourism quality standard connected to actions to restore the quality of water and habitats that support these species, which at the same time helps create and market a wider ecotourism offer in North Devon.

Ecotourism is a responsible approach to tourism intended to expose visitors to a nature-based experience while simultaneously sustaining or improving the ecology of an area, as well as enhancing the quality of life for local communities. The creation of an ecotourism standard which is awarded at different levels (for instance, bronze, silver and gold) in accordance with the level of action to improve habitats, provides an incentive for action.

What an initial investment would buy

The investment would support development of the standards and marketing of a North Devon ecotourism standard to be piloted in the river Torridge catchment. The standard could be used by businesses to demonstrate that their activities were being carried out in harmony with, and to improve, the quality of the catchment.

The costs of developing and marketing the standard would be under £100,000.

3.5.3 Returns and benefits

How will this help North Devon's natural capital priorities?

The ecotourism standard would support a new inland tourism offer. This could reduce tourism pressure at the coast in peak periods, which impacts on the quality of the environment.

The standard could be developed to require evidence of action to protect and restore the key habitats and water quality requirements for the specific species. Devon Wildlife Trust is already doing work to improve habitat and water quality in the River Torridge. Through the project work on the Torridge, the following improvements have already been delivered²⁸:

- 12.6km watercourse protected through watercourse fencing and culverts to exclude livestock,
- 9.4km² habitat protected either through watercourse fencing or direct in-river improvements to protect pearl mussel beds, and
- 5.7km watercourse improved through either coppicing or pollarding, large and small woody debris management, planting trees or willow stakes and woodland track work.

How extra funds could be generated and used

Ecotourism is growing in popularity and many places across the globe look to develop ecotourism as a way to promote economic growth. By using iconic North Devon species such as the salmon, otter and pearl mussel as part of the area's branding, and

²⁸ <https://www.devonwildlifetrust.org/what-we-do/our-projects/freshwater-pearl-mussel-project>

encouraging sensitive activity around key sites, then local businesses supporting outdoor activities and associated retail opportunities can develop.

Businesses could pay fees to help administer the standard development and verification, any surplus income could also contribute to funding of restoration projects.

The businesses themselves could develop visitor giving schemes to provide further funds, additionally, the types of tourism activities they support could be designed to deliver objectives of the restoration, effectively providing volunteer resource to support and enhance key habitats.

What wider benefits could arise?

The most obvious additional benefits are the promotion of actions to protect valuable biodiversity together with the potential for local economic growth.

3.5.4 Making this happen

Who might invest?

Economic growth bodies (such as Tourist Boards and local authority growth partnerships) can be encouraged to provide funds to support the development of the standard.

Devon Wildlife Trust is already working with local communities, to improve water quality and establish a breeding programme for Freshwater Pearl Mussels, as part of a project across England led by the Freshwater Biological Association and funded by Biffa Award²⁹.

Fundraising is currently underway for an ambitious new project covering 22,000 hectares of the Torridge catchment³⁰. The new phase of pearl mussel work seeks to restore stretches of the river, develop future juvenile reintroduction sites and improve habitat for fish and the endangered freshwater pearl mussel. The ecotourism standard idea could be supported by either the Biosphere partnership or philanthropic donors as a way of generating funds for this work.

Readiness and risk

There is already a movement towards use of the river Torridge as an economic development destination, as set out in the Tarka Trail Economic Development Plan³¹, and it has previously been the focus of action through its designation as a Nature Improvement Area³².

One of the main risks to natural capital from this idea is that the additional tourism is not managed sensitively and so causes damage to parts of the riverine habitat. This can be overcome by involving environmental professionals to establish the credibility of the

²⁹ <https://www.fba.org.uk/mussel-rivers>

³⁰ <https://www.devonwildlifetrust.org/what-we-do/our-projects/freshwater-pearl-mussel-project>

³¹ <https://www.northdevon.gov.uk/media/377734/tarka-trail-coast-cct-economic-plan-v4.pdf>

³² <https://www.northdevonbiosphere.org.uk/nature-improvement-area.html>

label and to avoid incentivising any unintended negative consequences. The scheme should be monitored and evaluated to ensure that semi-natural habitats are increasing, along with biodiversity.

Examples from elsewhere

In order to derive value from ecotourism several countries have realised that quality standards must be maintained. Sweden's approach to this is outlined in Box 3-5.

Box 3-5 Nature's Best quality standard³³, an ecotourism standard in action

Sweden's Ecotourism Quality Standard – Nature's Best

In 2002, Sweden launched the Nature's Best quality eco-label so that customers would know about the best offerings for Swedish ecotourism.

