

Doubling Nature Investment Plan: Scoping Study

Final Report

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Executive Summary

Now, more than ever, as we recognise environmental and climate emergencies and look to a green recovery from the social and economic upheaval caused by Covid-19, we need to protect and enhance our natural environment. To this end, in 2019 Natural Cambridgeshire launched their vision to 'Double Nature' in the county by 2050, this ambition is supported by the Cambridgeshire and Peterborough Combined Authority and local authorities.

One way to sustainably finance and rebuild our natural world, for people, a more resilient economy and increased biodiversity, is to take a natural capital investment approach and develop strategies and plans which bring together the conservation, public and private sectors. To help inform the development of a Doubling Nature Investment Plan (DNIP) in Cambridgeshire, and other potential natural capital investment approaches, this study researched and compared current approaches to natural capital investment planning (ncip) in the UK. The research included most of the current UK ncip approaches and other organisations and individuals working in this field in Cambridgeshire and within the Oxford to Cambridge (OxCam) Arc. It comprised of desk research and interviews covering 22 approaches to ncip with 26 individuals. The research focussed on their approaches, strategies, recommendations, the challenges they faced, the key strengths and weaknesses of their approaches and what advice they would give to a new natural capital investment plan project.

The main body of the report is structured into recommendations from these approaches and options and opportunities for a natural capital investment approach in Cambridgeshire. These are followed, in the appendices, by detailed results and case studies from all 22 approaches.

The key findings and recommendations from this study are:

- **There is no 'one size fits all' approach** to developing a ncip, so you will need to find your own solution. However, there was a high degree of similarity between current approaches so **a composite process template is proposed** for developing a natural capital investment approach.
- A natural capital approach should identify and cover **multiple benefits** including biodiversity, carbon, water and air quality, reducing flood risk, access to green space, leisure, health and wellbeing.
- For sustainable funding you **should develop a hybrid, or blended, funding model** where finances are drawn from a number of different sources. Ideally including both public and private sector funders.
- Because it can act as a strong foundation for any natural capital approach, **net gain policy should be embedded into Local Plans**. Therefore, you could start a ncip approach by focussing on implementing biodiversity net gain before seeking wider investment and developing investible propositions.

- Early in the process, you will need to **build a strong evidence base with agreed, and shared, data and metrics**. You also need to **implement a monitoring strategy, measuring success and the quality of your schemes**.
- **You need a strong leader** and an organisation, or organisations, supporting that person. Ideally, this would include a strong, funded and resilient Local Nature Partnership.
- All respondents recommended that to deliver a ncip you would **need to have adequate staffing, funding and resources**. You would **need at least one member of full-time staff**, and additional funding to pay for support, technical expertise, specialist services and consultants.
- Working in a relatively new and technical field, **communications will be very important**. Key concepts need to be clearly explained and communicated, using tangible examples to describe less obvious or hidden benefits and using suitable language for your audiences.
- **Close and effective partnership working** is the key to success in natural capital investment. You will need a good understanding of all partners motivations and the development of a shared vision and way forward.
- When setting up a ncip considerable thought should be put into **getting the 'right' people involved**, from a wide range of private sector, NGO, statutory, charity and public sector backgrounds, including landowners and farmers.
- You need to **get businesses and investors interested in nature**, so try to think how they could benefit and what's in it for them.
- To fund projects and develop a sustainable funding model you need to **look for investible propositions** which will generate a return for investors. Within Cambridgeshire, it was suggested that **a DNIP could focus on water-related issues and opportunities**. Other initiatives could include developing pilot, or demonstrator, environmental projects for 'proof of concept', and producing a portfolio of products - a pipeline of 'shovel ready' natural capital projects.
- To make best use of the funding that is available, you should **look for opportunities to maximise the efficiencies and outputs from partner organisations**.
- **Political support and endorsement at governmental, national and local level** is generally regarded as being important.
- Most respondents thought that a ncip would work best if approached from a **county perspective**, because it would fit better with existing local structures, would be more efficient to deliver and would appeal to peoples 'sense of place'. However, an Arc, or regional, overview could work in conjunction with this by developing a regional strategy, ensuring the use of shared metrics,

promoting spatial planning across boundaries or landscapes, and encompassing wider catchment areas.

- All 13 organisations, or individuals, working in the OxCam Arc or Cambridgeshire, who were interviewed during this research, said that they would be interested in working with the proposed DNIP, or a similar funding vehicle, within Cambridgeshire.

A Cambridgeshire perspective

There are currently many opportunities and initiatives taking place in Cambridgeshire, and the OxCam Growth Arc, which make this a very suitable time to be developing a natural capital investment approach. Cambridgeshire already has the Doubling Nature vision and progress is being made in building a partnership, getting political support, talking with businesses and investors, building an evidence base and developing landscape-scale project proposals. To progress further, the DNIP will require funding.

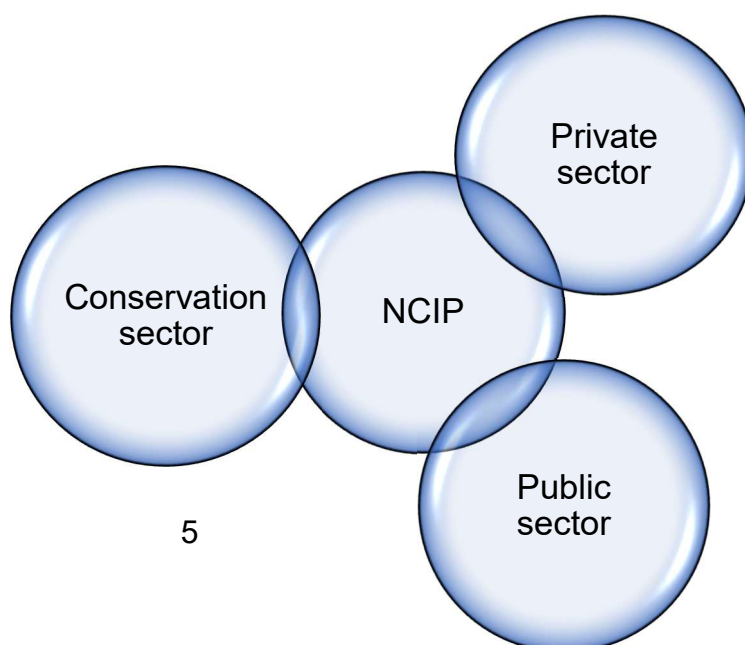
Section 6 of this report sets out the challenges and opportunities from developing a DNIP for Cambridgeshire. The study then reviews options for valuing nature or developing a natural capital investment approach in Cambridgeshire, including this research's recommendation that a DNIP in Cambridgeshire could focus on water-related issues and opportunities. It also recommends a process that could be followed and suggests a range of investment tools which could be used.

Overall, based upon this research, and the many interviews and conversations held, the author suggests:

'In Cambridgeshire, the focus should be on developing and delivering a mechanism, or mechanisms, which will attract and manage funding for natural capital, environmental and ecological projects on publicly and privately owned land.

This should include the development of a hybrid funding model (public, private and philanthropic funding combined) which will be attractive to a range of investors and is focussed upon offering multiple benefits over a wide portfolio of projects and initiatives with a diverse range of private, public and charity sector partners'.

We should view the role of a natural capital investment approach as being the driver and liaison between the three core players in this emerging market.



1. Introduction

Cambridgeshire and Peterborough are working hard to improve the environment and are keen to use a natural capital approach. As part of this, Natural Cambridgeshire, the Local Nature Partnership, has created 'Doubling Nature – A Natural Vision', which is supported by the Cambridgeshire and Peterborough Combined Authority (CPCA) and all other local authorities in the county. The vision includes a commitment to prepare a Cambridgeshire-wide natural capital investment plan, now termed the Doubling Nature Investment Plan (DNIP), to 'inform strategic and economic decision making in order to maximise opportunities for enhancing the area's natural environment.'

The Defra group's OxCam Local Natural Capital Planning (LNCP) team are exploring ways of getting investment in the environment and are creating a funding and investment toolkit. They therefore have an interest in the development of the DNIP, and have funded this scoping study which compares and assesses current approaches to natural capital investment planning in the UK. This research included most of the current UK ncip approaches and other organisations and individuals working in this field in Cambridgeshire and within the OxCam Arc. The research focusses on what others have done, their recommendations, the challenges they faced, the key strengths and weaknesses of their approaches and what advice they would give to a new natural capital investment plan (ncip) project. The study presents its key findings and recommendations (section 3 and Appendix B), and explains what the other UK approaches are by using case studies (section 5 and Appendix C). The study focusses on Cambridgeshire and the OxCam Arc, but by design its recommendations are suitable and relevant to any organisation which is considering how to best approach creating their own ncip.

To assist with the development of a Cambridgeshire DNIP, this study recommends options for valuing nature or developing a natural capital investment approach (section 6). It does this by suggesting key opportunities, explaining the progress so far, presenting key options and suggesting investment tools and methodologies which could be employed.

The findings and recommendations of this report will be used to inform the development of a ncip approach in Cambridgeshire and Peterborough. They will also be used by the Defra group's OxCam LNCP team to develop a funding and investment toolkit. Additionally, it is envisaged that this study will be used to help shape other ncip approaches across the OxCam Growth Arc and throughout the UK.

When reading this report please be aware that any references to Cambridgeshire also include Peterborough, as per the geographical extent of the Cambridgeshire & Peterborough Combined Authority.

Throughout this report reference will be made to a number of technical terms, if they are not explained in the text then a brief description will be given in the glossary in Appendix D.

2. Background

The Oxford to Cambridge (OxCam) Arc is the name given to a cross-government initiative that supports planning for the future of the five ceremonial counties of Bedfordshire, Buckinghamshire, Cambridgeshire, Northamptonshire and Oxfordshire up until 2050. The Arc aims to ensure a harmonious delivery of improved connectivity, productivity and placemaking, whilst ensuring pioneering environmental standards and enhancements are delivered. Because of the commitments to green growth, its governance and scale, the Arc represents a unique opportunity to put the Government's 25 Year Environment Plan into action.

Protecting and investing in natural capital is seen as crucial to meeting over half of the United Nation's Sustainable Development Goals which the UK is committed to. The forthcoming Dasgupta Interim Report helps illustrate why valuing and investing in natural capital and ecosystem services is both necessary and important by:

- highlighting the accelerating 'disruption of Nature's processes'
- calling for urgent action to address the loss of biodiversity which is declining faster than anytime in human history
- noting the World Economic Forum's (2020) top five global risks are 'for the first time' environmental
- highlighting our current approach to economic growth is placing 'excessive strain on the biosphere' and that the 'human economy is embedded within – not external to Nature'
- observing the health of our planet is impacting the emergence and spread of infectious diseases, including Covid-19, which are set to have 'deep and lasting economic consequences'.

Natural capital investment planning (ncip) remains 'work in progress', both globally and nationally, however the links between the economy, human well-being and the natural environment are increasingly being understood. There is also a growing recognition that ncip should be evidence-based and used to inform socio-economic decision making across all sectors of society.

Natural capital approaches to environmental management have a few defining characteristics: a focus on the environment as a set of assets (Natural Capital) that provide services and benefits for people (Ecosystem Services); an emphasis on spatial and place-based understanding of these assets; and seeking opportunities to maximise multiple benefits across issues and sectors and that can help manage multiple risks (integrated approaches).

Natural capital approaches typically comprise of natural capital investment strategies and plans, these define a specific vision, programmes of activities and funding models. A natural capital investment strategy provides a strategic approach to defining the direction of travel and the vision for a programme of work. Whereas, a natural capital investment plan leads from the top-level strategy and details what actions will be required, how they will be carried out, who will be involved and how the plan will be funded.

Crucially, ncip is integral to the UK Government's 25 Year Environment Plan (25YEP) and Clean Growth and Industrial Strategies which set out its approach to safeguarding the environment and future-proofing the economy by ascribing economic value to natural capital. The Industrial Strategy also includes a commitment to 'work not just to preserve, but to enhance our natural capital – the air, water, soil and ecosystems that support all forms of life – since this is an essential basis for economic growth and productivity over the long term'.

The ncip process seeks to uphold and apply the 25YEP's recommendation 'to build on the momentum for more private sector financing and drive further progress in the use of market mechanisms that capture the value of natural capital.' This is an important component of the ncip process given that natural capital investments have, historically, mostly been derived from public funding and philanthropic sources rather than from the private sector. This 'disconnect' has meant that the benefits of having a good, healthy environment have not been properly valued in private investment terms and opportunities.

However, there are now clear signs that businesses and investors are keen to understand their dependency on the natural environment and how a better understanding of these connections can lead to significant benefits for society and nature, alongside the creation of business value. For example, a recent report by the Cambridge Institute for Sustainability Leadership's Natural Capital Impact Group (<https://www.cisl.cam.ac.uk/resources/publication-pdfs/brexit-business-and-natural-capital.pdf>) found that businesses are starting to identify natural capital investment opportunities which will reduce external costs and their exposure to global supply chain pressures.

Another example is the global, business-led, Capitals Coalition involving businesses who acknowledge the need to identify and manage their collective impacts and dependencies on natural capital. The coalition accepts a failure to do so means many businesses are 'flying blind' and making 'inefficient, ineffective or counterproductive' investment decisions. Whereas ascribing economic value more comprehensively to natural capital will help improve their policy and decision making and result in better management of the natural environment.

Whilst natural capital investment planning is still a very new and emerging process, a number of programmes across the UK are undertaking this approach, or something similar. This report summarises and compares these current approaches with particular reference to lessons that could be used to help develop the DNIP or other ncip initiatives within the OxCam Arc.

3. Recommendations

A set of recommendations considered relevant to the development of a natural capital investment plan (ncip) within the OxCam Arc, or specifically a Doubling Nature Investment Plan (DNIP) for Cambridgeshire and Peterborough, have been collated from a review of current approaches. These recommendations represent the views of 22 organisations, or individuals, and are taken from interviews or questionnaires with 26 people. These represent most of the current UK ncip approaches and other organisations working in this field within Cambridgeshire and the OxCam Arc. A summary of the eight current UK approaches to ncip, which were included in this research, is given here:

Who	Background
Greater Manchester	<p>Published the Greater Manchester Natural Capital Investment Plan in 2019, which helped shape the Greater Manchester 5 Year Environment Plan.</p> <p>Recently received funding to set up the Greater Manchester Environment Fund and are implementing the EU-funded IGNITION project.</p>
Surrey	<p>Published 'Naturally Richer – A Natural Capital Investment Strategy for Surrey' in 2015, and a ncip in 2018.</p> <p>In December 2019 they received funding which will allow them to look at investment mechanisms and set up a company.</p>
Warwickshire	<p>Successful implementation of a biodiversity net gain approach and now starting to investigate ncip approaches.</p>
Sussex	<p>Launched their five year Natural Capital Investment Strategy in December 2019. Currently identifying investment opportunities.</p>
North Devon	<p>A natural capital strategy is due to be published in 2020 and will be followed by an implementation plan.</p>
Bristol	<p>Collected an evidence base and are developing a natural capital account tool.</p>
West Midlands	<p>Ambition to develop West Midlands Natural Capital Investment Strategy and Programme. The Local Industrial Strategy has a clear commitment to Natural Capital Investment.</p>
3Keel	<p>The Landscape Enterprise Networks approach brings together business users of ecosystem services with suppliers to help fund environmental improvements. It is currently being developed through a set of eight live projects in the UK.</p>

For more information on all 22 approaches, organisations and individuals see Summarised case studies, section 5, and Case studies of current approaches and ambitions, Appendix C.

These recommendations are similarly aimed to advise other groups and organisations who either have ambitions to develop a ncip or who are in the early stages of designing one.

For more detail on these recommendations see Results, Appendix B.

3.1 General recommendations

This study shows that there is **no ‘one size fits all’ approach** when setting up a ncip. Areas invariably differ in terms of their geographical, political, growth, funding and policy footprints so will need to devise their own tailored approach. So, a ncip team will need to consider the recommendations and options presented in this report and decide which would be most appropriate considering their political structure, natural environment, funding resources, relationship with partners and other factors.

Natural capital investment planning is a relatively new and evolving approach which is producing a new, emerging market. So, it **might prove to be a slow, incremental process requiring some patience**, especially in the early stages in order to build the necessary skills, capacity and expertise. However, this shouldn't deter you from getting on with it and getting things done. As more groups trial this approach, and enter the marketplace, the speed of progress will accelerate, there will be shared learning and the development of common approaches. However, there may also be competition between approaches, so it's recommended that new ncip approaches take the initiative and move at pace.

3.2 Who should be the lead organisation or driver?

It is important to have a **strong leader** (see section 3.8) and an organisation, or organisations, supporting that person. However, all current projects are supported by different organisations so there is no common approach to this. The main, driving person or organisation will be dependent upon many local factors including skills, funding, links with other current ambitions/initiatives, local political ambitions and structures. For example, in Greater Manchester (page 82) the project is led and managed by Krista Patrick who is supported by the Greater Manchester Combined Authority (GMCA) with the full support and backing of Mayor Andy Burnham. In Surrey (page 88), the main drivers have been Sarah Chimbwandira, key members of the Surrey Nature Partnership (SyNP) and the Surrey Wildlife Trust. Both of these different approaches have been successful.

Interestingly, none of the current approaches has a private sector partner as their lead organisation. But there is no reason why such an organisation shouldn't drive forward a ncip approach if they had the funding and the will to do so.

When looking to develop a ncip it is recommended to consider all options and **be prepared to find your own solution**, depending upon which opportunities arise.

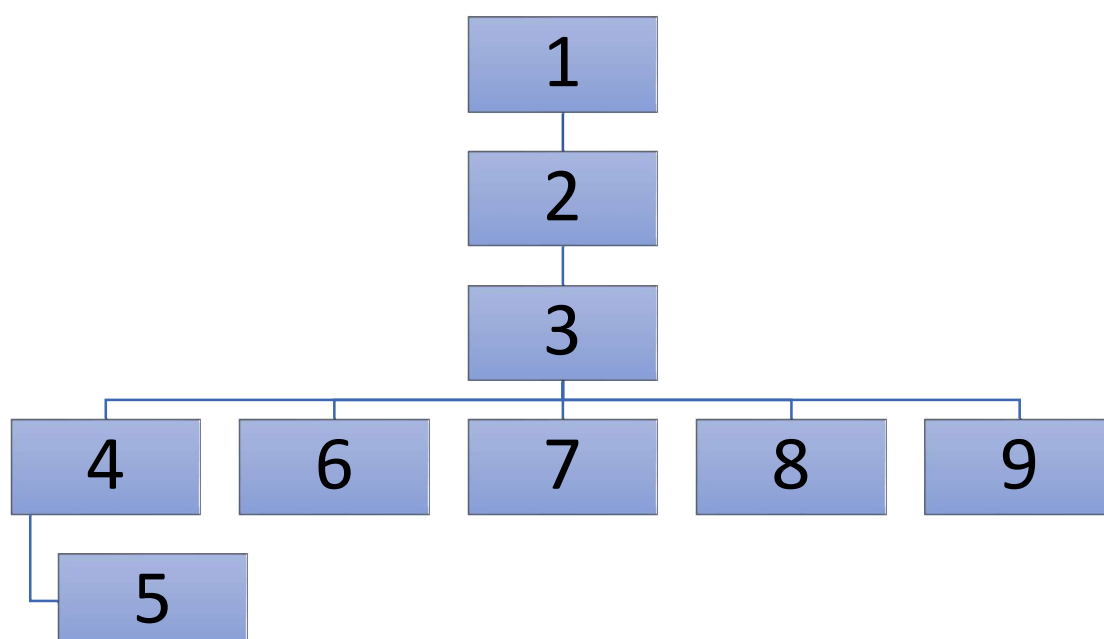
3.3 Key stages and processes

This research shows that **there is no single way to progress a natural capital investment plan**, however there was a high degree of similarity between the current approaches. The following process template is a composite of the stages which most current ncip approaches, in this research, have taken:

Process template for developing a natural capital investment approach

1. Build an appropriate partnership, governance structure and identify a lead organisation/s – working to a shared and focussed vision
2. Secure funding and resources to lead and manage the project
3. Build the required evidence base – using agreed methodologies and metrics
4. Develop a natural capital investment strategy*
5. Develop a natural capital investment plan*
6. Achieve funding to take forward and deliver the plan and projects
7. Develop and run a pilot or demonstrator project for proof of concept
8. Develop a pipeline of ‘shovel -ready’, investible projects
9. Work with consultants, businesses and investors to identify, develop and run investible propositions

The early stages of this process would probably need to be carried out in the suggested order, but after stage 3 there is considerable flexibility and the different stages could work alongside each other – see the flow diagram below.



Depending upon the strategy and agreed direction, a number of current approaches have also incorporated other key stages including:

- Obtain political support
- Ensure that there is a strong local authority environment plan and Environment Board, and that this supports a natural capital approach.
- Work to embed net gain and natural capital into local authority planning and decision making processes.

* A natural capital investment strategy provides a strategic approach to defining the direction of travel and the vision for a programme of work. It is the start of a process to plan and coordinate what you aim to accomplish and how you will achieve it. Whereas, a natural capital investment plan leads from the top-level strategy and details what actions will be required, how they will be carried out, who will be involved and how the plan will be funded.

Note: Although it wasn't mentioned during this research, the author suggests that there should be a 10th stage in this process covering evaluation, ongoing project management, risk management and monitoring. This was not discussed by any of the respondents as they are still working through the current processes and have yet to reach this stage.

This proposed process is similar to the OxCam LNCP's Natural Capital Approaches and Tools Review's (<https://www.oxcamlncp.org/defining-our-approach#page-section-5e85e9994331a53f3837c350>) recommended six step approach to developing a natural capital plan. Natural capital investment planning differs in that it focusses upon how natural capital can be maintained and enhanced by investment and innovative funding streams, however similar general stages were recommended.

3.4 How to approach developing a ncip

Two thirds of all respondents, including all of the current ncip projects, recommend that in order to be successful and attract a wide range of businesses and investors (from both the public and private sectors), a ncip needs to cover more than just the natural world. A natural capital approach should identify and cover **multiple benefits** including biodiversity, carbon, water and air quality, reducing flood risk, access to green space, leisure, health and wellbeing. Ideally, a ncip approach would develop a wide portfolio of projects which together would encompass all of these multiple benefits. Individual projects would not need to deliver all benefits, but by packaging them as a portfolio all relevant benefits could be included in an overall programme of work. This wide breadth of benefits will increase the range of potential business partners and investors, and will also allow the programme to cover both urban and rural areas. For example, carbon sequestration and an increase in biodiversity may be achieved by wetland habitat creation, whilst developing parks and greenspaces in a large town would help give deprived households better access to greenspaces, encourage healthier lifestyles and help combat mental health issues. Oliver Burke (Cambridgeshire Future Parks Accelerator Programme (CFPA) & Nene Park Trust) (page 130) suggested that by including publicly owned green and open spaces, you

would be able to offer a wide range of multiple benefits to potential investors, including access to nature, health and wellbeing. These additional benefits could prove attractive to potential public or private sector investors.

Similarly, two thirds of all respondents, including all of the current ncip projects, recommend that a ncip approach should be based upon a **hybrid, or blended, funding model** where finances are drawn from a number of different sources. Ideally these would include both public and private sector funders. In such a model, these sources of finance would have different risk and return on investment expectations thereby offering flexibility. For example, a project might commence with public sector funding and then be expanded by the addition of business/investor finance attracted by the reduced level of perceived risk and the proven success of the project. A blended funding model could operate in a similar way to a 3Keel Landscape Environment Networks (LENs) approach (page 108) where each project has a partnership of beneficiaries from a range of sectors including water utilities, food manufacturers, property developers and local authorities. For example, on their current project in the Nene Valley, Northamptonshire, their beneficiaries are Anglian Water, Nestlé and Northamptonshire County Council. They are working together to achieve benefits which will include increased water quality, a more resilient wheat supply, flood mitigation and working towards net zero carbon commitments. This work will also enhance the environment, especially the soil, trees and hedgerows.

As recommended in 'key stages and processes' most respondents considered it very important to **start a ncip approach with a strong evidence base**, or to carry it out early in the process. This will tell you what you have, where it is and what is its quality (natural capital register), what ecosystem services these assets provide, the flows of these services and their benefits to people and the environment, and what is the level of risk to these assets and to their ability to deliver benefits and services. This could cover many data collection techniques, including detailed natural capital accounting, a natural capital asset register, ecosystem services mapping, a biodiversity offsetting study or spatial planning. Resources would be required to carry out this work. The Defra group OxCam Local Natural Capital Plan (LNCP) team (page 112) have carried out a Natural Capital Baseline within the Arc. They have used this, Orval recreation model outputs and water abstraction licences to feed into a Natural Capital accounting tool (developed by the Environment Agency (EA)) to produce a detailed Natural Capital Account for the OxCam Arc. Cambridgeshire already have a detailed Natural Capital Baseline, which the LNCP team used to create theirs. Cambridgeshire will be able to combine this with the accounting work from the LNCP. It is worth remembering that the purpose of the OxCam LNCP's accounting work was to give a strategic overview across 5 ceremonial counties and would need to be refined if used in a more specific geographical location or purpose.

In North Devon (page 100) they built a shared evidence base (ecosystem services and natural capital asset register). It covered what natural capital assets they had, how much, where, their condition/quality, what ecosystem services they provide and the value of these ecosystem services. It also included information on how they are managed, how much they are investing in them, and the trend and trajectory for both the condition and flow of the assets and the services.

Linked to the need for an evidence base, many respondents said it was important for partners to **agree, share and use the same data and metrics** when working on natural capital projects. One of the main goals of the OxCam Local Natural Capital Plan is that key natural capital data needs to be readily available and shared. This also came out as a key theme in the natural capital investment work that was carried out by the four OxCam LNPs and Oxfordshire's environment board. One of the requirements was a core data set which is publicly available and then a core agreed methodology for net gain, to make the process more straightforward for planning committees. There should be a standard methodology that everyone understands and that's the agreed methodology for a net gain determination.

Paul Leinster (previously Chief Executive of the Environment Agency and currently a member of the government's Natural Capital Committee, a non-executive director of Flood Re, chairs the OxCam Arc LNCP's Partnership Group, the board of the Institute of Environmental Management and Assessment and the Bedfordshire Local Nature Partnership, see page 116) added that if you don't have agreed, shared datasets that everyone is able to use then each organisation will be paying for the acquisition of datasets which have already been assembled on multiple occasions - this is bad public administration and a waste of public money. His aim would be for this information to be publicly available and agreed, then there's no debate about the data or methodology - what you are then discussing is what are the implications of it and what can you do. The work of the Defra group OxCam LNCP team, in providing baseline evidence according to an agreed metric, should help encourage this shared approach both between and within the OxCam Arc counties.

Net gain is considered to be an important aspect of a ncip approach and all respondents commented on it. Because it can act as a strong foundation for any natural capital approach, many respondents recommended that **net gain policy should be embedded into local plans** at either unitary or district level. This is part of the Environment Bill and will mean that every development should deliver 10% biodiversity net gain (BNG) as part of the process. This would be a very important first step, however some respondents suggested that we could go further and the net gain requirement could be raised to 20%. Cambridgeshire County Council (page 124) have a 20% biodiversity net gain target across all their land and properties by 2030.

The National Trust (page 134) believe that, in order to have a proper impact, biodiversity net gain schemes need to be ambitious. So, in their response to the Greater Cambridgeshire Local Plan, they, along with other organisations (Wildlife Trusts and RSPB), called for 20% net gain as part of this plan. However, there is a risk of this being legally challenged by developers, and 10% BNG currently only applies to the Town & Country Planning Act (nationally significant infrastructure projects are outside this act). Respondents also suggested that national infrastructure projects should be required to deliver net gain. The impact that transport infrastructure can have on the environment is significant, and as such the National Trust believe that nationally significant infrastructure should be included in the mandatory biodiversity net gain scheme.

Note: for more information on net gain see Appendix B, page 57.

Most current approaches to valuing nature combine both net gain and ncip, and it was generally recommended that a ncip strategy should **start with biodiversity net gain before investigating ncip, and developing investible propositions, in the future**. There are many reasons for this including the general level of understanding about, and availability of, biodiversity net gain funding and its benefit in starting initiatives or devising pilot/demonstrator projects. Once the 'proof of concept' can be shown, and initial risks overcome, net gain (or similar) projects could be more attractive to businesses and likely to be viewed as being lower risk and more investible. Paul Leinster recommended that initially you should focus on the potential funding streams provided by the public sector and those from the private sector driven by ownership, corporate social responsibility, public sector incentives or planning requirements.

Two successful current ncip projects and two national conservation organisations recommended that when developing a ncip approach you should **develop a Nature Recovery Network and strategy**. These are current priorities for the Wildlife Trusts - for example, the Wildlife Trust for Beds, Cambs and Northants (WTBCN) (page 141) Nature Recovery Networks are in development but currently require more funding. Their aim is to develop Nature Recovery Networks and strategies and then fund their delivery through biodiversity net gain. Their first project is in the planning phase and will be in Greater Cambridge. Gwyn Williams (RSPB) (page 138) suggested that if you had a Nature Recovery Network and map you could borrow money in anticipation that Section 106 funding would appear, the funding would be allocated according to this network and would then pay back the loan. **It is recommended that the DNIP explores working more closely with WTBCN, and other conservation partners, to explore the potential in this area and help accelerate progress.**

A number of organisations, or individuals, working in the OxCam Arc or Cambridgeshire thought that one of their main challenges would be **implementing a monitoring strategy, measuring your success and the quality of schemes**. This would be dependent upon good partnership working, having a shared vision, using the same metrics and having strong leadership. All of these being recommendations for setting up, developing and managing the DNIP.

3.5 Communications, engagement and messaging

The main communications challenges will be focussed around explaining the various concepts, helping partners and audiences understand what they are, what they mean and how they could benefit them and the natural environment.

Key concepts (natural capital, natural capital investment planning, net gain, ecosystem services, etc) need to be clearly explained and communicated, with a focus on tangible examples, such as woodlands, green corridors (paths, canals, rivers) and cycle routes joining parks. In Greater Manchester (page 82), they wanted to take a place-based approach so they ran a 'Green Summit' early on in the process. This was a good way to start things off and get support from the Greater Manchester Combined Authority (GMCA) and others. This was followed by a series of natural capital listening events and more recently biodiversity net gain roadshows

to all local authorities – these were successful in achieving buy-in and helped the GMCA decide on their environmental action plan.

To get your message across clearly, **talk in a suitable language for your audiences**, make it accessible and simple. Explain why ncip matters, what it could achieve and how this will benefit the audience. The Greater Manchester team (page 82) did this through the Lancashire Wildlife Trust's 'My Wild City' campaign that aims to reconnect people with their gardens and the wildlife living within them. In addition, a natural environment engagement toolkit has been produced to raise the profile of the natural environment in Greater Manchester including an inspirational film, animations, social media toolkit and user guide.

With ncip there could be a wide range of benefits instead of just to nature alone, such as water and air quality, reducing flood risk, access to greenspaces for deprived neighbourhoods, health and wellbeing. In your messaging you should **communicate these less obvious or 'hidden' benefits** to help you appeal to wider audiences.

