National Grid RIIO3: biodiversity & nature-based management

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National Grid Electricity Transmission
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In 2023 the government published the third National Adaptation Programme (NAP3), setting out our plans to adapt to climate risks facing the UK. Embedded in these documents are policy approaches that reflect the UK's commitment to systemic, nature-positive solutions that address multiple environmental and societal goals. Taking coherent action of this kind is a challenge but also an opportunity. There are compelling reasons to act now.

The UK is one of the most nature depleted countries in the world, so it is not enough for us to "protect" or "conserve" the nature we still have left. This is why this Government has committed to restoring nature through such targets, and our related international commitments.

Climate change and biodiversity loss are among the greatest challenges of our time. They are deeply interconnected, and so too must be our response. The United Kingdom, alongside UK Overseas Territories and Crown Dependencies, is committed to delivering ambitious, coherent action that addresses these challenges – because it's the right choice for today and for future generations. (July 2025 - Joint Defra/ DESNZ commitment to unlock benefits of integrated action against climate change and biodiversity loss for people, nature and climate).

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Desk study

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Duties on Ofgem

Section 40 of the Natural Environment and Rural Communities Act 2006 places a duty on all public authorities in England and Wales to have regard, in the exercise of their functions, to the purpose of conserving and enhancing biodiversity. A key purpose of this duty is to embed consideration of biodiversity as an integral part of policy and decision making throughout the public sector, which should be seeking to make a significant contribution to the achievement of the commitments made by government in its **Environmental Improvement Plan.**

Section 40, as amended by the Environment Act 2021, establishes a duty that all public authorities operating in England must, from time to time, consider what action they can take to further the general biodiversity objective (being the conservation and enhancement of biodiversity in England through the exercise of functions in relation to England). Where they consider there is action to be taken, the authority must determine policies and objectives that it considers appropriate for taking action to further the biodiversity objective and must take such action. In complying with this duty, all public authorities must "have regard" to any relevant Local Nature Recovery Strategy, species recovery strategy and protected site strategy.

(Note: this is explicitly not limited to, nor in our and others' view achieved by, statutory BNG requirements with regard to land use planning decisions)

Government guidance explaining key issues in implementing policy to protect and enhance the natural environment, including local requirements available here: **Guidance - Natural Environment**

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Further Duties: Protected landscapes

- **Section 245 (Protected Landscapes)** of the Levelling-up and Regeneration Act 2023 (LURA) amends the duty on relevant authorities in respect of their functions which affect land in National Parks, National Landscapes, and the Norfolk and Suffolk Broads (collectively referred to as Protected Landscapes) in England.
- Relevant authorities must now 'seek to further' the statutory purposes of Protected Landscapes. This replaces the previous duty on relevant authorities to 'have regard to' their statutory purposes.

The definition of relevant authorities includes:

- a **government department or public body**
- any statutory undertaker
- any person holding public office



