

Cotswold District Local Plan 2018 – 2031 Update

Town and Country Planning (Local Planning) Regulations 2012

Regulation 18 “Issues and Options” consultation/participation

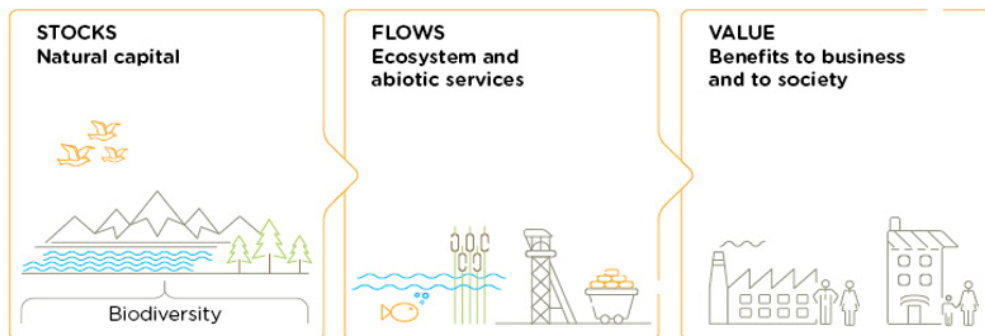
Evidence Paper: Natural Capital and Ecosystem Services

I. Introduction

I.1 Natural capital is defined by the [Natural Capital Forum](#) as:

“The world’s stocks of natural assets which include geology, soil, air, water and all living things”.¹ It is from this natural capital that humans derive a wide range of services, often called ecosystem services, which make human life possible.”

What is 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 Capital Committee

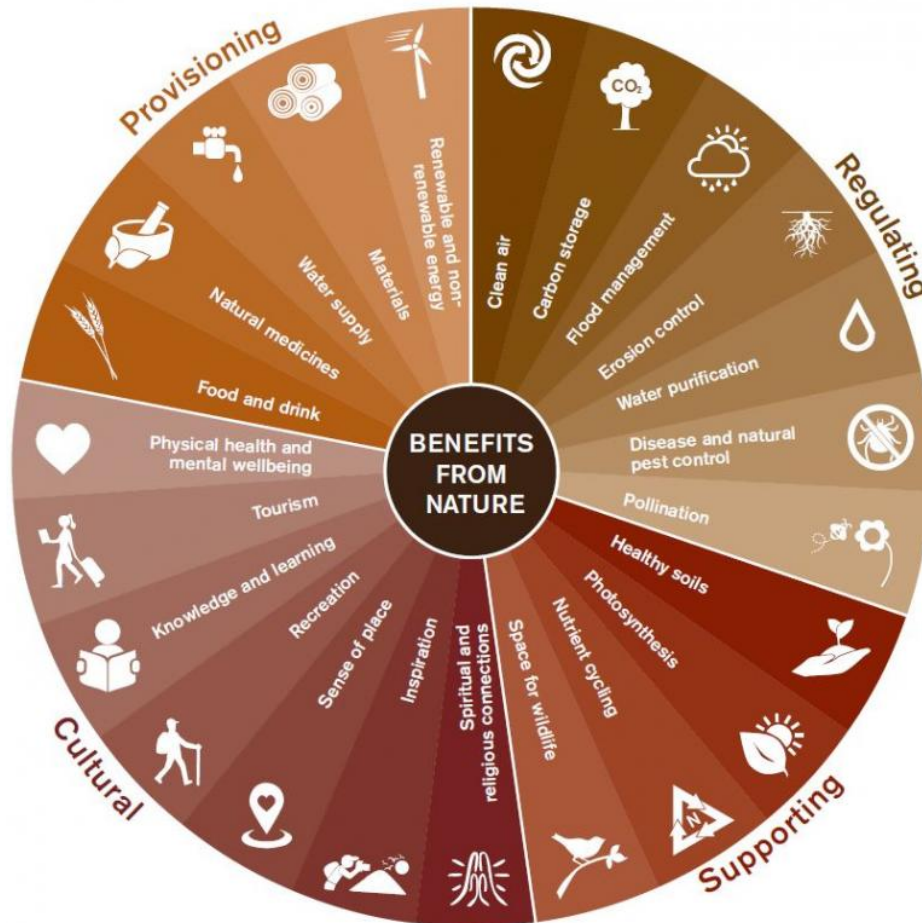
I.2 There is a wide range of ecosystem services derived from our natural environment, which have been grouped together by the [UK National Ecosystem Assessment](#) into four main categories:

