NEWTS TO NET GAIN

Case Study

Houlton, Rugby
18 OCTOBER 2024

Urban&Civic

BMD

RADIO STATION TO HOULTON

Houlton began as ‘Rugby Radio Station’ - a redevelopment of the 920 acre Post Office Radio Transmitter site to the west of Rugby.

As proposals for the Sustainable Urban Extension progressed, the project became ‘Houlton’ and continues to deliver high quality homes within an ecology and landscape led masterplan.

Houlton demonstrates the benefits of a considered, long-term strategy for the integration, protection and enhancement of biodiversity. Early investment in the establishment of a rich network of varied habitats is now delivering, year on year, a measurable increase in biodiversity.

Homes at Houlton are set within extensive green infrastructure.

NEWTS, PONDS, AND WILDLIFE CORRIDORS

The development of proposals for ‘Rugby Radio Station’ preceded the advent of Biodiversity Net Gain. Nonetheless, ecology was at the forefront of scheme design, with quarterly ecology workshops attended by Natural England, Warwickshire County Council Ecology and the Wildlife Trust to inform design of the emerging scheme.

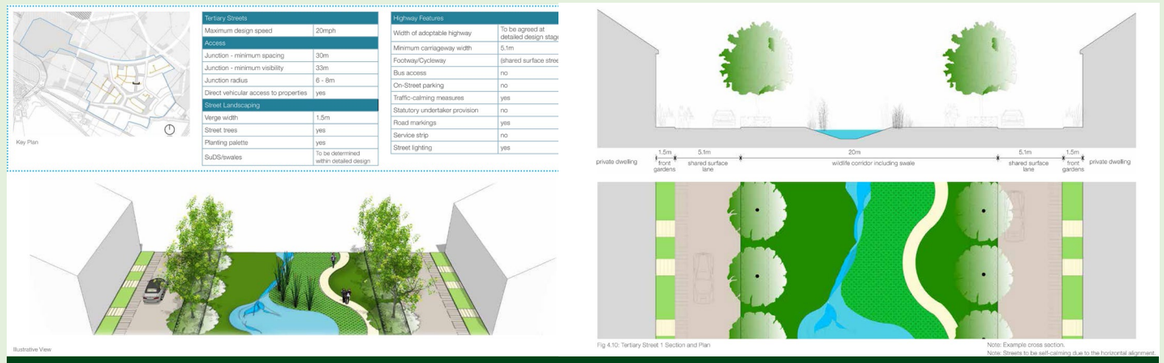
The Great Crested Newt population - recognised as the most important ecological asset on the site - was the primary driver of the overall Ecology mitigation strategy. To reflect this, a web of interconnected wildlife corridors were planned, weaving across the site to ensure the connection and retention of the valuable pond network.

The corridors support over 100 biodiversity ponds (a fivefold increase), alongside a rich mosaic of meadow, scrub and woodland habitats which will permit uninhibited movement throughout the Green Infrastructure network.