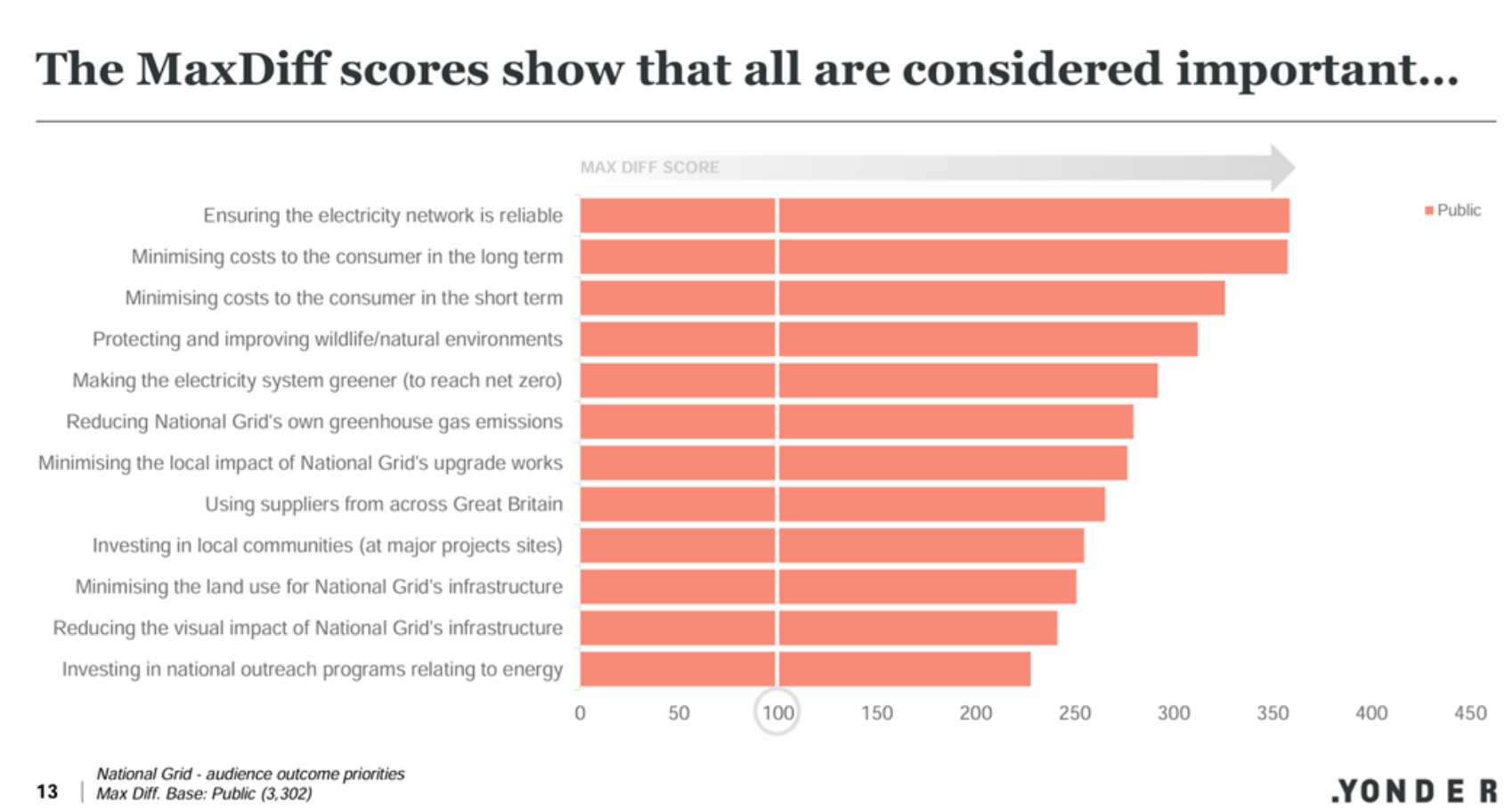
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Public and Citizen Support for Nature and Biodiversity

There is substantial, enduring public support in the UK for environmental protection and nature restoration. Key examples:

- The **ONS (2024)** reported that 57% of UK adults rank climate change and the environment among the top national issues, highlighting continued environmental concern despite economic pressures.
- **Natural England's** Public Attitudes survey data (2024) found that 9 in 10 adults were concerned about threats to the natural environment.
- Savanta's research (2024) for the **Wildlife Trusts** showed that 66% of UK adults believe nature is fundamental to economic growth. A similar proportion also said that government and business should invest more in nature-friendly farming and habitat restoration and supported stronger regulation to hold developers accountable for environmental harm.
- **YouGov survey** (via Rewilding Britain, 2024) found that 83% of respondents support rewilding, and 75% believe politicians should do more to reverse nature decline. A majority also held views that at least 10% of land should be dedicated to rewilding, and 70% of rural respondents agreed that restoring wildlife was a national priority.

Previous research for Grid indicates the importance of protecting nature and wildlife to be the primary consideration for infrastructure projects after network reliability and cost...



