

Focus area description:

This Focus Area follows the course of the River Alt and its tributaries. It is predominantly within the Green Belt along the M57 corridor and includes the large public parks of Croxteth Park and Valley Park, Kirkby. It is an important 'greenway' linking and providing drainage for the adjacent urban areas. The Focus Area boundary has been drawn tight to the urban area in places to reflect the interaction between the ecological network and the built environment. The ecological network is narrow in places, such as along the rivers and some of the links with Croxteth Park. However, key links have been retained through the historic development in the area.

The area is predominantly farmland, but a significant proportion is currently unused (2015). Grassland has developed in this area and it is developing into a significant grassland resource within the City Region because of its scale. This complements the grasslands present in other places of the Focus Area, such as Valley Park and around Fazakerley. Some areas of grassland are managed for biodiversity and people, such as at Woolfall Heath and in Valley Park. The area includes a large amount of woodland, particularly within and close to Croxteth Park. The woodlands are important for species such as red squirrel.

The rivers support populations of water vole. However, all are heavily modified and impacted by built development and land use, including historic land use. The river corridors, including the flood plain, are narrow in places and this impacts the ecological potential and the flood storage potential. Schemes have been undertaken to re-naturalise stretches of the rivers, such as Tue Brook and River Alt at Woolfall Heath.

Ecological opportunities

Habitat creation:

- **Ponds and Open Water:** The Focus Area already contains a large number of water bodies particularly around Croxteth Park and Fazakerley. The expansion of the pond network across the Focus Area, particularly into areas around Kirkby and Aintree 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.
- **Rivers and brooks:** The brooks are heavily modified and there is limited potential to alter this. Priorities are to introduce in-channel habitat variation and remove artificial banks. This would encourage more species in the watercourses and improve the ability for species to move along the habitat corridors. Tue Brook in Fazakerley was de-culverted as part of the Environment Agency's drive to de-culvert watercourses through the Water Framework Directive. Other re-naturalisation could occur on the watercourses within the disused farmland. Habitat improvements could benefit the water vole population.
- **Wetlands:** Swamp habitats exist along the rivers and brooks. There are also some areas within Fazakerley, Stonebridge Cross and at Wango Lane. The recent de-culverting of Tue Brook, Fazakerley created the largest area of swamp in Liverpool. Further naturalisation of the watercourses provides an opportunity to create this habitat. The Focus Area is naturally wet and potential exists to create swamp where existing pooling occurs. There are also a number of drains in the grasslands between Croxteth and Knowsley village where water levels could be managed to retain sufficient water to support swamp habitats.
- **Grasslands:** A key habitat is 'wet grassland' where the ground is naturally wet. 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, such as in the fields adjacent to the M57. The ground is naturally wet and enhancing the existing areas of wet grassland by planting appropriate species could be a simple project that would enhance the habitat. 'Dry' grasslands in other areas would complement the other habitats; opportunities for this exist through Valley Park. Wet and dry grassland would form a mosaic because of the localised water logging.

- **Woodland:** This would form a mosaic with wet woodland. Significant natural woodland regeneration is occurring on the unused fields adjacent to the M57. Managing and supporting the regeneration provides the best opportunities for biodiversity. 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 blocks to fill in gaps, such as between Howard's Pits and Meakin's Pits, or could create woodland belts to connect the woodlands across longer distances such as between Knowsley Wood and Craven Wood.
- **Wet woodland:** Some woods such as Little Wood, Howard's Pits and Willow Bed Plantation contain wet areas. Management could enhance the existing areas and drainage features within and adjacent to the woods could be altered to increase the coverage of wet woodland. Water tolerant species such as alder, could be planted to assist the habitats to develop.