The Nature's Best label is administered by the Swedish Ecotourism Society in collaboration with the Swedish Society for Nature Conservation and Visit Sweden. In return for a fee, it provides a quality label for businesses benefiting from tourism around natural assets to demonstrate that they follow 6 core principles of ecotourism:

- 1) Minimizing the negative impacts on nature and culture
- 2) Supporting the local economy
- 3) Operating in an environmentally sustainable manner
- 4) Contributing actively to the protection of nature and culture
- 5) Effective interpretive skills and knowledge of the area
- 6) Quality and security while traveling

For each basic principle, there is a list of basic criteria and bonus criteria. For approval, all basic criteria must be met, as well as at least 25% of the bonus criteria. The criteria are reviewed every 5 years or so. New criteria can be added or some bonus criteria may become basic criteria, so that standards are constantly driven upwards.

The managers of the certification scheme claim:

The quality label Nature's Best Sweden is a decisive reason why nature tourism and eco-tourism is developing so quickly in Sweden.

³³ <https://naturesbestsweden.com/en/about-natures-best/>

4.0 Co-ordinating funds to deliver more and better investment in natural capital

4.1 Creating mechanisms to pool funds

Projects and initiatives that will make a significant impact on North Devon’s natural capital will require funding that may be beyond an individual organisation to meet or justify. New potential funders may only expect a relatively small benefit and so will be unwilling to contribute large amounts, especially in a relatively untried area. However, there is already a lot of money invested in natural capital – one of the keys to making progress may be to better co-ordinate these funds.

The beneficiaries who could contribute funds to the preceding opportunities, plus potential funds from developers collected by local authorities for biodiversity net-gain or Community Infrastructure Levy, together with other existing initiatives within the Biosphere Reserve such as the Investing in Nature Scheme,³⁴ all give rise to funds which, if combined and governed appropriately, could fund a significant programme of investment.

This approach, was used in Bath to fund a portfolio of over 30 projects around the River Avon in Bath and North East Somerset’s WaterSpace project³⁵, with partners who agreed shared outcomes as part of contributing money.

The WaterSpace project was achieved through the trust built in a long-standing partnership that has evolved over many years. However, other mechanisms exist that can create trusted approaches to pooling funds and deciding on how to use combined funds. Several of these are explored in detail in Vivid Economics’ work for WWF around options to fund management of North Devon’s marine protected areas³⁶, including a place-based portfolio fund and an extended Business Improvement District concept.

Two other approaches – a model based on Defra’s and the West of England Nature Partnership’s Natural Capital Trust model and social impact bonds (which could link to the woodland enterprise idea specifically), are outlined in the next sections.

4.1.1 Natural Capital Trust³⁷

The West of England Nature Partnership (WENP) worked closely with local authorities and the West of England Combined Authority to explore how the establishment of a

³⁴ <https://www.northdevonbiosphere.org.uk/investing-in-nature-scheme.html>

³⁵ http://www.bathnes.gov.uk/sites/default/files/sitedocuments/Environment/ba327_waterspace_update_spring_18_01_p1_-_68_web.pdf

³⁶ <http://www.vivideconomics.com/publications/sustainable-financing-mechanisms-for-marine-protected-areas-in-north-devon>

³⁷ <http://www.wenp.org.uk/wp-content/uploads/2018/07/NCT-Final-Report.pdf>

Natural Capital Trust for the West of England could both enable development and investment in natural capital, improving the quality of life for people across the region.