Source: https://www.riiot3.nationalgrid.com/document/30096/download

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Support for nature reaches across the political spectrum - ranking public concerns about climate change using seven segments approach

	Which of the following impacts of climate change are you most worried about over the next 10 years? Select up to three from 15 options. I am worried that climate change will...						
Rank	Backbone Conservative	Disengaged Traditionalist	Loyal Nationals	Established Liberal	Disengaged Battler	Civic Pragmatist	Progressive Activist
1	Harm nature and wildlife (31%)	Cause bills/costs to rise (30%)	Cause bills/costs to rise (37%)	Harm nature and wildlife (32%)	Harm nature and wildlife (39%)	Harm nature and wildlife (46%)	Harm nature and wildlife (52%)
2	Cause bills/costs to rise (30%)	Increase the risk of floods (26%)	Harm nature and wildlife (35%)	Increase the risk of floods (29%)	Cause bills/costs to rise (30%)	Negative impact on children's future (36%)	Suffering for the world's poorest (42%)
3	Increase the risk of floods (30%)	[Not worried about climate change] (25%)	Increase the risk of floods (29%)	Cause bills/costs to rise (26%)	Negative impact on children's future (25%)	Cause bills/costs to rise (33%)	Negative impact on children's future (36%)
4	Negative impact on children's future (26%)	Harm nature and wildlife (21%)	Negative impact on children's future (27%)	Suffering for the world's poorest (25%)	Increase the risk of floods (24%)	Increase the risk of floods (31%)	Increase the risk of heatwaves (27%)
5	Increase the risk of heatwaves (21%)	Increase the risk of heatwaves (20%)	Increase the risk of heatwaves (21%)	Negative impact on children's future (25%)	Increase the risk of heatwaves (22%)	Suffering for the world's poorest (29%)	Increase the risk of floods (26%)

Source: Seven segments 2024 overview - Climate Outreach

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People in rural areas appear to put a higher value on visual impact and nature and wildlife. This may be as they have a higher stake in the environmental wellbeing and sustainability of their community, a greater connection to nature, and a stronger sense of place, including local heritage.

This is relevant to National Grid as much infrastructure will be built in rural areas and local opposition, and resistance can result in delays to projects and extra costs which are ultimately passed on to consumer's bills.



7 in 10

people in rural areas find hypothetical new transmission infrastructure in their area unacceptable because of the impact on local plant and animal life compared to 6 in 10 in urban areas.

Community Benefits for Electricity Transmission Network Infrastructure – Social Research Final report by BMG Research for the Department for DESNZ (March 2024)

Broader support for nature



Bodies including the Wildlife Trusts and Green Alliance have consistently argued for stronger mechanisms to capture the value of nature-based outcomes, including evidence of public support for environmental investment and biodiversity offsets.

- **Wildlife Trusts** – produced guidance for landowners & developers on Biodiversity Net Gain market and actively involved in biodiversity unit markets.
- **Green Alliance** - produced multiple policy briefings on the need to reform planning and investment rules to better align with environmental goals.
- **The Broadway group** – an alliance of industry, NGOs and supply chain have worked for Government establishing the case for and practicalities of Nature Trading.

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Stated Preference Evidence and Willingness to pay for Nature

Evidence from stated preference studies underlines that the public is not only concerned about nature in principle, but willing to support and value its restoration.

- **Defra study (2022)** – survey of 5000 people and 15 in-depth focus groups found people were willing to pay for improved biodiversity and species abundance on the scale of several hundred pounds per household per year.
- **Wessex Water (2022)** – survey of 6965 households and 91 non-household customers on average are willing to pay for improvements to environmental attributes (over non-environmental), in particular for 'supporting nature and wildlife'
- **Consumer Council for Water (2023)** –tested 2320 customer's acceptance of different sewage treatment solutions. Households willing to pay up to £40 a year more on bill to use nature instead of man-made materials.

