Why did we undertake a review?

The OxCam LNCP project was conceived to develop a local natural capital plan (LNCP) for the Oxford to Cambridge (OxCam) Arc in order to support environmental protection and enhancement as part of the planned growth and investment within that area. Within the 25 Year Environment Plan, the government committed to LNCPs, with the aim of embedding natural capital thinking into growth plans. However there was no detailed framework for what these should encompass, aside from setting out that they should be locally owned and co-designed strategic place-based plans that provide a mechanism to prioritise environmental improvements, ensure effective coordination of planning & delivery and stimulate investment.

The first phase of our project was centred on stakeholder engagement across the many sectors that would power and use a local natural capital plan to determine what approach we should take. Natural Capital planning is a new and developing area and it became apparent from initial conversations with stakeholders and experts that a number of approaches were being taken forward in the OxCam Arc already as well as elsewhere, and there was no single recognised approach to taking forward a project like this. Therefore we commissioned **independent specialists** to undertake a **review into the best approaches and tools for local natural capital planning.**

The aim of the Review was to help, alongside our continuing stakeholder engagement, create a roadmap for the steps to take when developing and implementing a LNCP for the OxCam Arc. It was specific around the objectives for our situation, being focused on user needs, cross boundary working and covering a wide geographical area.

A secondary aim of the OxCam LNCP project is to provide a scalable and replicable framework for local natural capital plans elsewhere. Although this review alone doesn't deliver this, it does provide key steps and elements that will support the creation of local natural capital plans elsewhere.

Although Natural Capital approaches are in their infancy in adoption, there are many emerging tools, toolkits and guides. The review has considered as many of these as possible – starting with the most relevant at the time. Our review can be seen as another piece of supporting information that works with and supports the newly launched **Defra Enabling Natural Capital Approaches (ENCA) toolkit**. The ENCA tool is an overarching reference hub to support those who want to know more about natural capital and environmental valuation, and review all aspects of the approach**.** There is currently guidance on place based application of natural capital, and we will work to add in our findings to this section, adding considerations for cross boundary, and multi-county, working. The tool reviews in our document and ENCA's, both show the wide range of tools available, and both highlight that defining your objectives and circumstances will help guide which tool(s) and approach(s) will work best for you.
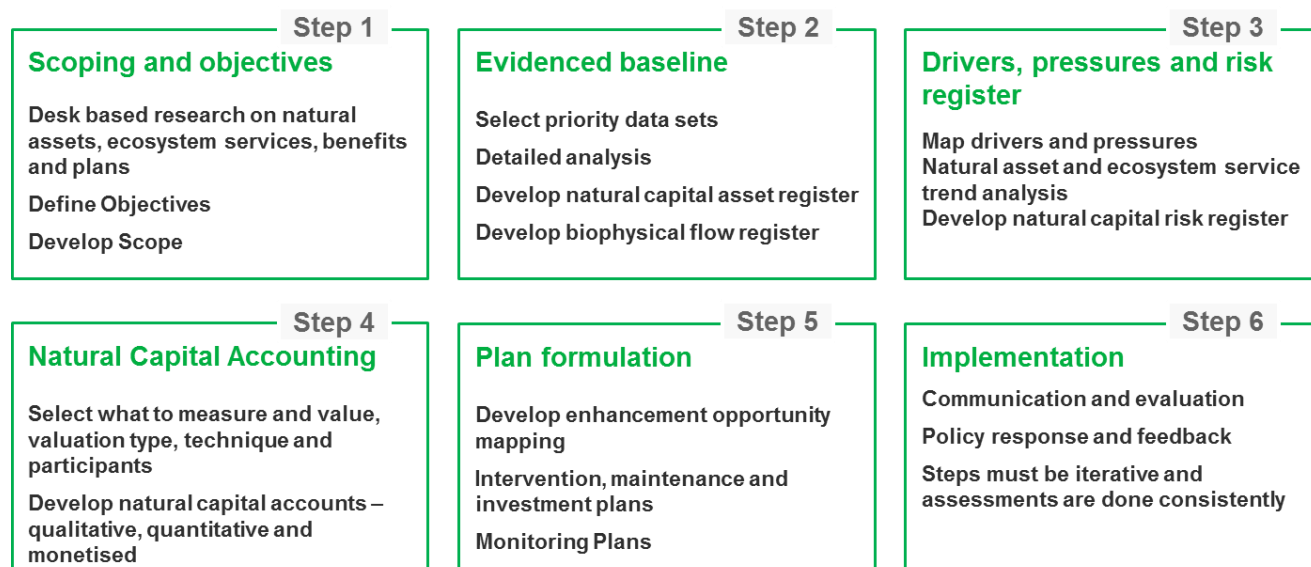
How was the review undertaken?