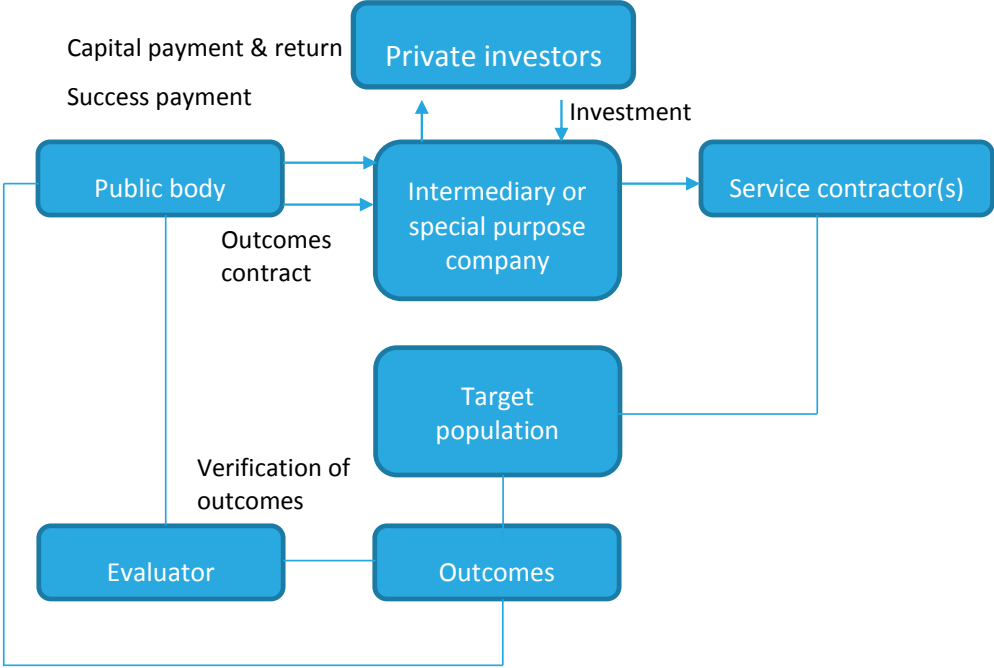
The approach outlined a mechanism to improve the strategic allocation of funding generated from developer contributions and payment for ecosystem services schemes to have maximum benefit to the protection and enhancement of a region’s natural capital.

A key aspect explored was the need to create a legal entity that gave governance powers to all parties that oversaw contributions to a region-wide natural capital fund, and allowed for delivery by trusted local bodies with close knowledge of the environment. Transparency of process, and strong governance and accountability, are crucial.

4.1.2 Social Impact Bonds

Social impact bonds, can turn even relatively small individual contributions over a limited timeframe into a funding vehicle that will repay funds sufficient for quite a significant investment (see Figure 4-1).

Figure 4-1 Structure of Social Impact Bond Delivery



Adapted from Whitfield, D. (2015).³⁸

³⁸ Whitfield, D. 2015. Alternative to Private Finance of the Welfare State: A global analysis of Social Impact Bond, Pay-for-Success and Development Impact Bond project. Adelaide: Australian Workplace Innovation and Social Research Centre, The University of Adelaide.

The value of such a mechanism is that it allows many potential beneficiaries to invest in proportion to the benefit that they feel they might receive. Such approaches have been used in the field of social impact investment³⁹. This involves the creation of a governance structure to oversee the spending of a loan provided by impact investment organisations.

As an example, a £1 million investment could be generated if 15 organisations were willing to commit an average of only £15,000 per year for five years – this assumes a 5% rate of return on the investment.

Creating a legal entity to co-ordinate such an investment in a project that improves one of North Devon’s natural capital priorities, perhaps using a green impact bond to provide the upfront capital, is therefore a key goal.

An additional role for such an entity, and its governing Board, would be to continue to search for new ways of co-financing projects using existing flows of money. So, for instance, funds from developer contributions could be used along-side payments from a water company to invest in green infrastructure that reduces water pollution, reduces flood risk and provides a net gain in biodiversity to compensate for development pressures.

Transparency of process, and strong governance and accountability, are crucial. This issue has yet to be explored in more detail with Biosphere partner organisations.

4.2 Recommendations for natural capital investment in North Devon

The four investment opportunities identified in the previous section would require a start-up investment of around £1 million. Because there are uncertainties about the returns from natural capital investments currently, it is highly unlikely that a single organisation could come up with this amount of money. So, all the mechanisms discussed above have relevance in dealing with this problem.

Setting up a social impact bond would require specialist advice and ultimately depends on measurable results. Government has supported the development of social impact bonds through mechanisms such as the Life Chances Fund⁴⁰, and these may eventually develop to become focused on environmental impacts. However, the bigger issue will be

³⁹ An impact investor is one that provides the upfront cash for an initiative with the aim of to generate a return from the investment. So, the funded action must generate cash to repay the investment plus a return or interest. However, the required rate of return will be set below what a commercial loan market would charge for projects attached to a similar risk profile, to reflect the fact that a wider good (impact) is created by the project.

⁴⁰ <https://www.gov.uk/government/news/government-improves-life-chances-across-the-country>

the ability to connect the interventions with measurable outcomes, perhaps using verifiable natural capital metrics which are still a long way from being standardised.

A Natural Capital Trust model, with pooling of developer contributions and third-party contributions with a stake in natural capital outcomes, is an attractive option. However, this would require a high degree of co-ordination across local authorities. It is also perhaps hampered by continuing uncertainty over the future of the Community Infrastructure Levy and Government's emerging policies around Biodiversity Net Gain.

As a result of these constraints, it is recommended that a co-funding partnership based around the model used in Bath's WaterSpace project would be the most viable option to explore in the near future.