The ‘Twin Crises’

The twin crises of climate change and biodiversity loss are among the most urgent challenges facing our planet today, with profound consequences for human prosperity and wellbeing. These crises are deeply interconnected. Climate change accelerates biodiversity loss, while the loss and degradation of nature releases greenhouse gases and simultaneously undermines our ability to adapt to a changing climate. There is no route to tackling climate change that does not involve nature, and no pathway to nature recovery that does not take into account climate change’ (DESNZ, DEFRA joint document)

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Government Commitments for the Environment, Nature & Biodiversity

The UK's approach to environmental and climate protection is underpinned by two key pieces of legislation: the Environment Act 2021 and the Climate Change Act 2008.

The **Climate Change Act** main commitment:

- Reduce UK greenhouse gas emissions by at least 100% of 1990 levels by 2050, effectively achieving Net Zero.

The **Environment Act** includes a legally binding target to:

- Halt the decline in species abundance by 2030.
- Increase species abundance by at least 10% by 2042, compared to 2030 levels.

The UK Government has also committed to:

Protect and conserve at least 30% of the world's land and 30% of the ocean by 2030 global biodiversity goal agreed under the Kunming-Montreal Global Biodiversity Framework at the **UN Biodiversity Conference (COP15) in December 2022**.

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Government Commitments for the Environment, Nature & Biodiversity

There is strong commitment to tackle the twin climate and nature crises:

- The commitment to accelerating to net zero is set out in the **Clean Power 2030 Action Plan** (2024) – a strategy to deliver a fully decarbonised electricity system by 2035 and 95% of electricity to come from low-carbon sources by 2030.
- The commitment to restoring nature is underpinned by targets set out in the **Environment Act** (2021) and by honouring international commitments under the **UN Convention on Biological Diversity**.
- In 2025, the UK reaffirmed its global leadership on nature and climate change by publishing an ambitious **2035 Nationally Determined Commitment** (NDC).

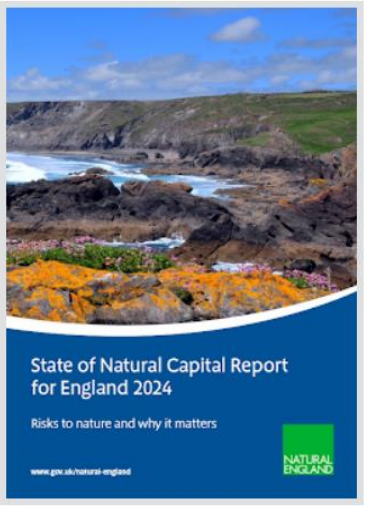
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There is growing ambition from government to protect and enhance nature and nature services:

- The **Corry Review** (2025) concluded that Defra's regulatory landscape isn't fit for purpose in driving economic growth and nature recovery which has led to a number of policy revisions.
- A revised **Environmental Improvement Plan** (EIP) due for publishing later in 2025 with delivery information to help meet statutory Environmental Act targets. It is proposed that the new EIP will include **a10% BNG requirement for Nationally Significant Infrastructure Projects from May 2026.**
- The **National Biodiversity Strategy and Action Plan** (NBSAP, 2025) details the UK's international commitments under the UN Convention on Biological Diversity (UNCBD) including to implement the **Kunming-Montreal Global Biodiversity Framework (GBF)** within it's revised EIP. This encourages alignment with frameworks like Taskforce on Nature-related Financial Disclosures (TNFD).
- Target 15 of this framework calls for mandatory nature-related disclosures for large businesses and financial institutions **which goes beyond current legislation**, aiming to mainstream biodiversity into corporate governance and finance.

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What is the current state of Nature in England



Trends in biodiversity are set out in the annual Natural England – State of Natural Capital Report. To summarise:

'Because our ecosystem assets are degraded, they are less able to cope with the impact of future change. Our assets are already very highly impacted by land and sea-use change, pollution, natural resource use and exploitation and climate change. There is currently a very rapid increase in the severity of impacts of climate change, associated invasive species (including pests and diseases) and land and sea-use change. This puts the assets and benefits we rely on at risk.

