

Topic Paper 6

Securing Nature's Benefits: The Role of the Oxfordshire Plan 2050

February 2019

Purpose

1. The purpose of this Topic Paper is to provide background information on the subject of Securing Nature's Benefits in relation to the development of the Oxfordshire Plan 2050. Further versions of these Topic Papers may be produced at later stages in the Plan making process.

A Vision for Oxfordshire's Environment in 2050

2. Oxfordshire's Strategic Environmental and Economic Investment Plan (OxLEP, 2015) sets out a vision for Oxfordshire to benefit from a high-quality, resilient environment which supports economic growth, development, health, wellbeing and prosperity for all. This is to be achieved by an innovative, efficient environmental sector working together with other public and private sector partners to:

- Attract and deliver investment in the county
- Ensure sustainable, long-term stewardship of natural capital assets
- Develop new and improved environmental knowledge, goods and services

3. This high-quality environment will be a place where beautiful landscapes, rich in nature are integral to people's lives.

Introduction

4. Oxfordshire's plants, wildlife, soils, air and water - its natural capital - provide a wide range of goods and services that together with the social and economic assets of the county will underpin future success for our residents, communities and businesses¹.

5. The Oxfordshire Plan 2050 has the potential to enhance the quality of Oxfordshire's environment through careful forward planning that provides benefits from a range of environmental goods and services. Some of the key assets within the county include the three Areas of Outstanding Natural Beauty (AONB), the River Thames, its tributaries and river corridors, nature reserves, important habitats and urban parks and green spaces. Together

¹ The ecological processes and the resources they [natural capital] provide can be expressed in terms of goods and services. Ecosystem processes can be considered value-neutral, whilst their goods and services are considered to have a value to society. Ref Joint Nature Conservation Committee, 2014 <http://jncc.defra.gov.uk/default.aspx?page=6382>

these provide vital goods and services, including wildlife, clean air, fresh water, surface water management, flood alleviation, food and forestry products, carbon capture and storage. They are also the setting for the city of Oxford and the county's towns and villages, and places for leisure and recreation. The River Thames is navigable along much of its length in the county and is an important recreational resource. There is a strong link between achieving good environmental outcomes and improving the physical and mental health and well-being of residents and visitors.

6. By considering environmental issues and opportunities at an early stage the Oxfordshire Plan 2050 could identify the spatial and investment needs to maintain and enhance a high-quality natural environment.

National policy context

7. The UK Government set out its long term environmental ambitions in A Green Future: Our 25 Year Plan to Improve the Environment² which recognises the natural environment as *"our most precious inheritance"*. The goals of the 25 Year Plan are simply put as *"cleaner air and water; plants and animals which are thriving; and a cleaner, greener country for us all."*

8. The National Planning Policy Framework (NPPF)³ sets out the Government's planning policies for England and how these should be applied. The policies contribute to the achievement of sustainable development. The objective of sustainable development is summarised in the NPPF as *"meeting the needs of the present without compromising the ability of future generations to meet their own needs."*

9. The three overarching objectives within the NPPF - economic, social and environmental - are to be pursued in mutually supportive ways. The environmental objective is *"...to contribute to protecting and enhancing our natural, built and historic environment; including making effective use of land, helping to improve biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy"*.

10. Within the NPPF there are a number of areas that are directly relevant to Oxfordshire's natural environment. These include sections on making effective use of land, biodiversity, the protection of landscapes, climate change and flood regulation all of which are likely to have a direct bearing on the place shaping and spatial aspects of the Oxfordshire Plan 2050.

11. The supply, quality and regulation of water in the county is a key environmental service. Oxfordshire's rivers, river corridors and wetlands are a vital environmental asset providing important environmental connectivity across the county. Policies and legislation for the protection of inland surface waters and groundwater are derived from the Water Framework Directive (WFD). The framework for delivering the Directive is through River Basin

² [A Green Future: Our 25 Year Plan to Improve the Environment](#) (Jan 2018) DEFRA

³ [NPPF](#) (July 2018) MHCLG

Management Planning. Oxfordshire lies within the Thames River Basin District, within which there are five catchments- Thame, Ock, Windrush, Evenlode, Cherwell, Ray and South Chilterns.

Local policy context

12. Local authorities seek to deliver environmental objectives through their local planning documents. Whilst Oxfordshire authorities' current Local Plans are at different stages of development, they contain policies that seek:

- the protection and enhancement of environmental assets e.g. sites of biodiversity and geodiversity value, agricultural soils, landscape quality in both urban and rural areas, green infrastructure, and water resources.
- to ensure development does not harm the existing regulation of environmental benefits for example by reducing air quality, polluting water courses and groundwater and achieve environmental gains for example through the remediation of contaminated land.
- to avoid a net loss in biodiversity and, where possible, achieve net gain, policies that seek developer contributions where these gains cannot be provided as part of the development.
- that consider the potential impacts of climate change and the measures that could be taken to mitigate and adapt to forecast changes.