3.6 Working with partners and stakeholders

Partnership working was regarded as one of the most important aspects of developing and running a ncip. Most respondents stated that good, effective partner engagement is key and you need to have a wide range of partners, working well and closely together. This was the most common strength of current approaches and 'work well, and closely, with partners' was the most common piece of advice given to us in setting up the DNIP in Cambridgeshire.

Convening and managing partners and stakeholders can take a lot of time and effort – but is considered to be vitally important and a good use of resources. According to Sarah Chimbwandira, from the Surrey Wildlife Trust, convening their partners was the most important thing they've done over the last 8 years.

In partnership/stakeholder groups it's important that you can **agree a common vision and way forward** early on in the process, including the use of shared metrics and methodologies.

When working with businesses or investors, you need to **get them interested in nature and its benefits to them, their supply chain, customers and staff**. This is why the 3Keel LENS approach (page 108) looks at the landscape from the perspective of business need – what are the risks and opportunities that landscapes present to businesses and therefore why should they engage? Business interests can range from resilient crop production, flood risk, water quality, carrying capacity of water catchments, management of carbon or biodiversity, to health and quality of life for their employees and customers. Engaging with the private sector could prove challenging, especially within an urban environment. The Bristol Frome LENS project is currently trying to garner interest from relevant businesses, but this is proving challenging in a city environment as the connection with the environment and landscapes is less obvious than in a rural setting. They hope that the climate and

ecological emergency (as declared in Bristol) and net zero carbon ambitions might help increase private sector interest and acceptance.

A number of teams running ncip projects said that, especially at the beginning of their projects, their partners weren't varied enough. They now recognise that they needed partners from a wider range of backgrounds including business, social services and the health sector. They especially needed more partners from businesses or utility companies at the beginning. So, it's recommended that when setting up a ncip considerable thought should be put into **getting the right people involved, from a wide range of private sector, NGO, statutory and public sector backgrounds**. Many of the current ncip approaches are driven by conservation organisations, however some groups are taking a different approach. For example, Natural Capital East (NCE) (page 133) are a reasonably new group of business-focussed organisations who want to work together effectively for the environment and business. It is mostly comprised of national and regional businesses; including Anglian Water, Nestle, National Grid, UK Power Networks, Barratt Developments, Kier, Sainsbury's and Tarmac, but also includes the CPCA, OxCam Arc LNCP team, Highways England, Natural Cambridgeshire/DNIP, EA, New Anglia LEP, Paul Leinster, Water Resources East and National Trust.

3.7 How to generate income and work with investors and businesses

Considering the natural environment in Cambridgeshire and the number of large rivers that flow through the county, a number of respondents recommended that the DNIP should **focus on water-related issues and opportunities**. They suggested that these could be more valuable than natural capital or net gain approaches in Cambridgeshire, especially in the short-medium term. Gwyn Williams (RSPB) (page 138) suggested that working in Cambridgeshire, and Arc-wide, there should be a focus upon water-related issues (flood risk management, water quality, etc), as these could lead to higher potential funding levels than net gain. The EA and Anglian Water are working on new strategies and plans so there are opportunities to design nature-based work programmes that could be co-funded by net gain. Clearly there are other important resources in the Arc, but water is the thing that drives this landscape and holds it together. Water is also a good focus because it is a key to creating an ecological network and achieving effective connectivity.

Cambridgeshire's rivers, the Ouse and Nene washes could constitute large amounts of future spending from the EA, water companies, from SUDs, Internal Drainage Boards or other bodies. There are also huge flood risk issues in Cambs, so it would be advisable to focus on this. So, it is recommended that the DNIP explores developing a working relationship with the EA, water companies, internal drainage boards, Natural Capital East, Water Resources East and other water-related companies in order to explore the potential in this area. Initiatives such as improving water quality and reducing flood risk are closely regulated and cost-effective, nature-based solutions could benefit statutory bodies, offer savings to businesses, and benefit Cambridgeshire's natural capital assets. These projects could act as 'proof of concept' and help develop investible propositions which would attract other businesses to become involved or to invest. Similarly, it is recommended that any

ncip approach, within the OxCam Arc or nationally, should consider the importance of water-related issues and look for the opportunities which this might bring.

For a ncip approach, a key challenge will be to **find investible propositions** and develop investible models which businesses and investors could find suitably robust and financially acceptable. Business models are very difficult to develop, so you will probably need to work with a consultant and they could currently include carbon capture, carbon sequestration, social outcomes & environmental outcomes.

Developing pilot, or demonstrator, environmental projects can be an effective and tangible way to show ‘proof of concept’ even if they are quite small in scale. You can start with small, focussed projects, but aim to scale them up as they prove to be successful and attract further funding or investment. Funding would be required to develop and run these projects, but they will help create momentum and demonstrate the multiple benefits which can be gained from natural capital projects. For example, Greater Manchester (page 82) has developed a small number of trial projects, including a sustainable drainage system (SuDS) (water management practices aiming to align modern drainage systems with natural water processes) project at a primary school in Trafford. Also, as a ‘proof of concept’ model, they are currently working on an approach where their Environment Fund will commission out to a habitat bank facility and carbon trading vehicle. They will sell credits from actions that increase biodiversity or stored carbon to organisations in order to compensate for their unavoidable impacts. In Surrey (page 88), they recently received funding which will help run a pilot project to test how to create a systemic approach to natural capital investments. The project will include actual enhancements to assets on the ground and they will be developing a 1400ha natural landscape which is currently a mix of woodland, arable and mineral workings. There is also a recent initiative from Defra, EA, Triodos Bank and the Esmée Fairbairn Foundation to fund four projects in a pilot scheme to encourage sustainable private sector investment in our natural environment (<https://www.triodos.co.uk/articles/2020/making-the-case-for-investing-in-our-shared-natural-environment>).

Another valuable tool to help engage businesses and investors is to **develop a portfolio of products, a pipeline of ‘shovel ready’ natural capital projects**. For example, as part of the Defra group OxCam Arc LNCP project all Arc LNPs worked together to produce strategic-scale environmental opportunities mapping. This identified six major landscape-scale projects that could be carried out in Cambridgeshire, or with its neighbouring counties, ranging in cost from £15M to £36M. With appropriate funding and resources, they could be worked-up into detailed, fully costed and planned project proposals. Such ‘shovel ready’ projects provide excellent examples to businesses of what could be done, can demonstrate the multiple benefits of such projects, are invaluable as part of the communications strategy and could be used to attract grant funding to help match-fund an investible proposition. However, developing such a pipeline of projects is not an easy task and will take considerable time and partnership working.

For Sarah Chimbwandira, SyNP (page 88), a key challenge to making natural capital investment work systemically is to have a project pipeline. This is very important for

a systemic approach and it needs to be at least 10 years, and ideally a 20+ year pipeline. This is because investors will want to see something that they can continue to invest in over a period of time.

The IGNITION (Innovative financinG aNd delivery of naTural climate sOLutionNs in Greater Manchester) project (page 82) aims to develop a pipeline of natural capital (Green/Blue infrastructure) climate adaptation projects at the €10m+ scale which could be attractive to private investors, while creating the mechanisms and confidence for investments to be made in natural capital and nature-based solutions (NBS). The project was selected by the funders because it is seen as being at the leading edge of innovation in this field. Its aim is to establish replicable funding and delivery mechanisms which will better engage the investment community with natural capital solutions while also increasing Greater Manchester's urban green infrastructure coverage. Its in-depth work on how to attract and maintain private sector investment into natural capital in urban areas will be internationally relevant, and of enormous value to the 25YEP, whether successful or not.

In addition to working with businesses and developing investible models, a ncip should **look for opportunities to maximise the outputs from partner organisations** including aligning budgets, sharing workplans, working together better, and sharing expertise and resources. This increased efficiency would allow conservation, and public sector partners, to work more efficiently and achieve more for the natural world. Paul Leinster (page 116) suggested that if you can then add in what the National Trust, Wildlife Trust, Woodland Trust, RSPB and others are spending in an area, it would add up to a large amount of investment money if you could pull it all together in a coherent way and could get their budgets aligned. You're not sharing budgets, or passing them on to others, but aligning budgets and through common planning you can come up with a greater strategic intent. This allows you to do more with the total budget by working in partnership and planning together. Similarly, Matthew Bullock (page 121) recommended 'Charities need to start working together better and sharing knowledge, experience and resources'. Working in this way could also act as an additional encouragement for businesses and investors to become involved. For example, many organisations (Anglian Water, Highways England, EA, etc) have large budgets and projects - an aim of Natural Capital East would be to look for aligned objectives, collaborations and synergies between them, allowing them to work together and either deliver their objectives more cost-effectively or deliver greater benefits for the same investment. Additionally, maximising outputs could include the pooling of Section106 and CIL funding in order to maximise the benefits for people and nature. Such revised ways of working would require a commitment to partnership working from the organisations and strong leadership focussed on the beneficial outcomes for all.

This research shows that many people currently working in this field recognise that there are fundamental differences between the conservation world and the world of investment. They require different skills, have different philosophies and different motivations (for example, increasing biodiversity versus making a profit). It is generally considered that the **role of a ncip team is to act as the liaison** between these two worlds and therefore the ncip team needs to have, or develop, a range of relevant knowledge and skills or make use of specialist expertise from consultants,

investment companies and partners in the conservation sector. When thinking about making investible models, Gwyn Williams (RSPB) (page 138), suggested that the conservation world knows what to do for the environment, but can't access enough funding and needs to start working on a larger scale. Whereas, the investment world knows how to develop investable and profit-making products, and is interested in ethical opportunities. So, our role (RSPB and DNIP) is to liaise between these two and help them work together. The OxCam LNCP is working on a Funding and Investment Toolkit to help bridge the gap between funders and project managers looking for funding.

Sarah Chimbwandira, SyNP (page 88), doesn't think there's any point in the conservation world trying to be the investment world, it's not what they're good at and it's not where they should be putting their efforts – there are investment experts who can do that. There is, however, a skills gap to ensure there are sufficient people in the conservation world who have the skills to develop and validate projects in the right way, and in the investment world in how to create investment vehicles. The challenge will be how to upskill people to develop a ncip and make this work, this is the current skills gap which could be of interest to LEPs or other bodies.

As already discussed in the section on 'Working with partners and stakeholders', it is important to have **strong engagement and partnership working with a range of business, commercial and investment organisations**. You should get to know who the key players are, who is benefitting (private business, Universities, investors), and who is supplying (farmers, landowners, NGOs, conservation organisations). Speak to them and see what THEY think the opportunities are. When working with them, **make the concepts, stages and processes easy for them to understand** – explain what they mean, how they can embed this approach in their activities and explore what they think the opportunities might be for themselves and the natural environment in Cambridgeshire. The ncip approach and process will also provide important learning opportunities for all partners and stakeholders, especially for public sector and conservation groups who will need to establish a strong, shared narrative which is relevant to their new, private sector partners.

Importantly, **when talking to businesses try to think how they could benefit and what's in it for them**. They might have little desire to operate philanthropically, so how could they help move forward a ncip approach whilst still making a profit, saving money or achieving a return on their investment? Look for win-win scenarios and adopt a commercial, customer-focussed edge. This is the 3Keel LEN's (page 108) beneficiary system approach where businesses can achieve required environment-based outcomes, protect their supply chain and reduce organisational risk. This system can benefit landowners/farmers and the environment, however these are not the key drivers and this is a business arrangement, not a pure investment.

When developing a ncip, pilot projects and a project pipeline, it will be vital to **work closely with landowners, farmers and land agents**. They work the land so they have a very strong business interest in the environment and are therefore potential investors in ncip projects. Importantly, they own or manage the land which would be utilised in investible projects or natural capital programmes. For example, National Trust (page 134) are working with EnTrade (an online environmental trading platform) to run an online reverse auction trial in the upper Bure catchment area,

Norfolk. They are working with farmers and landowners to help improve water quality and water management. The project is being funded by National Trust as a trial, and they are finding that there is a strong appetite from the farming community and from land agents acting on behalf of landowners. Other good examples are 3Keel's eight current 'Lens laboratories' (page 108). It's important to engage with farmers and landowners early in the process and work with them as a key partner group. Ask them what they think the opportunities are and what they would like to do. Matthew Bullock suggested that one needs to work with landowners and farmers who are also key investors – they may share others' concerns for nature, but have to balance this against having to make a living and running a business.

During this research it became apparent that a lot was expected of the Local Nature Partnerships but, in many cases, they are poorly resourced and therefore unable to contribute as much as they would like to ncip and environmental projects, and are financially vulnerable. **A strong, funded and resilient LNP** was generally seen as something which would be beneficial and a key partner within any ncip approach. The National Trust (page 134) believe that Local Nature Partnerships are important and will be responsible for leading the delivery of biodiversity net gain and they support this approach. When they launched the Surrey Nature Partnership, they wanted to develop a strong organisation which was committed to a natural capital approach. The aim was to have senior level executives, representing a broad range of sectors, give an economic focus and lift it out of traditional conservation circles.

3.8 Team size, structure and resources

All respondents recommended that **to deliver a ncip you would need to have adequate staffing, funding and resources**, in fact it was regarded as the main challenge and the second highest piece of specific advice for setting up a DNIP in Cambridgeshire. A lack of personnel, funding or resources was also the most common weakness of current ncip approaches.

Staffing

It was recommended that you would need **at least one member of full-time staff**, but more would be preferable and between three and five would be ideal.

In Sussex (page 97), they recommended that one would need 2fte; one as a facilitator to develop plans, manage working groups and keep the partnerships functioning, and the other to manage and develop a project pipeline.

In Surrey (page 88), having just received funding, they are deciding what their future structure will be but they suggest that they would ideally have a team of 3.5-4fte consisting of:

- MD/CEO-type person with knowledge/background of the investment world
- 2 x technical people, for example to work on carbon offsetting and biodiversity net gain products
- Board of Directors
- Admin support

Paul Leinster (page 116) said, 'You could do quite a lot with 3-4 people, but it's more important that you have people at the right level of seniority than lots of people'.

Additional resourcing

Additional funding will be required to pay for support, technical expertise, specialist services and consultants. Of the current projects, three respondents thought that £100K annually would be sufficient, whilst one suggested £50K-100K.

Technical expertise and consultants were typically used in the early stages of projects to help build the evidence base, collect spatial data, carry out mapping and natural capital accounting. For example, in Surrey (page 88) they were used to produce a natural capital asset register and a biodiversity offsetting scoping study. In later stages of ncip approaches, consultants were mostly used for developing investment models, financial mapping and working with investors. In Surrey, consultants will be looking at long term business models for investments into natural assets, and for approaching institutional investors because this is their expertise and they have those contacts. In Greater Manchester (page 82), consultants have been commissioned to support the design and delivery of their Environment Fund over the next 12 months. In the North Devon ncip approach (page 100) consultants were used to carry out a root cause analysis, financial mapping and a report on natural capital investment opportunities.

Leadership

Some key attributes were recommended:

- You need a strong, funded leader – either a person, organisation or combination of both.
- The leader should be a person who can make connections, increase the visibility of what you're trying to do, who's got energy, drive and a vision for what it could be.
- A strong leader would need to coordinate relationships between partners, organisations and projects, drive forward projects, broker agreements and relationships, provide evidence and baselines that are accepted by partners and stakeholders, provide project management and oversight, and oversee the management and ownership of risk.
- This needs to be pitched at the right level, so you need a champion – someone at least at Executive Director level who really wants this to happen. Ideally, there would also be a direct report into the political governance structures.
- You need to get the right group of leaders/people together to drive it forward, including decision makers. In your team you need the best people, with a range of different skills – not just technical experts.

3.9 Political support

Political support and endorsement at governmental, national and local level was generally regarded as being important. All but one of the current projects received some form of support from their Combined Authority, County Council and/or Local Authorities. However, funding was less forthcoming.

It is recommended that a ncip team should seek support from their Combined Authority, County/City Council and/or Local Authorities. Ideally, this would include funding and the development of an Environment Board and/or an environment plan which has ncip and net gain embedded in it. Paul Leinster (page 116) considered political support to be hugely important. 'A ncip needs to have someone at the right level so you need a champion for this – who's the executive director champion, who really wants this to happen? Ideally this needs to be a direct report to the Mayor, for example the Chair of the Environment Board. Then you need a clear statement that the executive team have signed up to.'

Julie Middleton, Sussex (page 97), said 'If we could do one thing now it would be to get the natural capital approach embedded within the LA's thinking across the county.' She also advised that you need to develop close links to your LEP or LEP's.

3.10 Should a ncip be Arc or county wide?

Most respondents thought that a ncip would work best if approached from a county perspective. This is because it fits better with existing local structures, would be more efficient to deliver and would appeal to peoples 'sense of place'. Also, county wide is large enough to attract significant investment but compact enough for stakeholders to effectively communicate and work together.

However, many considered that there was a key role for an Arc, or regional, overview to work in conjunction with this. It could develop a regional strategy, ensure shared metrics are used, promote spatial planning across boundaries or landscapes, and encompass wider catchment areas. It might have greater influence with central government and could prove attractive for large investors, such as utility companies.

3.11 Specific advice on setting up a DNIP in Cambridgeshire

The specific advice given to help develop a DNIP in Cambridgeshire mirrored recommendations which have already been presented in this section of the report.

However, to emphasise their importance (based upon the number of respondents who gave these as specific advice to a Cambridgeshire DNIP) the most frequently cited are listed below:

- In Cambridgeshire, you could focus on water- related issues and opportunities
- Get net gain policy, embedded into local plans at unitary and district level.
- You should initially target biodiversity net gain, then ncip (achieve funding from biodiversity net gain to develop projects and demonstrate 'proof of

concept', and then use these successes to investigate other investment and funding opportunities).

- Focus on doubling nature in Cambridgeshire

Although the following pieces of advice were only given by single respondents, the author thought they were particularly important and relevant:

'When looking for investments you need to be mindful of due diligence and your partners' approaches to it. It may be that a partner might not be prepared to take funding from specific businesses or industries. The ethics of investment can be problematic and constraining, so you need to devise a suitable ethical investment policy.' Julie Middleton, Sussex LNP, (page 97).

'The recent budget talked about setting up 4 Development Corporations across the Arc to address concerns about the number of LPA's involved. If this happens then collaboration of the 4 DC's could work well within the context of the OxCam arc. Work on the DNIP should take account of these Development Corporations.'

'Given the complex and congested field of related projects, DNIP must be presented in communications strategies to provide confidence that this is a single unifying plan for natural capital work, rather than just another environment themed strategy. To do this it needs to be clear about its relationship with other strategies at a local, sub-regional and regional level.

This work needs to be developed through close working with the Local Authorities to ensure alignment with planning and consenting processes. On this point, early and full engagement is needed with local authority officers and members to ensure that there is sufficient understanding and backing from the local authorities in the area. This will be critical to ensure:

- Support from all partners that this is a single unifying plan
- Successful integration with administrative/technical processes such as planning'.

Stuart Morris, Principal, Planning Policy Officer, Greater Cambridge Shared Planning, (page 127).

3.12 Would other organisations want to work with a DNIP in Cambridgeshire?

All 13 organisations, or individuals, working in the OxCam Arc or Cambridgeshire said that they would be interested in working with the proposed DNIP, or a similar funding vehicle, within Cambridgeshire.

All other respondents said they would encourage us to proceed with our approach and would be keen to advise and support where they could.

4. Strengths & weaknesses of current approaches to ncip

Interviewees were asked “Considering your approach to developing your ncip, what do you think are its strengths and weaknesses”. There were responses from all eight current projects.

Common strengths were:

- Worked closely with partners and stakeholders
- Achieved political support and buy-in
- Shared work before it was complete to inform others and take the debate forward

Common weaknesses were:

- Lack of personnel, funding and/or resources
- Need to engage better with the business, investment , social services and health & wellbeing sectors

Who	Strength	Weakness
Greater Manchester	We've been on a long, steady journey and got buy-in from all key partners	Uptake of natural capital accounting & ecosystem services mapping was good at political level, but variable at project level
	Included the benefits and data from Health & Social care sectors	Natural capital accounts were produced at a very detailed level – they weren't taken up and it's not clear why
	Ncip embedded within the GMCA 5yr environment plan	
	Got Mayoral support	
Surrey	Putting it out there and being willing to show it in its imperfect form to help take the debate forward	Very reliant on 2-3 key individuals, so very vulnerable to not continuing to be driven forward

Warwickshire	Helped fund two officers and the ecology unit, and County Council coffers in the future	In the early days, national opposition to offsetting hindered the approach
	Able to work autonomously	Have had to be lenient on some agreements. For example, if net gain is delivered in the first 15-20 years, then future repayments can drop considerably because they've already made the agreed net gain
	David Lowe – as the key driving force	There are still misunderstandings about the concept of biodiversity offsetting and how it works
	Kept the approach politically low-key	
Sussex	Strategy includes terrestrial, coastal and marine	Don't have a large funder or sustainable resources
	Very open and honest process which we developed the best we could, as we went along.	Need to reach out better to the health & wellbeing, business and investment sectors
	Brought people into the LNP and worked well with partners within the LNP	LNP has been too conservation organisation led and therefore too siloed
	Reinvigorated the LNP and will now change the governance and structure going forwards. We need senior representatives and to agree a new roadmap	
	Achieved political buy-in as a result of endorsements from LAs	

Sussex (continued)	(Before the coronavirus pandemic) About to receive ongoing contributions from a number of partner organisations	
	Approach has been as scientifically rigorous as possible	
North Devon	Collected both qualitative and quantitative evidence	Haven't used spatial data yet – would do if we did it again
	Root cause analysis was liked by partners as it gave strategic solutions	Evidence was segmented too early on. Should have thought of the 'whole place' first
	Clear strategy	Economic prioritisation didn't work well due to a lack of evidence and a lack of trust in the data. A practical vision would have been a better way forward
	Asking 'what are the problems?' led to strong structure and governance	Partners weren't varied enough. Needed a wider background
	(Pioneer) financial mapping was innovative. Partners were nervous at first, but now like it. Eftec worked it up into a methodology	Needed business, social services and health partners. Especially needed more business partners at the beginning
Bristol	Important: Taking a trial-based approach (testing & trialling)	Didn't have enough resources to keep pace and maintain momentum & motivation
	Being innovative	Unable to get specialist support
	Working in close collaboration with catchment partnership	

West Midlands	Not trying to be a pioneer - learnt from others approaches	Stakeholders were too fragmented and competitive
	A lot of work was already being done by the Wildlife Trusts	Lack of resources
	Mayoral appetite for strategic and tangible work around the environment	A complex LA situation to try and work in
3Keel	Pragmatism	Risks of perverse outcomes
	Producing natural capital planning but without calling it natural capital	Risk of businesses going out of business
	Use a collaborative network approach	

5. What are others doing? Summarised case studies of current approaches and ambitions

This section gives a brief summary of the approaches of current ncip projects and the approaches and ambitions for other organisations or individuals related to work in the OxCam Arc or Cambridgeshire. The purpose being to give an overview of what is currently happening in the field of ncip in the UK.

The case studies are ordered according to success to date or length of project, starting with the longest running or most successful examples.

More detailed case studies are given in Appendix C

Summary of the approaches, and main driver, for current ncip projects

Case study	Summary of their approach and main driver
Greater Manchester	<p>Greater Manchester was one of the four Defra Pioneer projects, it was the urban pioneer. They published the Greater Manchester Natural Capital Investment Plan in 2019 and this helped shape the Greater Manchester 5 Year Environment Plan. They have also started a small number of trial demonstrator projects to act as 'proof of concept', and developed a natural environment engagement model and toolkit.</p> <p>They recently received funding and are setting up the Greater Manchester Environment Fund (to provide funding to non-statutory environmental initiatives) and are implementing the EU-funded IGNITION project (developing a pipeline of Natural Capital (NC) projects at the €10m+ scale which could be attractive to private investors).</p> <p>Main driver: Greater Manchester Combined Authority.</p>
Surrey	<p>Surrey Nature Partnership (SyNP) was formed in 2012 and has focussed upon developing a NC approach in Surrey. They published Naturally Richer – A Natural Capital Investment Strategy for Surrey in 2015, and a ncip in 2018.</p> <p>In December 2019 they received funding which will allow them to look at investment mechanisms, explore the best way to set a (SyNP) company up and start to unpick how the theory of natural capital investment could work in practice in Surrey.</p> <p>Main drivers: Sarah Chimbwandira, key members of the SyNP board and the Surrey Wildlife Trust.</p>
Warwickshire	<p>Warwickshire County Council operates its own biodiversity net gain programme on all major and minor planning applications. It is a policy requirement in all the sub-regional LPA's core</p>

Warwickshire (continued)	<p>strategies to use the locally derived Defra metric to ensure that developments result in a biodiversity net gain. This means that all development within the sub-region must use their Biodiversity Impact Assessment tool which helps ensure that all development applications are treated in a fair, equal and transparent manner.</p> <p>The team have been successful with net gain but are now starting to investigate ncip approaches as the market starts to form in Warwickshire.</p> <p>Main driver: David Lowe, Ecology Team Leader with Warwickshire County Council.</p>
Sussex	<p>After collecting their evidence base and running an LNP members workshop, they launched their five year Natural Capital Investment Strategy in December 2019.</p> <p>Their next steps are to identify investment opportunities and then make them happen.</p> <p>Main driver: Sussex LNP</p>
North Devon	<p>North Devon was one of the four Defra Pioneer projects, it was the landscape pioneer. The partnership ran a financial mapping project (2017), commissioned a natural capital investment opportunities report (2019) and developed a natural capital strategy which is due to be published in 2020. This strategy will be followed by an implementation plan, including funding mechanisms and delivery.</p> <p>Main driver: Natural England, in collaboration with the North Devon Biosphere Partnership and other key stakeholders</p>
Bristol	<p>The Bristol Avon Catchment Partnership Natural Capital Approach Trial has been running since 2017. They focussed upon developing an evidence base and have produced a natural capital asset register. They are developing a NC account tool and expect to launch a version for external partners by 2021.</p> <p>Their next steps will include testing an integrated appraisal approach and exploring mechanisms for investment and delivery, including trialling the 3Keel LENs approach.</p> <p>Main driver: Environment Agency (National Natural Capital team)</p>
West Midlands Combined Authority	<p>They were making good progress towards developing a natural capital investment strategy and plan, however neither have progressed beyond the proposal stage due to political reasons and key staff leaving the project.</p>

West Midlands (continued)	Main drivers: Georgia Stokes, CEO of the Birmingham and Black Country Wildlife Trust, and Simon Slater, Head of Environment, WMCA.
3Keel (including Bristol Frome LENS)	<p>The 3Keel LENS environmental trading system is an innovative, new approach which is demand-led and based on businesses working together. A LENS project works by setting up and managing a regional system of beneficiaries (businesses) and suppliers (farmers and landowners). It can benefit suppliers and the environment, but is a business arrangement, not a pure investment.</p> <p>LENs is being developed through a set of live projects called 'LENs Laboratories' which provide practical situations to develop and prove the process. There are currently eight of these projects in the UK including two in the OxCam Arc Northamptonshire and Oxfordshire. LENs has been operating for two years and the first trades are just taking place.</p> <p>Main drivers: Tom Curtis and Catherine McCosker at 3Keel, and Andy Griffiths at Nestlé UK.</p>

Summary of the approaches or ambitions of other organisations, or individuals, related to work in the OxCam Arc or Cambridgeshire.

Case study	Summary of their approach or ambitions
Defra Group OxCam Local Natural Capital Plan Team	<p>The team was set up in Spring 2019 with one year of funding and is currently lobbying to have this funding extended beyond September 2020. They are very supportive of ncip within the OxCam Arc and have worked hard to champion this.</p> <p>They have brought together stakeholders, produced important NC data and mapping, developed an online platform, funded NC-related projects and are developing an investment toolkit.</p> <p>They are open-minded about whether ncip should be Arc or county-wide, but see a strong role for Arc-wide planning, spatial planning, consistency and shared metrics.</p>
Paul Leinster	Paul is a Professor of Environmental Assessment and previously Chief Executive of the Environment Agency. He is sceptical about whether there are investible propositions for the private sector at present. He thinks that we should be focusing on the potential funding streams provided by the public sector and those from the private sector driven by

Paul Leinster (continued)	<p>ownership, corporate social responsibility, public sector incentives or planning requirements.</p> <p>Paul suggests that we should focus on natural capital net gain policy and get this fully embedded into the local plans at either unitary or district level.</p>
Matthew Bullock	<p>Matthew is a Vice-Chair of Cambridge Ahead who are supporting work by Cambridge Past Present and Future and the Wildlife Trust to define nature sites and parks in the Greater Cambridge Partnership area as part of the local plan. As a former banker, Matthew is also interested in creating investible models for funding environmental initiatives.</p>
Cambridgeshire County Council	<p>In May 2019, Cambridgeshire County Council declared a climate and environment emergency and committed to develop a 2020-2025 Climate Change and Environment Strategy and Action Plan. These have been developed and were due to be approved into Council policy on 17/3/2020.</p> <p>Their current focus is on net gain but they are interested in the potential for ncip in Cambridgeshire.</p>
Cambridge City Council and South Cambs District Council	<p>In May 2019, Cambridge City Council declared a Biodiversity Emergency and committed to a number of changes. A revised biodiversity strategy is due in 2020.</p> <p>In July 2019, South Cambridgeshire District Council declared that we are facing an ecological emergency as well as a climate emergency. They aim to double the area of rich wildlife habitats, tree cover and green space.</p> <p>Both are involved in the development of the Local Plan. To inform this, the Shared Planning service has recently commissioned consultants to inform the creation of an enhanced and expanded green infrastructure network in Greater Cambridge.</p> <p>Both are planning to deliver net gain on current and forthcoming development sites.</p>
Cambridgeshire Future Parks Accelerator Programme (CFPA)	<p>This project is funded to run from April 2019 – May 2021. Currently, they are developing a natural capital assessment to value the public open spaces in Cambridgeshire and will be mapping them.</p> <p>They are yet to decide on their approach to secure future funding and development of public green spaces. However, they are keen that any future funding or investment models</p>

CFPA (continued)	consider the value of publicly owned green spaces as well as natural green spaces, such as natures reserves.
Natural England	<p>Natural England support the Government's ambition for the OxCam Arc to be an exemplar of its 25 Year Environment Plan.</p> <p>They are engaged in the planning of the OxCam Arc by providing advice on environmental issues and opportunities, supporting the collation of an evidence base, developing suitable metrics, understanding the barriers to implementing effective net gain policies and supporting the effective implementation of biodiversity net gain.</p>
Natural Capital East	Natural Capital East is a group of business-focussed organisations who want to work together and take the right decisions for both the environment and business. They are yet to decide on their approach to ncip.
National Trust	National Trust in the East of England have been involved in natural capital accounting and valuing ecosystem services, working with government and academics, for some time. They are currently involved in a number of projects looking at natural capital accounts, the carbon balance on farms and a project trialling an online trading system that offers farmers a way to make money by selling environmental services to businesses.
Royal Society for the Protection of Birds	RSPB is currently exploring a wide range of options to achieve future funding for nature and are yet to decide on their key focus or future strategies.
Wildlife Trust for Bedfordshire, Cambridgeshire & Northamptonshire	<p>WTBCN are currently focused on biodiversity net gain instead of ncip.</p> <p>They are currently developing Nature Recovery Networks which will form the basis of nature recovery strategies, these will identify the places where net gain credits could be applied. They have their first project in the planning phase in Greater Cambridge, where biodiversity mapping will lead to a pilot Nature Recovery Network.</p>
Wildfowl & Wetlands Trust	<p>They are actively exploring this area but are yet to decide on their future strategy.</p> <p>They are wetlands experts and consider that they would be well placed to be the organisation to go to for utilising net gain credits in wetlands throughout the UK.</p>

6. Options for valuing nature or developing a natural capital investment approach in Cambridgeshire

6.1 Opportunities which a natural capital investment approach could provide to Cambridgeshire

There are currently many opportunities and initiatives in Cambridgeshire which make this a very opportune and appropriate time to be developing a natural capital investment approach. These include the OxCam Growth Arc, the CPCA Independent Commission on Climate Change, the Doubling Nature vision, Cambridgeshire County Councils forthcoming 2020-25 Climate Change and Environment Strategy and initiatives based upon the COVID-19 Recovery. In addition, the OxCam Arc LNCP natural capital baseline mapping has just been completed and Natural Cambridgeshire is already holding a series of meetings with local businesses and investors.