- Supporting services: Processes that are essential for healthy functioning ecosystems. As such, they are essential for the production of all other services.
- Provisioning services: Tangible things that can be obtained from ecosystems that meet human needs.
- Regulating services: The benefits obtained from the processes that regulate the natural environment

¹ <https://naturalcapitalforum.com/>

- Cultural services: The non-material benefits people obtain from the natural environment.

I.3 These services in turn provide benefits for people.



Source: [Nature Scot](#)

Natural Capital Accounting

I.4 Some assessments have used a natural capital approach to apply a financial value to the natural environment and the benefits it provides to people, although this approach is not without its dissenters and there are issues with ascribing financial value to intangible issues, such as "space for wildlife". However, giving a monetary value to the natural environment may ensure that nature, and the benefits that it brings are taken more seriously in decision making, giving them a level playing field with other economic benefits. Natural capital accounting encourages systematic and transparent thinking about the wider consequences of environmental decision making. It will only ever be able to present part of the natural capital story with monetary figures. The rest must be described in words and ensure these descriptions are given equal standing to any figures.

I.5 There are a number of natural capital accounting tools. The Environment Agency has developed a Natural Capital Register and Account Tool. All of these tools have their

limitations and the Agency have acknowledged that their tool does not provide the full picture, for example:

- It is based on a set of financial assumptions (figures given below are not based on the most recent non-traded carbon figures).
- Only some values are included in the calculations (supporting services, such as biodiversity are not incorporated because of the potential for double-accounting and the difficulties in ascribing financial values).
- Limitations on the habitat quality and quantity data.
- A natural capital register and account will only ever reveal a partial value of nature.
- There are many services and functions of nature that are not valued using the tool.
- The values presented show a partial view of the irreplaceable services nature provides for free, or little input.
- It is not a price, or a value for exchange, and the numbers are rounded to avoid an impression of pinpoint accuracy.

I.6 Thus the financial value presented for ecosystem services only shows a partial view of the irreplaceable services that nature provides to the local economy. The actual value is much higher.

I.7 The Tool has been used to make an approximate evaluation of the natural capital value of Cotswold District.

Headline results for Cotswold District natural capital register and account



Natural Assets

>117,252 hectares

The largest natural capital asset types:
Enclosed farmland 49%
Semi-natural grassland 30%