13. There is a wide range of supplementary information produced by the local authorities that provides further detail on local environmental needs and opportunities. These include audits of open space, green infrastructure strategies⁴, design guides and landscape assessments.

14. The County Council does not have the same role as the districts and city councils in terms of Local Plan production. Key environmental policies are contained within the Minerals and Waste Core Strategy - Part 1⁵ and Connecting Oxfordshire: Oxfordshire's Local Transport Plan for 2015 - 2031⁶ which incorporates relevant information in the Active and Healthy Travel Strategy⁷ and, cycling and walking design standards. The statutory Oxfordshire Rights of Way Management Plan 2015-2025 identifies opportunities to improve access and includes strong links to green infrastructure and biodiversity. As with the Local Plans these policies seek to protect existing environmental assets and services and enhance them where possible. County-wide landscape and biodiversity guidance is given in the Oxfordshire Wildlife and Landscape

⁴ Green infrastructure refers to the network of multi-functional green and blue space, urban and rural, which is capable of delivering a wide range of environmental and quality of life benefits for local communities. Green infrastructure assets are part of the county's natural capital.

⁵ [Minerals and Waste Core Strategy Part 1](#) (Sep 2017) Oxfordshire County Council

⁶ [Connecting Oxfordshire: Local Transport Plan 2015-2031](#) (Oct 2015) Oxfordshire County Council

⁷ [Active Healthy Travel Strategy](#) Oxfordshire County Council

Strategy⁸. The link between the natural environment, health and wellbeing is reinforced in the county council's emerging Oxfordshire Joint Health and Wellbeing Strategy⁹.

15. The Chilterns¹⁰ and Cotswolds Conservation Boards¹¹ and North Wessex Downs AONB Partnership¹² produce management plans and associated guidance. The management plans are statutory documents which set out policies for achieving the primary purpose of conserving and enhancing the natural beauty of each AONB, and other responsibilities that fall to each Conservation Board / Partnership. Local authorities and other public bodies and holders of public office have a legal 'duty of regard' to consider the purposes of the AONB designation and the management plans.

New Ways to Consider Environmental Services

16. The techniques to assess whether development results in a gain or loss to the environment are developing rapidly. To date these have tended to focus on biodiversity. There is merit in this approach as the environmental improvements to provide a gain in biodiversity are often associated with gains in other environmental services. There is an increasing body of expertise and guidance which looks at the wider range of environmental services, their gains and losses in more detail. The Oxfordshire Plan 2050 could provide a good opportunity to look more roundly at the full range of environmental services and how best to maximise the benefits they bring.

Oxfordshire's Environmental Assets

17. Oxfordshire has an attractive and diverse landscape, both built and natural. The diverse geology, criss-crossed by eight river systems, gives the county a gentle, yet complex landscape that supports productive farmland and a variety of habitats including grasslands, woodlands, fens and meadows.

18. Many parts of the county are protected at national and international level for their nature conservation and landscape value. The three Areas of Outstanding Natural Beauty (AONB) - the Chilterns, Cotswolds and the North Wessex Downs which have the same level of landscape protection as National Parks. Together they cover 668km², approximately 25% of the land in the county, an area broadly equivalent to Exmoor and greater than the New Forest National Parks.

19. Oxfordshire has 7 Special Areas of Conservation (SAC) that fall partly or entirely within the county. Sites of Special Scientific Interest (SSSI) are protected at national level as representative of the country's best habitats. There are 111 SSSIs in Oxfordshire, covering 4,012

⁸ [Oxfordshire Wildlife and Landscape Strategy](#) (2004) Oxfordshire County Council, Natural England and The Earth Trust

⁹ [Draft Oxfordshire Joint Health and Wellbeing Strategy 2018-2023](#) (Nov 2018) Oxfordshire Clinical Commissioning Group & Oxfordshire County Council

¹⁰ [Chilterns Area of Outstanding Natural Beauty Plan 2014-19](#) Chilterns Conservation Board

¹¹ [Cotswold AONB Management Plan 2018-2023](#) (Sep 2018) Cotswold Conservation Board

¹² [North Wessex AONB Management Plan 2014-2019](#), North Wessex Downs AONB Partnership

ha. These sites are strongly protected at national level and in Local Plans. There are many other important sites identified for their ecological and geological interest including 362 Local Wildlife Sites and 46 Local Geological Sites. The State of Nature in Oxfordshire 2017¹³ report provides a comprehensive review of the current position and trends. The locations of key environmental assets are indicated in Figure 1.