A natural capital investment approach could offer many opportunities to Cambridgeshire, including:

- **Developing a green Arc**

There is a strong opportunity for the growth Arc to become a green Arc, with an improved environment and attracting class-leading, environmentally-friendly and sustainable businesses. A Cambridgeshire ncip could spearhead some of these changes and act as an exemplar both within the OxCam Arc and nationally. For example, Cambridgeshire currently has fewer areas of nature-rich land than most other counties and is the least wooded county in the country. The OxCam Arc LNCP and a ncip should aim to redress this and see significant improvements in line with Natural Cambridgeshire's Doubling Nature Vision <https://naturalcambridgeshire.org.uk/wp-content/uploads/2019/07/Doubling-Nature-LR.pdf>

- **Carbon sequestration**

Carbon sequestration is likely to see high demand from businesses and other sectors over the next few years. By helping manage net gain, and directing some of it to appropriate carbon sequestration projects, and developing a portfolio of environmental projects, a ncip in Cambridgeshire could offer many carbon sequestration opportunities which could benefit both the private sector and landowners. This would link with the ambition to develop a pipeline of investible projects offering multiple benefits, of which carbon sequestration would be one.

- **Water-related issues**

Cambridgeshire faces the significant challenges of being in the driest part of the country, having limited water resources, being prone to flooding in the winter and yet trying to secure a sustainable future for our Fens, peatland environment, for both agriculture and nature. There is also likely to be increased demand for water in the future. As a result, a number of respondents in this research recommended that a Cambridgeshire ncip should focus on water-related issues and opportunities. It could work with partners (including EA, water companies, internal drainage boards, Natural

Capital East and Water Resources East) to develop integrated water management - considering water resources, water quality, resilience to flooding and climate change. Cost effective, nature-based solutions could be employed which would benefit statutory bodies, offer savings to businesses, and benefit Cambridgeshire's natural capital assets. These projects would also act as 'proof of concept' and help develop investible propositions which would attract other businesses to become involved or to invest.

- **A more sustainable future for agriculture**

The projects and programmes associated with a ncip in Cambridgeshire would give landowners, who participate in such schemes, additional and sustainable income in return for managing areas of their land for natural capital and ecosystem services assets. In addition, ncip projects could include trials for the new Environmental Land Management Scheme (ELMS) (which will supersede the current Countryside Stewardship scheme), and research and demonstrator projects looking for new ways to farm the land – especially in areas such as the peatland Fens.

A ncip could investigate and promote natural capital investment opportunities within Cambridgeshire and these could be beneficial for the farming industry, including developing accreditation schemes, developing local food networks, carbon offsetting, woodland management and promoting ecotourism.

- **Significant growth in housing and infrastructure**

The Oxford-Cambridge arc could deliver 1 million new homes and 1.1 million new jobs by 2050, if the required new infrastructure is delivered. This could put Cambridgeshire in an advantageous position if net gain is embedded within Local Plans and is properly managed and allocated. Significant income could be used to achieve (or exceed) current net gain targets, but also to kickstart investible projects and exhibit 'proof of concept' to encourage future businesses and the private sector to invest in Cambridgeshire's natural capital.

- **Growth in businesses and population**

New, and expanding, businesses will be relying on the natural environment for key ecosystem services and will want to promote Cambridgeshire as a healthy and attractive place to live and work in. Increasingly these natural attributes will come under strain, putting pressure (economic, supply chain and risk-based) on businesses to become involved with natural capital projects for their own benefit and for investment. A ncip would be positioned to work closely with the private sector to provide suitable, well-managed and mutually beneficial initiatives - ideally acting as a 'one stop shop' linking businesses to nature-based solutions and investible natural capital propositions.

- **The role nature plays in people's health and wellbeing**

A lot of research is being carried out on the relationships between a healthy environment, access to good quality greenspaces and people's health and wellbeing. A ncip could work with partners to help quantify how nature can benefit people's health and link this to potential economic savings related to

reduced sick leave and savings to the NHS. This could also influence where environmental projects are carried out to offer the best benefits for people as well as for nature, for example a portfolio of projects offering a wide range of benefits and locations from urban parks to wetland nature reserves in the Fens. This would link with the ambitions of one of the partner organisations, the Cambridge Future Parks Accelerator Programme, which is being led by Cambridgeshire County Council.

- **Cambridgeshire taking the advantage**

Cambridgeshire is well placed to be the first OxCam Arc county to develop a ncip and could become an exemplar and regional leader in this new field, sharing best practice and influencing other natural capital investment approaches.

Being 'first to market' could be advantageous as there will be less competition and therefore greater chances of attracting major investment players, e.g. Anglian Water or Stansted Airport, if suitable investible propositions can be recognised, designed and implemented.

- **A greener, post-Covid future**

During the Covid-19 pandemic, people have enjoyed a cleaner, quieter and enhanced natural environment and many are now keen to see changes. A ncip could help catalyse these changes and offer the public and private sectors innovative ways to find nature-based solutions and mutually beneficial propositions which meet their needs and can improve our environment. For example, by managing biodiversity net gain payments and developing a pipeline of environmental projects ranging from small, urban improvements to landscape-scale, habitat creation initiatives.

- **A more prosperous, post-Covid future**

Our vision for a post-Covid future could be a better, greener environment with more opportunities for recreation, people gaining a 'sense of place' and an innovative, sustainable pipeline of environmental projects. This could lead to:

- Increased employment in the environmental management sector
- An increase in local leisure and tourism – increasing profits and catalysing an increase in local provision.
- More financial security for landowners and conservation organisations
- Cambridgeshire will become a more attractive place in which to live and work. Businesses will find it easier to attract high quality workers and more people will want to live here, thus the local economy will boom and property prices will be buoyant.

6.2 What progress has already been made in Cambridgeshire?

Using the process template for developing a natural capital investment approach (section 3.3), here we outline what progress has already been made towards developing a ncip in Cambridgeshire.

Stage in the process	Progress to date
1. Build an appropriate partnership, governance structure and identify a lead organisation/s – working to a shared and focussed vision	<p>In 2019, Natural Cambridgeshire launched ‘Doubling Nature - A Vision for the Natural Future of Cambridgeshire & Peterborough in 2050’ https://naturalcambridgeshire.org.uk/wp-content/uploads/2019/07/Doubling-Nature-LR.pdf</p> <p>This vision is supported by the Cambridgeshire and Peterborough Combined Authority and all local authorities. It has also been adopted by all other OxCam Arc counties. The vision commits Natural Cambridgeshire, and therefore all organisations who support the vision, to developing a Cambridgeshire-wide natural capital investment plan.</p> <p>Since Spring 2019, good progress has been made in engaging with partners and involving them in the early stages of this work. For example, a series of meetings with local organisations, local authorities, businesses and potential investors.</p> <p>However, governance has not yet been decided and there is currently no lead organisation with funding in place to take forward a ncip.</p>
2. Secure funding and resources to lead and manage the project	<p>There is currently no funding earmarked for this project, so achieving funding is a priority.</p> <p>A funding proposal is currently being produced for the EU LIFE programme, for a DNIP project from Cambridgeshire, the OxCam Arc, South East Midlands and New Anglia LEP’s. Even if this proves unsuccessful, pulling together such a partnership and project consortium will provide a useful platform for future funding opportunities.</p>
3. Build the required evidence base – using agreed methodologies and metrics	<p>Cambridgeshire already have a detailed Natural Capital Baseline, so we will be able to combine this with the accounting work from the LNCP. It is worth remembering that the purpose of the OxCam LNCPs accounting work was to give a strategic overview across 5 ceremonial counties and would need to be</p>

	<p>refined if used in a more specific geographical location.</p> <p>The Defra team used widely accepted metrics, which the DNIP would promote and continue to use. However, we might need to consider using more tailored metrics in localised areas, e.g. for a more detailed assessment of the Fens.</p>
4. Develop a natural capital investment strategy	No progress to date.
5. Develop a natural capital investment plan	No progress to date.
6. Achieve funding to take forward and deliver the plan and projects	No progress to date.
7. Develop and run a pilot or demonstrator project for proof of concept	No progress to date.
8. Develop a pipeline of 'shovel -ready', investible projects	<p>Since Summer 2019 progress has been made in developing outline proposals for six landscape-scale projects and 13 smaller-scale environmental projects in Cambridgeshire and neighbouring OxCam Arc counties. So, there are already proposals which could form the basis of a project pipeline.</p> <p>However, further work with partners is required to develop detailed plans, accurate costings and make the projects effectively 'shovel ready'.</p>
9. Work with consultants, businesses and investors to identify, develop and run investible propositions	<p>Natural Cambridgeshire, through its Cambridgeshire Natural Environment Policy and Planning Forum, have already started to talk to local and regional businesses and investors, with support from Cambridge Ahead. Although this is only at an early stage, good and encouraging progress has been made.</p> <p>A DNIP stakeholder workshop (including businesses, investors and landowners) was organised in March 2020, but had to be postponed due to the Covid-19 pandemic.</p>

Other key stages	
Getting political support	<p>Progress is being made, see stage 1, with the Cambridgeshire and Peterborough Combined Authority and all local authorities.</p> <p>Natural Cambridgeshire includes representatives from, and is supported by, the combined authority and local authorities.</p>
Ensure that there is a strong local authority, environment plan and Environment Board, and that this supports a natural capital approach.	Progress is being made, see stage 1, with the Cambridgeshire and Peterborough Combined Authority and all local authorities.
Work to embed net gain and natural capital into local authority planning and decision making processes.	This is in progress, local authorities are being supported (by Natural Cambridgeshire and conservation organisations) to move rapidly to implement net gain in Cambridgeshire and Peterborough.

6.3 Options for valuing nature or developing a natural capital investment approach in Cambridgeshire – recommended options

Natural Cambridgeshire's 'Doubling Nature' vision is that by doubling the area of rich wildlife habitats and natural green-space, Cambridgeshire and Peterborough will become a world-class environment where nature and people thrive, and businesses prosper. To deliver this vision they are committed to developing a Cambridgeshire-wide natural capital investment plan which will inform strategic and economic decision making, and find ways to sustainably finance and rebuild our natural environment (for people, a more resilient economy and increased biodiversity) by bringing together the conservation, public and private sectors.

The following options are based upon the experiences and recommendations of other ncip approaches featured in this research, and are informed by progress to date and knowledge of the situation in Cambridgeshire.

Summary of main options

- A. Do nothing additional at present. Instead be reactive and await the outcome of the Environment Bill, or other legislation, from central government.**
- B. Focus on the early implementation of net gain in Cambridgeshire. Including embedding biodiversity net gain within Local Plans so all development should automatically result in net gain.**
- C. Focus on developing demonstration investment projects for proof of concept and to start to establish a market to attract public and private sector partners and investors.**
- D. Develop an investment strategy and plan that focusses upon doubling nature.**
- E. Develop a full-scale environmental investment strategy that not only seeks investment to double nature, but includes multiple natural capital and environmental benefits.**

More detail on recommended main options

- A. Do nothing additional at present. Instead be reactive and await the outcome of the Environment Bill, or other legislation, from central government.**

Pros	No investment of time and resources
Cons	Does not portray Cambridgeshire as an innovative, proactive county. Will be slow to react to changes once the Environment Bill is published.

B. Focus on the early implementation of net gain in Cambridgeshire. Including embedding biodiversity net gain within Local Plans so all development should automatically result in net gain.

Pros	<p>Cambridgeshire will be 'ahead of the curve' and operating a suitable system in the near future.</p> <p>Developers will be better informed, sooner, and will be able to start embedding this approach within their plans.</p> <p>Increased income from net gain could be used to fund a greater number, and range of, environmental projects and could be used to support investible demonstrator projects as 'proof of concept'.</p>
Cons	<p>Will not provide a sustainable and systemic method for funding nature nor natural capital.</p>

C. Focus on developing demonstration investment projects for proof of concept and to start to establish a market to attract public and private sector partners and investors.

In Greater Manchester, page 82, they are running a small number of trial projects to act as 'proof of concept' these include: a SuDS project at a primary school in Trafford, projects on Prestwich High Street, Bury, and Oldham's green space as part of the Northern Roots project. They show what can be done and how the public sector could save money or how businesses could become involved.

In Cambridgeshire, such demonstrator projects could be developed linked with current conservation projects (e.g. the Great Fen, Wicken Fen Vision or the Ouse washes), potential small-scale water quality or flood risk projects, community conservation projects in urban areas or linked with the Cambridgeshire Future Parks Accelerator Programme.

Pros	<p>Pilot projects will demonstrate how such investible projects and propositions could work at scale and act as 'proof of concept'.</p> <p>If properly funded, a small-scale project could be commenced within a relatively short timeframe.</p> <p>Good for public relations and will provide practical examples to help communicate the benefits of a natural capital approach.</p> <p>Could attract businesses and investors.</p> <p>Sends out a positive message that Cambridgeshire is proactive, innovative and looking for new ways of doing things.</p>
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	Sets the county on the path towards a sustainable and systemic method for funding nature nor natural capital.
Cons	<p>Will require greater funding, in the short-term, than developing a natural capital investment strategy.</p> <p>The time, and funding, this will take is likely to slow down progress towards developing a full natural capital approach.</p> <p>Businesses and investors are looking for large-scale, investible propositions so might not be attracted by such pilot projects.</p> <p>There is a danger that this approach could lead to very specific projects which will be small-scale and are unlikely to offer multiple benefits.</p> <p>There might be problems in upscaling such demonstrator projects.</p>

D. Develop an investment strategy and plan that focusses upon doubling nature

Within this approach there could be a number of potential strategies, but all will ultimately be focussed upon achieving the doubling nature vision.

We could develop an investment strategy and plan:

- **Starting with a focus on net gain opportunities and then developing a DNIP**

If net gain is fully embedded and funding is available, then an initial focus on biodiversity net gain could enable swift progress towards developing and running suitable projects and working closely with developers and the business community. This will act as 'proof of concept' and could help attract funding to the DNIP, allowing it to develop faster and investigate larger-scale investible propositions.

- **Starting with a focus on net gain and water-related initiatives, and then developing a DNIP**

A number of respondents from current ncip approaches recommended that the DNIP should focus on water-related issues and opportunities. They suggested that these could be more valuable than natural capital or net gain approaches in Cambridgeshire, especially in the short-medium term.

This approach would initially focus on both net gain and water-related projects. It will have similar advantages to the previous approach but could lead to far greater funding and more ambitious projects if water-

related initiatives are as important as suggested. Also, water-based projects could be easier to replicate throughout the county and within the Arc. A disadvantage would be that more work would be required to manage both approaches, requiring more funding and resourcing.

- **Starting with net gain, water-related issues and a DNIP**

This would be the most comprehensive approach, where all main options are considered as a natural capital investment strategy is being devised. It offers the greatest flexibility and opportunities, and, in reality, the path taken will probably be dictated by the opportunities that arise. Like the previous option, this would require additional funding and resources but could also give the greatest chances of success. Being wider scale, this option might also appeal to a wider range of public and private sector investors.

- **Focussing on DNIP and developing investible propositions and models**

This option would focus upon developing the strategy, plan and investible propositions so, compared to the previous options, the strategy should be developed faster and a future, fully-funded DNIP should be produced sooner. This option would still take advantage of any net gain or water-related opportunities, but this would not be proactive and neither would it be a priority.

All of the above options could include the development of demonstrator investment projects as 'proof of concept'.

Pros	<p>This is an innovative and ambitious approach which would allow the county, its political leaders and businesses, to lead this field within the Arc and act as an exemplar. It sends out a positive message that Cambridgeshire is proactive, innovative and looking for new ways of doing things.</p> <p>It incorporates all of the main opportunities for investment in nature and is therefore a flexible approach which is ultimately likely to succeed in the long term.</p> <p>By incorporating demonstrator projects, net gain and other opportunities it should be able to demonstrate multiple benefits and appeal to a wide range of public and private sectors partner and investors.</p> <p>The county would be committed to taking a natural capital approach and would be taking positive steps towards a sustainable and systemic method for funding nature and natural capital.</p>
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	<p>If properly funded, small-scale projects could be commenced within a relatively short timeframe.</p> <p>Very good for public relations, both for the DNIP and all public and private sector partners. It should provide a wide range of practical examples to help communicate the benefits of a natural capital approach and investing in nature.</p>
Cons	<p>Will require the development of a team, or group of experts, to develop the strategy, look for opportunities and engage with partners. The larger the funding, the faster progress will be.</p>

E. Develop a full-scale environmental investment strategy that not only seeks investment to double nature, but includes multiple natural capital and environmental benefits.

This approach is similar to option D and all of the sub-options within it, but is not constrained within a doubling nature ambition and would have a greater emphasis on wider environmental benefits and ecosystem services. Thus, key objectives might include water and air quality, reducing flood risk, carbon sequestration, climate change, health and wellbeing, etc, instead of the focus being on doubling nature.

Pros	<p>This is the most innovative and ambitious approach and would allow the county, its political leaders and businesses, to lead this field within the Arc and act as an exemplar. It sends out a positive message that Cambridgeshire is proactive, innovative and looking for new ways of doing things.</p> <p>It incorporates all of the main opportunities for investment in nature, natural capital and the environment and therefore is the most flexible approach which has a good chance of success in the long term.</p> <p>By incorporating demonstrator projects, net gain and other opportunities it should be able to demonstrate wider, multiple benefits and appeal to the widest range of public and private sectors partner and investors.</p> <p>The county would be committed to taking a natural capital and environmental approach and would be taking positive steps towards a sustainable and systemic method for funding natural capital and benefitting the wider environment.</p> <p>If properly funded, small-scale projects could be commenced within a relatively short timeframe.</p>
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	<p>Very good for public relations, both for the ncip and all public and private sector partners. It should provide a wide range of practical examples to help communicate the benefits of a natural capital approach and investing in nature and the environment.</p> <p>It would have strong links with the CPCA Independent Commission on Climate Change and Cambridgeshire County Councils forthcoming 2020-25 Climate Change and Environment Strategy.</p>
Cons	<p>The wider remit of this option could pose communications challenges.</p> <p>Will require the development of a larger team, or group of experts, to develop the strategy, look for opportunities and engage with partners. The larger the funding, the faster progress will be.</p>

6.4 Recommended process for developing a natural capital investment approach in Cambridgeshire

For options D and E, which both involve taking a natural capital investment approach, it is recommended that such an initiative in Cambridgeshire could follow the process shown below. This is adapted from the process template for developing a natural capital investment approach (section 3.3) and leads on from ‘What progress has already been made in Cambridgeshire?’ (section 6.2). It is strongly influenced by the current situation and progress made to date in Cambridgeshire, and recommends what could be done from the current time. No timings are offered because they will be directly related to the funding and resources available.

Recommended process for developing a natural capital investment approach in Cambridgeshire

Stage in the process	What now needs to be done and what would be required
1. Achieve political support and build an appropriate partnership, governance structure and identify a lead organisation/s – working to a shared and focussed vision	<p>Good progress to date. Continue engaging with partners, businesses and identifying key stakeholders. It will be important to ensure we have the right partners, with the necessary buy in, commitment and able to help resource, add value and make decisions.</p> <p>The findings of this scoping study will be presented to CPCA and Natural Cambridgeshire, for discussion and consideration.</p> <p>Continue engaging with CPCA and local authorities to ensure that a ncip approach is understood, supported and embedded within relevant plans.</p> <p>Support Greater Cambridge planning and local authorities in embedding biodiversity net gain and natural capital into Local Plans, local authority planning and decision making processes. There is also an opportunity to be more aspirational and lobby for 20% biodiversity net gain, following the ambitions of Cambridgeshire County Council.</p> <p>Investigate the feasibility of pooling Section 106 and CIL contributions from across LPAs as they have done successfully in Warwickshire.</p> <p>Engage with CPCA Independent Commission on Climate Change and inform them of the ncip approach and this study.</p>

	<p>Natural Cambridgeshire could lobby for the development of a CPCA environment plan, working alongside the CPCA Independent Commission on Climate Change.</p> <p>Decide upon governance structure and the lead organisation/s to drive the ncip approach forward.</p>
2. Secure funding and resources to lead and manage the project	<p>There is currently no funding earmarked for this project, or for developing and submitting funding bids, so achieving funding is a top priority.</p> <p>Submit the EU LIFE funding proposal, research and apply for other funding opportunities. Investigate funding opportunities from other sources including the CPCA, local authorities, Defra, LEPs and LNP's.</p>
3. Build the required evidence base – using agreed methodologies and metrics	<p>Ascertain what additional detailed evidence might be required, in addition to that already collected by the Defra Group OxCam LNCP team.</p>
4. Work with consultants, businesses and investors to identify, develop and run investible propositions	<p>Good and encouraging progress to date. Continue engaging with partners, key stakeholders and local and regional businesses and investors.</p> <p>Run ncip workshops to help inform stakeholders and ascertain what they would want from an investible, natural capital proposition.</p>
5. Develop a natural capital investment strategy	<p>Work towards developing a natural capital investment strategy with key partners and stakeholders.</p> <p>This work should be informed by CPCA's Non-Spatial Statutory Framework, the Cambridgeshire and Peterborough Independent Economic Review (2018) recommendations and the outcomes from the CPCA Independent Commission on Climate Change.</p>
6. Develop a natural capital investment plan	<p>This will lead on from the agreed strategy.</p>
7. Achieve funding to take forward and deliver the plan and projects	<p>This would be worked on in conjunction with stages 4 and 5.</p>

<p>8. Develop and run a pilot or demonstrator project for proof of concept</p>	<p>Opportunities for demonstrator projects should be investigated from stage 2 (securing funding) onwards, alongside developing a nci strategy and plan. They will be developed in partnership with key stakeholders and could be unique innovative projects or linked to current projects being run by conservation partners (for example WTBCN, NT, RSPB, WWT, NE or EA), utility companies, developers or businesses.</p> <p>Natural Cambridgeshire is looking to map the environmental ambitions, projects and activities of all organisations within Cambridgeshire. This information could identify demonstrator projects and funding opportunities for them and the ncip.</p>
<p>9. Develop a pipeline of 'shovel -ready', investible projects</p>	<p>Progress has been made in developing outline project proposals which could form the basis of a project pipeline. However, funding and further work with partners is required to develop detailed plans, accurate costings and make the projects effectively 'shovel ready'.</p> <p>This would link with Natural Cambridgeshire's work on mapping environmental ambitions, projects and activities, see above.</p> <p>Initial work involved working with conservation organisations and local authorities, but future activities should involve landowners, the public sector, businesses and potential investors.</p>
<p>10. Ongoing project management, evaluation and monitoring</p>	<p>Once the ncip project is underway it will require ongoing project management, evaluation and monitoring. This will ensure that it is delivering it's environmental, social and financial goals, all projects/programmes are on schedule and new public and private sector investors/partners are being encouraged to participate.</p> <p>A key long-term goal will be sharing the learning and best practice from this project to help develop other ncip approaches within the UK and EU.</p>

6.5 What investment tools or methods might a natural capital investment strategy for Cambridgeshire involve?

Based upon current approaches to natural capital investment, as outlined in this report, there are a number of specific tools or methodologies which could be implemented in Cambridgeshire. These could be employed in order to fund environmental initiatives, produce pipelines of investible projects, achieve 'proof of concept', build strong partnerships and, ultimately, help develop propositions which businesses and investors might want to invest in.

Develop an environment fund

There are a wide range of different funds being developed which offer funding or loans to help start-up or accelerate environmental projects. Initial funding might come from grant funding, local communities, initial investors or philanthropists. But eventually the funds are designed to attract investment and generate a return on investment. Funds could cover general environmental projects or could be focused upon specific outcomes or assets, for example climate change, rivers, improving water quality, removing non-native species or supporting businesses which could increase biodiversity through their activities (e.g. nature tourism or conservation-friendly agriculture).

Greater Manchester (page 82) are setting up an Environment Fund to provide grant funding to non-statutory environmental initiatives that improve the environment within Greater Manchester and are currently underfunded through existing funding mechanisms. Income for the fund will come from grants and income streams including charges from plastic bags, carbon credits, etc.

In Surrey (page 88) they are setting up a company to create investment opportunities and match them with suitable investors. One of their objectives is to create a significant natural capital investment fund of at least £20M to strategically deliver these investments.

Green bonds

A green bond is a fixed income investment in which an investor loans money to an entity which borrows the funds for a defined period and at either a variable or fixed interest rate. The loan must be used to finance new and/or existing climate and environmental projects. Surrey Nature Partnership (page 88) and Warwickshire County Council (page 94) are currently investigating this option.

Habitat banking

In habitat banking, land (purchased for the bank or that of landowner partners) is developed, or restored, into high quality habitat or greenspaces. In return, the landowner can sell biodiversity net gain credits to businesses or developers, enabling them to satisfy legal requirements compensating for the environmental impacts of their businesses or development projects.

Habitat banks require up-front funding to get the scheme started, so lend themselves well to being 'accelerator projects'. They give planners and developers a quick, reliable and cost effective solution to the compensation problem, regardless of the size of the development, so that all development can be made sustainable.

Whatever number of 'conservation credits' are needed can be bought 'off the shelf' by the developer at the point of planning permission. A key benefit of habitat banking is the pooling of credits from a range of development schemes, so it can combine economy of scale with the power of aggregation to leverage significant private investment into large-scale habitat conservation schemes.

Develop a pipeline of projects

A common approach to ncip is to produce a pipeline of investible and 'shovel-ready' environmental projects. These could offer multiple benefits and might fit into a wider programme containing a portfolio of different projects (all providing a range of benefits). This will give businesses and investors practical examples of what they could invest in, 'proof of concept' and these projects are very valuable for communications and public relations. Ideally, the pipeline or programme will be greater than 10 years long, so investors can see something that they can invest in over a period of time.

Natural Cambridgeshire have already developed outline project proposals which could form the basis of a project pipeline. However, funding and further work with partners is required to develop detailed plans, accurate costings and make the projects effectively 'shovel ready'.

In Surrey (page 88) they are using recent funding, and are developing the Surrey Nature Partnership Investment Plan, to develop a pipeline of investible environmental projects.

One of the aims of the Greater Manchester (page 82) IGNiTION project is to develop a pipeline of natural capital climate adaptation projects at the €10m+ scale which could be attractive to private investors.

Financial mapping

One of this reports recommendations is that you should look for opportunities to maximise the outputs from partner organisations including aligning budgets, sharing workplans, working together better, and sharing expertise and resources. A financial mapping project could help achieve this. For example, in North Devon (page 100) they commissioned eftec to produce a financial mapping report which aimed to provide an understanding of how resources are spent collectively across the environmental sector to manage the natural capital assets. This helped map and identify what was happening, but also showed where spend wasn't joined-up and could work better.

Investigate natural capital investment opportunities

In North Devon (page 100), eunomia produced a report on their natural capital investment opportunities. They looked at four key investment opportunities; developing local food networks, carbon offsetting, woodland management and promoting ecotourism. The report identified investments, discussed returns and benefits, and suggested ways to help make the investment work in practice.

Trial a beneficiary system

The 3Keel Landscape Enterprise Networks (LENs) approach (page 108) builds up a series of place-based, chains of transactions which enable groups of businesses to jointly procure landscape outcomes from farmers or landowners that can make things happen on the ground. LENs is a beneficiary system where businesses can achieve required environment-based outcomes, protect their supply chain and reduce organisational risk. In return, this system can benefit landowners/farmers and deliver positive environmental outcomes.

Currently there are eight LENs projects (LENs laboratories) running in the UK, including Northamptonshire and Oxfordshire within the OxCam Arc. These LENs Laboratories provide practical situations to develop and prove the LENs process, work with trading platforms (for example EnTrade or NatureBid), explore monitoring functions, develop practical governance models and identify, evidence and agree landscape interventions.

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This report was produced for the Defra Group OxCam Arc Local Natural Capital Plan team, Natural Cambridgeshire and the Cambridgeshire and Peterborough Combined Authority.



**CAMBRIDGESHIRE
& PETERBOROUGH**
COMBINED AUTHORITY

JAMES PALMER
CAMBRIDGESHIRE &
PETERBOROUGH MAYOR

Appendix A: Methodology

During this research, all of the main current ncip projects were contacted. Interviews (either in-person or by telephone) were carried out with the leaders, or key contacts, from eight of these (only two could not participate). Interviews, and in a few cases questionnaires, were also conducted with an additional 14 organisations, or individuals, related to work in the OxCam Arc or Cambridgeshire. In total 22 organisations are included in the results from this research, resulting from interviews/questionnaires with 26 people.

Interviews followed an informal structure which was used mainly for guidance and to ensure that all relevant subjects were covered. The interviews included the following:

- What did you do and what was your approach?
- What were the main stages of your work or the processes you followed?
- Working in this field, what do you think the key challenges are?
- How important was political support to the success of your project?
- What success have you had, to date, working with funders, businesses, investors and landowners?
- What do you think were the strengths and weaknesses of your approach?
- What lessons have you learnt from your project?
- Do you think that work on net gain or natural capital investment planning should be national, county or region-wide (i.e. OxCam arc)?
- We are looking to set up a team to develop and run a natural capital investment plan:
 - What advice would you give us?
 - What resources do you think we would need for this?
- Do you have any further information or advice?

Interviews were recorded and the results were collated from notes taken, supported by the recordings. All case study copy presented in this report was checked by the respondent for accuracy.

Appendix B: Results

During interviews, respondents discussed what they did, why and how successful their approach was. This information has been collated into relevant categories.

There was a large amount of relevant information shared from interviews or questionnaires, but much of this was individual comments. To indicate majority views and advice, the categories and tables in this section only show comments made by more than one respondent.

General recommendations

Response	Number of respondents
There is no 'one size fits all' solution– every area will have different solutions	5
We are still in the early stages of exploring an emerging market	5
It will be a slow, steady process	3
Get on with it and get things done	3

So, respondents are advising us that they think there isn't a standard way to go about a ncip approach and that we need to find what works in our own specific situation. Also, this is a new and emerging market so the process might require some patience.

Who should the lead organisation or driver be?

All of the seven current ncip approaches (3Keel not included) had strong leaders, funders and/or organisations behind them to drive their projects forward. However, they were all different.

So, although it is important to have a strong leader , the main, driving organisation will be dependent upon many local factors including funding, links with other current ambitions/initiatives, local political ambitions and structures.