We contracted an independent specialist, Jacobs, to undertake the review. We wanted to ensure we had, as best as we could, an independent and extensive review of approaches already in use both within the OxCam Arc and beyond, with specific focus on the pro's and con's of those approaches in relation to our objectives and project parameters. The review looked at over 80 different natural capital approaches and tools. The LNCP Technical Group, of experts from across consultancies, universities and government bodies, steered and inputted into the review through a workshop and individual conversations. Throughout the review, the LNCP team fed in outputs from our user workshops and our continued stakeholder engagement. In addition, towards the end of the project the first draft of the findings went through a peer review panel of experts from Defra, Environment Agency, Natural England and the Forestry Commission. This ensured that the review remained on-brief and related to the intended use and adoption of the OxCam LNCP, as well as wider applicability.

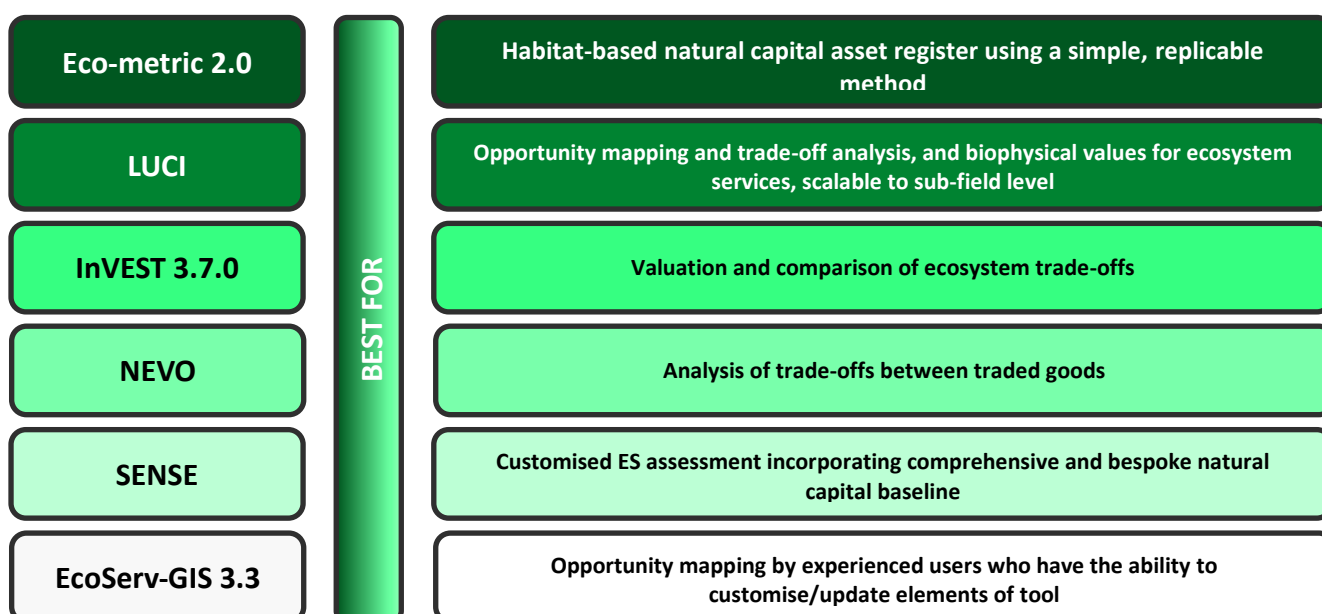### What does the review tell us - how will it inform our work?

The full report is extensive and outlines all the findings in detail, however the key points are outlined below:

- We should **follow a six step** approach to developing and delivering a local natural capital plan for the OxCam Arc. This simple outline is shown on the next page and gives us a clear framework to structure guidance and products around.