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 vital. This would support important species such as water vole 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.
- **Woodland:** Some of the existing woodlands, such as at Little Wood, are in management. Management ranges from amenity to some habitat works. Some sites, such as Croxteth Country Park are managed in areas, but due to the size and resources there are gaps in management. Further targeting the habitat works would improve the ecological value of the woodlands. Fazakerley woodlands contain one of the few confirmed breeding sites for lesser spotted woodpecker in Lancashire and North Merseyside. Maintenance of the habitat and expansion into other woodlands is vital to ensure the rare species population is maintained. Himalayan balsam and rhododendron are significant issues, requiring management, within many woods which affects the ground flora.
- **Grassland:** Extensive grasslands occur in the Focus Area such as along the M57 motorway, within Croxteth Park and around Fazakerley. Some grasslands have lots of species present and are important, such as Woolfall Heath, while others are managed as amenity grassland such as along Valley Park. A number of grassland areas are within public ownership. Changes in management, such as reduced cutting regime or introducing species would help areas to develop. Areas such as at Valley Park and Woolfall Heath contain species rich grasslands that could act as green hay donor sites for adjacent amenity grasslands. The areas adjacent to the M57 are in private ownership, some areas are used for horse grazing. This grazing can help to develop flower rich meadows if carried out sensitively.

- **Hedgerow:** Hedgerows within the Focus Area are scattered throughout. 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 rowan 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).
- **Ponds:** A significant concentration of ponds exists within Croxteth Country Park, the associated open fields and the neighbouring woodlands. The ponds 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 can 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 can support important species. The ponds in Croxteth Country Park are at risk from shading and projects to manage them could be delivered relatively cheaply, landowner support would be required.
- **Wood Pasture and Parkland:** This habitat is maintained by grazing. However, a reduction of grazing levels would allow more plant species to thrive. Planting of new parkland trees is required to maintain the habitat into the future. Inclusion of the Pasture and Parkland in countryside stewardship type schemes would be ideal. The Lancashire Wildlife Trust manages part of the Country Park and could provide the management body if support was provided.

Ecosystem Services Benefits

The Focus Area along the M57 and through Croxteth Country Park has been identified as an important green transport route between Kirkby, Knowsley, Liverpool and Huyton. Improvements to the environment will help deliver a vibrant corridor that is well used and valued by the local residents. Parts of Knowsley and Liverpool have issues with poor health and the Focus Area can provide the opportunity to increase outdoor activities that help improve mental and physical health. Recent investments in sustainable transport such as footpath and cycle routes in the Focus Area for health and well-being as well as transport would be supported.

The Focus Area's watercourses, wetlands and floodplain areas act to store water. Improvement in the function of the habitats will help to store more water, while further habitat creation will add to the storage capacity. This helps to make properties and land more secure outside the Focus Area within the densely urban areas and is linked to increases in property value. The watercourses are also in poor condition under the Water Framework Directive. Some stretches, such as the River Alt through Gilmoor, are Environment Agency priorities 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. The woodlands act as a carbon store and provide a renewable fuel. Many of the woodlands are managed by Knowsley or Liverpool Councils and opportunities to recoup resources would strengthen management through sustainable biomass for renewable energy. Expansion of woodlands could over time provide further economic opportunities and could be used to support agricultural diversification. The expansion of woodland along the M57 could

provide an opportunity for this.

Woodlands provide opportunities to store carbon. Grasslands are also 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 M57 and the road network adjacent to the Focus Area. This would help to improve respiratory health issues.

There is a mixture of arable and grazing land in the Focus Area. Many of the existing important grasslands are unmanaged or have limited management. The potential ecological opportunities would provide opportunities for expanded grazing which could support the local horsiculture 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 the countryside stewardship scheme.

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 help to store flood waters and release them slowly. This would support the Environment Agency's approach for dealing with flooding in the urban areas.

River Basin Management Plans (Water Framework Directive) - the ecological opportunities would help deliver improvements to water quality and morphology. This would help 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 which seek to increase the woodland cover in this area. The protection, expansion and management of other habitats is a Plan wide policy which the ecological opportunities could help to deliver.

National Character Areas –the ecological opportunities are in line with the four 'Statements of Environmental Opportunity' identified in the Merseyside Conurbation NCA 58 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 to support the LEP’s Priorities for the Low Carbon Economy and Visitor Economy such as at Aintree Racecourse, Croxteth Country Park and Knowsley Estate and through sustainable transport. The Focus Area could also support the LEP’s Priority for the 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.