When looking to develop a ncip it is recommended to consider all options and be prepared to find your own solution, depending upon which opportunities arise.

Which project	Lead organisation/s
Greater Manchester	Combined Authority
Surrey	Wildlife Trust + LNP
Warwickshire	County Council
Sussex	LNP
North Devon	Natural England
Bristol	Environment Agency
West Midlands	Combined Authority + Wildlife trust

Recommendations on how to approach developing a ncip

Response	Number of respondents
Your strategy and plan should include multiple benefits	14
Your strategy and plan should incorporate hybrid / blended funding/finance	14
Very important to start out with a strong evidence base. This could include detailed natural capital accounting, a natural capital asset register, ecosystem services mapping, a biodiversity offsetting study, spatial plan, etc.	12
Get net gain policy, embedded into local plans at either unitary or district level.	12
Work in partnership to a common agreed vision and way forward	7
You need to agree, share and all use the same common data, metrics and methodologies.	6
Start with biodiversity net gain, then ncip	6
Need to develop a nature recovery network and strategy	4
Need to develop a key set of products, a pipeline of 'shovel ready' projects	4
Need a combined authority or county environment plan, with ncip and net gain embedded in it. So, every road or development leads to net gain – no discussion or negotiation	3
Look for opportunities to maximise the outputs from partners including aligning budgets, shared workplans and working together better and sharing expertise and resources.	3
Need to be well planned, with defined goals	3
Need to work at scale	3
Be innovative and entrepreneurial	2
Need to work with LEP or business board	2
Need to work with local authorities	2

Other associated individual responses considered to be of particular relevance:

- Include public open and green spaces in your strategy to give multiple benefits and a wider portfolio of projects
- Prioritise urban areas as more people will see and benefit from them
- Your project pipeline needs to be at least 10 years, and ideally a 20+ year pipeline. This is because investors will want to see something that they can continue to invest in over a period of time.
- The vehicle needs to be able to work at different scales. Piecemeal change on small land parcels might not attract the investment needed so should be balanced with large projects which could provide multiple benefits and get us closer to the doubling nature target.

Net gain

During this research there was considerable debate over whether we should be advocating biodiversity net gain, natural capital net gain or environmental net gain.

Biodiversity net gain is an approach to development that should leave nature and the environment in a better state than before. This can be achieved by initiatives carried out either onsite or at other, normally local, locations but should result in a net increase in the species, natural habitat and ecological features affected by the development. Environmental and natural capital net gain follow the same principles as biodiversity net gain but require developers to deliver a wider range of environmental or natural capital benefits over and above the full environmental or natural capital impact of the proposed development. So, they could include air quality, water quality, flood risk management, recreation, volunteering, connections to nature, etc.

The Environment Bill will only mandate biodiversity net gain (BNG), so Defra is considering assessing how wider environmental net gain (ENG) should be defined and introduced at a future date. Crucially, the 25YEP provides no definition of ENG, but refers to 'measurable improvements for the environment' and 'wider natural capital benefits' in describing the policy ambition and references are largely focussed on the development context. So, the policy/definitions are still being shaped and tested, partly through the Defra ENG working group and partly through the voluntary uptake of ENG approaches locally.

However, it is becoming increasingly evident that delivering ENG is all about understanding and promoting wider, multifunctional benefits for example, making the link with health and wellbeing and social equity. This is not easy but nevertheless important. Evidence basing these wider benefits in order to support and validate ENG will take time hence initial requirements to deliver BNG.

From this research, there was a general view that net gain should be broad and cover as many relevant aspects of natural capital and the environment as possible. However, some shared WTBCN's concerns that important species populations or areas of habitat could be reduced if biodiversity is put on an equal level with other aspects of natural capital. They think that some biodiversity elements need to be viewed as sacrosanct.

Most current ncip approaches combined both net gain and ncip.

The most common recommendations from the research were:

- Get net gain embedded into Local Plans. This will be part of the forthcoming Environment Bill and would mean that every development would deliver net gain as part of the process.
- Start with a biodiversity net gain approach, but plan to include ncip in the future
- You should focus on biodiversity net gain

Other responses considered to be of particular relevance were:

- There is strong support for the concept of biodiversity net gain, but often a lack of resources and expertise amongst local planning authorities to take this forward.
- Developers and local authorities want off-site net gain to be strategically deployed and we need to develop easier means for practically delivering this.
- Biodiversity net gain should be 20% and not 10% (as proposed in the Cambridgeshire County Council draft Climate Change and Environment Strategy action plan for all Council property, land projects and wildlife sites).
- Infrastructure projects (roads, railways, etc) should also be required to deliver net gain.

Comments related to net gain	Number of respondents
Get net gain policy, embedded into local plans at either unitary or district level.	12
You should start with biodiversity net gain and then look for ncip in the future.	6
You should focus on biodiversity net gain	6
Ncip and biodiversity net gain are both part of the same thing – part of the wider nc asset register.	3
We need to focus on natural capital net gain, instead of biodiversity net gain.	2
Biodiversity net gain should be 20% not 10%	2
Infrastructure (e.g. roads) should be included in net gain, not just developments	2

Recommendations on communications, engagement and messaging

Response	Number of respondents
You need to clearly explain natural capital and other concepts - focus on simple concepts for people, i.e. green corridors (paths, canals) and cycle routes joining parks. These are tangible concepts which politicians like and people can easily understand.	10
Talk in a suitable language for your audiences, make it accessible and simple. Explain why it matters.	7
Clearly communicate the 'hidden' benefits of natural capital.	4

Other associated individual responses considered to be of particular relevance:

- Ran natural capital and biodiversity net gain roadshows for all Local Authorities, very useful in getting political buy-in
- Ran a 'Green Summit' early on, it was a great way to start things off and get support from the Combined Authority and others

Recommendations on working with partners and stakeholders

Response	Number of respondents
Strong partner engagement is key. You need to work well, and closely, with your partners.	17
Work in partnership to a common agreed vision and way forward	6
Need to get business interested in nature and its benefits to them – this can be hard in an urban environment	5
Our partners weren't varied enough, we needed them from a wider background including business, social services and the health sector. We especially needed more business partners at the beginning.	4
Convening and managing partners and stakeholders took a lot of resource, but was important	3
Everyone needs to be involved	2

Recommendations on how to generate income, work with investors and key business stakeholders

Response	Number of respondents
Water could be a focus for Cambs (water-related issues and opportunities could be more valuable than natural capital or net gain approaches in Cambs)	6
Don't think there's any point in the conservation world trying to be the investment world, there are investment experts who can do that. Conservation world ----- NCIP ----- Investment world The NCIP and team needs to act as the liaison between the two.	6
Strong partner engagement with a wide range of organisations is key	5
Make the concept and stages easy for businesses to understand - what does it mean? what are the opportunities? how can they embed it in their activities	4
Think, how will commercial organisations benefit from it?	4
Develop demonstrator or pilot projects for 'proof of concept'	4
Look for opportunities to maximise the outputs from partners including aligning budgets, shared workplans and working together better and sharing expertise and resources.	3
Need to work closely with landowners, farmers and land agents	3
A strong LNP is important, you need it to be resourced and resilient	3
The challenge is to find the investible propositions and work out investible models.	2
Projects will not attract investment interest until they have a robust business model	2
Look for win-win scenarios	2
Players need to understand each other's motivations and operating models	2
Collaboration and co-investment between businesses reduces the risk and can make projects more attractive	2

You should focus on the public sector for funding and should approach them before businesses.	2
Focus on planning and growth	2
Major corporates get ncip, SME's typically don't	2
You need to work with your LEP or business board	2
You need to work with LAs	2

Other associated individual responses considered to be of particular relevance:

- You need a commercial, customer focussed edge
- You should get to know who the key players are
 - Who is benefitting? (private business, Universities, investors)
 - Who is supplying? (farmers, landowners, conservation organisations)
 Speak to them and see what THEY think the opportunities are.
- There will be a small number of key customers and funders (e.g. utility companies, EA flood defence, net gain from developers, offset schemes) – get them involved from the outset
- Ask 'what's the investible proposition?' and 'why would someone invest?'
- Remember, companies might have to deliver specific objectives (water quality, flood protection, etc), so their input will not be philanthropic
- You need alignment and agreed ways of working, so it's easy to work across boundaries (i.e. between counties). Especially attractive to companies who might prefer a more regional or landscape approach
- A good source of funding could be large, visitor sites especially those near large towns or cities. Get them to generate income and maybe group up .
- You need a strong leader/driver alongside senior leaders from a range of sectors (CPCA, business, NGO's, conservation, finance and environmental protection) maybe on an environment board?
- You need to get a 'critical mass' of leaders behind you who think this is a way forward – to break down barriers
- Business models are very difficult to develop, you will probably need to work with a consultant.
- Robust business models could include carbon capture, carbon sequestration, social outcomes & environmental outcomes.

Challenges

Interviewees were asked “what were the main challenges which you faced?” or “what do you think the main challenges are/ will be?”. There were responses from 22.

The most common challenges were/will be:

- Funding and resources
- Clearly explaining and communicating what natural capital and natural capital investment planning are
- Developing investible propositions and investments
- Bringing partners together and working together to a shared vision
- Understanding who are the potential investors and what are their needs
- Getting all partners to agree on, share and use the same data, metrics and methodologies.
- Implementing a monitoring strategy, measuring your success and the quality of schemes

Unsurprisingly, both groups cited funding and resources as the main challenge to their work on ncip - with almost 50% of respondents volunteering this comment. Clearly explaining the concepts and developing investible models/propositions were also key challenges for both groups.

For current approaches, a key challenge was understanding who the potential investors are and what are their needs, this was not considered a challenge for new approaches. Similarly, new approaches thought it would be challenging getting support from politicians, councillors and local authorities, however current approaches did not mention this.

From the eight current approaches - the main challenges are/were

Challenges are/were	Number of respondents
Lack of resources	4
Understanding who are the potential investors and what are their needs	4
Was a new concept, so needed to explain to stakeholders what natural capital is, what are the opportunities and what are the natural environments benefits to them?	4

How to set up a pipeline of investable projects	2
Working out investible models	2
To get partners to be open and to work together to a shared vision.	2
Political issues and differences between partners and stakeholders	2
Getting all partners to agree on, share and use the same data, metrics and methodologies.	2
Keeping the LNP functioning and funded	2
You need to talk to audiences in suitable language.	2
Reputational risks - not finding landowners or work not done correctly	2

From 14 organisations, individuals or new approaches – they think the main challenges will be

Challenges will be	Number of respondents
Achieving adequate funding and resources	5
Finding investible propositions or models with attractive returns on investment	5
Bringing partners together and working together	5
Implementing a monitoring strategy, measuring your success and the quality of schemes	4
Getting support from politicians, councillors and local authorities	3
Natural capital needs to be clearly explained and well communicated	3
Getting businesses interested and involved	3
Acquiring suitable and current data	3
Need agreed natural capital data sets, metrics and methodologies	3

Need to develop a matrix of blended funding - Local Authority first, then private sector.	2
ELMS could either help or be problematic	2
Availability of land for habitat creation/development projects	2

Key stages and processes

Interviewees were asked “what were the main stages of your work or the processes you followed?”. They were asked to see if there were common approaches or processes which projects have followed. There were responses from 14.

This research shows that there is no single way to progress a natural capital investment plan, however there was a high degree of similarity between the current approaches. The following process template is a composite of the stages which most current ncip approaches have taken:

Process template for developing a natural capital investment approach

1. Build an appropriate partnership, governance structure and identify a lead organisation/s – working to a shared and focussed vision
2. Secure funding and resources to lead and manage the project
3. Build the required evidence base – using agreed methodologies and metrics
4. Develop a natural capital investment strategy
5. Develop a natural capital investment plan
6. Achieve funding to take forward and deliver the plan and projects
7. Develop and run a pilot or demonstrator project for proof of concept
8. Develop a pipeline of ‘shovel -ready’, investible projects
9. Work with consultants, businesses and investors to identify, develop and run investible propositions

Depending upon the strategy and agreed direction, other key stages could include:

- Obtain political support
- Ensure that there is a strong local authority environment plan and Environment Board, and that this supports a natural capital approach
- Work to embed net gain and natural capital into local authority planning and decision making processes.

During this research, including this question and on other topics, 11 respondents commented that it is important to start out with a strong evidence base or carry it out early in the process.

Who	Stages or processes which have been/will be followed, in order
Greater Manchester	<ol style="list-style-type: none"> 1. Collect the evidence base 2. Demonstrating a place-based approach and embedding the natural capital approach and thinking within GMCA policy 3. Develop a ncip 4. Develop a GMCA environment plan 5. Develop a demonstrator project 6. Develop and test a communication and engagement model 7. Develop the Greater Manchester Environment Fund and IGNiTION project – to help fund projects and develop a pipeline of large-scale natural capital projects.
Surrey	<p>2012 - Set up Surrey Nature Partnership</p> <p>2014 - Completed two key projects:</p> <ul style="list-style-type: none"> • Valuing Surrey (natural capital asset register) • Biodiversity offsetting scoping study <p>2015 - Produced a Natural Capital Investment Strategy</p> <p>2018 - Produced a Natural Capital Investment Plan</p> <p>2019 - Received funding from Coast to Capital LEP to help set up a company and deliver the natural capital investment plan.</p>
Warwickshire	<p>1995 onwards : The Habitat Biodiversity Audit</p> <p>1999 onwards : Warwickshire Wildlife Sites Project Partnership</p> <p>2009 - 2013 : Green Infrastructure Strategy</p> <p>2012 - 2014 : Defra/NE Biodiversity Offsetting Pilot</p> <p>2013 - Net gain became mandatory for local planning applications in Warwickshire, Solihull and Coventry.</p> <p>2012 - 2014 : Warwickshire, Coventry and Solihull Biodiversity Action Plans.</p> <p>2012 onwards : Implementation of the programme</p>

Warwickshire (continued)	<p>2019 - 2020 : Regulation</p> <p>David and his team have been successful with net gain but are now starting to investigate NCIP approaches as well,</p>
Sussex	<ol style="list-style-type: none"> 1. Collect the evidence base <ul style="list-style-type: none"> • Natural capital asset register • Flows of services and benefits • Risk register 2. Protecting and enhancing the assets <ul style="list-style-type: none"> • Holding the line and preventing further decline in assets • Improving natural capital assets - spatial blueprint for asset types, nature recovery network and producing non-spatial guidelines and action. 3. Produced a five year Natural Capital Investment Strategy 4. Identifying investment opportunities 5. Making it happen <ul style="list-style-type: none"> • Produce an investment planning and project pipeline. • Embed natural capital in planning and decision-making processes
North Devon	<ol style="list-style-type: none"> 1. Ran meetings and workshops with partners 2. Built a shared evidence base 3. Agreed some priority problems for further investigation 4. Produced a list of habitats and ecosystem services 5. Worked out the systemic causes of the problems and possible solutions and interventions 6. Wrote the natural capital strategy 7. Deliver the strategy 8. Considering developing a natural capital spatial plan to ensure that the right investments go in the right places. <p>Stages 3 & 4 included:</p> <ul style="list-style-type: none"> • Financial Mapping

North Devon (continued)	<ul style="list-style-type: none"> • Economic prioritisation • Root Cause Analysis of problems affecting ecosystem services • Natural Capital Investment Opportunities for North Devon
Bristol	<p>They are using an environmental planning cycle approach</p> <ol style="list-style-type: none"> 1. Build the partnership (already established) 2. Defined the vision (already produced) 3. Establish the evidence base 4. Develop a prototype natural capital asset register and account tool 5. Testing the integrated appraisal approach 6. Investigate investment opportunities
West Midlands	<p>They initially worked through the following process:</p> <ol style="list-style-type: none"> 1. WMCA Mayor and Board agreed that the natural environment should be a priority area 2. Carried out benchmarking exercises on environmental issues, natural capital and the natural environment to identify good practice from other combined authority areas. 3. WMCA created an Environment Committee <p>February 2019 - The Environment Board was recommended to:</p> <ul style="list-style-type: none"> • approve the development of a West Midlands Natural Capital Investment Strategy and Programme • suggest local green/blue spaces to be considered as pilots/case studies within the strategy and programme. <p>March 2019 - The WMCA produced the UK's first Local Industrial Strategy. Within this were clear commitments to supporting natural capital investment.</p> <p>Between April and August 2019 - both of the main personnel drivers left this project, without their energy and drive the project has not progressed any further.</p>

3Keel	<p>The LENS approach involves three steps:</p> <ol style="list-style-type: none"> 1. Network analysis 2. Produce the basic operating unit 3. Develop a network
Defra Group OxCam LNCP	<p>The Jacobs review recommends that they should follow a six step approach to developing and delivering a local natural capital plan for the OxCam Arc:</p> <ul style="list-style-type: none"> • Step 1 – Scoping and objectives • Step 2 – Evidenced baseline • Step 3 – Drivers, pressures and risk register • Step 4 – Natural Capital Accounting • Step 5 – Plan formulation • Step 6 – Implementation and evaluation
Paul Leinster	<p>You need to start with a core natural capital data set and core agreed methodology.</p>
Cambridgeshire Future Parks Accelerator Programme	<ol style="list-style-type: none"> 1. Natural capital assessment 2. Develop typologies and map them 3. Look for funding and investment opportunities
Natural Capital East	<ol style="list-style-type: none"> 1. Create an agreed set of metrics 2. Develop a natural capital asset register and baseline 3. Design a collaborative, region-wide approach
RSPB	<ol style="list-style-type: none"> 1. Produce a Nature Recovery map 2. Develop a common, shared vision
WTBCN	<ol style="list-style-type: none"> 1. Develop a Nature Recovery Network 2. Focus on achieving funding through biodiversity net gain and ELMS

Recommended team size, structure and resources

Interviewees were asked “If you were setting up a team to develop a ncip what staffing, funding or resources do you think you would need?” There were responses from 12.

Staffing

All respondents advised that to deliver a ncip you would need to have adequate staffing resources, though they differed in their estimations of how many staff, as full time equivalent (fte) would be needed.

Number of respondents	Recommended number of staff
2	One
3	One as a minimum
2	Two
2	Three to four
1	Four to five

Generally, it was recommended that you would need at least one member of full-time staff and ideally between three and five.

Additional resourcing

In addition to staffing, respondents advised that additional resources (funding) would be required to pay for support, technical expertise, specialist services and consultants.

Three respondents thought that £100K annually would be sufficient, whilst one suggested £50K-100K

Leadership

Some respondents made specific comments about the leadership attributes for a ncip:

- You need a strong, funded leader – either a person, organisation or combination of both
- You need a person who can make connections, increase the visibility of what you’re trying to do, who’s got the energy and drive but also the vision for what it could be.

Who	Recommendations
Greater Manchester	To start setting up an NCIP you need one staff member and £100K annually for consultants and support.
	Currently no dedicated team at GMCA, just Krista plus support from a number of project teams. They use consultants and Krista has support from a part-time campaigns and comms officer.
	How Krista currently spends his time: 50% on engagement, events and influencing policy. 50% on delivery of all actions in the investment plan.
Surrey	Very important - You need resources (a pot of money) for staff + technical consultancy expertise (NCA, business models, etc).
	Ideally you need a dedicated team (staff and access to technical expertise).
	'GMCA have 1 person + £100k' per year, Sarah thought this was okay to start with, but as a minimum.
	Resources needed to turn theory into practice and generate a self-sustaining market.
	Surrey currently have Sarah (0.5fte) + Policy Officer (0.5fte) Not entirely sure what their future team will look like. But if setting this up from scratch you would probably want: <ul style="list-style-type: none"> • MD/CEO-type person with knowledge/background of the investment world • Technical people x 2 (e.g. look at carbon offsetting and biodiversity net gain products) • Board of Directors • Admin support So, ideally a team, of 3.5 – 4fte
Warwickshire	Not sure what Cambs might need, but it needs to be funded.
	Ideally you need a dedicated team (staff and access to technical expertise).
	14 people in WCC ecology team.

Warwickshire	Works as a business trading unit with internal recharge but not financially supported by WCC directly
Sussex	<p>You would need 2fte:</p> <ul style="list-style-type: none"> • 1fte – Facilitator to develop plans, manage working groups and keep the partnerships functioning. • 1fte – project pipeline manager/expert <p>Plus, resources for developing spatial data and better mapping – ideally not consultants as we wish to ‘own’ our work.</p>
North Devon	Ideal team would be 4 or 5 staff (so you can do work quickly, develop and maintain momentum) + annual funding of around £100K.
	Advice is that you will need a few people at times, i.e. 2+ .
	Ideal situation = resource to pay for partners’ time especially for landowners to come to meetings.
	Ideally you need a dedicated team (staff and access to technical expertise).
	It’s hard to work on an unfunded project with no resources and reliant only upon goodwill
	North Devon team has typically been one person leading it on 1 or 0.5fte, plus 3 people doing more than 1 dpw. So, total around 2.0fte max.
	Need the right data, if not you need a resource (biological records centre).
	Starting and pump priming a project takes a lot of resource (look for match funding).
Bristol	Can be delivered through others with a small team plus specialist support from experts.
	Project was resourced by EA team of 5, supported by expertise from within the catchment partnership.
	Don’t set up a full team of experts. You need people with collaboration & engagement skills to take the work forward.
West Midlands	Important – you need at least 1fte, with a very driven approach.
	<ul style="list-style-type: none"> • 1fte (or 2 x 0.5fte) to drive project/programme forward • + £50-100K resourcing for evidence base work, planning and project pipeline

	<ul style="list-style-type: none"> + self-sustaining funding model to keep pipeline developed and to continue building business cases.
	Lead cannot be part-time and relying upon goodwill! Needs to be a full time post with good additional resourcing.
Paul Leinster	You could do quite a lot with 3-4 people, but it's more important that you have people at the right level of seniority than lots of people.
	Engagement needs to be at the right level so you need a champion for this – who's the executive director champion, who really wants this to happen? Ideally it needs to be a direct report to key decision-makers, for example Mayors in Combined Authorities, or the Chair of an Environment Board.
National Trust	Will need resources for legal, governance and expert input.
Cambridgeshire County Council	You need funds to employ someone and for consultants to do any mapping work.
Cambridgeshire City Council	A dedicated full time officer/s to coordinate activity and report on progress
South Cambridgeshire DC & Greater Cambridge Planning	Suggest more than one officer, given the potential for significant workstreams including communications/stakeholder management, investment management, administration, etc.

Political support

Interviewees were asked “what political support did you receive or do you think we would need?”. There were responses from 15.

Political support and endorsement at governmental, national and local level was generally regarded as being important. All but one of the current projects received some form of support from their combined authority, County Council and/or Local Authorities. However, funding was less forthcoming.

Who	Comments on political support received and needed
Greater Manchester	<p>Mayor Andy Burnham is very ambitious for the environment and very much supported the GMCA NCIP.</p> <p>You need the full backing of the Mayor, make sure he/she understands the key concepts and benefits.</p> <p>Involve the Mayor in visits</p> <p>Take a ‘bottom up’ approach with key political stakeholders – starting with planners, not Mayors!</p> <p>Got an environmental plan within the GM Spatial Framework, it gave a commitment from the GMCA.</p>
Surrey	<p>Little political support or funding because our work wasn’t viewed as being important. But this is now starting to change.</p>
Warwickshire	<p>WCC initially funded the team and still offer planning officer support.</p> <p>WCC support is soft-touch but positive.</p>
Sussex	<p>Received good support from LAs and the C2C LEP.</p> <p>Before the coronavirus pandemic, they were about to receive ongoing, sustainable funding from the South Downs National Park, East and West Sussex County Council.</p>
North Devon	<p>They involved the County and District Councils, who were interested and supported the work but offered no financial support.</p> <p>One local authority used natural capital in developing their nature recovery network.</p>

Bristol	<p>Received central support from the national EA Natural Capital Programme Board – Linked to 25YEP.</p> <p>West of England Combined Authority were very supportive, active and interactive.</p>
Bristol Frome LENS	<p>Receiving central support from the national EA Natural Capital Programme Board.</p> <p>It's early days, but are getting support from Bristol City Council, South Gloucestershire County Council and EA.</p>
Simon Slater, West Midlands	<p>Political support and endorsements are important – it can open doors and act as a catalyst to make things work faster.</p> <p>Political support isn't required to start something off and is unlikely to initiate or set up an approach. But when you show what you are doing, and seek their support, they are more likely to help and become involved.</p> <p>You might get support but it's harder to get funding or resources.</p> <p>For the WMCA this work was seen as being good for their profile, they could act as ambassadors and, being a combined authority, they had influence in London, specifically over statutory bodies.</p>
3Keel	Receiving support from Defra, EA and NE.
Paul Leinster	<p>Political support is hugely important.</p> <p>NCIP needs to have someone at the right level so you need a champion for this – who's the executive director champion, who really wants this to happen? Ideally this needs to be a direct report to the Mayor, for example the Chair of the Environment Board. Then you need a clear statement that the executive team have signed up to.</p> <p>At the very least, you will need planning support to get access to section 106/CIL's funding.</p> <p>There is a real tension within the OxCam Arc between what Whitehall wants and what the Arc people want.</p>
Matthew Bullock	Little political support has been sought, or needed, to date.

Cambridgeshire Future Parks Accelerator Programme	Yes, we have had initial written support and we want to change this to actual support from Cambs County Council and all LA's.
Natural Capital East	<p>Receiving support from OFWAT and have had constructive conversations regionally and nationally.</p> <p>Anglian water has strong political connections and support within Cambridgeshire.</p> <p>You need to get a 'critical mass' of leaders behind you and who think this is a way forward – to break down barriers.</p>
RSPB	Local and national support is important, for example a strong Environment Bill.
WTBCN	<p>Think that the focus is on development and growth, not nature.</p> <p>Local politicians currently make statements about nature, but nothing more.</p>

Should a ncip approach be Arc or county wide?

There were responses from 16.

Response	Number of respondents
County wide	12
Arc wide	0
Both Arc and county wide	2
National	2

Most respondents thought that a ncip would work best if approached from a county perspective. However, many considered that there was a key role for an Arc, or regional, overview to work in conjunction with this.

Comments included:

County wide approach

- Fits with the local political structure, so will work better
- Governance gets more complicated the wider the geographical area covered. County level is just about achievable for agreeing meaningful priorities and policies.
- Partners already work in existing county structures
- More efficient for delivery
- It's where the momentum is
- Large enough to attract significant investment but compact enough for stakeholders to effectively communicate
- People associate strongly with counties and their 'sense of place'
- Issues in Cambs (especially large scale development) are very different to those in other Arc counties
- Local planning happens at a unitary and district council level
- County approach helps when deciding where to invest, if not onsite

ARC, or regional, in conjunction with county approach

- Needs Arc-wide consistency and shared metrics
- Arc can deliver some components and help kickstart NC in the area.
- Spatial planning needs to recognise cross boundary landscape initiatives.
- Consider catchment areas and upstream flood retention
- Strategy is regional and joined up
- Regional might be better for influencing some large investors, i.e. water companies
- Arc – tells the story of the arc in general

Two respondents preferred a national approach. The WWT (page 143) are a UK-based international conservation organisation specialising in wetlands so will be approaching ncip from a national perspective. Phil Clark, Cambridgeshire County Council (page 124), commented 'I think for it be truly effective and successful, it should be national as many natural capital assets cover large areas outside of administrative boundaries.'

Advice for setting up a Cambridgeshire natural capital investment plan

Interviewees were asked “We are working towards developing a ncip in Cambridgeshire, what advice would you give us?”. We were mainly looking for specific advice as opposed to general advice and recommendations which are collated elsewhere. There were responses from 22.

There were over 100 pieces of advice given, but many of these were individual comments. In the following table we only show comments made by more than one respondent.

However, although the following pieces of advice were only given by single respondents, the author thought they were particularly important and relevant:

‘When looking for investments you need to be mindful of due diligence and your partners’ approaches to it. It may be that a partner might not be prepared to take funding from specific businesses or industries. The ethics of investment can be problematic and constraining, so you need to devise a suitable ethical investment policy.’ Julie Middleton, Sussex LNP (page 97).

‘Given the complex and congested field of related projects, DNIP must be presented in communications strategies to provide confidence that this is a single unifying plan for natural capital work, rather than just another environment themed strategy. To do this it needs to be clear about its relationship with other strategies at a local, sub-regional and regional level.

This work needs to be developed through close working with the Local Authorities to ensure alignment with planning and consenting processes. On this point, early and full engagement is needed with local authority officers and members to ensure that there is sufficient understanding and backing from the local authorities in the area. This will be critical to ensure:

- Support from all partners that this is a single unifying plan, as above
- Successful integration with administrative/technical processes such as planning’

Stuart Morris, Principal, Planning Policy Officer, Greater Cambridge Shared Planning (page 127).

The most common advice for setting up a Cambridgeshire ncip was:

- Work well, and closely, with partners.
- You need committed resources, people and funding.
- There is no ‘one size fits all’ so you’ll need to find a route which works for you in Cambridgeshire

- You need to get the right group of leaders/people together to drive it forward, including decision makers. You need the best people with a range of different skills – not just technical experts.
- Make sure the DNIP clearly covers more than just nature. Consider multiple benefits - nature, carbon, water quality, flooding, air quality, mental health, health & well-being.

Advice specific to the situation in Cambridgeshire included:

- In Cambridgeshire, you could focus on water- related issues and opportunities
- Get net gain policy, embedded into local plans at either unitary or district level.
- You should initially target biodiversity net gain, then ncip
- Focus on doubling nature in Cambridgeshire

Advice	Number of respondents
General advice	
There is no 'one size fits all' so you'll need to find a route which works for you in Cambridgeshire	5
It has been a slow, steady process so you will need to be patient	3
You need to work at scale	2
Get on with it and get things done	2
Don't reinvent the wheel	2
Resourcing and personnel	
Important – you need committed resources, people and funding	10
You need to get the right group of leaders/people together to drive it forward, including decision makers. You need the best people with a range of different skills – not just technical experts.	4
You need the right leader. Someone with energy, drive and vision.	3

Your approach	
Work well, and closely, with partners.	13
In Cambridgeshire, you could focus on water-related issues and opportunities	6
Get net gain policy, embedded into local plans at either unitary or district level.	5
Initially target biodiversity net gain, then ncip	5
You need a clear focus, it gives clarity of roles and allows you to allocate resources more effectively.	2
About the DNIP	
Make sure the DNIP clearly covers more than just nature. Consider multiple benefits - nature, carbon, water quality, flooding, air quality, mental health, health & well-being.	4
DNIP needs to be a democratic vehicle to move things forward	2
Comms, engagement and messaging	
Talk in a suitable language for your audiences, make it accessible and simple. Explain why it matters to people in Cambridgeshire.	5
Get key people onboard with the natural capital concept – what does it mean to them? What are the natural environments' benefits to them?	4
Focus on understandable and tangible concepts for people, i.e. green corridors (paths, canals), cycle routes linking parks, etc. These are concepts which politicians and people like.	3
Focus on doubling nature in Cambridgeshire	3
Monitor and report through technical papers and public media to celebrate successes and lessons learnt.	2
Businesses / investors	
Get a core group of funders and customers and build your investment strategy around their needs and what they think the opportunities are. Think, what will they pay for?	3

Identify, get to know and get buy-in from key players, funders and customers.	2
Provide clear guidance to business and institutions on how they can embed the principles and contribute through their activities.	2

Would you work with us to develop a doubling nature investment plan?