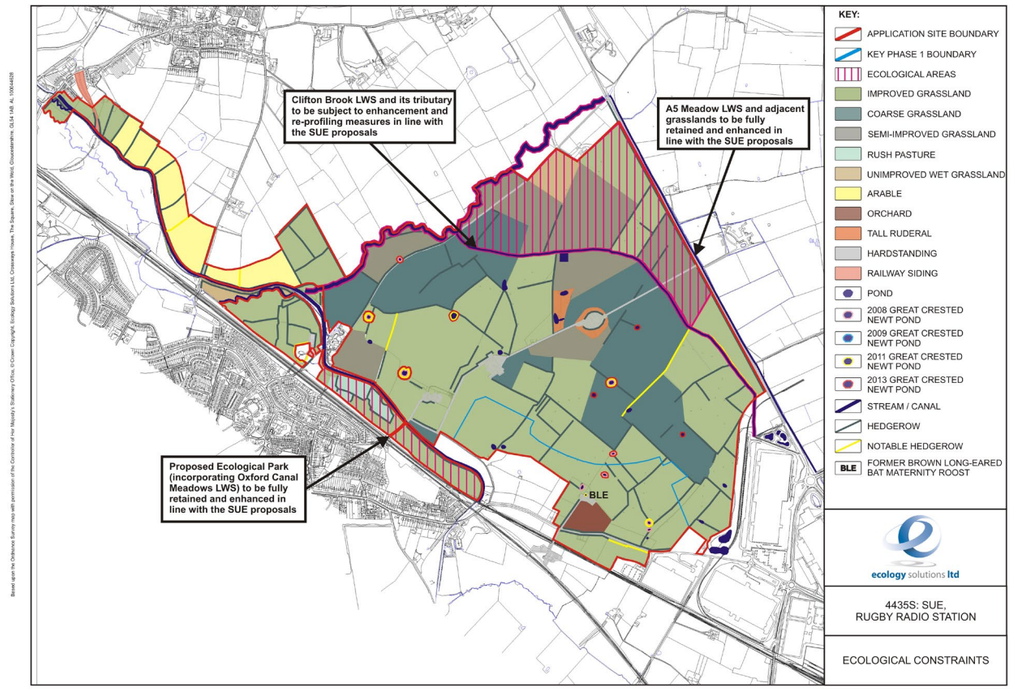
The mitigation strategy further benefited from an innovative approach to implementation. The planning strategy permitted detailed ecological mitigation to be designed and implemented separately to urban development, allowing the delivery of green infrastructure to be accelerated ahead of homes and schools.

This front-loading of habitat delivery was supplemented by the careful selection of ‘holding areas’ - locations within the wildlife corridors where GCN could be retained in-situ. Once development had been completed around them, the holding areas were opened up to release the population into the extensive network of green corridors.

The mitigation strategy for the Houlton GCN population has been underpinned by protected species licence applications, each of which set out detailed prescriptions to safeguard and enhance GCN populations within that phase. These individual licence strategies are in turn governed by a GCN Masterplan, approved bv Natural England, that ensures a holistic approach to mitigation across the development.