5.0 Conclusions

5.1 Progress depends on small steps

Despite the growing appetite for a broader range of green investment opportunities, amongst both investors and government, the prospects for new and increased investment in natural capital from wider sources are likely to be limited. The conditions that have helped stimulate investment specifically in climate change mitigation – an acceptable and reliable relationship between investment risk, backed up by a carbon price, regulation and legislative targets – have yet to emerge for the wider area of natural capital investment.

Progress will depend on more demonstrations of the art of the possible. On a positive note, there is scope for a range of projects and mechanisms to be developed in North Devon that could strengthen the business case for a wider range of organisations to invest in natural capital enhancement.

The four opportunities outlined in this report could be developed within a budget of approximately £1 million which would help to:

- recover the quality and extent of natural capital priorities in North Devon,
- generate ongoing funds to accelerate this recovery, and
- deliver wider economic benefits to North Devon.

To make these opportunities come to life, and to create a funding co-ordination mechanism that made such an investment affordable, a broad coalition of North Devon partners should come together to:

- further develop the investment opportunities outlined here, including debate on the best locations for interventions, and
- discuss creation of a joint investment fund and associated governance mechanisms.

5.2 Identify best locations

It is essential that land is used in the right way in the right places to provide the greatest opportunity for enhancing natural capital since the location of natural assets often influences the ecosystem services they can provide.

Because the process so far has not identified locations like these, opportunity mapping is an important next step. This will identify those areas that have the most potential to deliver the benefits of the proposed interventions based on improvements in the quantity, quality and location of natural assets. A map-based baseline assessment should be used as a starting point to identify where the interventions proposed could potentially enhance the provision of services. This will also identify those areas that are already important for biodiversity and multiple ecosystem services and both reduce the risk of unintended losses as well as identify opportunities that deliver multiple benefits.

APPENDICES

A.1.0 Identifying Investments Opportunities Workshop Approach

A.1.1 Our partners

The opportunities presented in this document have been developed in partnership, drawing on all available evidence and using the expertise of a wide range of local experts. The organisations involved were:

Barnstaple Chamber of Commerce	North Devon Biosphere
Biosphere Foundation	Natural England
Clinton Devon	National Trust
Devon County Council	RSPB
Environment Agency	Visit Devon
Forestry Commission	Andigestion
National Farmers Union	Environment Agency
North Devon Council	Frontier Agriculture
North Devon Homes	Devon Wildlife Trust
Rothamsted Research	South West Water
Savills	Devon Local Nature Partnership
Westcountry Rivers Trust	North Devon AONB

A.1.2 The process

The process of selecting the four investment opportunities followed three steps:

- 1) Generating ideas
- 2) Short-listing to identify five big ideas
- 3) Refining ideas to define opportunities

The first two steps were undertaken at a workshop with local partners and other stakeholders in November 2018.

Step 1 Generating ideas

Local partners were asked to identify big ideas that would:

- a) be your dream solutions to address the problems in North Devon
- b) be something that could make the greatest contribution to improving the natural capital status in North Devon

- c) be generated from a strategic perspective assuming that we all work together collaboratively
- d) NOT be inhibited by thoughts of how we do things currently, or the solutions already discussed.

Over 50 project ideas were generated as a result of this process.

Further information can be obtained from Jo Traill-Thomson at Natural England.

Step 2: Short-listing to identify five big ideas

Local partners shortlisted the project ideas, to identify big ideas that would meet these criteria:

- 1) **Tackle at least one of North Devon's natural capital priorities**
- 2) **Be good for biodiversity** (the preferred interventions should lead to overall net improvements in biodiversity, rather than increasing particular ecosystem services while reducing biodiversity overall)
- 3) **Have a positive impact on natural capital asset state** (central to the natural capital approach is that interventions seek to enhance the state of natural capital assets over time).
- 4) **Have a positive effect on multiple ecosystem services.** Preferred interventions will enhance a range of ecosystem services.
- 5) **Be different from current practice in approach, scale or ambition.** The range of widespread and substantial environmental problems that persist in spite of interventions to address them, suggest that new interventions are required, applying different approaches than those used to date, or intervening with greater scale and/or ambition;
- 6) **Tackle the issue as close to the root cause as feasible.** The effectiveness of interventions will tend to be greater where they are able to address the root causes of the identified problems;
- 7) **Be able to identify measurable benefits** that would attract investment from the public or private sector (see below).
- 8) **Have a clear overall benefit to cost ratio** that would attract public or private funding. While a full analysis of costs and benefits is not feasible at this stage, evidence should suggest that the benefits of the interventions identified are likely to exceed their costs.