All 13 organisations or individuals, working in the OxCam Arc or Cambridgeshire said that they would be interested in working with the proposed DNIP, or a similar funding vehicle, within Cambridgeshire.

All other respondents said they would be keen to advise and support where they could.

Appendix C: Case studies of current approaches and ambitions

The eight current ncip projects

Greater Manchester - Krista Patrick, Natural Capital Coordinator, Greater Manchester Combined Authority Environment Team.

Greater Manchester was one of the four Defra Pioneer projects to support the UK government's 25 Year Environment Plan. It was the home of the Urban Pioneer programme, testing new tools and methods for investing in and managing the natural environment. The vision for the Urban Pioneer was to make a clear and evident contribution to Greater Manchester's natural environment, engaging and connecting people with nature, maximising their health and economic benefits through investment in the environment, creating sustainable growth and a good quality of life.

Whilst Greater Manchester was identified as the urban pioneer, based on the set of Natural Capital Accounts produced, approximately half of the area it covers is made up of green and blue spaces.

This ambitious project has been supported and driven by the Greater Manchester Combined Authority (GMCA) with the full support and backing of Mayor Andy Burnham. As part of this, the Natural Capital Investment Plan has been developed to help promote investment and the delivery of opportunities that protect and enhance Greater Manchester's natural capital, to support a healthy population and economy.

Krista provides strategic support on delivering a natural capital approach as part of the Natural Course EU LIFE Integrated Project, Greater Manchester Urban Pioneer Project and the Greater Manchester Natural Capital Group. The Natural Course project focusses on building capacity to protect and improve our water environment, now and for the future to meet EU Water Framework Directive requirements.

The development of innovative finance models to support natural capital investment is a key aim of the following strategies and projects:

- Greater Manchester 5 Year Environment Plan (2019-24)
- Greater Manchester Environment Fund
- Natural Course EU Life Integrated project
- Greater Manchester Natural Capital Investment Plan
- IGNITION project

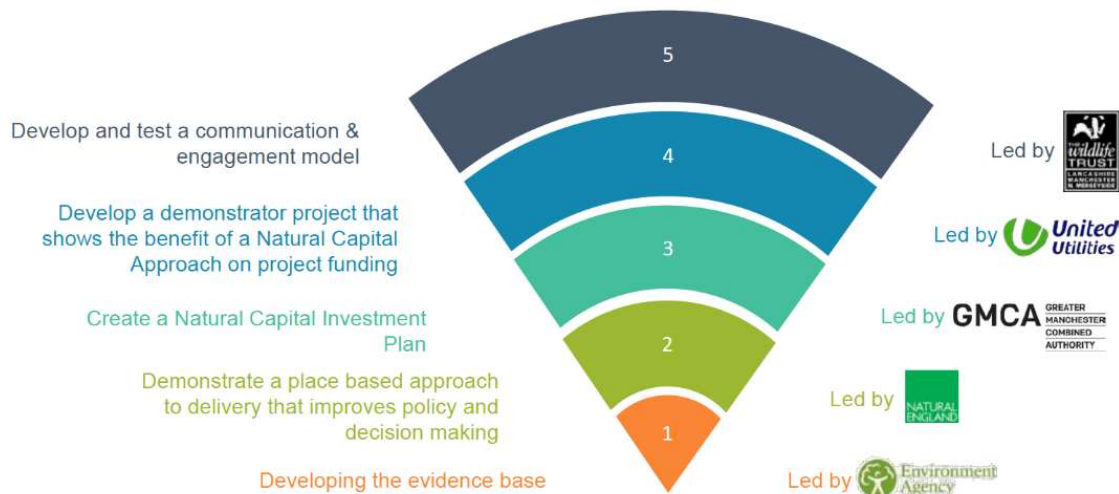
The overall aims are to:

- broaden the range of potential sources for investment in natural capital
- break down barriers and use innovative techniques/solutions to benefit nature and the environment.
- explore the links between environment, society and economy, focusing on improving the natural environment through improved decision making.

What was their approach?

They wanted to use the natural capital approach to help understand what they have, how funding streams could come together and to identify nature-based solutions. They started with the 5 stages of the urban pioneer's project all working concurrently and with different lead partners

Creating a Natural Liveable Green City Region



1. Collecting the evidence base

They collected a detailed evidence base using natural capital accounting (<https://naturegreatermanchester.co.uk/resource/gm-natural-capital-accounts/>) and ecosystem services opportunity mapping (https://mappinggm.org.uk/gmodin/?lyrs=v_top_ecosystem_services_2019os_maps_light/10/53.5069/-2.3201). These allowed them to ascertain the benefits provided and their values, then they could work to determine how these values could be increased and by how much.

2. Demonstrating a place-based approach and embedding the natural capital approach and thinking within GMCA policy

They ran a 'Green Summit' early on, which was a great way to start things off and get support from GMCA and others. This was followed by a series of natural capital listening events and more recently biodiversity net gain roadshows to all local authorities – these were successful in achieving buy-in and helped the GMCA decide on their environmental action plan.

A key priority is the delivery of green spaces where people need them the most, i.e. in urban areas.

Krista advised that you need to explain what natural capital accounting and ecosystem services actually mean and how they can be used. So, you need to talk to audiences in suitable language and communicate the 'hidden' benefits.

Natural capital accounts helped influence political minds and strategies, and achieved considerable buy-in.

This work fed into the development of the Greater Manchester 5 Year Environment Plan 2019-24 (https://www.greatermanchester-ca.gov.uk/media/1986/5-year-plan-branded_3.pdf). Within this, five priority areas are:

- Mitigation of climate change
- Improved air quality
- Sustainable consumption and production
- To protect, maintain and enhance the natural environment
- Resilience and adaptation to climate change.

Linking with this, the NCIP priorities therefore cover carbon, water, biodiversity (especially city trees and peat), investment and engagement.

As part of the environment plan, GMCA are supporting the delivery of biodiversity net gain in new developments through their spatial planning policy, with Natural England developing guidance for the city region.

3. Creating a natural capital investment plan

The Greater Manchester Natural Capital Investment Plan was published in 2019 and is the first of its type for a UK city region. <https://www.greatermanchester-ca.gov.uk/what-we-do/environment/natural-capital/>

It aims to support the agreed vision of “A Greater Manchester where investments in natural capital enhance the long-term social, environmental, and economic health and wellbeing of its people and businesses”.

The Natural Capital Investment Plan helped set the foundation for cultural change and a new narrative, it also helped shape the Greater Manchester 5 Year Environment Plan.

The investment plan looks at the roles for different types of potential investors within the wider picture of the social, economic and governance structure of the city region, and of (local and national) environmental policies and regulations. The plan has three key components:

1. A pipeline of potential project types which need investment
2. Finance models to facilitate private sector investment and the role of the public sector
3. Recommendations to put the plan into practice over the next 5 years.

Identifying different finance sources, and how they fit within this wider picture, can inform how GMCA and other stakeholders can work more efficiently in terms of funding and policy/governance effort. It can also inform the choices between

traditional environmental spending and regulation (which remain crucial to sustainable management of natural capital) and innovative financing approaches.

4. Develop a demonstrator project

A small number of trial projects have commenced to act as 'proof of concept' these include: a SuDS project at a primary school in Trafford (sustainable drainage schemes could save up to £1.75M a year for education budgets if all the City's 1,300 schools adopted similar measures); projects on Prestwich High Street, Bury; and Oldham's green space as part of the Northern Roots project.

5. Develop and test a communication and engagement model

This has been developed through the Lancashire Wildlife Trust's My Wild City campaign that aims to reconnect people with their gardens and the wildlife living within them. This scheme is a national initiative from the Wildlife Trusts which is already running in several other cities. My Wild City has predominantly been delivered in Manchester, but one of the key areas of focus, My Wild Garden, has recently been rolled out across Greater Manchester with an aim to engage with more than 5000 residents across the city region.

In addition, a natural environment engagement toolkit has been produced to raise the profile of the natural environment in Greater Manchester including an inspirational film, animations, social media toolkit and user guide. Due to Covid 19 the launch of this has been delayed till Summer 2020.

What are they doing now?

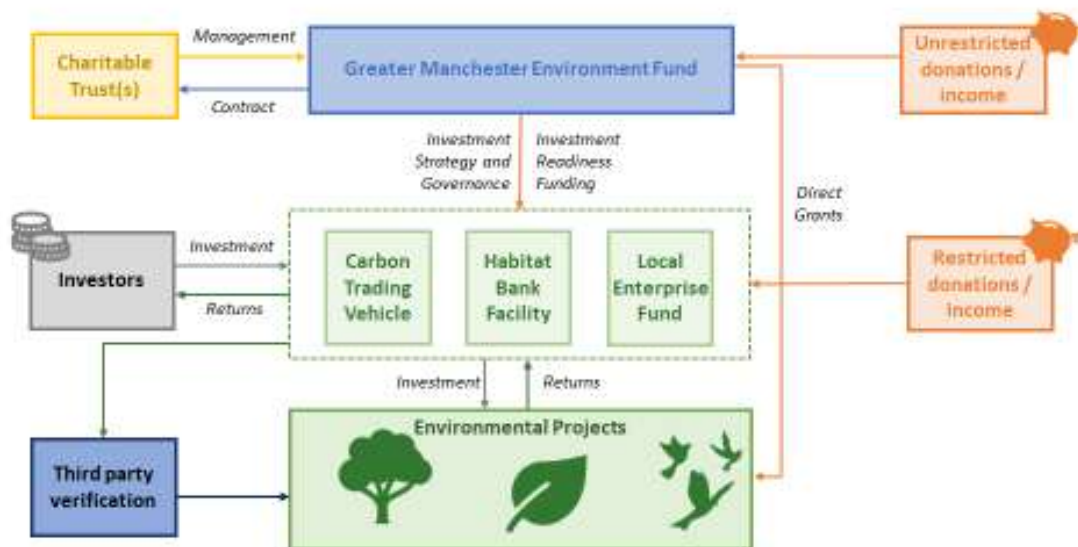
Currently, in addition to working on the NCIP, they are setting up the Greater Manchester Environment Fund and implementing the EU funded IGNITION project.

Greater Manchester Environment Fund

The Environment Fund is being set up to provide grant funding to non-statutory environmental initiatives that are currently underfunded through existing funding mechanisms. A fund is required to close the gap between corporate organisations and institutions who wish (or are required) to address their negative environmental impact either through voluntary contribution, to achieve compliance with their environmental objectives, or as compensation and smaller, grassroots organisations who aim to deliver schemes and projects that improve the environment within Greater Manchester.

In particular, it is proposed that there will be a focus on three themes:

- biodiversity and natural environment
- carbon reduction/offsetting
- resource efficiency and reducing waste



33



- Carbon trading vehicle – linked to peatland and low carbon building

The IGNiTION (Innovative financinG aNd delivery of naTural climate sOLutionNs in Greater Manchester) project

This partnership project aims to develop a pipeline of natural capital (Green/Blue infrastructure) climate adaptation projects at the €10m+ scale which could be attractive to private investors, while creating the mechanisms and confidence for investments to be made in natural capital and nature-based solutions (NBS).

The project budget is £5m over 3 years, 80% from the European Regional Development Fund and with 20% match-funding. It was selected by the funders because it is seen as being at the leading edge of innovation in this field. Its aim is to establish replicable funding and delivery mechanisms which will better engage the investment community with natural capital solutions while also increasing Greater Manchester's urban green infrastructure coverage by 10%. Its in-depth work on how to attract and maintain private sector investment into natural capital in urban areas will be internationally relevant, and of enormous value to the 25YEP, whether successful or not.

There are four key aspects of the work:

1. Establish a pipeline of NBS projects to attract private investment.
2. Establish innovative business models and financing mechanisms
3. Build investor confidence in natural capital and nature-based projects.
4. Establish innovative delivery and maintenance mechanisms

Comments on attracting investment into nature

Krista supports the development of blended finance models supporting projects which offer multiple benefits.

They are yet to start approaching investors, instead they have been doing the groundwork. Originally, they aimed to approach investors very early on, but they soon realised that you can't do so without a robust business model. Krista advised "Don't waste investors' time! Only go to them when you have a robust proposal which will interest and benefit them". They are now working to link projects to investors, you need strong links and benefits and then work-up a robust business model.

Through the work that Environmental Finance are delivering, there are 56 environmental projects which need £100M funding, but none currently have a suitably robust business model. Such models are difficult to produce and could include carbon capture, carbon sequestration, social and environmental outcomes. Krista's team are working on these now, but it's a very immature market at the moment.

Surrey – Sarah Jane Chimbwandira, CEO Surrey Wildlife Trust and previously Director of Surrey Nature Partnership (LNP).

Surrey Nature Partnership (SyNP) was formed in 2012 and has focussed upon gathering evidence to support the development of a natural capital approach in Surrey. They want to use investments to deliver a sustainable natural environment whilst supporting future economic prosperity and the health and well-being of its people. To do this, they advocate a multi-capital approach to delivering multiple benefits, implemented through collaboration and innovation. SyNP published a natural capital investment strategy in 2015, their natural capital investment plan followed in 2018 and in 2019 they received funding to deliver the plan and set up the SyNP company.

The main drivers of this project have been Sarah, key members of the SyNP Board (including the previous Chairman Paul Wickham and Business rep Mark Pearson) and the Surrey Wildlife Trust. Partners have been vital to the success of this work and Sarah spent a lot of time convening all the partners, because she believed that this is not something which any one body can do on its own. In her opinion, convening the partners was the most important thing they've done over the last 8 years. However, Sarah, as Director with Paul Wickham as Chair, provided the energy, focus and determination (coupled with financial support from the Wildlife Trust) which contributed significantly to the progress that has been made.

What was their approach?

2012

Surrey Nature Partnership (SyNP) was formed and works with the two local LEPs, Enterprise M3 & Coast to Capital.

They were clear that the LNP board should not be solely populated by conservation bodies, so it only has one conservation organisation on it. The other members are cross sector i.e. youth, community, university, a major developer, landowners, the county, etc. The aim was to have senior level executives, representing a broad range of sectors, to give an economic focus and lift it out of traditional conservation circles. However, conservation interests are well-covered within the LNP's working groups, for example the biodiversity working group.

Since 2012, they have focussed on 'getting on with stuff' and, when they think they have achieved something helpful and relevant, they have shared it.

2014

Two key projects were completed:

1. Valuing Surrey (summary report - <https://surreynaturepartnership.files.wordpress.com/2015/11/surrey-nature-partnership-valuing-surrey-summary-june-2015.pdf>)

This was a natural capital asset register for Surrey, one of the first in the UK, and was carried out by effec.

It helped develop an understanding of the value of the county's natural environmental assets. This allowed them to start having different types of discussion; instead of how important trees are (from a conservation perspective) they could talk about the £90M annual, socio-economic value that the woodlands of Surrey have. It produced an important change of language and focus.

2. Biodiversity offsetting scoping study

This project explored the scope of adopting a net gain approach in Surrey. (summary report -

<https://surreynaturepartnership.files.wordpress.com/2015/11/surrey-nature-partnership-biodiversity-offsetting-summary-june-2015.pdf>)

2015

SyNP launched, Naturally Richer - A Natural Capital Investment Strategy for Surrey (<https://surreynaturepartnership.files.wordpress.com/2015/11/naturally-richer-a-natural-capital-investment-strategy-for-surrey.pdf>).

This was a high-level document which gave a 'strategic direction of travel' for implementing investment in Surrey's natural capital assets. It explained why it mattered and indicated the key areas where they thought they needed to develop in order to secure investment.

Over the next three years Sarah and SyNP worked to develop a natural capital investment plan, during this time they tried to understand how investment could work locally in a systemic way. There are many examples where good things have happened because someone has invested in the natural environment, but they believe that investment should lead to changes being systemic – which is much harder.

Sarah believes that a systemic approach is extremely important and should be built into the system so the outcomes occur time and time again, not simply as 'one-off's'. We need a systemic approach in order to make major changes, one which supports and complements ongoing philanthropy.

They worked with the Aldersgate Group, a group of businesses with sustainability within their ethos, who convened two workshops to understand how to develop a systemic approach to investment in the natural world.

2018

SyNP launched their Natural Capital Investment Plan for Surrey (<file:///C:/Users/Chris/Documents/Fens%20conservation%20activities/DNIP/DNIP%20scoping%20study/Surrey%20LNP/natural-capital-investment-plan-for-surrey.pdf>).

One of the key outcomes of their work was a segmentation of the different scales at which investment works:

1st level – Individual and community level investment.

A 'Friends Of' group or local community which buys some land and manages it for the benefit of the local community.

2nd level - Business sector (including both large corporates and SME's).

Major corporates 'get it' and many (but not all) are way ahead of the game as it directly impacts their bottom line through their competitiveness and risk management.

SME's typically don't get it. They often have less direct connection with natural capital, less available resource and so do not prioritise this in the same way. However, they are an extremely important sector to work with, so SyNP worked closely with the LEPs as they focus on both SMEs and large corporates.

They developed a mechanism for businesses to contribute to a natural capital investment fund which can be spent locally.

3rd level – Institutional investors (pension funds and asset managers).

Need to help them understand how they can invest in green, or good, investments. This is the most challenging area at the moment and is a difficult case to make.

Realised that they need to demonstrate the financial return on investment as well as the social and environmental returns. For example, in the USA the Nature Conservancy have a conservation investing unit called NatureVest (<https://www.nature.org/en-us/about-us/who-we-are/how-we-work/finance-investing/naturevest/>) which is an investment vehicle giving differing returns on your investment.

'Currently, we are at a stage of transition where many of the projects we develop are hybrids between natural capital and commercial investment, so they still require some financial revenue return. Ultimately, we need to get to pure natural capital investment, where people/organisations invest in natural assets accepting that what you get are purely non-monetary benefits, i.e. better environment, habitats, clean air & water. The government needs to be a big player in this sector and flood risk should be an important aspect of this'.

What are they doing now?

In December 2019, SyNP received £420k of funding from the Coast to Capital LEP, the total project cost will be £750k so they have a match funding requirement to fulfil. This project will allow Sarah and the Surrey Wildlife Trust (SWT) to look at investment mechanisms, explore the best way to set a (SyNP) company up and start to unpick how the theory of natural capital investment could work in practice. This is because what you've got to do is to create a market which is systemic and self-sustaining. Without market drivers, a systemic approach and self-sustaining activity you will continue simply putting grant/philanthropic funding into the system.

They have identified a 'suite' of products, including biodiversity net gain, carbon offsetting, other nutrient offsetting (nitrates, phosphates, etc) and natural flood management. The company could be involved in managing those transactions in a way that allows an investment fund to be developed and spent on delivering enhancements to natural assets. They are working closely with the Coast to Capital LEP to test the theories within the investment plan and start to understand how they could work in real life. This work will link with the local industrial strategy as it will

help generate and drive investment into natural infrastructure just as much as other forms of infrastructure.

£400K of this funding, from the Local Growth Fund, is for a pilot project to test how to create a systemic approach to natural capital investments. The project will include actual enhancements to assets on the ground. Between two urban conurbations, which have been identified for significant growth and development, they will be developing a 1400ha natural landscape which is currently a mix of woodland, arable and mineral workings. Advancements on the ground will pay for improvements in water quality, hedgerows, trees, sand martin banks, etc.

The remaining £350K funding will cover:

- A natural capital account will be prepared for the landscape area (above) to act as a baseline account. It will also include ecometric and carbon assessments, so they also have baselines for these.

They will then be able to assess the natural capital capacity of the landscape now and in the future. For example, capacity now (i.e. 5 units (ecometric or biodiversity value)) to capacity in future (i.e. 30 units). As the two urban areas grow and develop these additional 25 ecometric/biodiversity units will be available as credits that could be sold through the development process. Linking this to key initiatives, such as delivering a Nature Recovery Network, is key and requires work to be done to establish what they want and what a Nature Recovery Network in Surrey looks like. SWT is undertaking this work.

- A more detailed carbon assessment will be carried out looking at the supply chain, for example Gatwick and Heathrow airports
- Environmental Finance will look at long-term business models for investments into natural assets, for example looking at the business cases around biodiversity net gain, etc.
- Developing a project pipeline - A key challenge to making natural capital investment work systemically is to have a project pipeline. This is very important for a systemic approach and it needs to be at least 10 years, and ideally a 20+ year pipeline. This is because investors will want to see something that they can continue to invest in over a period of time.

A key challenge is how we package projects as investment opportunities and not just conservation projects:

conservation project	vs	investment opportunity
I.e. create a floodplain meadow		Needs to be packaged differently as an investment opportunity

Other key challenges include ensuring there are robust metrics for habitats other than woodland and peatland. This is a priority if we don't want to skew the habitat creation and restoration we can achieve. Also ensuring appropriate validation/accreditation processes are in place to ensure transparency.

Ultimately, the intention is to set up a company to create investment opportunities, and match those opportunities with investors. The company will focus on developing hybrid commercial and natural capital investments which provide multiple benefits and give a combination of financial and non-financial returns.

One of the objectives in writing the investment plan, and attaining the current funding, was that if SyNP no longer existed then the outcomes in the investment plan could still be delivered. SyNP is active but, like many LNP's, it has no staff, no funding and is therefore very vulnerable.

Surrey are aware of other UK natural capital investment projects, but aim to be higher profile. They've been working on natural capital investment for eight years, but think that progress will now be quicker because they will be making an offer for which there is now a much higher demand. Five years ago, the demand wasn't as high, so they were constantly having to make the case. But in the current climate (natural solutions, offsetting, biodiversity net gain, etc), if you can demonstrate a workable mechanism then it will get off the ground far more quickly.

In order to deliver the Surrey Natural Capital Investment Plan, they will set up the company, pilot funding having been received to test the best model for this. Their key objectives are now:

- Gain wide acceptance of the natural capital approach within Surrey.
- Create a significant natural capital investment fund of at least £20M to strategically deliver investments
- Develop natural capital investment funds
- Develop a project pipeline
- Implement an environmental net gain approach in Surrey
- Further develop the natural capital asset register and natural capital accounts
- Monitoring and transparency to demonstrate the effectiveness of this approach in delivering greater investment in our natural assets
- Understanding and developing a natural capital market

Work with potential investors

Coast to Capital LEP – they are investing in creating a different approach towards economic prosperity by working with Surrey Wildlife Trust.

Local Authorities – Surrey Wildlife Trust are starting to have conversations at the moment, especially around biodiversity net gain.

Approaching institutional investors – they will get Environmental Finance to do this as they develop the full business model. This is their expertise and they have those contacts.

Sarah doesn't think there's any point in the conservation world trying to be the investment world, it's not what we're good at and it's not where we should be putting our efforts – there are investment experts who can do that. She thinks what is required is a greater understanding between the conservation and investment worlds of the roles they play in creating systemic conservation investment over the long

term. There is, however, a skills gap to ensure there are sufficient people in the conservation world who have the skills to develop and validate projects in the right way, and in the investment world in how to create investment vehicles. There is a significant convening need in this space, entities such as the Valuing Nature Network do some of this.

Conservation world ----- NCIP ----- Investment world

The natural capital investment plan (NCIP) needs to act as the liaison between the two worlds. We don't have the capacity or skills in this area at the moment so the challenge will be how to upskill people to develop the NCIP and make this work. This is the current skills gap, this will be of interest to LEPs for whom skills are key.

Warwickshire – David Lowe, Team Leader: Ecology, Historic Environment & Landscape, Warwickshire County Council.

The Warwickshire County Council approach is well established as it started 25 years ago. It is based upon biodiversity net gain and is led by the Ecology team (14 staff), working as part of an effective partnership group with other stakeholders. The Ecology team is fully funded through working as a consultancy internally, and for other local authorities and NGOs as a business trading unit, generating its own income and internally recharging through the county council. The main driver has been David Lowe, as the Ecology Team Leader.

Implementing biodiversity net gain in Warwickshire

(David Lowe, February 2019)

Warwickshire County Council, with support from Solihull and Coventry, operates its own, successful biodiversity net gain programme on all major and minor applications, unless otherwise agreed by the Local Planning Authority (LPA).

Warwickshire was one of six pioneer LPAs to trial this approach, and the only one to be ultimately successful. It is a policy requirement in all the sub-regional LPA's core strategies to use the locally derived Defra metric to ensure that developments result in a biodiversity net gain. This means that all development within the sub-region must use the [Warwickshire Biodiversity Impact Assessment \(BIA\) tool](#), which helps ensure that all development applications are treated in a fair, equal and transparent manner. The BIA is completed by the applicant's ecologist and details the value of the habitat before and after development, measured in biodiversity units. Importantly, it records habitat that is to be retained and enhanced, mitigated for and compensated for onsite. It will then show if the development will result in a biodiversity net gain or loss. The assessment also has a similar process for hedgerows based on the [Natural England assessment criteria](#).

The BIA is submitted to the LPA ecological advisor who reviews the assessment and can use it to recommend changes to enhance a development further or, if necessary, illustrate when a development conflicts with core strategy policies such as the mitigation hierarchy.

It is important to note that species considerations are dealt with first and may inform any necessary pre-requisites for onsite habitat provision. If the development shows a residual biodiversity loss, then a biodiversity gain approach is triggered. This is resolved by the developer securing an agreement with a third party to achieve a net gain outcome through an offset agreement (directly or via their broker) or alternatively by making a financial contribution to Warwickshire County Council, or Solihull Metropolitan Borough Council, who will find an appropriate offset scheme.

The current BIA provides an indicative financial sum enabling the applicant to account for the impacts of their development at the very early stages of the project. It provides a level of certainty rarely available in any other aspect of the planning process. It also clearly identifies habitat that is of higher value for biodiversity where development should, or could, be avoided.

Conversely, it can be used to identify land that is of lower value in terms of biodiversity potential, which may mean it is acceptable to have less onsite habitat provision. While this may mean the developer has to give a higher contribution, it can be overall of financial benefit to them.

The Biodiversity Impact Assessment is an effective planning tool that brings ecological considerations to the fore. In the context of the national planning policy framework's aim of achieving sustainable development, it can demonstrate a win-win-win in its three social, economic and environmental objectives.

What was their approach?

1995 onwards : The Habitat Biodiversity Audit

In 1995, the six Warwickshire local authorities plus Solihull and Coventry unitary authorities, English Nature (Natural England) and the Environment Agency established the Habitat Biodiversity Audit Partnership (HBA) ([HBA further reading](#)). It is under the management of Warwickshire Wildlife Trust, but is hosted by the County Council.

The HBA's remit was to survey every field and boundary in the sub-region to provide up-to-date biodiversity data. The data is held on a Geographical Information System, which provides high-quality coded maps and links site notes with a powerful tool for interpretation and statistical analysis. Surveying is ongoing, and they update the HBA on an annual basis. The aim is for each field and boundary to be re-surveyed at least every five years. The data is invaluable in protecting and enhancing habitats across the sub-region and the planning authorities use the information for many purposes, including spatial planning and development control. The audit is resourced by the Local Planning Authorities.

1999 onwards : Warwickshire Wildlife Sites Project Partnership

The Wildlife Sites Project ([Green Book](#)) began in 1999 to develop and maintain a formalised local wildlife sites system for Warwickshire, made up of wildlife sites and local geological sites as part of a wider initiative with Coventry and Solihull. Originally developed for the West Midlands by Natural England, the Wildlife Sites Project is now part of the HBA Partnership.

2009 – 2013: Green Infrastructure Strategy

The purpose of this strategy, which was adopted in 2013, is to provide evidence for the preparation of plans, policies and strategies at a sub-regional level. This strategy included detailed mapping and covers landscape, accessibility and biodiversity.

2012 – 2014: Defra/NE Biodiversity Offsetting Pilot

Warwickshire was one of six pioneer LPAs involved in this pilot. It produced the Warwickshire Biodiversity Impact Assessment tool, which provides an indicative cost for offsetting. This enables an applicant, or their ecological consultants, to make decisions to either further 'green' a development to reduce the contribution, accept the cost and/or absorb the cost into any existing or future land cost negotiations.

In 2013, net gain became mandatory for local planning applications in Warwickshire, Solihull and Coventry.

2012-14: Warwickshire, Coventry and Solihull Biodiversity Action Plans.
(<https://www.warwickshirewildlifetrust.org.uk/LBAP>) compiled between 2012-2014.

2012 onwards: Implementation of the programme

As part of the planning process, and either a section 106 obligation or another condition, a developer has two main options:

- To identify an offset site prior to commencement of works, by either doing it themselves (within a wider landholding) or going to a broker.
- To pay a financial contribution to Warwickshire County Council and they will find a site, this enables faster starts to developments.

The Warwickshire approach is set up such that it can cater for full applications, outline applications or multi-phased applications. And it can handle single or staggered payments.

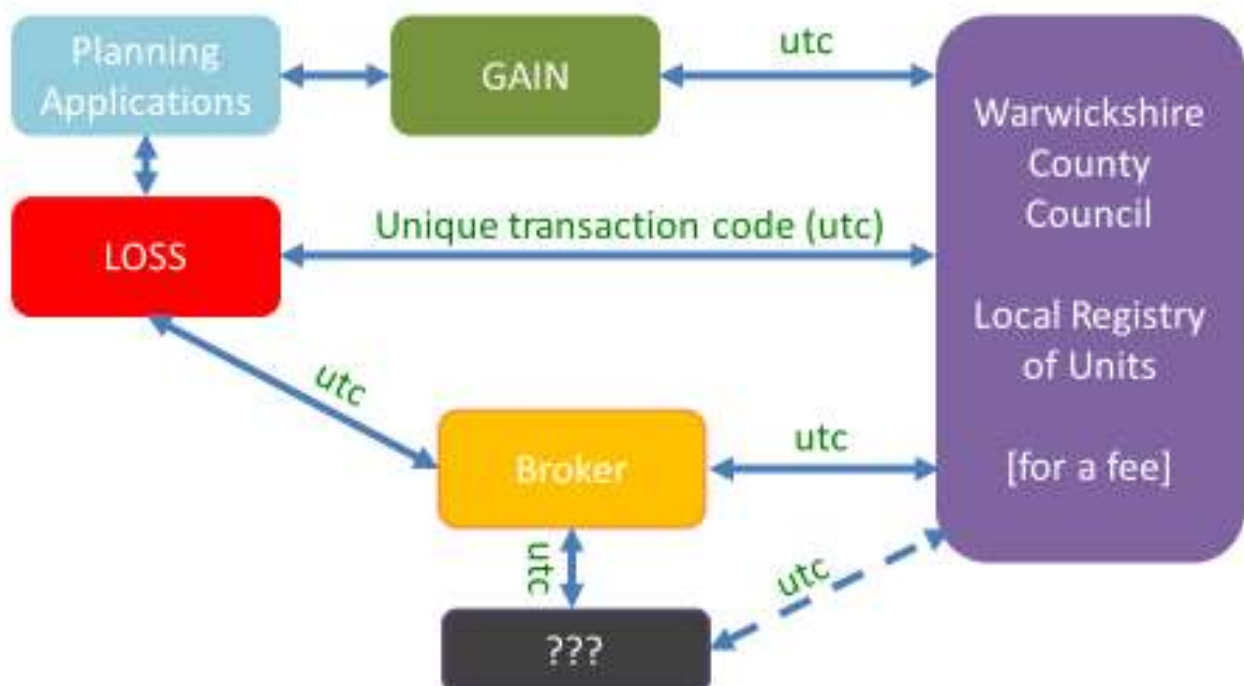
Offsetting money goes into ring-fenced projects and officers within David's team look for sites, linking closely with conservation NGO's and groups like the Farming and Wildlife Advisory Group. Farmers were initially reluctant about becoming involved, but are now more interested and keener to be part of this approach. Typically, landowners enter into voluntary agreements with 30-year management plans.