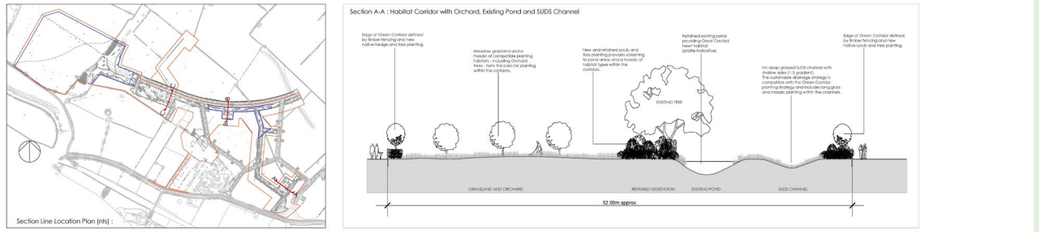


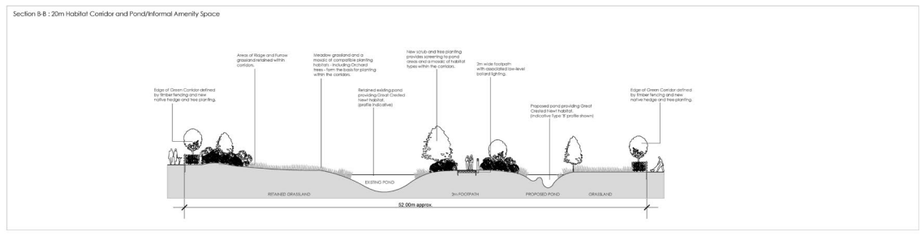
Wildlife Corridor with Street

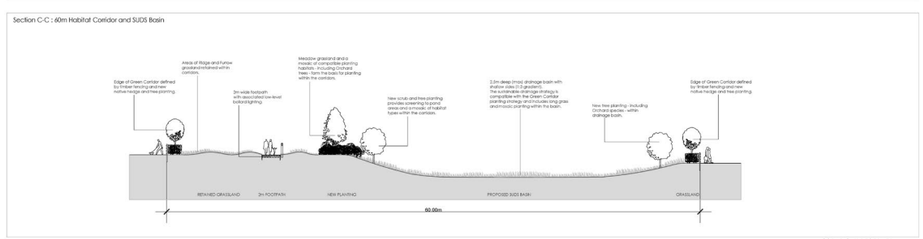


OPA Site-wide Ecology Strategy

KP1 Grey and Green Infrastructure Landscape Plan







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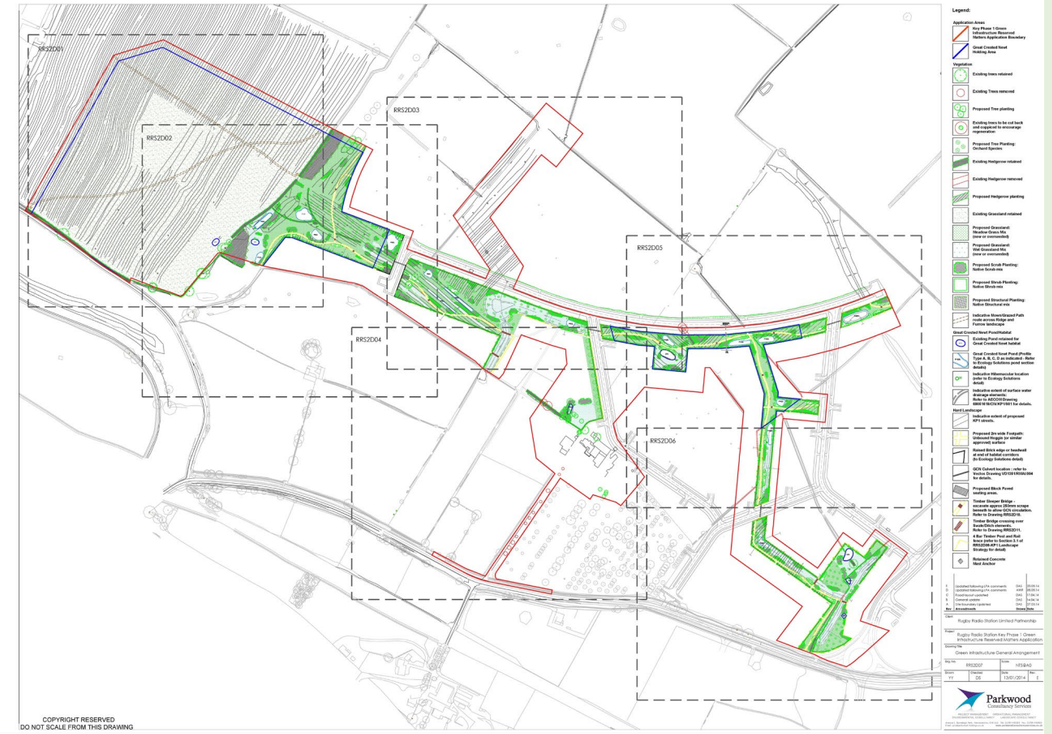
Rugby Radio Station Limited Partnership
Rugby Radio Station Key Phase 1 Green Infrastructure Reserved Matters Application
Green Infrastructure Typical Sections
RRS2008
1:100@A0
Drawn CS
Checked CS
Date 25/03/2014
Rev E
Parkwood Consultancy Services

Green Infrastructure Sections



Planning and Design

The mitigation strategy for the Houlton GCN population has been underpinned by protected species licence applications, each of which set out detailed prescriptions to safeguard and enhance GCN populations within that phase. These individual licence strategies are in turn governed by a GCN Masterplan, approved bv Natural England, that ensures a holistic approach to mitigation across the development.

A LEARNING PROCESS

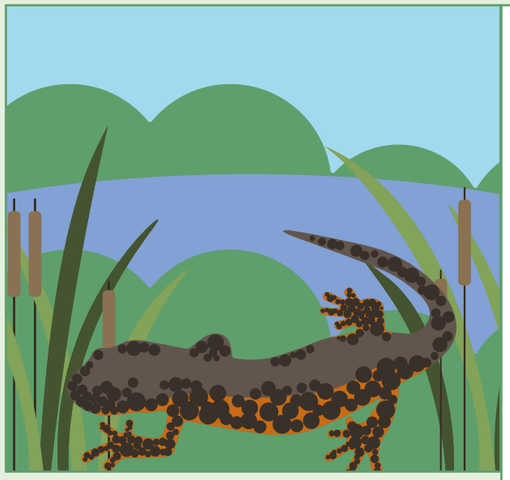
The establishment of such an extensive network of wildlife corridors has not been without challenges and many important lessons have been learnt along the way.