Ecosystem services

£133 million/yr **Total** annual value of services from natural capital

£60m annual value from **Agriculture**

£20 annual value from **Recreation**



Benefits

The ecosystem services and the benefits that flow from them

Agricultural production from 57,000 hectares of enclosed farmland

>6.5m estimated visits/year to green spaces for recreation

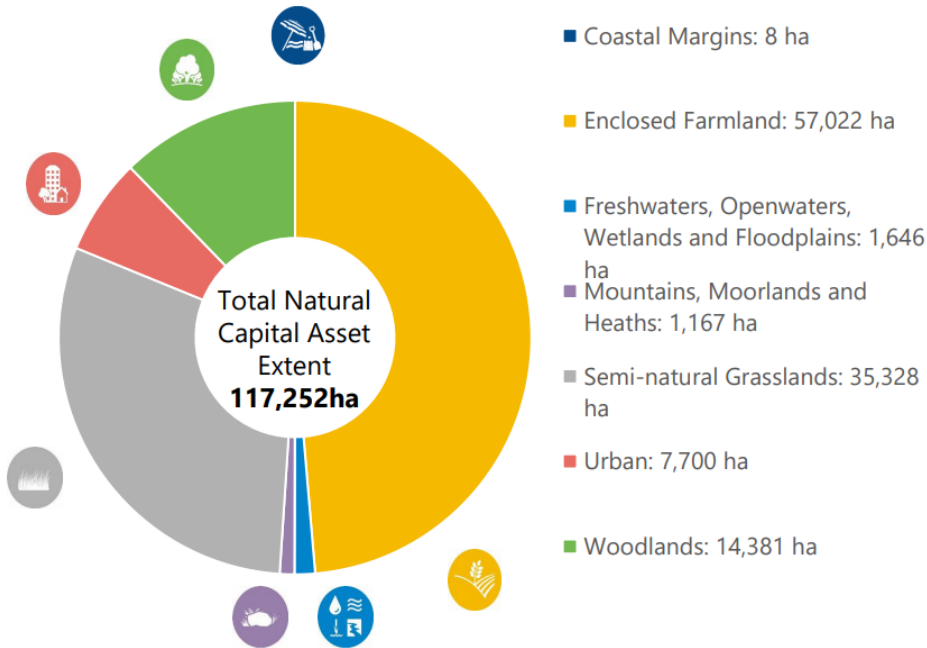


Values

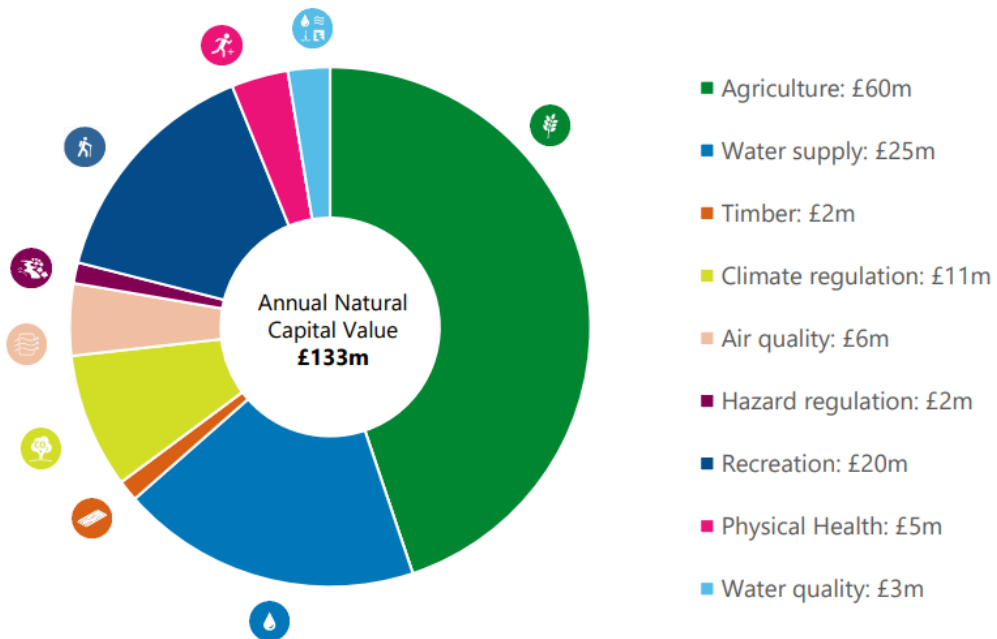
£4.6 billion PV, 100 years

Total present value of the ecosystem services from natural capital discounted over the next 100 years