The first section 106 contributions came in 2015/2016 and up to 2018/2019 they had secured a total of £2,252,787.81. To date they have enhanced or created 6 grassland sites, 1 ancient woodland site and 4 pond sites (ready for the NE great crested newt strategy). They still have approximately £1M to be allocated and over 30 sites in their project pipeline.

2019 – 2020: Regulation

David and his team have been successful with net gain but are now starting to investigate NCIP approaches as well.

The market is starting to form in Warwickshire; the regulator is David and his team, and the brokers are Warwickshire County Council, the Environment Bank Ltd and individual landowners/land agents. Green Bonds might be an option in the future.



Sussex – Julie Middleton, Consultant.

Sussex LNP is almost entirely comprised of conservation organisations, water companies and top tier local authorities. The South Downs National Park Authority is also a key member, taking an active role in the LNP. They launched their 2019-2024 Natural Capital Investment Strategy in December 2019

([file:///C:/Users/Chris/Documents/Fens%20conservation%20activities/DNIP/DNIP%20scoping%20study/Sussex%20LNP/Natural-Capital-Investment-Strategy ADOPTED Final Dec2019.pdf](file:///C:/Users/Chris/Documents/Fens%20conservation%20activities/DNIP/DNIP%20scoping%20study/Sussex%20LNP/Natural-Capital-Investment-Strategy%20ADOPTED%20Final%20Dec2019.pdf)).

The aim of their strategy is to:

- Support nature's recovery as a fundamental component of a healthy, prosperous and secure future for Sussex
- Protect and enhance the natural assets of Sussex so that these continue to provide multiple benefits for people into the future
- Position nature as a foundation for a strong, stable local economy and resilient society
- Increase resilience of natural capital assets in the face of current and future risks, such as climate change, increasing development and extreme weather events, which in turn will help to secure the benefits they provide approach is

This strategy provides:

- Initial understanding (based on best available data) of the natural capital of Sussex, where it is located and the raft of benefits and services it provides to people and the economy of the area
- Initial strategic assessment of how best to focus effort, resources and funds to protect and enhance the stock of natural capital assets for the benefit of nature and people
- Identification of opportunities to use a natural capital approach to deliver specific outputs of interest to LNP members, such as clean water, accessible nature, carbon storage and flood risk reduction
- Guidance on the steps needed to take this broad spatial strategy forward into action and outcomes on the ground

What was their approach?

Their approach to this work has been divided into four main components:

1. Collect the evidence base

This has been carried out by producing:

- A natural capital asset register – what is the quality, quantity and spatial configuration of natural capital assets in Sussex?
- Flows of services and benefits – what ecosystem services do the assets provide and how do these benefit people?
- Risk register – what is the level of risk to the assets and to their ability to deliver benefits and services

2. Protecting and enhancing the assets

This will be achieved by:

- Holding the line and preventing further decline in assets – through a commitment to biodiversity and addressing risk
- Improving natural capital assets – by producing a spatial blueprint for asset types, developing a nature recovery network and producing non-spatial guidelines and action.

3. Identifying investment opportunities

They plan to identify opportunities for investment in priority outputs, such as water, flooding, accessible nature and carbon.

4. Making it happen

Next steps and recommendations from the strategy will look at the role of the LNP and produce an investment planning and project pipeline. They aim to engage across as many sectors as possible and embed natural capital in planning and decision-making processes.

Planning for natural capital investment in the Netherlands has identified three decision-making arenas where natural capital plays a part and there are different opportunities for embedding the natural capital approach in each. Sussex LNP have translated these to the UK setting as:

- Sustainable business
- Local planning and place-making
- An entrepreneurial approach to nature conservation

Within the Sussex context, embedding natural capital approaches in these three arenas will require changes in how decisions are made and how resources are allocated but could have very positive consequences for natural capital.

Progress so far

After producing a natural capital asset register, they mapped the provision of benefits and ran an LNP members workshop to agree where they could use natural capital effectively in Sussex. They then produced their five-year Natural Capital Investment Strategy. Their next stages are to identify investment opportunities and then make them happen.

Funding

This work has had little ongoing funding, at each quarterly LNP meeting there was literally a 'whip round' between partners. Funding mostly came from the Wildlife Trust, East Sussex County Council, CPRE and the National Park. So, the existence of the LNP was rather 'hand to mouth' and Julie has not been properly salaried. Before the coronavirus pandemic, they were about to receive ongoing contributions from a number of partner organisations.

Main drivers

There has not been a single driver for this project, but the main driver has been the Sussex LNP. Julie Middleton has acted, in partnership with others, to manage and facilitate partnership working to drive this strategy forward. However, success has

been due to close and effective partnership working, especially between key players in the conservation sector and support from East Sussex County Council. The extensive data held by the Sussex Biodiversity Record Centre has been an important enabling factor and its involvement in the development of the strategy has been key.

Key points

- 'If we could do one thing now it would be to get the natural capital approach embedded within the LA's thinking across the county.'
- You need to develop close links to your LEP or LEP's
- They advise 'Don't start by valuing the natural capital, start by mapping the assets and understanding where they are adding value. Not by developing a natural capital account'. A natural capital account can come later - but can become a black hole (and an end in itself) in the early stages if you are not careful.
- Sussex LNP want an agreed vision and way forward, and an agreed nature recovery network in Sussex.
- Sussex LNP want to develop a 'one stop shop' in Sussex for investment in the natural world, based upon a shared vision and metrics. The next step, the development of a project pipeline, will be key in this.
- Partner engagement has been, and continues to be, very important.
- When looking for investments you need to be mindful of due diligence and your partners' approaches to it. It may be that a partner might not be prepared to take funding from specific businesses or industries. The ethics of investment can be problematic and constraining, so you need to devise a suitable ethical investment policy.

North Devon Landscape Pioneer Project – Alice Lord, Natural Capital and Ecosystem Approach Specialist, Natural England.

North Devon was one of the four Defra Pioneer projects to support the UK government's 25 Year Environment Plan, it was the landscape pioneer and covers the rural land area of the North Devon UNESCO Biosphere. Its aims were to:

- Test new tools and methods as part of applying a natural capital approach in practice
- Demonstrate a joined-up, integrated approach to planning and delivery
- Pioneer and 'scale-up' the use of new funding opportunities
- Grow our understanding of 'what works', sharing lessons and best practice

The partnership worked to develop a natural capital strategy which is due to be published in May 2020, it will be followed by an implementation plan including funding mechanisms and delivery.

The main driver and funder for this project was Natural England, in collaboration with the North Devon Biosphere Partnership and other key stakeholders. After production of the natural capital strategy, the North Devon Biosphere Partnership will be taking ownership of this project and the implementation plan.

What was their approach?

To develop their natural capital strategy, they worked closely with biosphere partners and followed an evidence-based, participatory and deliberative process. They used the following steps:

1. Ran meetings and workshops with partners

2. Built a shared evidence base

Ecosystem services and natural capital asset register. Including what natural capital assets they had, how much, where, what condition/quality they were in, what ecosystem services they provide and the value of these ecosystem services. It also included information on how they are managed, how much they are investing in them, and the trend and trajectory for both the condition and flow of the assets and the services.

3. Agreed some priority problems for further investigation using an economic prioritisation rule.

The pioneer trialled using economic prioritisation, using a rule prioritised by the following information:

- Value: what is the annual value of this ecosystem service from this habitat?
- Condition: how good is the habitat currently at delivering this service?
- Trend: how has the condition changed over the last 20 years?

This was difficult due to a lack of evidence and a lack of trust in the data. A workshop was used to discuss the prioritised list and add in other habitats and ecosystem services important for North Devon.

4. Produced a list of habitats and ecosystem services.

Those which were providing ecosystem services of high value, were in poor condition or declining trend were at the top. A workshop was used to discuss the list and add in other habitats and ecosystem services important for North Devon.

5. Worked out the systemic causes of the problems and possible solutions and interventions

Efttec carried out a root cause analysis of the problems affecting ecosystem services in the Landscape Pioneer, May 2018.

Root Cause Analysis is a collection of problem-solving methods used to identify the real cause of a problem. It seeks to identify the point in the causal chain where an intervention would prevent the problem from occurring – this enables preventive action to be taken, rather than focusing efforts on dealing with the symptoms of the problem. So, it addresses the real cause of a problem instead of providing a ‘sticking plaster’ solution. Better understanding of the root causes of problems affecting ecosystems and their services in North Devon helped produce a list of possible interventions, assess them and outline the likely benefits and costs involved.

6. Wrote the strategy

They also ran two other related projects:

- **Financial Mapping in the North Devon Pioneer** – report produced by efttec, May 2017.

The Biosphere Partnership had a well-developed understanding of its natural assets, their ecosystem benefits, and a draft vision for their management. This project aimed to provide an understanding of how resources are spent collectively across the environment sector to manage the natural capital within the pioneer boundary. This helped map and identify what was happening, but also showed where spend wasn’t joined-up and could work better.

- **Natural Capital Investment Opportunities for North Devon** – Report produced by eunomia (consultancy specialising in environmental and commercial outcomes), July 2019.

Four investment opportunities were chosen as exemplars that could demonstrate the case for wider investment:

1. **Developing and marketing local food networks** that promote sales of high-quality produce from farms that maintain and improve natural capital
2. **Creating a new carbon offsetting standard** for priority North Devon carbon storage habitats, for example saltmarsh.

3. **Creating a woodland management support hub** to increase woodlands, increase profitability and reduce the delay between planting and harvest.
4. **Developing an ecotourism standard** that will promote habitat restoration on the river Torridge.

For each of these opportunities, the report:

- provided a description of the opportunity and what an initial investment would buy
- discussed the returns and benefits
- outlined 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.

The report recommended that in order to make these opportunities come to life and create a funding co-ordination mechanism, they should further develop these investment opportunities and create a joint investment fund with associated governance mechanisms.

The natural capital strategy will be published in May 2020. The process was innovative and experimental, and some elements were more successful than others, so an evaluation and lessons learnt report will follow this strategy.

What are they doing now?

The North Devon Natural Capital Strategy will highlight a range of workable and affordable interventions, the next steps are to get these delivered in a consistent and organised way.

To deliver change at the scale that is needed they need to transform the way they manage the environment. Specifically, they need an approach designed for engaging with a complex system. They believe that this will require adoption and progression of four key management principles:

- **Institutional responsibility** - each environmental problem needs to be owned by an organisation or formal partnership.
- **Adaptive management** - declaring a target, tracking progress against it and adapting plans and investments as required.
- **Localisation** - devolving responsibility of environmental management to a geographical level discrete enough for integrated planning.
- **Shared commitment** – schemes should be co-developed and have shared understanding and commitment between stakeholders.

The North Devon Biosphere is working to make these a reality and engage with national and local partners. They are also considering developing a natural capital spatial plan to ensure that the right investments go in the right places.

Bristol Avon Catchment Natural Capital Approach Trial – Kathrynne Moore,
Senior Advisor, Natural Capital Programme, Environment Agency.

The Bristol Avon Catchment Natural Capital Approach Trial has been running since 2017. The Bristol Avon Catchment Partnership (BACP) are running this trial with representatives from the river and wildlife trusts, agricultural groups, local authorities, Environment Agency and Natural England. It is co-hosted by Wessex Water and the Bristol Avon Rivers Trust. The Environment Agency's National Natural Capital team are driving this trial, supported by the Natural Capital Programme Board and the Bristol Avon Natural Capital Trial Project Board. The BACP is well established, formed from a wide range of organisations and is committed to exploring and embracing a new approach - a natural capital approach.

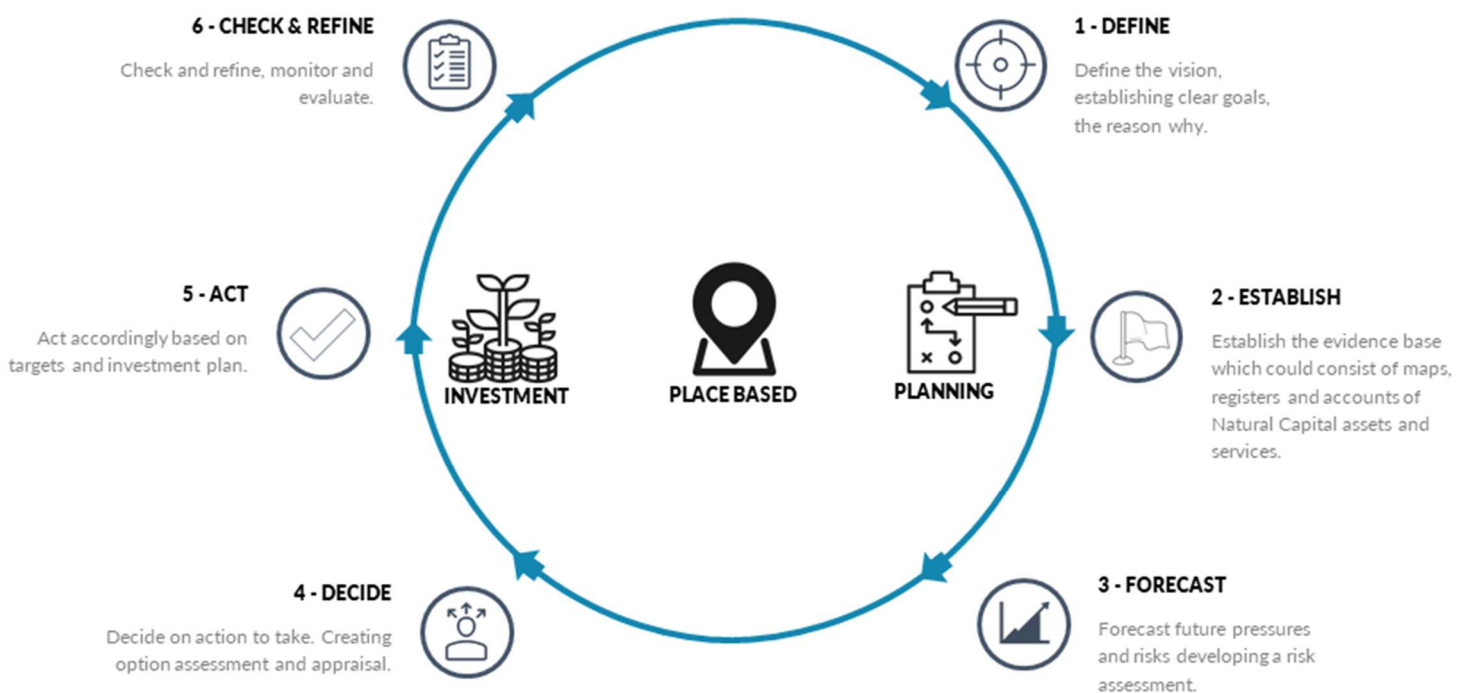
Ultimately, the hope is that this trialling and testing will help empower others to take a natural capital approach in a transparent and consistent way, while promoting collaboration and engagement.

The main aims of the trial are:

- To understand 'what is different as a result of a natural capital approach?' – compare it with current approaches to planning and investment for water and flood risk.
- To produce templates and guidance for taking a natural capital approach to test in other places and eventually roll out more widely - support a consistent and robust approach.
- To provide an example of how to test and develop a natural capital approach with stakeholders.

What is their approach?

They are using an environment planning cycle to guide their work, focusing on the steps through a natural capital lens, see below (credit: Adam Booth, EA):



The BACP was already established and had a clear vision before this trial commenced. To date, their focus has been on developing the evidence base (step 2 in the cycle). They developed a prototype natural capital asset register and account tool and launched it internally, to Environment Agency staff, in November 2019. There is a natural capital scorecard to go with it as a supporting engagement product. A natural capital register and account was also completed for the Bristol Avon Catchment. The prototype tool was launched internally to allow people to look at it and test the tool. In addition to other internal communication activities, e.g. flyer and targeted emails promoting the prototype tool and testing of it, they held two workshops: one with the Bristol Avon Catchment Partnership and one with Environment Agency Wessex Area colleagues. They are currently using feedback from these workshops, and via other routes, to inform further development of the tool.

Importantly, the work they've carried out (and any future products developed as part of the trial) has been designed so that it can be replicated in other places and used by non-experts.

What are they doing now?

They have employed eftec (environmental economics consultancy) to enhance and develop the prototype tool further, and expect to have an improved version available to roll out in 2020/21 to internal staff and external partners. The development work will focus on enhancing the evidence base and the functionality of the tool. The roll out will be supported by user training and guidance.

The Environment Agency want to continue to test and trial a natural capital approach based on the environment planning cycle above. Steps 4 and 5 in the cycle will be a key focus going forward: testing an integrated appraisal approach using natural capital evidence (step 4) and exploring approaches/mechanisms for investment and delivery (step 5). They are considering using the CIRIA B£ST tool to test an integrated appraisal approach. The 3Keel Landscape Enterprise Networks (LENs) approach is being applied and tested in the Bristol Frome catchment (sub-catchment of the Bristol Avon catchment). The aim of the LENs approach (page 108) is to link the management of land and landscapes to the long-term needs of business and society – focusing on investment planning.

West Midlands Combined Authority - Dr Simon Slater, Head of Environment,
West Midlands Combined Authority 2017-2019.

The West Midlands Combined Authority (WMCA) was making good progress towards developing a natural capital investment strategy and plan, however neither progressed beyond the proposal stage and the ambition is currently on hold. This case study will explain what they did and reasons why it has yet to succeed.

The main drivers of this project were Georgia Stokes, who was CEO of the Birmingham and Black Country Wildlife Trust (BBCWT), and Simon Slater. They were supported by the Mayor, Andy Street, and an advisory board of other organisations, but did not enjoy similar consistent support from other senior officers or local council leaders on the WMCA Board and sub-committees. This was due to a range of factors, including:

- the WMCA being created for an economic purpose
- the relatively new nature of the organisation and trying to navigate the change from being a transport body to a wider remit without the corresponding resources,
- tension between working regionally and cross-party,
- the complexity of the geography – 19 local authorities, 3 Local Enterprise Partnerships, 2 Local Nature Partnerships,
- the turnover of senior officers and politicians responsible for the newly created role of ‘environment’ – 3 directors and 4 political cabinet members within a 6-month period.

What was their approach?

The role of the natural environment was one of the Sustainability West Midlands (SWM) regional 10-year sustainability roadmap priorities for 2010-2020. This carried across into the WMCA environmental priorities which were agreed by the Mayor and Board in September 2017. These priorities were further developed by SWM and an advisory and delivery group was formed. The natural environment priority was led by Georgia Stokes and programme development was supported by Simon Slater.

They initially worked through the following process:

1. WMCA Board members and the Mayor agreed that the natural environment should be a priority area, as this was an issue that was important to local voters. The challenge was to develop a strategic programme where the WMCA could ‘add value’ but also be linked to real change on the ground.
2. SWM carried out benchmarking exercises on environmental issues, natural capital and the natural environment to identify good practice from other combined authority areas. Greater Manchester was identified as a leading practice, their officers helped scope and develop the WMCA programme.
3. The WMCA created an Environment Committee which was chaired by one of the leaders of the local councils to act as the cabinet member for the environment. The other members were the local councillors representing the environment for their authority, supported by the existing advisory and

delivery group. The remit of the Board also included energy, low carbon economy, air quality and climate change.

February 2019, the Environment Board was recommended to:

- approve the development of a West Midlands Natural Capital Investment Strategy and Programme – including a shared evidence base and a pipeline for investment on sites owned or funded by WMCA, HS2 and partners.
- suggest local green and blue spaces that could be considered as pilots or case studies within the strategy and programme.

March 2019, the WMCA produced the UK's first Local Industrial Strategy. Within this were clear commitments to supporting natural capital investment.

April 2019, the HS2 programme board responsible for maximising the local benefits of the scheme requested a proposal on how to incorporate natural capital investment within their activities. Local environmental groups, who had spent several years supporting the programme, put forward a proposal for £100,000 to begin to replicate the Greater Manchester programme across the local HS2 and wider WMCA area. This was turned down as no-one on the board was willing to champion this, programme funding had already been allocated to local councils and the role of the WMCA was still emerging.

What problems did they encounter?

The reasons why this project has not yet succeeded are mostly political. There were four key problems which hampered this project:

1. Stakeholder fatigue from HS2
Previously, conservation groups had been meeting and working hard for over two years in response to the HS2 project. They carried out a natural capital study, but no funding was received from HS2. So, a lot of work was done (especially by Georgia and the BBCWT), but with little to show for it. As a result, their goodwill was lost and the groups lost interest.
2. Problems with the main stakeholder group
The Natural Capital Roundtable was set up to be one of the main drivers of the natural capital approach. However, the group was not formally constituted, it was too Birmingham-centric, members of the group weren't senior enough to make and act on decisions, there were constant changes in the membership and consequently it was very hard to make any progress.
3. Urban National Park initiative
Whilst the group were working to develop the strategy and plan, and were struggling to get the Natural Capital Roundtable to deliver. Birmingham City University started to develop a plan for an urban National Park in the West Midlands. The vision is to develop a National Park creating hundreds of miles of green space, conservation areas, parks and new cycle routes. They produced a plan and way forward, but it led to competition between methodologies and suffered from a lack of resources to drive it forward.

4. Georgia Stokes left BBCWT to join Somerset Wildlife Trust in April 2019 and in August 2019 the WMCA ended the secondment of Simon Slater. Without their energy and drive the project has not progressed any further.

There were many opportunities, but the Natural Capital Roundtable was too fragmented and couldn't put forward a suitable regional approach, therefore the business cases were weak and key customers (utility companies, EA, developers and businesses) were not involved. When the National Park idea came along it led to a lack of political organisational stability and resourcing.

On top of these problems were underlying issues:

- Birmingham City Council is the largest in Europe therefore it's representation and influence distorted the West Midlands partnerships
- A Conservative Mayor in a strongly Labour area and in a newly formed political organisation. Large amounts of energy were spent in cross-party, regional and local working over a short timescale, which often meant that the environment was a lower priority.

Simon's approach

Throughout this process Simon aimed to find out what was working elsewhere and try to replicate it in WMCA, he was especially impressed by the work of Greater Manchester Combined Authority and was keen to mirror this. He focussed on using the right language to engage with partners and stakeholders, and worked hard to use the Mayors support to translate this direction into the rest of the WMCA.

Simon was looking to develop blended finance models to fund projects offering multiple benefits, including the health and wellbeing agenda. In the West Midlands he considered that the key customers would be the utility companies, EA (flood defence), developers (net gain) and businesses interested in offset schemes. So, there are just a few key customers and you have to get them involved from the very outset. These would then form a core partnership group, which would engage the existing partnerships when they were required to deliver an agree project.

There would be a shared evidence base which would support and influence planning decisions, but also identify key sites for enhanced natural environment management or development. This would also consider factors such as connectivity to develop green and blue networks. The WMCA would use their own land and transport networks to help develop these networks and seek to maximise investment from the core group of natural capital customers and funders.

In the end, the political and policy commitments were achieved in the WMCA Corporate Plan, WM Local Industrial Strategy and the latest draft of the Climate Strategy. But the instability of the newly formed WMCA, existing geographical and partnership complexities, and key leaders leaving, has left unresolved leadership, funding and delivery issues.

3Keel Landscape Enterprise Networks (LENs) Approach – Catherine McCosker, Senior Consultant.

What is LENs (Landscape Enterprise Networks)

LENs is an innovative, new approach which is being developed, and driven by, Tom Curtis and Catherine McCosker at 3Keel (a sustainability consultancy) and Andy Griffiths at Nestlé UK. It has been operating for two years and the first trades are just taking place.

LENs aims to link landscape management to the long-term needs of business and society, by enabling businesses to work together and positively influence the landscapes in which they operate. It looks at the landscape from the perspective of business need – what are the risks and opportunities that landscapes present to businesses and therefore why should they engage? Business interests can range from resilient crop production, flood risk, water quality, carrying capacity of water catchments, management of carbon or biodiversity, to health and quality of life for their employees and customers.

LENs works to build a series of place-based, chains of transactions which enable groups of businesses to jointly procure landscape outcomes from farmers or landowners that can make things happen on the ground.

One of the aims of LENs is to break through the complexity and abstract theory surrounding sustainable landscapes and ecosystem services, and offer a different solution. It does this by breaking the system down into straightforward, practical transactions.

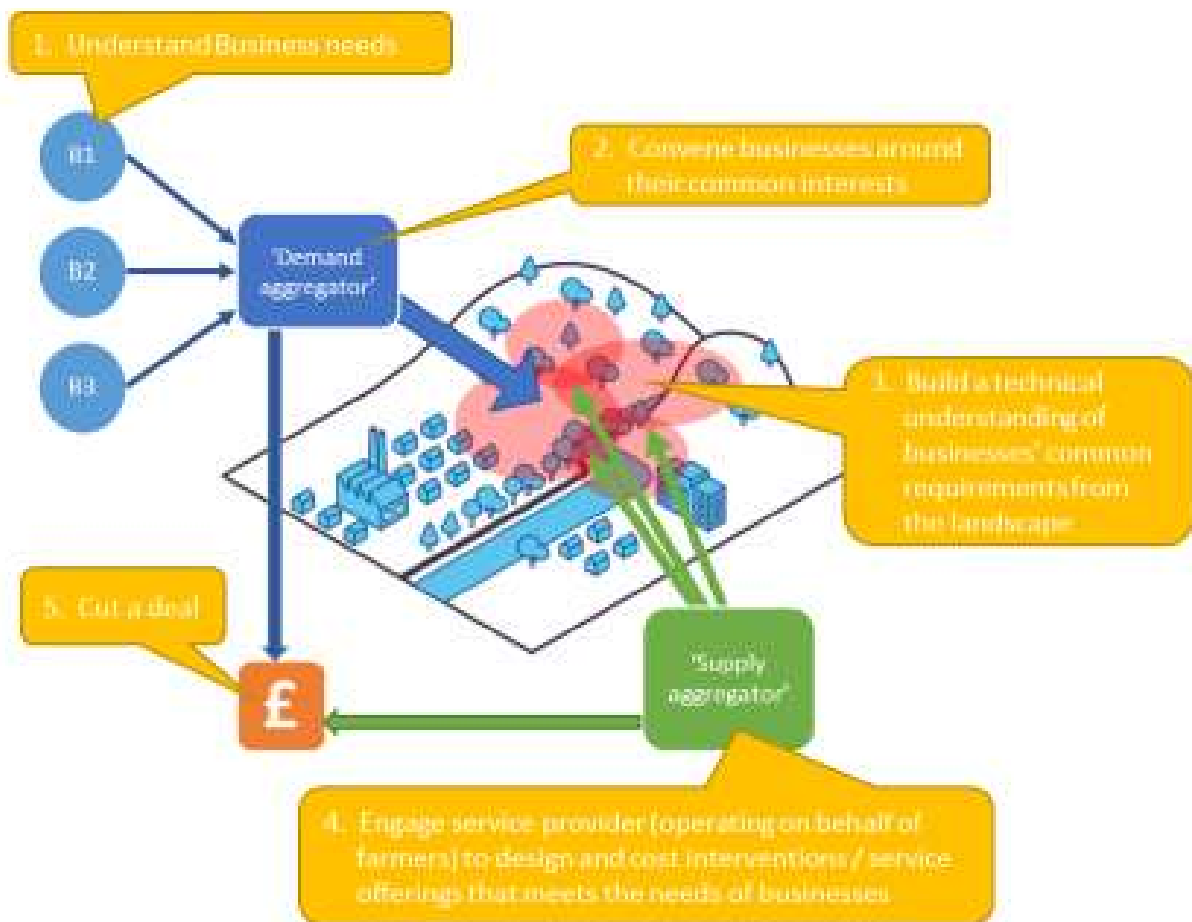
LENs is being developed through a set of live projects across the UK which they call 'LENs Laboratories'. Currently they have projects running in Bristol, Cumbria, Greater Manchester, Hampshire Avon, Northamptonshire, Oxfordshire, SW Scotland and Yorkshire. They include rural, urban and peri-urban landscapes, and involve business interests from a range of sectors including water utilities, food manufacturers, property developers and local authorities. These LENs Laboratories provide practical situations to develop and prove the LENs process, work with trading platforms (for example EnTrade or NatureBid), explore monitoring functions, develop practical governance models and identify, evidence and agree landscape interventions.

How does LENs work?

A LENs project works by setting up and managing a regional trading system of value chains, each driving specific landscape outcomes for different groupings of businesses. The process involves three steps:

1. **LENs network analysis** – this system links beneficiaries (businesses), landscape functions and landscape assets (see Northamptonshire example).
2. **Produce the basic operating unit** – a first 'anchor' collaborative value chain which brings together business demand and landscape needs and supply. Within this there are five main stages, see diagram on the next page.

The basic operating unit



3. **Develop a network** – once the first value chain has been set up, it will create momentum and interest. This will attract more customers and suppliers which will extend the first value chain and build others.

Examples of LENS projects

Hampshire River Avon Project

Initial analysis, funded by NE, identified phosphates as the key issue in the River Avon. The beneficiaries (demand) are utilities, developers, MoD and local authorities. The supply is being provided by a farmer group and catchment sensitive farming. Initial workshops and reports have led to development of the first trade, using the EnTrade platform, in Spring 2020.

So, the beneficiaries will achieve the required reduction in phosphate levels, they will do this cost-effectively and it will benefit both farmers and the environment.

Bristol Frome Landscape Enterprise Networks Project – Guy Whiteley, Catchment Funding Advisor, Future Funding Team, Environment Agency

The EA, Bristol City Council, South Gloucestershire County Council, Wessex Water and the West of England Nature Partnership are starting to work with 3Keel to trial the LENs approach in the Bristol River Frome catchment.

Currently they are trying to garner interest from relevant businesses, but this is proving challenging in a city environment as the connection with the environment and landscapes is less obvious than in a rural setting. They hope that the climate and ecological emergency (as declared in Bristol) and net zero carbon ambitions might help increase private sector interest and acceptance.