20. The figure below is taken from State of Nature in Oxfordshire 2017. It shows the main strategic landscape, wildlife sites and river corridors. These overlay the agricultural land which is not referenced specifically.

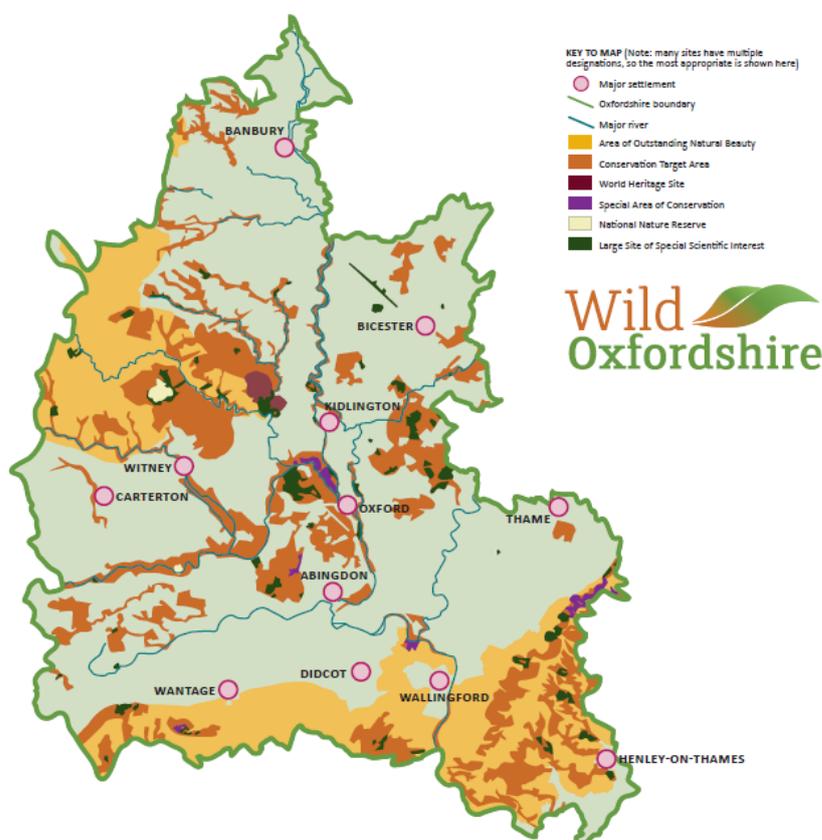


Figure 1: Picturing Oxfordshire's natural environment (Image reproduced with the permission of Wild Oxfordshire. © Wild Oxfordshire 2017)

21. Strategic, Conservation Target Areas (CTAs) have been defined within the county and these provide a focus for delivery of significant ecological enhancements in the plan period to 2050. The CTAs cover 20% of Oxfordshire by area and together hold 95% of the SSSI land in the county.

¹³ [State of Nature in Oxfordshire 2017](#) (2017) Wild Oxfordshire

22. Farmland accounts for 74% of Oxfordshire’s land cover, of which 56% is under cereals farming and 30% under livestock grazing (NFU, 2014 / State of Nature 2017). Managing farmland sensitively helps to maintain its productivity, combat habitat fragmentation, provides links between protected sites and creates a more resilient landscape that can deliver a wide range of environmental, economic and social benefits.

23. There is a strong link between the natural environment and the health and well-being of people in Oxfordshire. Investment in the county’s green infrastructure is likely to generate positive outcomes for individuals and communities including through improved air and water quality, providing accessible nature green space, enhancing opportunities for walking and cycling, increasing interactions with nature and reducing the effects of noise. However, the extent and condition of many of our environmental assets have been declining over the course of decades, resulting in major challenges including air and water pollution, land contamination, fragmentation of habitats and a decline in biodiversity.

Challenges for the Oxfordshire Plan

24. Many factors interact to determine what environmental goods and services are delivered and where. The Oxfordshire Plan 2050 provides an opportunity to consider in detail what type and level of provision we want in the future, and importantly, what level of investment we need and where, in order to achieve the best outcomes.

25. Not all aspects of environmental services will fall easily within the remit of the Oxfordshire Plan 2050. For example, food production is likely to be more responsive to market forces and whatever new agri-environmental funding regime is in place in the future; whilst minerals planning will be the focus of the county Minerals and Waste Strategy. Minerals planning is not within the scope of the Oxfordshire Plan 2050.

