

Liverpool City Region Ecological Network Nature Improvement Area focus area

NIA Focus Area 07: Netherley Brook and Ditton Brook Corridor

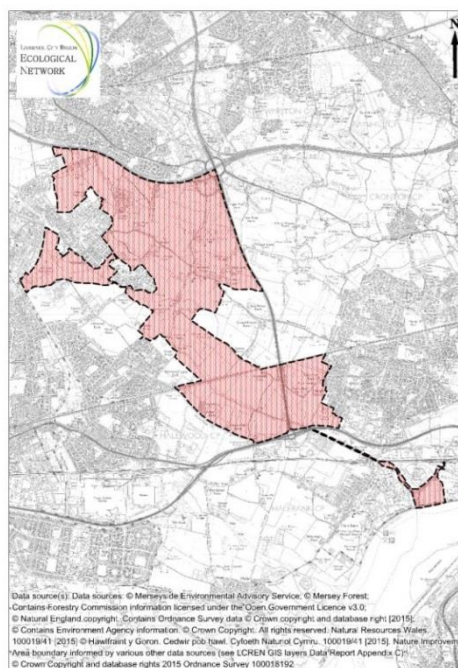
District(s): Halton, Knowsley and Liverpool

Area: 871 hectares

Ecological priorities are:

Habitat creation

- Grassland, especially around the existing grasslands sites;
- Woodland, specifically around the existing woodlands; and
- Wetlands, supporting the existing habitats such as swamp, open water and ponds. Also, opportunities to re-naturalise the rivers and brooks.



Habitat management

- Enhancing the watercourses, especially in-channel habitat and naturalised banks;
- Maintaining and enhancing the existing woodlands;
- Maintaining the extent and increasing the species diversity of the existing grasslands; and
- Maintaining and enhancing the ponds present

Existing ecological features:

1. There are 281ha of existing habitat.
2. Core Biodiversity Area: Rivers; 2 LNRs; 19 Local Sites; together with woodland, wetland and grassland Priority Habitats.
3. Linear features: Hedgerows; rivers; roads; and railway lines.
4. Species: Water vole; brown hare; great crested newt; farmland birds (e.g. linnet, redpoll); barn owl.



Clinton Wood, www.geograph.org.uk

Focus area description:

The Focus Area is drawn around the existing ecological assets, such as the designated sites and rivers. Ditton and Netherley Brooks are a significant corridor that connects the Mersey Estuary with the farmland of south Liverpool, Halton and Knowsley.

The land to the north of the A561 is agricultural and has been so since medieval times. The land to the south has been affected by industry located along the banks of Ditton and Steward's Brooks. Existing land uses within the Focus Area, including agri-businesses, have been actively managing the landscape to benefit the local residents, economy and environment. The opportunities identified within the Focus Area would build upon this existing work.

Ecological opportunities

Habitat creation:

- **Rivers and brooks:** The brooks are heavily modified, but the old courses of the rivers north of Foxhill Farm are still present. These could be reconnected to the main river to allow more water to flow. This would re-establish some natural processes within the river channels. The main channel of the watercourses could then be used as flood conveyance with habitat improvements, such as in-channel habitat variation and removing artificial banks. This would encourage more species in the watercourses and improve the ability for species to move along the habitat corridors. Habitat improvements could benefit water vole and barn owl populations.
- **Wetlands:** Swamp habitats exist along the rivers and brooks. There are also areas of wetland within the flood plain and expanding the existing habitats would increase the habitat area. There is potential to create new habitats where existing pooling of water occurs. Further naturalisation of the watercourses provides one opportunity to create this habitat. The network of drains and old river channels around Netherley could be managed to retain sufficient water to support swamp habitats.
- **Ponds and Open Water:** The Focus Area already contains field ponds throughout. Ponds near the Knowsley Expressway are ecologically interesting as they are unique and historic features. The expansion of the pond network across the Focus Area is important to support amphibian and insect populations. Small water bodies could be created around the edges of fields, within existing green spaces, within developments and could act as sustainable drainage features.
- **Grasslands:** There are some grassland habitats within the Focus Area. Additional grassland creation would increase the habitat connectivity. Fields prone to flooding or close to brooks that would enable flooding could be converted to wet grassland. Alternatively small habitat areas could be created where water pooling already occurs. 'Dry' grassland creation would complement existing grasslands and could be created where ground conditions are drier.
- **Woodland:** Pockets of woodland are spread across the Focus Area and many are important ecologically. Additional planting would buffer the existing sites and allow species populations to be more resilient and expand into new woodland and between sites. Woodland or hedgerow planting that links the woodlands would also enable species to move between the currently isolated sites. The planting could create woodland belts to connect the woodlands with linear features, such as connecting Green's Bridge Plantation with the railway corridor.

Habitat management priorities:

- **Rivers and brooks:** The river corridors are narrow in places and the management options are limited. Maintaining the diversity of habitats, including trees, grassed banks and emergent vegetation is important. This would support important species such as water vole, barn owl and feeding bats. Dense vegetation is present in areas and this limits the species diversity on the banks and within the watercourse. Removing small areas would allow more species to establish.
- **Agricultural land:** The current use of agricultural land is mainly arable. Changes in management to spring sown crops, leaving stubble overwinter and/or rotating cropping cycles including a fallow year would improve the potential for farmland species to use the area.
- **Hedgerow:** Hedgerows are present throughout the Focus Area and are important links across the landscape. Traditional management of the hedgerows, such as laying, would strengthen the structure. Measures such as filling gaps in existing hedges and cutting every 3 years would improve the function of the hedgerow. Planting and allowing tree species such as oak, ash and field maple to grow taller than the hedge would provide a diversity of height and expand the tree cover of the area. Hedgerow management allows the existing uses of fields to be maintained while linking habitats. (Please note – planting of ash should follow Forestry Commission guidelines to prevent spread of disease from new plants to existing trees).
- **Woodland:** There are only a small number of mature woodlands in the Focus Area. Extensive areas of plantation woodland existing around Tarbock Hall, New Pale Wood and within Widnes. Management for ecological benefit is limited. Introducing and targeting management would improve the ecological value of the woodlands. Introducing shrub species and ground flora, where necessary, would ensure woodlands are simulating natural woodlands. Traditional management, such as coppicing, to maintain or increase species diversity.
- **Grassland:** Where grasslands are present management can include maintaining the extent of and preventing them from developing into scrub or woodland. This could include annual cutting for hay and conservation grazing. Areas such as the grassland adjacent to Mill Brook would benefit from management to maintain the habitat and the naturalised setting for the brook.
- **Ponds:** Ponds across the Focus Area differ in the habitats they provide, being at various stages of succession and this is important as it provides habitat for a large number of species. Management could maintain the range of habitats and also prevent ponds drying out and being too shaded. Protection of ponds from pollution inputs such as nutrient enrichment is important to ensure the habitat could support important species. Populations of great crested newt exist across the Focus Area and in the wider landscape. The known pond is isolated and provides poor breeding habitat. Enhancements to the pond and linking it to terrestrial habitats are important.

Ecosystem Services Benefits

The Focus Area is adjacent to the urban area of south Liverpool and Knowsley. There are a number of recreational facilities such as paths, golf courses and nature reserves. Improvements

to the environment would help deliver a vibrant corridor that is well used and valued by the local residents. Parts of Knowsley, Liverpool and Halton have issues with poor health and the Focus Area could provide the opportunity to increase outdoor activities that help improve mental and physical health.

The Focus Area's watercourses, wetlands and floodplain areas act to store water. Improvement in the function of the habitats would help to store more water, while further habitat creation could add to the storage capacity. The watercourses are also in poor condition under the Water Framework Directive. Ditton Brook from Netherley to the Mersey Estuary is an Environment Agency priority for action. Improvements and expansion to habitats such as swamps would help to filter water and improve the quality. Initiatives such as the Water Framework Directive could help support landowners to deliver wetland habitat creation and management.

Management of the woodlands, in particular, could provide economic opportunities in relation to renewable energy through biomass. The woodlands act as a carbon store and provide a renewable fuel. This could provide opportunities to recoup resources and would strengthen management. Expansion of woodlands would over time provide further economic opportunities and could be used to support agricultural diversification. The plantation woodlands in New Pale Wood and within Widnes could be used for this sustainably.

Woodlands provide opportunities to store carbon. Grasslands can also be a significant store of carbon if managed correctly and this management can also increase the resilience of the habitat to climate change. Habitat creation could act to filter air quality, which is impacted by the proximity of the urban areas. This 'green lung' would help to improve respiratory health issues in the nearby residential areas.

There is a mixture of arable and grazing land in the Focus Area. The potential ecological opportunities would provide opportunities for expanded grazing which could support the local horticulture industry and potentially expand local dairy and meat production. It could also provide a higher value crop such as hay to be sold to farmers and stables in the wider area. Grassland creation or management could be supported financially by government environmental management schemes.

Focus Area support to wider priorities and strategies

Local Plans – The local authorities in the City Region have worked together to prepare the LCR Ecological Network as a joint evidence base and to help plan for biodiversity at a landscape-scale in line with the National Planning Policy Framework. Discussions with neighbouring areas through Nature Connected, the Government-recognised Local Nature Partnership, have enabled wider connections beyond the city region to be made. In line with paragraph 117 of the National Planning Policy Framework, the LCR Ecological Network includes a Core Biodiversity Area of designated nature and geological sites and Priority Habitats, linking networks and strategic priorities for habitat creation or enhancement. This is one of seventeen Nature Improvement Area Focus Areas which together make up the LCR Nature Improvement Area. Although not a Proposals Map designation, further refinement of NIA boundaries and land uses may occur as part of each district's Local Plan processes.

Catchment Flood Management Plans – the ecological opportunities could be used to store flood waters and release them slowly. This is in line with the approach the Environment Agency is taking to deal with flooding within the Ditton catchment.

River Basin Management Plans (Water Framework Directive) - the ecological opportunities would help deliver improvements to water quality and morphology. This would help to improve the ecological condition of the watercourses.

Mersey Forest Plan – woodland and hedgerow creation is in line with Policies for this area in the Plan. The protection, expansion and management of other habitats is a Plan wide policy which the ecological opportunities could deliver.

National Character Areas –the ecological opportunities are in line with the four ‘Statements of Environmental Opportunity’ identified in the Mersey Valley NCA 60 profile. Delivery of the Focus Area ecological opportunities would strengthen landscape resilience and adaptation to climate change. This would help the Character Area achieve sustainable growth and a more secure environmental future.

Countryside Stewardship scheme – The scheme could support land managers in the delivery of multiple public benefits. Overall, biodiversity should be the priority for the scheme but synergies also exist to maximise opportunities to deliver biodiversity, water quality and flooding benefits. The scheme could also contribute towards the delivery of our water quality objectives.

Nature Connected – implementation the Focus Area’s ecological opportunities would work towards the LCR LNP’s Key Action D and would also support the delivery of its other Key Actions.

LCR LEP – the ecological opportunities could help support the LEP’s Priority for Low Carbon Economy. The Focus Area could also help to support the LEP’s Priority for Knowledge Economy and Skills by enhancing and inspiring learning for school and higher education students, including work placements/training in the natural environment.

Atlantic Gateway - the NIA ecological opportunities fit with the investment opportunities of infrastructure through flood control and sustainability.