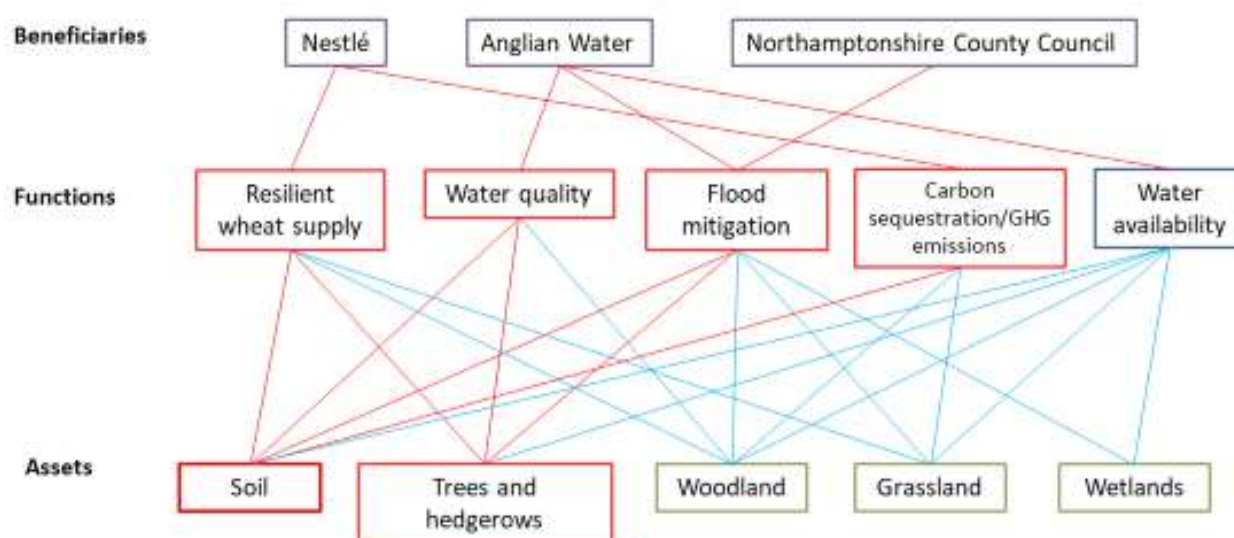
Working within the OxCam Arc

3Keel has two ongoing projects within the Arc: Northamptonshire and Oxfordshire.

Northamptonshire

- It will be operating along the Nene valley and the team are working with WTBCN and the Nene Valley Nature Improvement Area team.
- Three beneficiaries (demand) are:
 - **Anglian Water** – water quality, nutrient management and working towards their net zero carbon commitment
 - **Nestlé** (cereals and Purina pet food) – resilient supply chain (wheat yield and quality) and working towards their net zero carbon commitment
 - **Northamptonshire County Council** – flood mitigation in discrete locations along the River Nene
- Key functions include water quality, flood mitigation and resilient wheat supply
- Key assets are soil/soil health, trees and hedgerows
- Potential supply aggregators are Charles Jackson and Camgrain
- Network analysis completed (below) and currently producing the basic operating unit (value chain). Aim to carry out the first trade in 2021.
- Will be using the NatureBid trading platform, developed by the EA

Demand overlap



Oxfordshire

- A LENS scoping pilot has just commenced, funded by the Defra Group OxCam ARC LNCP project.

Comments by the author

The 3Keel LENS environmental trading system takes a different approach to funding improvements in the environment as it is demand-led and based on businesses, and the public sector, working together. It offers a different way forward and allows us to assess which methodologies might work in different environments and with different land, conservation, private and public sector players. As it develops it will be refined, based upon experiences, and will also identify the strengths and development needs of the EnTrade and NatureBid trading platforms.

LENS is a beneficiary system where businesses can achieve required environment-based outcomes, protect their supply chain and reduce organisational risk. This system can benefit landowners/farmers and the environment, however these are not the key drivers and this is a business arrangement, not a pure investment.

Case studies of current approaches and ambitions

Other organisations, or individuals, related to work in the OxCam Arc or Cambridgeshire.

Defra Group OxCam Arc Local Natural Capital Plan (LNCP) team – Rebecca Moberly (Delivery Manager), Ceri Lewis (Data and Information Specialist), Luke Newbey (Project Manager) and Steve Arnold (Economist).

Overview

The team was set up in Spring 2019 with one year of funding from Highways England's Designated Fund, along with some funding from Defra, and within this short timescale they have achieved a great deal. Their project is looking to secure future funding to cover this financial year and to assure the LNCP's longer term future.

The team had three main starting points:

- People in the Arc – They were keen to engage with a wide range of stakeholders and not just the 'usual suspects'. Need to communicate to a wide audience, encourage them to appreciate nature and realise that it has a real value, and work with them to co-design and co-deliver the LNCP.
- Evidence – GIS and natural capital mapping. They were keen to get the best quality data they could and use the same data and metrics across the Arc.
- Nature is changing within the Arc - But by using natural capital accounting and developing a natural capital and ecosystem services baseline, we can see, and plan for, changes and do something about it.

Progress so far (in chronological order)

Consultations, engagement and co-design

Through regular meetings and workshops, the team have been working closely and collaboratively from the start with a wide range of stakeholders, including Defra, MHCLG, statutory bodies, local authorities, conservation organisations and all LNP's within the OxCam Arc. Specific workshops have been run with stakeholders from the planning and development sectors to understand their needs for project outputs; and with the farming and landowning community. The workshop with the farming and landowner community took place in January 2020; with the day focused on bringing them up to speed on the project, understanding the challenges and opportunities they face around natural capital and sharing a case study on the 3Keel Landscape Enterprise Networks (LENs) project. The workshop gave the team a better understanding of the various perspectives of the landowner community around natural capital and how they could potentially make use of it and the LNCP.

Natural Capital Baseline

This work was carried out by Natural Capital Solutions and is due to be published in Summer 2020. It has produced detailed natural capital maps for all five of the Arc's ceremonial counties. The team are currently in discussions with their third party data licence holders about sharing the Natural Capital Baseline and any products which are derived from it.

Natural Capital Account

The team have used the Natural Capital Baseline, Orval recreation model outputs and water abstraction licences to feed into a Natural Capital accounting tool developed by the Environment Agency to produce a Natural Capital Account for the OxCam Arc.

Natural Capital Approaches and Tools Review

(<https://www.oxcamlncp.org/defining-our-approach>)

The Local Natural Capital Plan independent review undertaken by Jacobs was completed in January 2020 and has been shared with all key stakeholders. It is a detailed report which reviews current approaches to Local Natural Capital Planning, not Natural Capital investment planning. The report makes recommendations for the creation of a LNCP for the OxCam Arc (that are also applicable elsewhere), including the adoption of a natural capital accounting framework, considering monetised and non-monetised ecosystem services and a risk register.

The review recommends following a six step approach to developing and delivering a local natural capital plan for the OxCam Arc:

- Step 1 – Scoping and objectives
- Step 2 – Evidenced baseline
- Step 3 – Drivers, pressures and risk register
- Step 4 – Natural Capital Accounting
- Step 5 – Plan formulation
- Step 6 – Implementation and evaluation

In addition, the review provides an assessment of the different Natural Capital tools that could be used in a LNCP and sets out which scenarios each tool may be best for.

Overall, the review provides a useful summary for anyone applying natural capital approaches and is informing the LNCP team's work within the Arc.

OxCam Arc LNCP online platform (<https://www.oxcamlncp.org/>)

This online platform was launched in April 2020 and will contain relevant resources, outputs and reviews.

Third Party Natural Capital Projects

In January 2020, the OxCam LNCP team commissioned three natural capital projects which will be delivered by May 2020:

1. Natural Cambridgeshire's Doubling Nature Investment Plan Scoping Study

This study (this report) will review and compare current natural capital investment approaches operating or being developed in the UK. The aim is to produce recommendations and a range of options which could enable Cambridgeshire, and other OxCam Arc counties, to develop an effective natural capital investment plan or similar vehicle. The outputs of this project will provide important findings that the OxCam Arc team will incorporate into their LNCP Investment Toolkit.

2. Applying the Landscape Enterprise Networks (LENs) approach in Oxfordshire

3Keel and the Berkshire, Buckinghamshire and Oxfordshire Wildlife Trust are working on a project to apply the Landscape Enterprise Network (LENs) approach within Oxfordshire and complete a comparison study with their previous work in Northamptonshire. This will help people understand how the approach has been applied across two geographies, highlighting what are the main requirements to get the approach 'off the ground' elsewhere. This project will support the enhancement of natural capital within Oxfordshire and provide the team with an understanding of how this approach works, which can also be fed into the LNCP's Funding and Investment Toolkit.

3. Assessing the quality of natural capital at a county scale

The LNCP team are working with Northamptonshire LNP to explore how you can assess the quality of natural capital at a county scale using existing data and what you should do with the resulting data. Most of the analysis work has been completed and a workshop has been held where the methodology and results were discussed with local experts. The final report from this project will be published in Summer 2020.

LNCP's Funding and Investment Toolkit

The aim of this resource, currently in production, will be to inform and advise groups wishing to take a natural capital investment approach to funding nature. It will utilise this DNIP study and the 3Keel LENs project in Oxfordshire, and include information about achieving funding. Despite it being called a toolkit, it will be a regularly updated online resource and not a 'plug & play' methodology or system.

Ecosystem Services Mapping

The LNCP project will produce an Ecosystem Services Baseline for the Arc and work will commence in Spring 2020. The project will produce Ecosystem Services maps which are based on the project's Natural Capital Baseline and alternative versions which are based purely on open and publicly accessible data (with the exception of OS data). This is being done to give the project options for sharing the outputs with wider stakeholder groups and to allow a comparison in the use of open versus licensed data sets in assessing ecosystem service provision.

Lessons learnt

When all of the 2019-20 workstreams and projects have been completed, the team will produce and share a lessons learnt report to assist others wishing to follow a similar approach.

Environmental Opportunity Mapping

The LNCP team have been assessing options for mapping opportunities for environmental improvement within the OxCam Arc. Rather than repeating the work that has already been done by local partners and stakeholders, the project has collated the variety of environmental improvement opportunity areas and projects that have been identified across the Arc. Doing this will allow those that have developed this thinking and are basing their decision-making on these maps to consider where there is join-up across different sectors and overlapping priorities. It also helps link the LNCP into existing policy implementation, where these opportunity maps are tied into policy, for example Local Plans. A draft report outlining these opportunities will be published in Spring 2020, with the long term goal of the project to host this information on an online web map if funding is available.

Paul Leinster CBE – Professor of Environmental Assessment, Cranfield University

These are the personal views of Paul, who was previously Chief Executive of the Environment Agency (after having been Director of Operations and Director of Environmental Protection). Currently, he is a member of the government's Natural Capital Committee and is a non-executive director of Flood Re. He chairs the board of the Institute of Environmental Management and Assessment and the Bedfordshire Local Nature Partnership. He is involved in a number of activities related to the protection and improvement of the environment within the OxCam Arc and is chair of the OxCam Arc LNCP's Partnership Group.

Key points raised

I fully believe in investing in natural capital, think that it's essential and we need to increase our natural capital assets. But do I think private business is going to invest in natural capital in general, purely as an investment proposition? No, they may invest if they own natural capital assets or have supply chain dependencies or are required to in relation to spatial planning requirements. Otherwise why would they, what's it in for them and how can they benefit? (after all it's a public good) - until they are made to, and that's what society does, it becomes a societal and political choice.

You need to ask, 'what's the investible proposition?'. For Paul, with natural capital, if you move away from carbon offsets then there isn't an investible proposition for the private sector – so why would someone invest?

Therefore, Paul thinks that we should be focusing on the potential funding streams provided by the public sector and those from the private sector driven by ownership, corporate social responsibility, public sector incentives or planning requirements.

You need to get natural capital net gain policy into the local plan at either unitary or district level because they're the people who do town and country planning – they'll be the people who, in the Environment Bill, will have to deliver net gain (currently net biodiversity gain) through the planning process.

'To maximise environmental benefits, I think we always have to chase the money' – in this case CILs, section 106, ELMS, influencing flood risk management schemes, influencing water company investment money, Network Rail, Homes England, Highways Agency, etc. But I don't think it is an investible model because as yet there is no associated revenue stream.

Protecting and improving the environment

Paul's focus is on what is going to protect and improve the environment, the whole essence of the government's 25YEP. There are multiple ways of doing this and you have to find the right mechanisms which will work within a particular locality. Therefore, a formulaic 'this is how you do it' approach won't work.

However, there are certain building blocks that you need and base information that you will want, so that anybody can use it. One of the main recommendations of the OxCam Local Natural Capital Plan is that key natural capital data needs to be readily available and shared. To Paul, there's a difference between the availability of the data to inform (if it's for R&D or it's informing the public then it should be freely available) and the use of the data in a particular application e.g. a planning application or appraisal (companies should pay for this).

This came out in the natural capital investment work that was carried out by five OxCam LNPs. One of the requirements was a core data set which is publicly available and then a core agreed methodology for net gain (not just net biodiversity gain but net natural capital gain), so that planning committees don't have to try and learn what different consultancies mean when they use their own specific methodology. There should be a standard methodology that everyone understands and that's the agreed methodology for a net gain determination.

If you don't have agreed, shared datasets that everyone is able to use then each organisation will be paying for the acquisition of datasets which have already been assembled on multiple occasions. This is bad public administration, a waste of public money and it happens all the time. For example, Highways England, Homes England, EA, NE, local councils etc, all have their own data sets and because of how they are acquired, and the associated Intellectual Property Rights, are not able to share them all widely or freely. This is one of the big issues that needs to be addressed. His aim would be that if this information is all publicly available and all agreed, you then don't have to argue about whether or not the data is right, you don't need to agree whether the net gain methodology is right (because everyone is using it) what you are then discussing is what are the implications of it and what can we do.

Natural capital net gain

We need to focus on **natural capital net gain**, instead of biodiversity net gain. Because one of the dangers is that we get so driven by Carbon and Climate Change, which are really important, that we forget about the natural environment, which is also really important. Whereas, if we take a true natural capital approach, then we will take a more integrated view of the environment than if we just took a biodiversity view or a carbon view.

Investment opportunities – find the money

There are only certain opportunities for investment, the money is either going to come from:

- **Developers** – through CIL's or section 106
- Or, **the Defra pound**, for example :
 - What is the EA investing on flood risk management and what are they doing on their aspects of the environment?
 - What is NE doing on Local Nature Reserves and on SSSIs?
 - Water company investment, Defra group has a view on this through the review and determination process.
 - Money from countryside stewardship and agri-environment schemes
 - Forestry Commission
 - Local authorities funding local wildlife sites

So, when you look at how much money Defra is putting in, either in direct grants or through funding, there is a significant amount of money. How do you develop truly integrated plans to make best use of this money and maximise the benefits?

You can then add in what the National Trust, Wildlife Trust, Woodland Trust, RSPB and others are spending in an area. This would add up to a large amount of investment money if you could pull it all together in a coherent way and could get their budgets aligned. You're not sharing budgets, or passing them on to others, but aligning budgets and through common planning you can come up with a greater strategic intent. This allows you to do more with the total budget by working in partnership and planning together. For example, previously, when Paul was at EA, in Lincolnshire they brought together all of the district councils, the county council, EA, NE, local IDBs and Anglian Water and aligned the water related maintenance aspects of their spend. It wasn't about handing over budgets, but looking at the combined budget and looking for ways in which they could be aligned and made more efficient. So, with maintenance a lot of the spend goes on travel time or establishing bases to work from. They looked at who's doing what work where, and agreed 'you do our work there and we'll do your work here'. This delivered significant efficiencies and allowed them to do more for the environment as a result.

To get people's attention you need to do something about the funding streams – grab them by the budgets! Or you need someone at a senior level in an organisation to say this will happen – this is important.

So, unlike other interviewees, Paul thinks that we should be focusing on the public sector funding and NGOs as well as private businesses.

The question Paul has with private businesses is 'why would they do it? What's it in for them and how can they benefit.' Some will do it for corporate social responsibility reasons, some because they own natural capital assets and some because they have supply chain dependencies. But for others? Developers will put money in from section 106, because they have to, but will only do what they have to – why would they invest or put in more? It is interesting to look, for example, at the overall position on partnership funding for flood risk management schemes and where most of the money comes from – in my experience almost all the funding came from the public sector, very little from the private sector.

Anglian water example

Farmers were using metaldehyde to control slugs because it was cheaper than the alternative, ferric sulphate. But metaldehyde was getting into the drinking water and can't be removed through normal drinking water treatment. So, it could put the water source at risk and Anglian Water would then have the additional cost of sourcing the drinking water from somewhere else. So, they paid the farmers the cost difference if they'd now use ferric sulphate. This was called by some, an ecosystem service, but I don't think it is. It's a beneficiary pays system - because here you have a direct relationship between a beneficiary (Anglian Water) and the actor (farmer), and the beneficiary pays the actor. So, in return for payments to farmers, Anglian Water saved money having to find alternative sources of clean water. But it wasn't a natural capital investment nor philanthropy – it was a business decision.

Paul struggles to find truly investible propositions for a third-party investor, with an associated revenue stream for the investor, that aren't underpinned by public sector money.

For Paul, with natural capital, if you move away from carbon offsets then there isn't an investible proposition – so why would someone invest?

The teams in Surrey and GMCA say you need a robust business case – Paul says he isn't aware of one for an independent third party that isn't dependent upon public sector, philanthropic or charitable funding!

The Landscape Enterprise Network (LENs) projects in Northants and Cumbria (see page 108) work on the basis that Nestle are protecting their supply chain and reducing organisational risk. So, supply chain protection and environmental risk management mechanisms can work and that's what's driving their funding, not primarily natural capital or increased biodiversity. Again, we see a beneficiary system not an investment because they are simply protecting their supply chain and managing risk.

What about ncip in Cambridgeshire?

The GMCA approach to NCIP will succeed because it is, in the main, utilising public money, spatial planning requirements and water company (regulated entity) activities and has the backing of the Mayor and the combined authority.

Paul thinks that we'll be able to achieve benefits in Cambridgeshire if we can land net gain funding, from section 106 and CILs agreements and also from ELMs. And if we get the right planning policies for green infrastructure then the new developments will be designed in a good way. But, again, this is through existing or new policy drivers, so why would a business invest? Where is their return on investment?

You need to get natural capital net gain policy into the local plan at either unitary or district level because they're the people who do town and country planning – they'll be the people who, in the Environment Bill, will have to deliver net gain through the planning process.

How do you get a strategic view of the use of all the section 106 money? You need a combined authority, or county, or council Environment Plan, and this should include cross authority boundary cooperation. So, every road or development leads to net gain – no discussion or negotiation, it just happens. If you can get things embedded within the planning, as a planning condition of the development, then the designated section 106 or CILs money will go straight to the agreed outcome.

For some of the headline and iconic places you might get investment, but it's not an investible proposition - it's a donation. There's a big difference between 'is this a donation?' (CSR related) or 'is this an investible proposition?'

What resources would be needed to develop a DNIP?

It needs to be pitched at the right level, so you need a champion for this – someone at Executive Director level who really wants this to happen. Ideally, this would be a direct report to the Mayor – for example, the Chair of the Environment board. This person would ensure that the executive team have signed up to a clear statement of intent and support a natural capital approach.

Then, you would need 3-4 people. But it's more important that you have the right people at the right level of seniority than lots of people.

What about Cambs being the first county in the OxCam arc to develop a ncip, doing it county-wide instead of arc-wide?

Paul thinks it has to be a county, authority or council led approach, nested within an Arc wide approach, because people associate more strongly with counties or councils than the Arc and it fits better with the local political structure.

The issues you have in Cambridgeshire, with the levels of development in places like North Stowe, Waterbeach, Cambourne West extension, Bourne and Alconbury are very different to what's going on within Oxfordshire, for example. So, much of this, and all of the local planning and planning agreements, happens at a unitary and district council level not at an arc level.

Important – Paul, thinks it's important to really understand what you do at:

- Arc level
- Growth board level
- County level
- Council level
- Village level

Understand what you do at what scale and how you engage at each of these scales.

Matthew Bullock - Vice-Chairman of Cambridge Ahead and Master Emeritus of St Edmund's College, Cambridge.

These were the personal views of Matthew, a lifetime banker and vice-chair of Cambridge Ahead – a business and academic member organisation dedicated to the successful and sustainable growth of Cambridge and its region in the long-term.

Cambridge Ahead are supporting work by Cambridge Past Present and Future and the Wildlife Trust to define nature sites and parks in the Greater Cambridge Partnership area as part of the Local Plan. Cambridge Ahead's interest arises because it is concerned to maintain the quality of life of the city and to plan sustainably for the city's continued rapid growth. Matthew has raised separate, outside charitable funding for this work.

Matthew highlighted key differences between donating and investing:

Donating

- Implies a right brain, unrestrained empathy and attraction to beauty
- Nature supporters' objectives vary but include biodiversity, public access to nature, zero carbon, flood risk mitigation and air quality.

Investing

- This is less emotional and requires a classical left brain, analytical, self-interested approach
- Investors' objectives are clear; they put money in and expect to take more money out after a period of time with some level of risk.

Land is very expensive, unless bequeathed/gifted, so one needs to work with landowners and farmers who are also key investors – they may share others' concerns for nature, but have to balance this against having to make a living and running a business.

It's not feasible to talk about Cambridgeshire as a whole, instead it's more suitable to talk about the landscapes, each with separate footprints and requiring different methodologies and investment vehicles:

- Chalkland (from Baldock to Newmarket) – main opportunities could come from more environmentally friendly farming and visitor sites
- Bedfordshire and Cambridgeshire clay soils (Cambridge to Peterborough) – main opportunities could come from more environmentally friendly farming and visitor sites
- Fens
 - Large problem due to the high carbon emissions from farming – we are going to have to find new ways of farming in the future so suitable environmentally friendly farming is further away
 - Harder to develop visitor sites, ideally you will need a portfolio of large (income generating) sites and smaller (non-economic) sites – ideally working across charities.

There are four main income models we could use:

- Farming
 - National Trust at Wimpole are showing that low input farming (which is more environmentally friendly) is only slightly less profitable than high input farming. So maybe there's an opportunity with the new ELMS system to promote and incentivise this, making environmentally friendly farming more profitable and attractive.
 - need to make environmentally friendly farming more widespread.
 - Getting farmers to increase their biodiversity would make the largest impact on Nature.
- Forestry
 - has potential at scale, as is attractive for carbon sequestration, but broadleaf tree planting produces no income for 30 years and requires substantial patient capital
 - small woodland projects are likely to be financially unsustainable
- Small nature reserves
 - Not generating any or much income
 - Run by charities & NGOs
 - Reliant upon donations and grants
- Larger, visitor-driven sites, attractions or reserves
 - Generate income and are profitable
 - Key component is high numbers of volunteers; needs the altruistic purpose offered by charities
 - Very popular, currently seeing exceptionally high demand in Cambs
 - In Cambs, this can work around Cambridge and in the chalk and clay areas
 - Not profitable enough to pay for land on their own, but contributions from several sites could build up a land acquisition fund

The two main income foci should be environmentally friendly farming and visitor-driven sites.

Recommend starting with sustainable nature activities where sites are able to pay their way, through stewardship and/or visitor-driven income. So would initially focus efforts, in Cambridge, on the chalk and clay landscapes – maybe also on orchards? This will need a marketing proposal to draw visitors to the sites attracted by habitat and 'spirit of place' and to pay, or spend money, there – so, ideally these sites will be close to conurbations. Similar opportunities will exist for Peterborough, but likely to be marketed as a separate proposition: need members to feel an affinity for "their" place.

Expertise in investment flows (CIL, biodiversity net gain, landfill, carbon offset credits, etc) is spread thinly between conservation charities, so we should consider creating a cross-county function similar to the Trust for Oxfordshire's Environment (<https://www.trustforoxfordshire.org.uk/>). They are an independent charitable environmental broker/funder who have gathered together experts in funding

schemes to advise local conservation charities; this has now progressed to a point where they are also able to offer donors and investors a Local Environment Fund to invest in local projects that benefit wildlife, people and the environment.

Additional points:

- We are still in the early stages of exploring an emerging market
- Charities need to start working together better and sharing expertise and resources.
- At current prices, carbon offsetting looks to provide only secondary benefits.
- Flood risk mitigation and air quality are more location specific objectives.
- Players need to understand each other's motivations and operating models

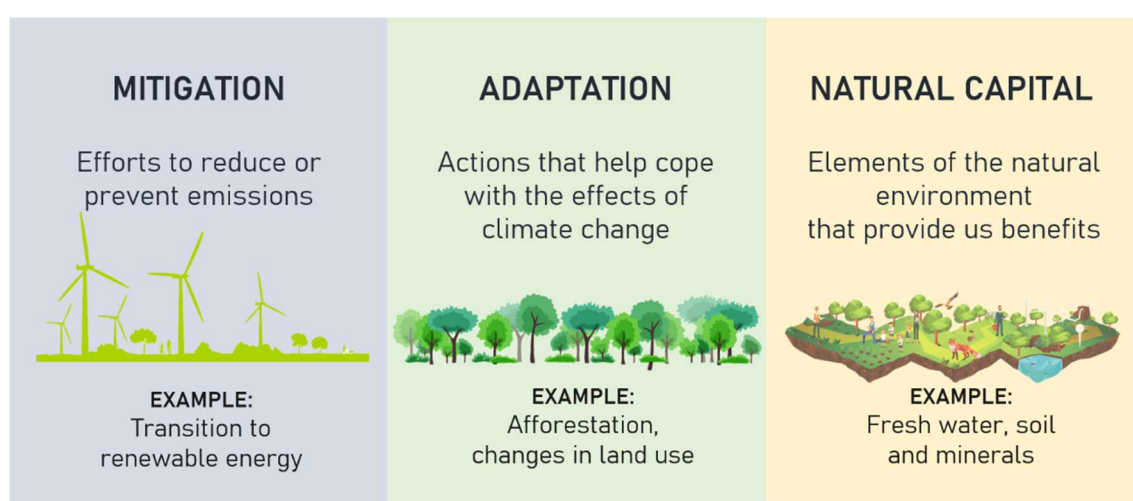
Cambridgeshire County Council – Philip Clark, Green Spaces Manager and Coordinator for Cambridgeshire Local Access Forum, Flood & Biodiversity Team.

In May 2019, Cambridgeshire County Council (CCC) declared a climate and environment emergency and committed to develop a 2020-2025 Climate Change and Environment Strategy and Action Plan. These have been developed and were due to be approved into Council policy on 17/3/2020 but this has had to be postponed due to the Covid-19 pandemic.

The CCC draft Climate Change and Environment Strategy was published in Dec 2019.

<https://consultcambs.uk.engagementhq.com/3017/widgets/9927/documents/3606>

This strategy has been developed around the three key themes of:



Their priority areas for the climate change **mitigation** theme (reducing our carbon footprint) are:

- Nearly zero energy buildings – improving energy efficiency and installing low carbon heating.
- Transport – prioritising walking, cycling and public transport, and supporting the uptake of electric vehicles.
- Waste management strategies to reduce carbon, and
- Afforestation – planting trees.

Their priority areas for the climate change **adaptation** theme are:

- Effective plans and climate change risk management strategies across all services.
- Resilience of their own buildings and staff.
- Their work in flood risk management.
- Supporting vulnerable people in severe weather or temperatures.

Their priority areas for the **natural capital** theme are:

- Restoring and/or creating natural habitats
- Planning policy to reflect strategic and local objectives for countryside enhancement and green infrastructure

- Supporting heritage assets.
- More tree planting and continued environmental stewardship as part of rural estate management.

The CCC draft Climate Change and Environment Strategy action plan was also published in Dec 2019.

<https://consultcambs.uk.engagementhq.com/3017/widgets/9927/documents/3608>

Seven provisional targets were identified in this action plan, including:

- to deliver 20% biodiversity net gain across all Council property, land projects and wildlife sites.
- 100% of Council strategies will include policies that tackle climate change and natural capital enhancement by 2023.

Relevant actions to deliver 20% biodiversity net gain include:

- Management of County Council land to deliver environment and biodiversity net gains (e.g. management for wildlife, tree planting and flood storage) to double land for nature by 2030.
- Plant new woodlands on County Council land (capacity for tree planting to be investigated and detailed plan to be developed)
- All Council services scope their natural capital assets to deliver environmental and biodiversity net gain
- Ensure all wildlife sites (Local Nature Reserves, County Wildlife Sites and Sites of Special Scientific Interest) are in positive conservation management (e.g. surveyed every 5 years and managed for the benefit of their biodiversity interest) - complete by 2030

Relevant actions to ensure that all Council strategies tackle natural capital enhancement include:

- For each Council strategy, identify contributions to both the organisational and wider Cambridgeshire carbon footprints, the wider Climate Change and environmental impacts
- Work with staff, members, partners and service users to identify how best to manage Climate Change and environmental impacts on sector strategies e.g. highways, rural estate, health
- Manage the Council's own estate better for biodiversity and to create new habitats for storing carbon e.g. woodland
- Continue to designate and support non-designated heritage assets, many of which can be managed to create a better environment for residents and for heritage itself.
- Design effective plans and climate change risk / adaptation strategies across all the Council's statutory and discretionary services.
- Apply circular economy principles to our woodland and waste management e.g. using traditional woodland management techniques and the waste generated for local use

Particularly, within planning policy and advice:

- Update County Council planning policy to include flood adaptive measures such as SuDS and mitigation measures where applicable
- Build county evidence base to support the development of new policy aiming for a target of 20% biodiversity net gain

It is very early days so far for the CCC teams, however their biggest success has been to get the Climate Change and Environment strategy through full council and for it to be adopted.

Cambs County Council are keen to work in partnerships with others and would be interested in working with the proposed DNIP or a similar funding vehicle within Cambridgeshire. Phil will be involved in natural capital planning for CCC through delivery of their Climate Change and Environment strategy and plan.

Cambridge City Council and South Cambridgeshire District Council – Stuart Morris (Principal Planning Policy Officer, Greater Cambridge Shared Planning) and Guy Belcher (Biodiversity Officer, Cambridge City Council).

Cambridge City Council (CCityC)

In May 2019, CCityC approved a motion to declare a Biodiversity Emergency. They pledged to provide leadership and to ensure that they work with all organisational departments, partners and communities to reverse the decline in biodiversity and deliver measurable biodiversity net gain within Cambridge and the wider region.

They also pledged:

- to act during the first year of the motion being accepted, to secure future measurable biodiversity net gain for Cambridge, building on past achievements.
- to develop plans for further action in the second year of the motion being accepted, and beyond, to secure further biodiversity net gain, based on a full assessment of the scientific evidence on how best to achieve this goal.

To meet these ambitions, CCityC set out a range of initiatives that they planned to carry out, during the first year, including:

- Making the Council estate, more hospitable to a wide range of plants and animals
- Producing a Parks Biodiversity Toolkit
- Improving the City Council Nature Conservation Strategy
- Promoting the adoption of the Natural Cambridgeshire 'Developing with Nature Toolkit' within all new major developments
- Continuing to support Natural Cambridgeshire, to deliver the shared vision for 'Cambridgeshire to be an exemplar for the landscape scale restoration of the natural environment'.

They further aspire to:

- Ensure the delivery of biodiversity enhancements through their planning policy and development control functions.
- Establish a Cambridge Biodiversity Charter, calling on all organisations, businesses and individuals in the city to establish their own Biodiversity Action Plans and commit to enhancing their open spaces, to contribute towards city wide net gain.
- Design new council housing for net gain of biodiversity, where viable.
- Work with the Greater Cambridge Partnership and Cambridgeshire & Peterborough Combined Authority to promote sustainable transport by the implementation of biodiversity net gain targets.
- Establish a Biodiversity recognition scheme for schools / community groups / business and individual gardens.

The revised Biodiversity Strategy is currently being drafted with a proposed summer 2020 consultation for adoption in the autumn.

South Cambridgeshire District Council

In July 2019, South Cambridgeshire District Council (SCDC) agreed that we are facing an ecological emergency as well as a climate emergency. They also agreed that opportunities are available through the planning system for improving nature by embedding the “environmental net gain” principle into development, including housing and infrastructure, in order to deliver environmental improvements. They recognised that the conservation and enhancement of the natural environment play a pivotal role in our economy and wellbeing, providing wide-ranging benefits such as clean water and air, food, timber, carbon capture, flood protection and recreation.