Strategies and details have been evolved as the efficacy of methods have been able to be tested ‘in the field’. For example, later phases have amended planting mixes to reduce or avoid the planting of some vigorous aquatic species such as Typha, which have become dominant and challenging to manage in some of the ponds.

The Phase 1 corridors are set out out to incorporate large, bespoke, concrete tunnels and headwalls that allow species to travel under the highway routes. These structures represented the ‘best in class’ approach at the time, as per discussions with Natural England.

Subsequent monitoring of population movements and dispersal within the green infrastructure has meant that much smaller ‘off-shelf’ products were able to be introduced from Phase 2 onwards - reducing disruption to the existing landscape as well as excavation requirements, carbon impacts and project costs.

Houlton prioritises the retention of key features, like ponds, within the wildlife corridors.



KEY ADDITIONAL FACTORS INCLUDE:

Higher scores for areas of proposed neutral grassland and marshy grassland creation.

Some risk factors are reduced, based on evidential establishment of habitats.

Higher unit scores associated with the proposed enhancement of retained habitat areas.

A 70:30 built-to-vegetated ratio that allows for features such as vegetated gardens, small verges and other planting areas within the built form.

2014

MAY 2014
Outline consent granted.

Key Phase 1 commences, including design of wildlife corridors and GCN holding areas.

2020 | 8.87%

OCTOBER 2020
BNG assessment undertaken using Warwickshire County Council (WCC) metric.

Assessment indicated a net gain of 8.87%. Based on highlevel review of outline planning and Key Phase 1 framework information.

Included use of high-level typologies of key habitat areas at the initial review stage.

2021 | 16.64%

OCTOBER 2021
BNG assessment undertaken using Warwickshire County Council metric.

Assessment included detailed design proposals for Key Phases 1, 2, 3, C Station, Clifton Brook, and Link Road.

Included detailed measurement of wildlife corridors, country park layouts and the enhanced Clifton Brook.
More detailed review identified a likely 16.64% BNG score for the completed scheme.

2022 | 28.75%

MAY 2022
BNG assessment converted into the Biodiversity Metric 3.1.

Used area measurements from 2021, but with a more detailed review of habitat types and conditions, as relevant to the new metric.

Resultant increase to 28.75%.

INVOLVED COMMUNITY

As much as the scheme design and management processes are important, we have found that engagement with the public, and education about what the landscape is trying to achieve, have been key factors in the successes at Houlton.

Community engagement has helped with the effective operation of the wildlife corridors. For example, engaging with the community to explain why the release of fish - which are predators to GCN - into ponds by local residents should not take place.

A simple, but highly effective, management operation to mow a 1m strip along pathways has ensured that people understand that these ‘wild’ spaces are being managed and cared for - even when they look different to a ‘normal’ public park.

The installation of information boards and educational resources is supplemented by active social media engagement allowing information to be widely shared with site users.

Fundamentally, this multi-functional approach encourages community users to care for and understand their neighbourhood landscape, endowing them with a sense of responsibility to enjoy the green corridors in a sensitive manner.

ONGOING SUCCESS

Biodiversity Net Gain (BNG) ensures that habitats for wildlife are left in a measurably better state than they were before development. This is now mandatory in England, with a minimum score of 10% betterment required for developers.

Houlton is scoring highly because of the initial prioritisation and retention of high-value features such as the existing pond network, which forms the foundations for a series of ongoing enhancement and creation initiatives.

Proposals included new and enhanced grassland on former lower value grazed pastures which increases the biodiversity value through provision of species-rich meadow and marshy grassland areas.

Additional features of higher value have also been included in the design such as scrub and woodland planting, again increasing the value of the former grazed areas through provision of a mosaic of habitat types.

Houlton very simply takes the retain, conserve, enhance approach and - through effective stewardship and maintenance - has consistently delivered on the promises set-out at the start of the planning process. A strategy that was first underpinned by the conservation of a keystone species has blossomed into a rich and ever-evolving nature network, that continues to grow.