Cotswold District natural capital extent



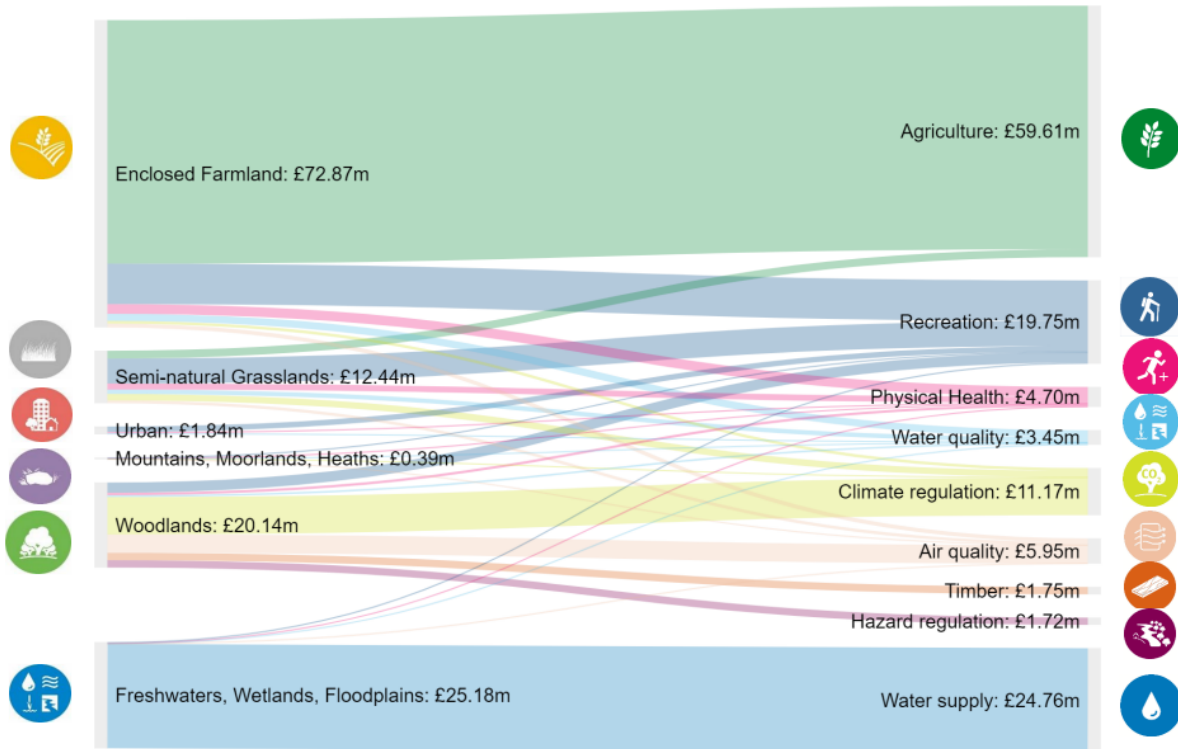
Cotswold District annual natural capital benefits



No local data added for 'education' or 'volunteering'



Cotswold District flow of benefits from natural assets



2. The Adopted Local Plan 2011 - 2031 Objectives

2.1 Natural capital and ecosystem systems do not feature in the local plan objectives. In order to address this the following wording should be included.

Objective 1. Natural & Historic Environment **Issues**

Through the use of appropriate planning policies in the development management process:

- a. Conserve and enhance the high quality, local distinctiveness and diversity of the natural and historic environment, **including natural capital and the ecosystem services it provides.**

2.2 Alternatively a new objective on natural capital and ecosystem services could be introduced as part of the Local Plan "green to the core" agenda.

3. The Adopted Local Plan

3.1 References to natural capital in the current local plan are limited to one paragraph under policy INF7 (green infrastructure).

3.2 There are a range of other policy areas that are directly relevant to the consideration of natural capital that are covered within the current local plan and traditional planning considerations, for example - recreation and open space provision; trees; landscape; water management; green infrastructure; soils etc. However each of these considerations tends to

be looked at in isolation and not in a way that ensures that mutual benefits are delivered. In addition there are natural capital assets and benefits that are not currently considered in the planning process, for example the ability of trees and soils to sequester carbon; the loss of food production potential etc.

- 3.3 Since the adoption of the Local Plan natural capital and ecosystem services have received a much higher profile, particularly in considering how those services can be protected and delivered in a comprehensive and joined up manner.

