

Nature Improvement Areas in the Cotswolds Area of Outstanding Natural Beauty



The Cotswolds Ecological Networks Forum (The Forum) has identified two Nature Improvement Areas (NIAs) for the Cotswolds AONB (Area of Outstanding Natural Beauty). They are;

- The Cotswolds Scarp NIA
- The Cotswolds Valleys NIA.

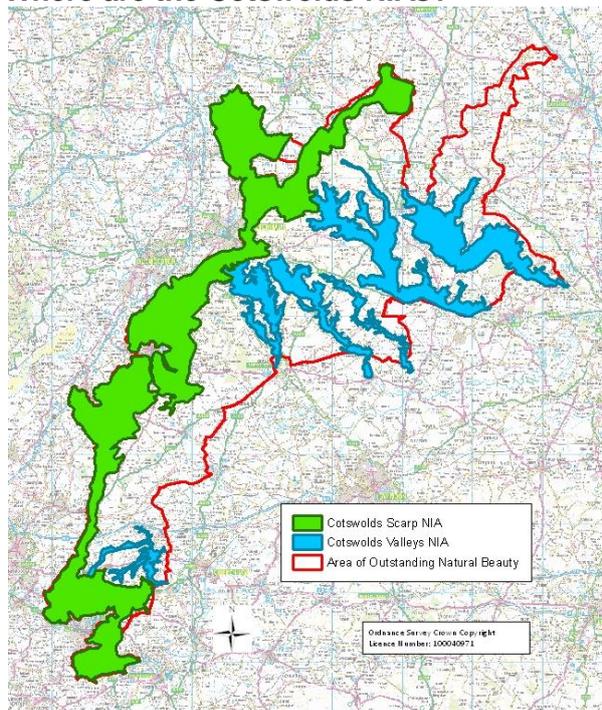
What are Nature Improvement Areas?

NIAs are the places which offer the best opportunities for habitat restoration with the greatest benefits for wildlife.

“we will enable partnerships of local authorities, local communities and landowners, the private sector and conservation organisations to establish new Nature Improvement Areas (NIAs), based on a local assessment of opportunities for restoring and connecting nature on a significant scale”

Natural Environment White Paper June 2011

Where are the Cotswolds NIAs?



The Pasque Flower, a calcareous grassland species whose future may rely on joining up existing sites.

What is the Cotswolds Ecological Networks Forum?

The Forum is an informal partnership which has been working to deliver nature conservation at a landscape scale across the Cotswolds AONB since May 2010. It currently has 50 members representing 29 organisations including; local authorities, community organisations, landowners the private sector and conservation organisations.

Why have these NIAs been identified?

In his report *‘Making Space for Nature’* (2010) Sir John Lawton concluded that England’s wildlife sites do not comprise a coherent and resilient ‘ecological network’. Consequently our wildlife is unable to move in order to adapt to change, particularly climate change. Making our ‘ecological networks’ fit for purpose involves;

- Better Habitat Management
- Creating bigger wildlife sites
- Creating more Wildlife Sites
- Creating better connections between wildlife sites through habitat islands or corridors.

The NIAs are the places where the opportunities and benefits for wildlife are greatest (see the NIA descriptions overleaf).

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How were these NIAs identified?

The NIAs have been identified drawing on the South West Nature Map's Strategic Nature Areas or in Oxfordshire, Conservation Target Areas – the areas with the best habitat restoration potential identified using spatial analysis. Local expertise, wildlife site designations, habitat data and the Cotswolds AONB Landscape Character Assessment were also used.

Why are these areas so special?

The Cotswolds contains just over half the country's species rich Jurassic limestone grassland. It has also been identified as one of 5 Ancient Woodland Priority Areas in the south west. Both woodland and grassland occur together as a mosaic which benefits a greater variety of wildlife than either habitat would on its own.

The area is a hotspot for outdoor recreation where millions of people access the mental and physical health benefits of enjoying a "natural" environment. The Cotswolds AONB, receives approximately 23 million visitors a year



View along the Cotswolds Scarp south direction from Barrow Wake. Note the mosaic of ancient woodland, scrub and unimproved limestone grassland interspersed with permanent pasture.

The Cotswolds Scarp NIA

The geology, geomorphology and landscape history of the western edge of

the Cotswolds has created an area that has retained much of its semi natural character. This provides the opportunity to create an 80 mile long wildlife corridor with a roughly north south axis running between Bath and Mickleton. Such an area would allow grassland and woodland species to adapt to climate change by moving to a new climate space in terms of aspect, altitude and/or latitude



Adonis Blue; shown by recent records to be spreading across the Cotswolds in a north easterly direction.