Step 1	**Step 2**	**Step 3**
Scoping and objectives	**Evidenced baseline**	**Drivers, pressures and risk register**
Desk based research on natural assets, ecosystem services, benefits and plans	Select priority data sets	Map drivers and pressures
Define Objectives	Detailed analysis	Natural asset and ecosystem service trend analysis
Develop Scope	Develop natural capital asset register	Develop natural capital risk register
	Develop biophysical flow register	
Step 4	**Step 5**	**Step 6**
Natural Capital Accounting	**Plan formulation**	**Implementation**
Select what to measure and value, valuation type, technique and participants	Develop enhancement opportunity mapping	Communication and evaluation
Develop natural capital accounts – qualitative, quantitative and monetised	Intervention, maintenance and investment plans	Policy response and feedback
	Monitoring Plans	Steps must be iterative and assessments are done consistently

The six step approach to developing an LNCP and all the elements within each step

- The Natural Capital Approaches and Tools Review has made a recommendation that the **LNCP should use a matrix based tool with inherent logic evidence chains to determine ecosystem services** from the spatial asset database. Other tools are likely to be best for a more detailed analysis, however the review demonstrates that employing a simpler tool at this stage can support decision making on any follow-up approaches. It also identifies which tools are most useful in different circumstances - as shown below in this simple diagram.

Tool	BEST FOR	
Eco-metric 2.0		Habitat-based natural capital asset register using a simple, replicable method
LUCI		Opportunity mapping and trade-off analysis, and biophysical values for ecosystem services, scalable to sub-field level
InVEST 3.7.0		Valuation and comparison of ecosystem trade-offs
NEVO		Analysis of trade-offs between traded goods
SENSE		Customised ES assessment incorporating comprehensive and bespoke natural capital baseline
EcoServ-GIS 3.3		Opportunity mapping by experienced users who have the ability to customise/update elements of tool

- A 'Participatory Deliberative Approach' was also recommended to engage and involve stakeholders throughout the stages of work. This recommendation supports our existing **co-design and development approach**, and our continuous stakeholder engagement - something we will continue to do and advocate as we develop the LNCP.

What next - how are we taking the recommendations forward?

Overarching guidance and frameworks

The overarching six step approach has provided a clear framework for working and developing LNCPs that we will use to support communications and embedding. We are looking at developing interactive guidance and support that helps various users in building an approach by reviewing the steps in line with their objectives. We are also looking at how this can overlay on existing processes, for example the National Planning Policy Framework or a general planning cycle, to aid understanding and adoption. We hope, if we have capacity, to produce and an easy to understand step by step guide which will support others in future to develop their own LNCPs, and provide a framework for approaching LNCPs overall.

Supporting delivery - mitigating gaps

It is clear from the review that we cannot fully include some aspects of the recommended steps in our scope of this phase of the project due to timing - e.g. trade-off and scenario analysis. Where we are unable to meet specific aspects of the recommended approach, we have a clearer view of how to **mitigate this gap** and where our future work should focus. For example, in terms of recommendations for asset and risk registers, we will be looking at broad risks and issues on an OxCam Arc scale and will provide recommendations and information on this aspect for those working at a smaller scale.

Supporting delivery – deciding approaches

We have decided to use a matrix based approach to map the Arc's ecosystem services, as recommended by the Review.

This preferred approach is based on that used by the Eco-metric tool, a site-based ecosystem services scoring tool developed by Natural England and University of Oxford. This tool has been developed in consultation with a range of experts in ecosystem services and is transparent about the underpinning methodology and evidence. The scoring matrix used has been applied at a landscape scale by Dr. Alison Smith at Oxford University's Environmental Change Institute to provide high level indicative ecosystem services mapping. We are exploring working with Alison to produce a map for the OxCam Arc. By proceeding with this approach, we will be able to test the use of the Eco-metric scoring matrix to provide landscape-scale ecosystem services maps and will be using an approach and scoring system that will be openly available from Autumn 2020 (when a beta version of the tool will be launched), whilst also being replicable and easy to apply in other locations.

Want to know more or get in touch?

Should you want to know more, or get in touch about the review please send an email to OxCamLNCP@environment-agency.gov.uk.

Disclaimer

This is not an exhaustive list of tools and approaches. If a tool is not listed here, it does not mean it is not appropriate for use in appraisal or analysis. The LNCP does not endorse how you use these tools with respect to your specific circumstances. It is your responsibility to assess the appropriateness of the tools you use, and to apply them to appraisal and analysis. The commentary provided against individual references aims to support this judgement. You must exercise your own judgement about the relevance and robustness of any particular tool, whether or not it is included in our review