All of our ecosystem assets, and almost all the benefits they provide, are at high or medium-high risk:

- **High risk assets**: marine; coastal margins; freshwaters and wetlands; mountains moorlands and heaths; woodlands.
- **Medium-high risk assets:** semi-natural grasslands; enclosed farmland; urban.
- **High risk benefits:** timber and other wood products; produce from the sea; plentiful water; reared animals and their outputs; clean water; erosion control; flood protection; thriving plants and wildlife; cultural benefits.
- **Medium-high risk benefits:** cultivated crops; clean air; urban cooling; noise regulation; pollination; pest and disease control'.

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‘Making space for nature’: a review of England's wildlife sites

This review, chaired by Professor Sir John Lawton (for Defra) in 2010 looked at our wildlife sites and whether they are capable of responding and adapting to the growing challenges of climate change.

The review cites the importance of **ecological networks**, suites of high quality wildlife sites containing biological diversity, with connections between them enabling species, or their genes, to move. The government subsequently made a commitment to the review’s principles through its Natural Environment White Paper (2011) and large infrastructure projects are under obligation to build them into proposals for ecological mitigation and compensation.



Grid’s infrastructure projects, particularly transmission networks since they span large distances, offer an excellent opportunity to deliver the Lawton vision by developing new wildlife corridors or improving connections between existing corridors, making a bigger network of wildlife sites.

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Ofwat on biodiversity

Going beyond statutory requirements

- **Directly incentivises biodiversity outcomes** beyond statutory BNG through **Performance Commitments (PCs)** for water companies.
- Requires companies to **measure and report biodiversity net gain** beyond statutory requirements using tools like **Biodiversity Metric 4.0**.
- Biodiversity is embedded in the Price Review (PR24) process, influencing investment decisions and customer bills.
- Supports delivery of **nature-based solutions**, **catchment management**, and **habitat restoration**.
- Third-party assurance is required for reporting.

Carbon Fixing through Nature-based solutions

Major studies by Natural England and Knepp Wildland Carbon Project have confirmed the importance of natural habitats in storing and sequestering carbon - key to achieving net-zero.

Strategic opportunity for Ofgem:

Enabling delivery of Net-zero	**Offset emissions from construction**
Supporting whole-system planning	**Nature –based C offsets can be integrated into strategic planning – supporting long-term sustainable investment**
Demonstrating public value	**Co-benefits of nature-based solutions (e.g. flood risk reduction, biodiversity…) may help foster public support**
Driving Innovation and market development	**May help catalyse innovation in land use and finance in regulated markets**

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What does BNG apply to and where doesn't it apply?

BNG statutory requirements currently only apply to new planning applications.

They say nothing about tackling either:

a) projects already under construction

b) company activities which are outside the planning system – almost all operation and most maintenance activity

c) action on sites owned/operated by Grid

d) work with local communities to help create goodwill for major disruption such as new power lines

To confine acceptance from Ofgem to strict BNG statutory requirements would ignore the large majority of Grid impacts on nature – let alone the Government's wider statutory nature targets.

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Ofgem in RIIO2

In current price review period Ofgem:

- Supported proposals from NGrid for biodiveristy;
- Created incentives on biodiversity.

Note Ofgem did not in this case argue that existing statutory commitments habitats directive etc meant that such support was inappropriate

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England versus Scotland/ Wales

- The legal devolution settlement dictates that nature protection is a devolved responsibility (see for example: **Devolution settlement: Scotland - GOV.UK**).
- It is for the Scottish, English and Welsh Governments to set ambitions for nature in each country. It is not Ofgem's job to override the devolution settlement by imposing an arbitrary level playing field.
- In England nature protection is founded upon the Environment Act – including the target to stabilise nature condition by 2030. BNG is only one relatively minor tool to achieve this aim. As set out above, public bodies including Ofgem must have regard to wider biodiversity objectives.
- Because England and much of Wales are more densely populated than Scotland, pressures on nature are greater and degradation more advanced.