26. It is also important to note that many environmental benefits are influenced by factors far beyond local or even national control. The effects of a changing climate are likely to be felt across many of the environmental services during the plan period and the Oxfordshire Plan 2050 could usefully consider how to adapt to and, where possible, help mitigate these changes.

27. Areas where the Oxfordshire Plan 2050 could make a significant impact in the delivery of environmental services and benefits are highlighted in Table 1. This should not be read as implying that some are more important than others, only that they might be better dealt with at a national level or through other mechanisms.

Table 1: Informal review of the impact of OP2050 on Environmental Goods and Services

Environmental Services & Benefits	Possible impacts or opportunities from OP2050	Ability for OP2050 to influence
Food and timber production	Potential minor negative impact from direct loss of farmland and woodland through development.	Low

	<p>Potential minor positive impacts from local food growing on allotments.</p> <p>Limited scope for OP2050 to influence.</p>	
Materials supply	<p>Potential impacts due to increases for the demand for quarried materials supplied from sites in the county. These could be both positive and negative depending on the restoration proposals.</p>	Medium
Water resource management - supply and water quality.	<p>Potential significant impacts from increased demand for potable water and water quality issues arising from new development and transport schemes. Potential for indirect ecological impacts on important wildlife habitats</p>	High
Carbon storage and sequestration	<p>An effective carbon capture and storage policy would require national and international action. There is some minor potential for carbon sequestration through planting associated with new developments.</p>	Low
Air quality regulation	<p>Impacts on local air quality on human health and wellbeing. Impacts on sensitive habitats from increased pollution.</p>	High
Erosion protection	<p>Limited impacts (the majority of erosion relates to agricultural land use practices).</p>	Low
Flood regulation	<p>Some opportunities for OP2050 to influence land use and plan for strategic habitat creation in wetlands and flood plains.</p>	High
Pollination	<p>Limited Impacts - relates mainly to crop pollination. However, OP2050 has the potential to have a beneficial impact through strategic policies for</p>	Medium

	the creation of new Green Infrastructure and wildlife habitats.	
Pest control	Limited impacts, relates mainly to crop pests, OP2050 policies unlikely to influence this.	Low
Local climate regulation	Limited potential through policies on design of new settlements and tree planting.	High
Recreation and access to nature	Potential significant impact from increases in population. Direct and indirect impacts on important habitats and species. Link to physical and mental health. Need to plan for new strategic green infrastructure assets in new developments through OP2050.	High
Aesthetic value / Sense of place	Potential significant impact from landscape change and population increase. Link to wellbeing.	High

Potential considerations for the Oxfordshire Plan 2050

28. To deliver improvements in environmental quality there are a number of issues that the Oxfordshire Plan could consider:

- Protect and enhance Oxfordshire’s key landscapes, landscape settings, views and heritage features.
- Protect, enhance, expand and link key wildlife areas to achieve a measurable net gain in biodiversity and other environmental services, avoiding further fragmentation.
- Deliver new and enhanced green infrastructure assets to meet the needs of the expanding population in locations and ways that deliver multiple benefits, including for biodiversity, flood risk, air quality and climate change and, contribute to improvements in the physical and mental health and wellbeing of Oxfordshire’s residents and visitors.
- Growing the green investment economy in Oxfordshire to support the provision of more and better environmental services.

29. Below are approaches that could deliver these improvements some of which may go beyond the scope of the Oxfordshire Plan:

- Setting a clear target for environmental net gain in Oxfordshire and the extent to which this could be delivered by future development. New tools are being developed by

DEFRA and others to assess what the existing environmental provision is, what the consequence of development is in terms of the gains and losses expected, and the best means to achieve environmental improvement both within the development boundary and where necessary outside it.

- Development of funding mechanisms linked directly to growth to deliver and secure the long-term maintenance of new green infrastructure assets.
- Strategic green infrastructure allocations for each district located to maximise environmental gains in the areas most impacted by growth (e.g. new Country Parks, environmental investment areas) and secure county-wide benefits from improvements in connectivity of green infrastructure.
- A catchment-level approach to the management of water resources including achieving improvements in water quality and the use of natural flood management techniques to manage water flows.
- A strategic approach to the remediation of contaminated land through the development process.
- A programme of environmental improvements directed at improving the physical and mental health and wellbeing of Oxfordshire's residents and visitors.
- Maintaining close links and integrating with wider environmental investment opportunities such as the Oxford-Milton Keynes-Cambridge Growth Arc.
- A plan, in association with the local economic development strategy, to better understand the character and value of environmental services that benefit the county and to build the green economy in a way that capitalises on the county's unique collection of environmental expertise and environmental assets.
- A robust and properly funded plan to monitor the effectiveness of environmental interventions with a view to informing future activity.