

**A45 BIODIVERSITY RE-LANDSCAPING PROJECT  
MANSFIELD, NOTTINGHAMSHIRE  
HIGHWAYS ENGLAND AND AREA 7 EMAD, KIER HIGHWAYS**

**BIG Biodiversity Project Award: Small scale**

**Project overview**

The Area 7 highway network often hides hidden gems in the landscape – and one of them is a European protected site adjacent to the A45 between Rushden and Raunds, Northamptonshire! Highways England and Kier Highways raised the bar for biodiversity by collaboratively re-landscaping the A45 with this site in mind.

**What were the biodiversity conditions on site, prior to the enhancement?**

The Upper Nene Gravel Pits is designated as a Special Protected Area (SPA) and a Ramsar site, and supports a complex mosaic of internationally important wetlands and grassland habitats across a span of 35km (Plate 1). The site is home to a staggering 24,000 migratory wildfowl and waders, with notable wintering populations of bittern, gadwall and golden plover (Plate 2). Key threats to the site include disturbance from nearby development and landscape severance. This project aimed to restore habitat extent and structure of peripheral areas along the A45 in order to buffer and support ecological interest of the area.

**What were the reasons behind this project?**

Highway verges provide critical wildlife corridors and may act as a ‘buffer zone’ interface between the built and natural environment, especially important when adjoining wildlife conservation sites. Green highway corridors support ecological resilience; strengthening the ability of the ecological network to adapt to pressures including climate change, and minimise the impact of development, such as noise, light and pollution. Aligning with European conservation objectives and Highways England’s *Biodiversity Plan* commitments, this project drew on Environmental Designated Funds to enhance the soft estate, creating the ‘green glue’ to bind the ecological function of the area through targeted habitat enhancement and creation.



*Stunning vistas greet visitors to the Upper Nene Gravel Pits SSSI, also a European Protected Site.*



*Britain’s loudest bird, the bittern, has bounced back from brink of extinction & is a feature of the SPA.*

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## What were the biodiversity measures taken?

In collaboration with the local Wildlife Trust and Natural England, Kier and Highways England designed and implemented a diverse array of environmental enhancement work instigated within the 'soft estate', particularly with regard to landscape and biodiversity priorities. As a consequence, extensive areas of this familiar highway were earmarked for replanting with native trees, plug plants and wildflower seed to target pollinating insects within areas of wetland, grassland and woodland. This approach positively contributes to several habitat action plans detailed in the *Northamptonshire Biodiversity Plan (2015)*, as well as positively influencing the conservation status of part of a complex of 3 Sites of Special Scientific Interest (SSSI, currently unfavourable - recovering status) at a coarse landscape scale.

Together with active woodland management through thinning operations, wildflower meadow cutting, wet woodland creation, stream margin planting and provision of bird and bat boxes, this has created a more resilient ecotone and has already shown biodiversity gain (*Plate 3*) – strengthening the buffer and visual screening around the unique Nene Valley, and also providing a pleasant environment for local commuters and walkers alike.

With a lens of consideration for long-term management, specifics of this project included:

**Tree planting** (including wet woodland species) of 8300m<sup>2</sup>; **Woodland thinning with tree and plug planting** of 10850m<sup>2</sup>; **Shrub and wet grassland plug planting** of 5000m<sup>2</sup>; **Litter removal and shrub planting** of 3760m<sup>2</sup>; **Selective scrub thinning**; **Biannual wildflower cut and scrub thinning** of 7800m<sup>2</sup>; **Stream marginal planting** of 300m; **19 bird boxes** (nuthatch, stock dove, wren, robin) and **12 bat boxes**.

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Before (left) and after (right): typical areas of soft estate grassland were enhanced through planting to comply with National Character Area 89: Northamptonshire Vales.



The A45 re-landscaping scheme has delivered a valuable nectar source for pollinating insects on roadside verges, aligning with Defra's National Pollinator Strategy.

### Further information

This ambitious project has aimed to enhance the ‘soft estate’ adjacent to the Upper Nene Valley Gravel Pits internationally designated site through screening, protection, improving habitat condition and targeting biodiversity. The team learnt that stakeholder engagement with Natural England and the local Wildlife Trust (Bedfordshire, Cambridgeshire and Northamptonshire) was invaluable in refining and improving deliverables. For example, site meetings led to amendments to species lists to reduce risks of encroachment to nearby wetland areas, and further partnership work in lieu of the southern extent of Highways land, closest to the SPA. This project provided a unique opportunity for the project team to develop their skills set in designing a true legacy to meet expectations for both ‘place’ and ‘people’ in the Nene Valley (Plate 5).

### What was the motivation for carrying out the enhancement?

We wanted to go above and beyond envisaged expectations for this project to demonstrate clearly a clear and specific commitment to enhancing biodiversity for multi-purpose objectives – for the landscape, for local people, and for resident species (Plate 6). Innovative approaches to managing linear highways assets blended approaches from the Lawton *Making Space for Nature* philosophy to strengthen land buffers around a European Protected Site for current and future generations to enjoy.



*The legacy of this project is one of creating a sense of place, but also linking nature to people.*



*Protected species such as this great crested newt reside within the Nene Valley landscape, and can be found in the unlikeliest of places, such as roadside drains!*

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