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Scottish ambitions

The Scottish government have developed a strategic delivery framework for Biodiversity comprising a Biodiversity Strategy to 2045 supported by 6-yearly Delivery Plans, and statutory targets for nature restoration. The ambition is for Scotland to be ‘nature positive’, halting biodiversity loss by 2030, and to have restored and regenerated biodiversity across the country by 2045.

The **Natural Environment Bill** acts as a key piece of legislation to achieve these goals, establishing legally binding targets to restore Scotland’s ecosystems, helping to drive the action needed.

Scottish Biodiversity Strategy 2045:

By **2045**, Scotland will have restored and regenerated biodiversity across our land, freshwater and seas.

Our natural environment, our habitats, ecosystems and species, will be diverse, thriving, resilient and adapting to climate change.

Regenerated biodiversity will drive a sustainable economy and support thriving communities, and people will play their part in the stewardship of nature for future generations.

The view from Wales

Llywodraeth Cymru
Welsh Government

- The Welsh **Well-being of Future Generations Act** is about improving the social, economic, environmental and cultural well-being of Wales. The Act gives a legally-binding common purpose – the 7 well-being goals – for national government, local government, local health boards and other specified public bodies. It details the ways in which specified public bodies must work and work together to improve the well-being of Wales and its recommendations have helped shape the recently published Welsh Environment Bill.
- The **Welsh Environment Bill** (currently at Stage 1 of adoption) aims to tackle the climate and nature emergencies by strengthening environmental governance and reversing biodiversity loss. It introduces a legally binding framework for biodiversity targets through amendments to the Environment (Wales) Act 2016, which requires public authorities to comply with the biodiversity and resilience of ecosystems duty. It will align targets with the Kunming-Montreal Global Biodiversity Framework to protect and manage 30% of land, freshwaters and seas by 2030.

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Benefits of nature investments (Defra guidance)

‘ Ecosystem services [from nature/nature investments] provide outputs or outcomes that directly and indirectly affect human wellbeing, and these considerations can link well to taking an economic approach. … Some of these ecosystem services are well known including food, fibre and fuel provision and **the cultural services that provide benefits to people through recreation and appreciation of nature.** Other services provided by ecosystems are not so well known. These include the regulation of the climate, the purification of air and water, flood protection, soil formation and nutrient cycling…. The appraisal of new policies, programmes and projects all require environmental impacts to be taken into account.
… This broader framework allows a shift in emphasis from a focus mainly on valuing environmental damage to highlighting the value of changes in the services provided by the natural environment. Ecosystem services contribute to economic welfare in two ways through contributions to the generation of income and wellbeing and through the prevention of damages that inflict costs on society. Both types of benefits should be accounted for in policy appraisal.'

Source: An introductory guide to valuing ecosystem services

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The Economic and Wellbeing Case for Investing in Natural Capital



- The Government's **Natural Capital Committee**, now subsumed into the Office for Environmental Protection was established to set out and define the case for a 'natural capital approach to decisions. Natural capital looks at the wide range of benefits from nature investments, or investments which impact on nature, including economic benefits and proven 'wellbeing benefits' to citizens and customers.
- The Government committed to integrate natural capital further into economic decisions on **recommendation by the Natural Capital Committee.**
- The **Treasury green book** also provides explicit advice on nature benefits and valuation – and explicitly sets out values for resultant nature-based recreation, physical health benefits from nature and local amenity. All these are of course felt by citizens and customers.