The Cotswold Way National Trail follows the NIA which also contains a concentration of commons with a long history of public access, and a great deal of access land.

The long term aim is to link up and better manage existing sites many of which are significantly large such as Cleeve Common, Leckhampton Hill and Charlton Kings Common, Crickley Hill and Barrow Wake, and the Stroud Commons (Minchinhampton, Rodborough and Selsey). This will create a wildlife corridor of cross regional significance.

The wider benefits of restoring this landscape include supporting the local economy through tourism and local produce such as beef, lamb, venison and wood fuel. Permanent pasture and woodland store carbon and provide soil protection, flood prevention (absorbing excess rain fall), and improved air quality (trees removing pollutants).

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The Cotswolds Valleys NIA

Draining much of the dip slope of the Cotswolds, the river corridors link the huge wildlife resource of the Cotswold Hills with the Thames valley and the Cotswold Water Park. Most of the Cotswold rivers represent key examples of oolitic limestone rivers, have high wildlife value and are of national importance. The quality of these rivers is threatened by current land management which causes diffuse water pollution. Improvement in water quality will need to focus on the management of the adjoining valley sides where there is a great opportunity to create wildlife corridors based on a mosaic of woodland, scrub and limestone grassland running north and west from the rivers Thames and Avon to the Cotswolds Scarp NIA.



The long-term aim for the area is to restore habitats along the rivers and valley sides through measures such as buffering water courses. This will create wildlife corridors and improve water quality helping the recovery of priority species such as the water vole.

How will these robust ecological networks be achieved?

The Forum has agreed to;

- Develop and deliver the Cotswolds' NIAs by coordinating existing activity and filling gaps in activity through developing new projects.

- Encourage and realise opportunities to increase habitat connectivity both within the NIAs and across the wider landscape.
- Identify and develop new ways of sustaining activity and communicate key messages.

Key Messages

Wildlife needs to adapt to climate change through utilising large sites and permeable landscapes. Achieving this requires coherent and robust ecological networks.

Coherent and robust ecological networks are an essential element of a fully functioning ecosystem and so are important in maintaining ecosystem services.

The current fragmented nature of the Cotswolds' ecological networks means that they are not fit for purpose in terms of enabling our wildlife to adapt to climate change and in maintaining ecosystem services.

The way to create coherent and robust ecological networks is to make habitats better, bigger, more and joined as outlined in '*Making Space for Nature (2010)*'.

Within the Cotswolds, the best opportunities for making coherent and robust ecological networks mostly fall along the scarp and within the river valleys

Achieving and sustaining coherent and robust ecological networks will require new mechanisms, partnerships and ways of working with new audiences.

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Cotswolds Nature Improvement Areas (NIAs) Evidence Base			
	Cotswolds Scarp NIA	Cotswolds Valleys NIA	Total
Area	59,513 ha	63,669 ha	123,182 ha
Unimproved grassland	2,011 ha	547 ha	2,558 ha
Ancient woodland	4,398 ha	273 ha	4,671 ha
Special Areas of Conservation (SACs)	Bredon Hill 360 ha Dixton Wood 13 ha Cotswold Beechwoods 549 ha Rodborough Common 109 ha Bath and Bradford-on-Avon Bats 107 ha	None	6 sites 1,178 ha
National Nature Reserves (NNRs)	Bredon Hill 49 ha Cotswolds Commons and Beechwoods 391 ha	None	2 sites 440 ha
Sites of Special Scientific Interest (SSSIs)	50 named sites 2,887 ha	27 named sites 1,253 ha	77 sites 4,140 ha
Local Wildlife Sites number and area	TBC	TBC	TBC
Scheduled Ancient Monuments (SAMs)	137 sites	86 sites	223 sites
Regionally Important Geological Sites (RIGS)	86 sites	10 sites	96 sites
Examples of priority species (many apply to both NIAs)	Burnt, Frog, Musk, Fly and Lesser Butterfly Orchids; Early Gentian; Juniper; Cotswold Pennycress; Pasqueflower; Large Blue, Marsh Fritillary & Duke of Burgundy Butterflies; Tree Pipit; Lapwing & Brown Hare.	Small Blue, Dingy & Grizzled Skipper, Butterflies; Common Toad; Grass Snake; Sky Lark; Yellowhammer; Bullfinch; Turtle Dove; Water Vole and Otter.	
Examples of key ecosystem services (many apply to both NIAs)	Food provision. Biodiversity. Provision of timber. Genetic diversity. Pollination. Geodiversity. Recreation. A sense of history.	Regulation of water availability, flow and quality. Regulation of soil erosion. A sense of place. A sense of tranquillity. Climate regulation.	