Therefore, SCDC aims to double the area of rich wildlife habitats, tree cover and accessible green space in order for nature and people to thrive, and businesses to prosper. In order to do so, they will:

- Ensure the delivery of biodiversity and environmental enhancements through planning policy and development control.
- Enable the development of a mandatory biodiversity net gain policy for South Cambridgeshire and Cambridge through the new Joint Greater Cambridge Local Plan, ensuring that this is a core principle for all future development across the Greater Cambridge Shared Planning Service.
- Identify areas for tree planting for carbon sequestration, flood management, air quality improvement and other environmental services.
- Adopt the Natural Cambridgeshire ‘Developing Nature Toolkit’ and direct developers to use it to assist them in demonstrating a net gain in biodiversity, to be used from the very outset of planning new developments, and ideally at the time of selecting sites to acquire for development.
- Collaborate with communities, Parish Councils and schools to encourage the planting of trees and the management of wildflower verges alongside roads.
- Support a network of tree wardens to support community planting, tree management and good practice.
- Review their own estate, particularly housing areas to identify areas for tree planting.
- Continue to support Natural Cambridgeshire to deliver the Doubling Nature Vision for ‘Cambridgeshire to be an exemplar for the landscape scale restoration of the natural environment’.
- Continue to support the Cambridgeshire & Peterborough Environmental Records Centre

Current work

- South Cambridgeshire Zero Carbon Strategy is due to be considered by Full Council in May 2020. It includes sections on land and trees.
- South Cambridgeshire and Cambridge City Council are partners in the County Council-led Future Parks Accelerator project.

Greater Cambridge Local Plan

The Greater Cambridge Shared Planning Service are working on a joint Local Plan for Cambridge and South Cambridgeshire. The January-February 2020 First Conversation consultation included the following relevant themes:

- Biodiversity & Green Spaces
- Climate Change
- Wellbeing & Social Inclusion
- Great Places

Development of the Local Plan will enable the development of a mandatory biodiversity net gain policy for Cambridge and South Cambridgeshire, ensuring that this is a core principle for all future development across the Greater Cambridge area.

To inform the Local Plan, the Shared Planning service has commissioned planning consultants to provide evidence informing the creation of an enhanced and expanded green (and blue) infrastructure network in Greater Cambridge to inform local plan policy and seeking to identify interventions to enhance the green infrastructure network within Greater Cambridge.

Biodiversity net gain interim approach

Ahead of adoption of the Greater Cambridge Local Plan, Cambridge and South Cambridgeshire councils are already working to deliver biodiversity net gain through the planning system. In general, seeking 10% BNG on medium and large applications. This includes working to deliver biodiversity net gain within existing allocated sites including, but not limited to, the following:

- Northstowe phases 2&3
- Waterbeach barracks and airfield
- Land North of Cherry Hinton, Newbury Farm and within the North East Cambridge Area Action Plan

Cambridge City Council and South Cambridgeshire District Council are active members of Natural Cambridgeshire and would be keen to support and influence this important work for our communities.

Cambridgeshire Future Parks Accelerator Programme (CFPA) & Nene Park Trust – Oliver Burke, Head of Operations, Nene Park Trust.

The Cambridgeshire Future Parks Accelerator (CFPA) project (<https://www.cambridgeshire.gov.uk/news/it-s-green-for-go-for-county-s-parks>) is part of a national £10m strategic initiative from the National Trust, National Lottery Heritage Fund and the Ministry for Housing, Communities and Local Government. It aims to support the development of ambitious, innovative and sustainable solutions to protect, enhance and fund public parks and green spaces in eight places across UK - so our parks and green spaces will be better used, managed and funded now and over the next generation.

Cambridgeshire was chosen as one of the eight projects because:

- The large scale of planned growth within the county offers both threats and opportunities; there will be increased pressure on existing spaces and the development of new parks as communities grow and new communities are created.
- There is a growing inequality between the quality and funding of existing parks and emerging green spaces. Many of our more deprived and diverse communities are finding it harder to access good quality parks.
- The funding and management of our parks and green spaces is challenging and local authority budgets are under significant pressure. Many of our green spaces are suffering from a lack of resources, funding and investment – facilities are deteriorating, antisocial behaviour is increasing and the value of the parks to the community is declining.

The Cambridgeshire Future Parks Accelerator (CFPA) project commenced in April 2019 and is funded until May 2021. Its lead partner is Cambridgeshire County Council and others include all six other local authorities, Natural Cambridgeshire, the Nene Park Trust and conservation organisations.

Currently, as part of the national Future Parks Accelerator Programme, the CFPA team are working with Vivid Economics (a strategic economics consultancy) to develop a natural capital assessment to value the public open spaces in Cambridgeshire. They are also working with Jon Sheaff & Associates (a multi-disciplinary practice specialising in the design and management of public spaces) to develop a set of typologies for public open spaces and map them. Collectively this work will allow the CFPA team to identify, classify and value the publicly owned, or managed, parks and green spaces within the county.

Comments on the development of a DNIP

To ensure the future funding and development of public green spaces, the CFPA team would be keen to work closely with the proposed DNIP or a similar funding vehicle within Cambridgeshire. They are keen that any future funding or investment models consider the value of publicly owned green spaces as well as natural green spaces such as nature reserves. By including publicly owned green and open spaces, the DNIP would be able to offer multiple benefits to potential investors, for

example access to nature, health and wellbeing. These additional benefits could prove attractive to potential public or private sector investors.

The CPFA consider there to be value in an umbrella vehicle, such as the DNIP, which could attract and manage funding, from the public and private sectors, and allocates it democratically to a wide range of investments, projects and partners, as part of range of measures which could support the ongoing sustainability of public parks and open space.

Natural England – John Torlesse, Manager, Natural England - West Anglia Area Team

Natural England fully supports the Government's ambition for the OxCam Arc to be an exemplar of its 25 Year Environment Plan. In that regard, they are engaged in the planning of the OxCam Arc at a number of levels:

- Providing advice to Defra, and other Government departments, on the environmental issues and opportunities
- With Defra Group colleagues, directly supporting the collation and increased access to evidence on natural capital across the Arc through engagement in the Defra Group OxCam LNCP
- Supporting the development of metrics for environmental net gain, building on the work they have done for biodiversity net gain
- Developing an understanding of the barriers to implementing effective net gain policies across the Arc and of the key priorities for taking this forward
- Advising on specific policies in local plans to strengthen commitments and effective implementation of biodiversity net gain.

What have you learnt from your work so far?

There are a considerable number of initiatives that organisations are undertaking individually and in partnership with others. There are benefits to be had in coordinating and providing a framework that enables better understanding of those initiatives, and the gaps and synergies across them.

There is strong support for the concept of biodiversity net gain, but often a lack of resources and expertise amongst local planning authorities to take this forward. Developers and local authorities want off-site net gain to be strategically deployed and we need to develop easier means for practically delivering this.

Developers and investors understand and generally want to do biodiversity net gain and apply a natural capital approach. There is an appetite from the land owning community to engage in the new markets associated with biodiversity net gain.

Natural England are committed to working in partnerships with others and would be keen to be involved in working with the proposed DNIP or a similar funding organisation within Cambridgeshire.

Natural Capital East – Andrew Brown, Head of Sustainability, Anglian Water Services Ltd.

Natural Capital East (NCE) are a reasonably new group of business-focussed organisations who want to work together and agree a narrative to take the right decisions, for the environment and business, effectively. It is mostly comprised of national and regional businesses; including Anglian Water, Nestle, National Grid, UK Power Networks, Barratt Developments, Kier, Sainsbury's and Tarmac, but also includes the CPCA, OxCam Arc LNCP team, Highways England, Natural Cambridgeshire/DNIP, EA, New Anglia LEP, Paul Leinster, Water Resources East and National Trust.

Emerging from Anglian Water's environmental baseline and natural capital risk assessment work, they want to create an agreed set of regional metrics, a regional natural capital asset register and baseline. They hope that these will help us create a resilient framework for the future. However, with the recent progress of the Defra Group OxCam Arc LNCP team they might instead use their metrics, mapping and methodologies.

NCE could then decide how they, as a group of businesses, interact with this and what investment platform they might all use to make sure they're getting the best 'bang for our bucks' in terms of their individual investments. Many organisations (Anglian Water, Highways England, EA, etc) have large budgets or projects - an aim of NCE would be to look for aligned objectives, collaborations and synergies between them, allowing them to work together and either deliver their objectives more cost-effectively or deliver greater benefits for the same investment.

Currently, being a new group, they have yet to produce any outputs and have no formal structure. In the near future they will be working on their governance, structure and relationship with Water Resources East. Then they will consider the OxCam arc team's metrics and mapping information, and decide their next steps to produce a region-wide approach.

NCE are committed to working collaboratively with a range of partners and would be interested in working with the proposed DNIP, or a similar funding vehicle, within Cambridgeshire and the OxCam Arc.

National Trust – Helen Dangerfield, Assistant Director Consultancy.

Overview

The National Trust in the East of England have been involved in natural capital accounting and valuing ecosystem services, working with government and academics, for some time. They are currently involved in a number of projects looking at natural capital accounts, the carbon balance on farms and a project trialling an online trading system that offers farmers a way to make money by selling environmental services to businesses.

The National Trust believe that Local Nature Partnerships will be responsible for leading the delivery of biodiversity net gain and they support this approach. They responded to the England's Economic Heartland (EEH) Integrated Sustainability Appraisal Scoping Report with a focus on the OxCam arc as this is where many of their properties could be impacted. They responded that a net gain target, which would simply maintain and enhance the provision of ecosystem services from the region's natural capital and contribute to environmental net gain, is not consistent with the direction of travel in terms of national and local planning policy. Neither does it adequately address the urgent need to mitigate the effects of climate change and accelerate 'nature recovery'.

The impact that transport infrastructure can have on the environment is significant, and as such the National Trust believes that nationally significant infrastructure should be included in the mandatory biodiversity net gain scheme. For example, for OxCam, if the Environment Bill goes ahead then 10% net gain will only apply to the housing and commercial elements of the Arc, any infrastructure will be exempt.

Furthermore, in order to have a proper impact, biodiversity net gain schemes need to be ambitious. The 10% net gain target that would be mandated through the Environment Bill is the minimum level assessed as required to achieve at least no net loss to biodiversity, however aiming for 10% may not even deliver a gain. It is also important that biodiversity and environmental gain habitats should be secured permanently, as the damage done through development and construction cannot be undone.

National Trust are actively engaged in responding to the Environment Bill, via the Wildlife and Countryside Link, to influence the thinking on this. In their response to the Greater Cambridgeshire Local Plan, they, alongside other organisations (Wildlife Trusts and RSPB) called for 20% net gain as part of this plan.

Although they are making these responses, National Trust's ambition is to create landscape-scale changes themselves and by working with partners. Funding large scale nature areas, specifically Wicken Fen and the 100-year vision to create a 53km² nature reserve, is where they see possibilities for contributing to the ambition of Natural Cambridgeshire to double nature in Cambridgeshire beyond any net gain requirements.

National Trust see net gain, at a basic level, as important in ensuring there is no net loss at a minimum. However, in Cambridgeshire, they see national capital investment planning as being a stronger route to doubling nature in Cambridgeshire.

Examples of what they've been doing

Pilot Natural Capital Accounts (Eftec, 2014) which they developed at Wimpole Hall. The pilot account considered a five-year time period, from 2008 to 2013. It produced (i) natural capital asset register; (ii) balance sheet; and (iii) statement of changes in net natural assets. It looked across food provision, wildlife, carbon storage and recreation.

Learning: The balance sheet demonstrated that the external value of the estate's natural assets is at least as great as the private value of the estate. The largest component of this external value is the sequestration of carbon and the increases arising from the switch to organic farming (this switch also served to reduce the maintenance liabilities). This finding was underpinned by the values assigned to carbon capture and hence the valuation is subject to the assumptions invoked, but regardless of this point the improvement was demonstrated. There are also increases in external value generated by improvements in wildlife and recreation.

They supported a different, but similar, approach at Wicken Fen which sought to look at a Toolkit for Ecosystem Service Site-based Assessment (TESSA) at sites of biodiversity conservation importance (K.S.-H. Peh et al. / Ecosystem Services 5 (2013) e51–e57). TESSA is designed to help users identify which ecosystem services to assess, what data is needed to measure them, which methods or sources might be used in different contexts, and how the results can then be communicated. Tessa is low cost and has the potential to empower local users and non-specialists to engage in ecosystem service assessments and inform management options which achieve biodiversity conservation whilst ensuring fair and equitable distribution of costs and benefits to people. The work of Peh et al showed that the value (\$) of ecosystem services from conservation state outweighed farmed state.

National Trust are part of a current **EU Interreg project called “FABulous Farmers”**. One of the partners in this project has developed the farmer friendly carbon calculator - <https://farmcarbontoolkit.org.uk/>. The Farm Carbon Cutting Toolkit (FCCT) has been used to assess carbon balance at Wimpole Hall.

Learning:

- Whilst being farmer friendly, it was also very detailed and involved gathering a huge amount of information to create a comprehensive account. This included things such as the individual number of trees on the estate, length of hedgerows, carbon emitted in the manufacture of tractors and the diesel required for journeys to/from work.
- It reaffirmed the link between nature friendly farming and climate smart agriculture. Their hedgerows and margins sequester 301mt of carbon per year, but also provide habitats for rare species of farmland birds, arable flora and over 500 different species of invertebrates on the arable land alone.
- Trees have a significant role to play at a farm scale, but the timing of harvest and use of timber produced is crucial in managing not only carbon emissions, but also the non-timber benefits of woodlands and forests.

- The livestock conversation is not as simple as red meat = bad. Livestock have a role to play in the carbon cycle and given the need for extensive grazing to realise biodiversity gains we need to keep this conversation live.
- We need more data on soil organic matter, this will take time to realise.

National Trust and EnTrade Riverland's Project.

EnTrade is an online platform for collaboration between clients and farmers or landowners, to deliver cost effective environmental outcomes and help improve the environment. Current clients include infrastructure providers, water companies, environmental NGOs, public bodies and place-based partnerships. Basically, it is an accessible and easy to use online trading system that offers farmers a new way to make money by selling environmental services to businesses. Schemes will benefit the client, farmer/landowner and the environment.

National Trust are working with EnTrade to run an online reverse auction trial in the upper Bure catchment area, Norfolk. They are linking with farmers and landowners to help improve water quality and water management. The project is being funded by National Trust as a trial, but is currently on hold due to the Covid-19 pandemic.

Learning so far:

- There is a strong appetite from the farming community and from land agents acting on behalf of landowners.
- There was a good take up of the scheme.
- It could fit with future ELMs as it is on a different scale and can be achieved alongside ELMs.

Working with businesses, investors and landowners

National Trust's main work has been on the Riverland's Project (above), which has generated a lot of interest from farmers and landowners. They have also begun early conversations with investors who may be seeking mutual benefits, these include the supply chain, supermarkets and water companies.

Comments on the development of a DNIP

The DNIP vehicle needs to be able to work at different scales. They're concerned that piecemeal change on small land parcels will not attract the investment needed, so it should be balanced with large-scale projects which could provide multiple benefits and get us closer to the doubling nature target.

Helen advises that, early on, we should avoid getting caught up in biodiversity net gain as the Environment Bill is likely to be delayed.

National Trust can see real benefits in having a county-wide DNIP. The opportunities are huge for a Cambs-based plan with so much investment potential on our doorstep. Though this would inevitably link into the wider OxCam arc.

The recent budget talked about setting up 4 Development Corporations across the Arc to address concerns about the number of LPA's involved. If this happens then collaboration of the 4 DC's could work well within the context of the OxCam arc. Work on the DNIP should take account of these Development Corporations.

National Trust have contributed to the work led by the Wildlife Trust and CPPF which identifies sizeable areas for nature (nature areas) including Wicken Fen. They would

like to see mechanisms which can bring delivery of these planned areas to fruition, as working at scale is going to continue to be important for nature. It could also yield greater opportunities for joined up investment linked to water and peat which necessarily needs to be thought of at the drainage unit rather than land parcel scale.

Their sense is that a national plan for delivery could be too unwieldy and could lead to damaging investments in Cambs being mitigated elsewhere where restoration could be less expensive or complicated. However, some strategic oversight could be beneficial at a regional/pan-regional scale, to provide monitoring to help regulate and audit and to enable lessons to be shared.

National Trust would very much like to be part of this DNIP group.

Royal Society for the Protection of Birds – Gwyn Williams, Head of Conservation Investment (national view) and Jack Rhodes (regional view).

Focus should be on achieving funding for nature – by whatever means, so RSPB has no current single focus, all options are open and are being considered.

Focus on water?

Working in Cambridgeshire and Arc-wide, you should focus upon water-related issues (flood defence, water quality, etc), as these could lead to higher potential funding levels than net gain. The EA are currently rethinking their future flood strategy for the Great Ouse, and Anglian Water are finalising their AMP7 plans so there are opportunities to design nature-based work programmes that could be co-funded by net gain. Links to minerals sector will also be important.

Clearly there are other important resources in the Arc, including chalk grassland, heathland and ancient woodland, but water is the thing that drives this landscape and holds it together – and this is not just flood risk management, but filtration for water supplies too.

Water is also a good focus because it is a key to creating an ecological network and achieving effective connectivity. Cambridgeshire's rivers, the Ouse and Nene washes could constitute large amounts of future spending from the EA, water companies, SUDs, IDB's or other bodies. There are also huge flood risk issues in Cambs, so it would be advisable to focus on this.

Upstream flood retention will be significant, this will have to be done in the near future and could create valuable spaces for nature. Flood retention reservoirs – every development has one, why not combine these and over-provide like in Cambourne?

RSPB's best estimate of the amount that could be generated by net gain is £200M per year across England – this is large but isn't transformative! Funding to alleviate water and flooding issues will be significantly more than this. For example, EA estimate that they have £1bn flood defence requirements in the Arc alone.

Natural capital

Natural capital accounting involves a lot of work and could prove to be a red herring. We need a nature recovery map and plan– shared, publicly owned and part of the environment bill. For example, in Cambs, restoration of the Fens is already the nature recovery priority regardless of natural capital or carbon accounting. This should be the role of the Local Nature Recovery Strategy once the Environment Bill passes - in the meantime it would be good to deliver something similar through the Greater Cambridge Local Plan and the Non-Statutory Spatial Framework. If you had a nature recovery map and plan you could borrow money in anticipation that section 106 funding would appear, the funding would be allocated according to this map and it would then pay back the loan.

You can work with businesses on their environmental impact, securing their supply chains, etc – but this doesn't require a natural capital accounting approach. Instead, you could follow the principles of asset flow and identify key benefits and needs like

the 3Keel LENS approach. For example, in Cambridgeshire there is a local crisp company which is growing its potatoes in peat. They have decided to 'retire' the peat and grow/source their potatoes elsewhere. This will help save the peat, but this peat might now have a high value on the carbon market.

The forthcoming Environment Bill will include conservation covenants – this could help secure net gain.

To succeed, we need:

- A coherent map of what good looks like
- Not everyone doing everything
- A common vision leading to a coherent whole

Money

Net gain money is small (insufficient on its own) compared to the money from development or funding to ensure a sustainable future for Cambridgeshire, for example flood protection. Ideally, we'd bring all the sources of funding together – like Defra blended finance.

Be aware that, especially in the OxCam arc, funding from net gain is directly related to development, i.e. no development/housing = no section 106 funded net gain. So, in relying upon section 106 net gain funding you are effectively supporting continued growth and development.

ELMS could be very helpful, especially if it links with conservation covenants, tax breaks or other incentives.

RSPB, and partners, have achieved great success with breeding Bitterns in the UK, increasing numbers from 11 booming males in 1997 to almost 200 in 2019. They did this by:

- Clear and effective leadership
- Clarity and quality of their plan. Which has strongly science-based, planned at scale, ambitious, had stretch targets but was grounded and achievable.
- It used identifiable money from EU Life nature, NLHF, EA, etc
- Involving local communities

The whole sector can learn from successes like this, for example you need to work at scale and make use of exemplars.

We might need to move away from valuing land by its agricultural value as forthcoming trade deals, including those with the USA, could prove to be damaging for our farmers whose produce may become too expensive and therefore uncompetitive. Options for farmers might include marketing produce as 'conservation grade', 'fair2nature' or we could adopt something similar to the French Appellation d'Origine Contrôlée certification system.

In future, land could be valued not just by agricultural value but also by its ecosystem services and/or natural capital value. Hopefully, ELMS will help us move towards this, for example the current Defra/RSPB/EnTrade Turtle Dove project which is an ELMS pilot scheme.

The investment and business sectors are not currently interested in the conservation sector, because most ecosystem services-related work will only give a 2-3% return which is not currently investible. However, net gain could help change this in Cambs - the question is how we design projects around net gain so that we draw the maximum possible investment into conservation - co-funding with flood defence grant-in-aid, etc.

Thinking about making investible models:

Conservation world – knows what to do for the environment, but can't access enough funding and needs to work on a larger scale.

Investment world – knows how to develop investable and profit-making products, and is interested in ethical opportunities.

Our role (RSPB and DNIP) is to liaise between these two and help them work together.

The Wildlife Trust for Bedfordshire, Cambridgeshire & Northamptonshire (WTBCN) – John Comont, Conservation Director, and Martin Baker, Conservation Manager: Cambridgeshire.

WTBCN are currently focused on biodiversity net gain instead of NCIP. They consider that net gain is more tangible, and they are more advanced in this work in Cambridgeshire than in the other two counties. They are working with the planning system and finding ways to benefit from the credit system from developments. 'A natural capital investment plan that's implemented by additional players, beyond the usual suspects, would be wonderful but seems far less certain'.

The fundamental focus of WTBCN is on natural habitats and species, which they don't view as being 'tradable' with other ecosystem services. They are concerned that the last remaining areas of good habitat, or populations of species, could be reduced if biodiversity is put on an equal level with other aspects of natural capital. For example, they don't want it to be possible to lose areas of irreplaceable habitat because a scheme proposes extensive new tree planting with a range of public uses which comes out of an equation as giving a net benefit. They think that some biodiversity elements need to be viewed as sacrosanct.

A focus of WTBCN, and many other Wildlife Trusts, is on developing Nature Recovery Networks <https://www.wildlifebcn.org/what-we-do/nature-recovery-network>. These will form the basis of nature recovery strategies which will identify the places where credits can be applied.

The WTBCN Nature Recovery Networks are in development, but currently have no external funding. They expect to be working with a wide range of partners to create nature recovery strategies to take forward these nature recovery networks. These strategies are in the Environment Bill at the moment and they would expect local government to have a significant role in creating them. Net gain and ELMS would be important delivery mechanisms. They are impressed with the Berkshire, Buckinghamshire and Oxfordshire Wildlife Trust (BBOWT) model and might consider working with them to give a six-county approach, including five of the OxCam Arc counties.

Their aim is to develop the Nature Recovery Networks and strategies and then focus on achieving funding for them through biodiversity net gain. They have their first project in the planning phase in Greater Cambridge where biodiversity mapping will lead to a pilot Nature Recovery Network. This work is being led by WTBCN and Cambridge Past, Present and Future, with funding from a private donor and additional support from Cambridge Ahead.

The main problem going forwards is likely to be the availability of land for habitat creation and development projects. They will need to work closely with landowners, farmers and land agents. ELMS could prove helpful and they are waiting for more detail.

Another issue is that WTBCN are focussing upon ecological, as opposed to natural capital, maps but are concerned that much of the data is now quite old and needs

revising. An accurate baseline is required if we are to measure progress against the county's 'doubling nature' vision.

The WTBCN would be keen to work closely with the proposed DNIP or a similar funding vehicle within Cambridgeshire.

Wildfowl & Wetlands Trust – Matt York, Head of Project Development.

WWT are actively exploring this area but are yet to decide on their future strategy. They are national, and international, wetlands experts and consider that they would be well placed to be the organisation to go to for utilising net gain credits in wetlands. They want to develop the right type of wetlands in the right places and to do this, in part, by using net gain credits.

Their current thinking is that they will explore a range of options, including:

- they will work specifically on wetlands
- they will work nationally
- examining brokerage systems to use net gain credits to develop wetlands
- offering consultancy services to design appropriate net gain wetlands
- running their own schemes to provide biodiversity improvements on theirs, or others, land, including habitat creation and management
- looking for opportunities on their existing sites, e.g. Bank Farm (a 60ha section of Lady Fen) at WWT Welney.

They might consider setting up a national wetland credit scheme, or develop more regional projects based around their WWT centres, for example WWT Welney in the Fens.

WWT consider that biodiversity net gain is an important way to fund work in the natural environment, but biodiversity net gain credits need to be kept separate in planning terms so that they aren't double counted. We need to make sure that any habitat created is in addition to compensation habitat and not negatively impacted by any green space requirements. So, if you are looking for 10% biodiversity net gain, then that has to be 10% biodiversity net gain, plus any biodiversity mitigation and plus either separate green space requirements or taking into account the ecological impact of any greenspace requirements that occur near to the land identified for biodiversity net gain. This doesn't mean that a larger scheme couldn't be funded from multiple sources.

Natural Cambridgeshire or the DNIP could be one way to manage Cambridgeshire's biodiversity net gain credits.

WWT are keen to work in partnerships with others and would be interested in working with the proposed DNIP or a similar funding organisation within Cambridgeshire.

Appendix D: Glossary

This glossary presents definitions of a number of terms referred to within this report.

Term	Technical definition	Non-technical definition
Biodiversity	A contraction of biological diversity. The variability among living organisms from all sources, including terrestrial, marine, and other aquatic ecosystems and the ecological complexes of which they are part. Biodiversity includes diversity within species, between species, and between ecosystems.	Biodiversity is the variety of life found in a place on Earth or, often, the total variety of life on Earth. Biodiversity includes all living organisms, such as plants, animals and microorganisms.
Blended (Hybrid) funding or finance	A way to pull together finance from a number of different sources for a given project or programme. Sources should have different risk and return expectations in order to balance each other. Blended finance provides flexible funds to facilitate project development and reduce the risk of investment, thereby encouraging capital and knowledge flow from more risk-averse investors to develop the market.	
Ecosystem	A dynamic complex of plant, animal, and microorganism communities and their non-living environment interacting as a functional unit.	Communities of plants, animals and microorganisms and the environment they live in.
Ecosystem services	The benefits people obtain from ecosystems. These include provisioning services such as food and water; regulating services such as flood and disease control; cultural services such as spiritual, recreational, and cultural benefits; and supporting services such as nutrient cycling that maintain the conditions for life on earth. The concept “ecosystem goods and services” is synonymous with ecosystem services. The benefits provided by ecosystems that	A way of describing and understanding the benefits we get from nature. Ecosystem services are grouped into 4 categories: provisioning services such as food and water; regulating services such as flood and disease control; cultural services such as spiritual, recreational, and cultural benefits; and supporting services such

	contribute to making human life both possible and worth living.	as nutrient cycling that maintain the conditions for life on earth.
Ecosystem services assessment	A social process through which the findings of science concerning the causes of ecosystem change, their consequences for human wellbeing, and management and policy options are brought to bear on the needs of decision-makers.	A common way of understanding and describing the benefits we get from nature and how humans interact with and impact on our natural resources. This information can then be used in our decision making to enable us to better protect these resources.
Local natural capital plans	As part of implementing the 25 Year Environment Plan the government is developing its approach to natural capital planning. Part of this approach will involve the production of local natural capital plans. Natural capital plans will be locally produced and aligned with the 25 Year Environment Plan (ensuring a clear line of sight to national government) but be particularly relevant to the local area or geographies within them. How these plans will be developed is being trialled, the first LNCP pilot is in the OXCAM growth Arc.	
Multiple benefits	An approach, strategy or plan which identifies and covers multiple natural capital and/or ecosystem services benefits. Including biodiversity, carbon, water and air quality, reducing flood risk, access to green space, leisure, health and wellbeing.	
Natural capital	The elements of nature that directly or indirectly produce value to people, including ecosystems, species, freshwater, land, minerals, the air and oceans, as well as natural processes and functions.	Natural resources and their supporting processes (e.g. the water cycle) that people value and benefit from. Includes things like plants and animals and their habitats, freshwater,

		land, minerals, the air and oceans. Referred to as 'natural capital assets'.
Natural capital accounts	A calculation and record of the stocks and flows of environmental assets in a given area or ecosystem, using physical and/or monetary terms.	A way of recording the current amount and condition (stock) of our natural resources that allows us to see if they are improving or declining. It can be thought of as a kind of balance sheet where we look at the changes in our natural resource. The accounts can be produced in different ways. They can; describe and compare the importance of natural resources and processes, they can be a physical measure our natural resources and processes or a summary of some of the monetary values of the natural environment.
Natural capital approach	A means for identifying and quantifying natural resources and associated ecosystem goods and services that can help integrate ecosystem-oriented management with economic decision-making and development. By integrating economic and environmental imperatives, NCA operationalises the ecosystem approach and facilitates policy-making for sustainable development.	A way of describing, quantifying and valuing our natural resources and the benefits they bring to people to aid decision making. By taking a natural capital approach we take nature into account when making policies and decisions that can affect the environment.
Natural capital investment strategy and plan	Strategies and plans that promote investment and delivery of opportunities that protect and enhance natural capital to support a healthy population and economy.	

Natural capital metrics	<p>Quantitative measure of an indicator, including the units used.</p> <p>Environmental datasets that can be used to define measures of natural capital.</p>	Measurements of different aspects of the environment and the way we manage and use it.
Natural capital asset register	<p>An inventory of the natural capital assets in an area, and their condition. For example, woodland could be defined by its type (plantation, mixed, deciduous), its area, quality (e.g. age, rotation, wildlife species and population, quality of run-off waters) and distribution. For wildlife sites the condition may be measured by the ecosystem type (e.g. wetland, mixed woodland) and should record the number of species present, perhaps focusing on key types such as fungi, plants, insects, birds.</p>	A snapshot of natural resource in a given area (can be at local, catchment, national or international scales) and how they are distributed.
Natural capital risk assessment	<p>A risk assessment that considers the pressures acting on the natural environment now, and in the future, and how the decisions and actions being considered can affect natural capital assets.</p>	
Nature based solutions	<p>Actions or measures that use or mimic natural processes and resources to manage and improve natural capital assets.</p>	
Net gain - biodiversity	<p>Measurable improvement in biodiversity following an activity after all significant positive and negative impacts have been taken into account.</p>	
Net gain - environmental	<p>Measurable improvements in the environment following an activity after all significant positive and negative impacts have been taken into account.</p> <p>Environmental net gain takes into account a wider range of environmental impacts than</p>	

	biodiversity net gain and considers impacts on the capacity of natural capital to deliver ecosystem services. The full scope of environmental net gain is still to be set. Examples of what may be included are; carbon storage and sequestration, water purification and recharge, and flood water regulation.	
Net gain – natural capital	Similar to environmental net gain. It is a measurable improvement in natural capital assets following an activity after all significant positive and negative impacts have been taken into account.	

Terms adapted from the Environment Agency Natural Capital Glossary.