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Green book values for nature etc

Summary of environmental values, and land value uplift, referenced in Annex 1 (20/21 prices)

Value	Description	Low	Central	High	Unit
Air pollution (NOx)	National average damage cost values	£681	£7,120	£26,995	per tonne of pollutant
Air pollution (PM2.5)		£17,716	£81,847	£253,474	
Air pollutant removal by vegetation	Welfare/health benefit of reduced air pollution from vegetation	£17	-	£931	per hectare (various land covers)
Noise	Marginal change in road noise levels	£13	-	£227	per 1 decibel change
Noise reduction by vegetation	Average road noise damage costs avoided for households benefiting from noise mitigation by urban woodland	-	£96	-	per household
Nature based recreation	Welfare value of outdoor recreation sites	£48	-	£120,067	per hectare (various land covers)
Physical health benefits from nature	Indicative health savings/ benefits from every physically active visit to green space	£3.36	-	£14.34	per marginal physically active visit to greenspace
Local amenity	Average additional value per property within 100m - 500m of accessible green or blue space	£1,538	£3,076	£9,471	per property (capital value)
Visual amenity	Average price premium for a property with a view over green or blue space	-	£6,164	-	
Loss of amenity	Welfare cost from significant litter accumulation in residential areas	£20	-	£76	per household

Value	Description	Low	Central	High	Unit
Water availability	Industry average present value lifetime social cost of providing water supply	-	£5.7m	-	mega litre per day
Water quality	Improvement in water quality status	£22,000	£25,400	£29,500	per km
Flood damage	Typical damage per property from a flood event	£8,000	-	£45,000	per property (flooding at different water depths)
Flood regulation (woodland)	Avoided water storage costs from woodland water storage in flood catchments	£97	-	£242	per hectare (woodland)
Nature based carbon reduction (peatland)	Carbon reduction value of restoring eroded peatland	£497	-	£5,297	per hectare (peatland)
Soil erosion	Average indicative cost of soil erosion (production, water quality, flood risk)	£130	-	£211	per hectare of average erosion
Land value uplift	Change in land values	See DLUHC release			per hectare
GHG values	Target consistent value	£121	£241	£362	per tonne CO2

Source: The Green Book (page 92 – 93)

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Government Support for Nature Trading and Market Standards

Recent years have seen the development of standards and frameworks to underpin high-integrity nature markets.

- BSI launched the **Overarching Principles for Nature Markets** and a new Natural Carbon Standard in March 2025.
- A global nature deal initiated by the UK government; **'Nature Action: Mobilising Frameworks and Finance'** in June saw countries agree to a major increase in investment (especially private finance) in tackling nature loss and restoring threatened habitats.
- Natural England's **Environment Land Management Scheme (ELMS)** is delivering biodiversity and carbon benefits at farm scale, with documented increases in breeding birds and improved soil health.
- Recently published a **consultation on Voluntary Carbon and Nature Markets** following calls from business, finance, farming, and environmental stakeholders for clarity on the Government's approach and recommendations from the Climate Change Committee and others for a new regulatory approach for these markets.



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Findings

- There is strong and consistent public support for nature protection and biodiversity gains. This has been tested and found clearly to apply to utility customers.
- There is a growing evidence base that nature-based approaches can deliver cost-effective carbon sequestration and broader environmental benefits – along with wider 'use' and 'existence' values: 'Natural Capital'. A robust policy framework supports nature projects, and nature-based carbon compensation.
- The public values this approach and has high expectations for regulators and businesses to play their part in delivering on nature recovery. This is far from limited to the small part of company activities which fall under the BNG requirement. Ofwat have responded to this, Ofgem should follow suit.
- As a public body Ofgem have statutory duties to have regard to biodiversity and protected landscapes. This is not fulfilled solely by funding BNG.
- Ofgem's argument that Grid obligations should be equalized down to those in Scotland is both contrary to the devolution settlement and seems to imply a disregard for the nature crisis in England.
- In our opinion, it is not only reasonable, but it is also good practice for infrastructure providers to pursue both statutory and non-statutory BNG, and to invest in high-integrity, UK-based natural carbon offsetting mechanisms, with a strong public mandate and policy alignment. Ofgem's lack of support for this seems counter to the government's targets for nature in England and clear joint DESNZ/ Defra policy.
- Ofgem acknowledged this themselves with their T2 final determination.