Measurable benefits could include:

- Measurable reductions in flood risk to people or businesses
- Measurable increases in North Devon visitor numbers or duration of stay, away from peak seasons or sensitive destinations which are close to or beyond their carrying capacity
- Measurable increases or stabilisation of regionally important Biodiversity
- Measurable increases in carbon capture (including soil carbon)
- Measurable increases in availability of water resource in times of high demand.

- Measurable reductions in diffuse losses of soil, nutrients, pesticides or (in bathing water sub-catchments) microbial contamination.

The five ideas emerging from this process were:

- 1) Natural capital/biosphere branded farming
- 2) Natural flood management and re-introduction of beavers/natural colonisation
- 3) Whole of biosphere becomes a Woodland Enterprise Zone
- 4) Build on tourism offer on Tarka Trail
- 5) Low intensity land management

Refining ideas to define opportunities

The ideas emerging from the workshop were further refined to identify projects that were most:

- **Desirable** (i.e. would have the most positive effect on the natural capital priorities in terms of scale and intensity of impact)
- **Viable** (i.e. could provide an opportunity for local action and innovation, with potential to attract new funding sources including private investment; whilst avoiding major barriers to implementation (such as projects which require central policy change).
- **Feasible** (reflecting the timescale to initiate and implement proposed ideas).
- **Supported existing initiatives** (see below).

Existing work in North Devon supporting natural capital investment

North Devon is covered by many protected designations and management strategies, some of the more significant of these are:

- [North Devon Biosphere Reserve](#)
- [Natural Devon – Devon’s LNP](#)
- [North Devon NIA](#)
- [North Devon and Torridge Green Infrastructure Strategy](#)
- [North Devon Catchment Management Plan](#)
- [Taw and Torridge Flood and Coastal Risk Management Study](#)
- [Working Wetlands and Upstream Thinking Projects](#)
- [North Devon Coast AONB](#)
- [Western parts of Exmoor National Park](#)
- [Northern edges of Dartmoor National Park](#)

These are just examples of ongoing work related to the ideas for natural capital investment, but this is by no means an exhaustive list.

Unsurprisingly, the ideas identified by partners to enhance natural capital priorities incorporate actions that overlap, both with each other and with on-going initiatives. To indicate, how focussing on natural capital benefits, in particular to attract a wider range of investment, might modify action in North Devon, the ideas were further developed in discussion with local partners involved in this ongoing work.

The ideas emerging from this process and developed into investment opportunities were:

- developing and marketing a natural capital farm system into local food networks;
- creating a carbon offsetting standard for priority North Devon carbon storage habitats;
- creating a woodland management support hub; and
- developing an ecotourism standard around habitat restoration activity on the river Torridge.

Work was also undertaken to consider how establishing a new mechanism to gather funds and pool contributions to finance natural capital investments in North Devon could support the investment opportunities.

A.2.0 Tangible benefits for investors

Tangible benefits for investors, that could be co-benefits from natural capital enhancements include:

Reducing the cost of operations:

- Health and social care organisations could see reduced demand on their services if more people could take part in nature-based activities created by natural capital investment.
- Businesses could reduce the cost of disruption to their supply chain, and insurers reduce their potential loss liabilities, if natural flood management measures (such as woodland planting) were created to reduce run off rates in areas where the investment case for “hard” defences do not meet government funding thresholds.
- Water companies reduce the costs of treating water if land management processes to restore natural capital also remove colour and pesticide residues.
- Infrastructure construction projects, highways and flood risk authorities can reduce the operating costs of their assets, and potentially reduce the scale and cost of hard engineering features by investing in natural capital that protects against extreme weather events.

Creating more economic activity:

- Natural capital improvements can increase the attractiveness of an area to visitors, generating more potential sales for a variety of businesses in the visitor economy.
- Natural capital features can create new jobs in the rural economy from new businesses, such as cafes or bike hire, associated with the feature.

Fulfilling or extending delivery of Corporate and Social Responsibility obligations:

- Natural capital investments can provide carbon storage credits or biodiversity net gain.
- Creating natural capital features which are accessible to office-based workers can improve employee wellbeing and productivity as well as creating a positive brand image.
- Food sector companies who work with farmers to enhance natural capital can support a more resilient farm business model that improves productivity and creates more marketable food products.

Protecting and restoring biodiversity:

- Natural capital is the basis for the survival of biodiversity, investments can create or protect habitats for threatened species.
- Natural capital improvements can provide improved nutrient cycling measures which will reduce eutrophication in surface water, allowing healthy ecological systems to thrive, as required by the Water Framework Directive.