4. NPPF, PPG and other material considerations

The National Planning Policy Framework (NPPF)

- 4.1 Chapter 15 of the NPPF makes specific reference to the benefits of natural capital and ecosystem services – "including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland".
- 4.2 In addition the NPPF requires, at paragraph 175 that "para 175 - Plans should: ...plan for the enhancement of natural capital at a catchment or landscape scale across local authority boundaries."

Planning Practice Guidance (PPG)

- 4.3 The PPG provides further detail as to how this can be achieved. Under the [Natural Environment](#) section, certain natural capital assets such as soils and green infrastructure are explored and their wider benefits explained. It elaborates on environmental net gain.²
- 4.4 The aim of wider environmental net gain is to reduce pressure on and achieve overall improvements in natural capital, ecosystem services and the benefits they deliver. For example, habitat improvements can provide a range of benefits such as improvements to soil, water and air quality, flood risk management and opportunities for recreation.
- 4.5 Many of these issues are already considerations for the planning system but the move to consider these jointly and to understand how they can be delivered more proactively is a step change.
- 4.6 There are many strategies, plans, tools and initiatives coming forward from a range of organisations, including the government that emphasise the importance of natural capital and taking a holistic approach to protecting and enhancing our natural capital and ecosystems services. This is a very fast moving agenda and any analysis of these initiatives is likely to be out of date very quickly; however they all emphasise that taking a natural capital approach, fully considering all the benefits provided by the natural environment (whether calculated in monetary terms or more descriptively) is crucial to ensuring that those benefits are not under-estimated or fully considered in decision making. To quote from the [25 year Environment Plan](#) -

² Planning Practice Guidance: Natural Environment: Paragraph: 028 Reference ID: 8-028-20190721

... the often hidden additional benefits in every aspect of the environment for national wellbeing, health and economic prosperity, with scientific and economic evidence to the fore."

"But when we use a natural capital approach, we are more likely to take better and more efficient decisions that can support environmental enhancement and help deliver benefits such as reduced long-term flood risk, increases in wildlife, and a boost to long-term prosperity"

Cotswold District Council Corporate Plan, Climate Change and Ecological Emergencies

4.7 The Council recently declared both Climate and Ecological Emergencies. The Council's Corporate strategy embeds both of these strategies at its heart, with a commitment to making the next version of the Local Plan Green to the Core. The Council's Ecological Emergency Action Plan include a number of actions with direct relevance to natural capital in the planning context -

d) Review the adopted Local Plan to ensure that the ecological emergency and nature recovery (including green infrastructure, ecosystems services and natural capital) are strategic priorities for planning and new development, through site allocations, policies and an up-dated Cotswold Design Guide.

e) Continue to support the development and implementation of the Gloucestershire Nature Recovery Network (including Bee lines) and the Gloucestershire Ecosystem Services and Natural Capital Mapping (and the Natural Capital Investment Strategy), including through the Local Plan, biodiversity net gain and developer contributions.

l) Provide advice for local communities on how to incorporate biodiversity, green infrastructure and natural capital (ecosystems services) into their neighbourhood plans and other initiatives

4.8 The South East region has an increasing water supply deficit, which is being made worse by climate change. Possible solutions include supplying water from the River Severn catchment, with the supply infrastructure passing through Cotswold District, as well as protecting and enhancing water sources and water storage infrastructure in the River Thames catchment area, which covers the south-east of the District. However, climate change mitigation and biodiversity net gain also include lots of tree planting, so there is a playoff between achieving this and preserving and enhancing water sources.

Gloucestershire Local Economic Partnership (GFirst)

4.9 The draft [Local Industrial Strategy](#)³ states that investment in the county should be informed by an understanding of natural capital and how it should be maintained and enhanced in order to underpin the economy and social capital of the area.

4.10 "Gloucestershire sees an opportunity to be the greenest place to live and work in England and a 'magnet county' championing natural capital-based growth, creative green business

³ https://www.gfirstlep.com/downloads/2020/gloucestershire_draft_local-industrial-strategy_2019-updated.pdf

development opportunities, and reducing its carbon emissions to net zero by 2050 or sooner.”

Gloucestershire Local Nature Partnership

4.1.1 Work on natural capital across Gloucestershire is being coordinated by the Gloucestershire Local Nature Partnership ([GLNP](#)) in partnership with many others including the Local Economic Partnership (LEP) and local authorities in Gloucestershire. The key areas of work have been -

- The [natural capital mapping system](#) for the county, showing both areas of existing high natural capital worth but also highlighting areas where new natural capital would deliver maximum ecosystem service benefits (for example, where tree planting might also deliver water management and recreational opportunities). Use and promotion of this mapping system will help to deliver the requirements of NPPF paragraph 175.
- The development of a natural capital investment mechanism, to be known as the [Gloucestershire Nature and Climate Fund](#).

5. Current Local Plan Policy

- 5.1 Introducing both a new objective and a strategic policy related to natural capital will ensure that the benefits that it delivers are considered as a whole, bringing together but reaching beyond some of the traditional planning considerations - working in a way that will maximise the mutual delivery of these benefits.
- 5.2 A new natural capital policy could form an element of a new sustainable development strategic policy.
- 5.3 New development should identify, protect and enhance the District’s existing natural capital assets. In doing so, this will enable new development to take a comprehensive and coordinated approach, which will lead to an increase in the ecosystem services benefits provided by existing as well as new natural capital assets. Synergy, in other words.
- 5.4 Natural capital resources should also be considered in the site allocation process and initial work has already taken place (link when available), reviewing all the SHELAA sites against the county-wide natural capital mapping system. This has enabled a better understanding of whether the protection of natural capital is a constraint to development at certain sites or alternatively whether development at a particular site could, with the appropriate site-specific policy, deliver key strategic natural capital improvements, and what those enhancements should be.

6. Potential Policy Responses

- 6.1 To address the issues raised, the following will need to be considered in the partial update to the local plan.
1. Add natural capital and ecosystem services to the objectives in the local plan, either as part of an existing objective or a new standalone objective.

2. Ensure that local plan strategic priorities include reference to natural capital and ecosystem services.
3. Introduce a new natural capital and ecosystem service policy, potentially as part of a new green agenda strategic policy, that ensures that new development does not lead to losses in natural capital but increases its ability to provide the District with a wide range of benefits.
4. Include explanation within the policy or reasoned justification of how natural capital and ecosystem services will be measured.
5. Only allocate sites where it is clear that natural capital and ecosystem services can be enhanced rather than degraded.
6. Ensure that the plan states the importance of protecting and enhancing natural capital and the ecosystem services that they provide as part of the "green to the core" agenda.
7. Define natural capital and ecosystem services within the plan and explain their relevance to the District.
8. Introduce the county-level natural capital mapping system and emphasise the importance of protecting existing and creating new natural capital assets at both a local and a strategic scale and in strategic locations.
9. Include information and guidance in any revised Cotswold Design Code/Guide.

Option 1: Increase the prominence of natural capital and ecosystem services in the Local Plan

Policy Approach	Discussion of impacts, effectiveness etc - justification
Add a new objective (and priority) on natural capital and ecosystems services to the Local Plan. Incorporate natural capital and ecosystems services to a greater extent into existing Local Plan policies.	This option would improve the current position and would help to make the Local Plan green to the core, although it would not deal with natural capital and ecosystem services in a single policy.

Option 2: Introduce a new natural capital and ecosystem services policy

Policy Approach	Discussion of impacts, effectiveness etc - justification

(A) Introduce a new natural capital and ecosystems services policy that ensures that new development leads to an increase in the natural capital of a site and not a decrease. Where this is not possible, off-site environmental gain could be considered, although only as a last resort in line with the mitigation hierarchy.

The policy will need to clarify how the natural capital value of a site should be measured, both the baseline and the post-development position.

This option would improve the current position and would help to make the Local Plan green to the core. It would also deal with natural capital and ecosystem services as a single policy that specifically deals with this issue.