**West Yorkshire Wildlife Habitat Network**

**Methodology:**

The National Planning Policy Framework (NPPF) defines ecological networks as *networks that link sites of biodiversity of importance*.

The proposed methodology looks to link recognised wildlife sites of at least district-level importance, by identifying continuous stretches of permeable habitat that can be utilised over time by species moving between core areas. The use of stepping stone sites has also been used where continuous habitat links are not possible.

The West Yorkshire Wildlife Habitat network has been produced by combining District Wildlife Habitat Networks drawn up between 2011 and 2016 by Wakefield District Council and West Yorkshire Ecology Service (acting on behalf of Bradford, Leeds, Kirklees and Calderdale District Councils) using Geographical Information System (GIS): MapInfo Professional 12.0.

Core areas have been linked using existing habitat spatial layers (e.g. Natural England’s Priority Habitat Inventory (PHI) layer; designated site survey data) and data derived from OS MasterMap Topography layer. Additional sources of data held within West Yorkshire Ecology Service records including the “Full Species List” have added to the evidence base.

Field units taken from MasterMap were assigned a habitat type category (e.g.: woodland, grassland, wetland, heathland etc.) using Bing aerial photography and the 1990 Phase I Habitat raster maps for West Yorkshire.

Due to time constraints, the individual habitat components of these field units, derived from additional spatial datasets and/ or aerial photography were not be digitised. These habitat categories were subsequently merged to produce a single simplified GIS layer, with the original layers being held by West Yorkshire Ecology Service.

Spatial datasets for use in construction of the wildlife habitat network:

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| **Designated wildlife site boundaries:** |
| Natura 2000: Special Area of Conservation (SAC)/ Special Protection Area (SPA) |
| Sites of Special Scientific Interest (SSSI) (1st tier sites) |
| Sites of Ecological & Geological Importance (SEGI) and Sites of Scientific Interest (SSI) which are known collectively as 2nd tier sites. |
| Kirklees Special Wildlife Site (SWS), Leeds Nature Areas (LNA), Bradword Wildlife Areas (BWA), Wakefield Nature Areas (WNA) which are all know collectively as 3rd tier site (note than no 3rd tier sites ever existed in Calderdale. |
| Local Wildlife Site (Now replacing the 2nd and 3rd tier sites as reassessment takes place against new site selection criteria) |
| Local Nature Reserve (LNR) |
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| **Habitat datasets:** |
| Ancient Woodland Inventory boundaries |
| Natural England Priority Habitat Inventory (PHI)  |
| Natura 2000 (SAC/SPA) 2009 NVC surveys |
| SSI/SEGI 1997 and 2002 NVC surveys |
| Local Wildlife Site surveys (2011 – 2015) |
| 2012 South Pennine Moorland Fringe bird & habitat surveys |
| 1990- Local Authority Grassland Surveys |
| Phase 1 Habitat Surveys (1990-1993) (raster images) |
| **Species:** |
| Bat species (2000-) |
| Great Crested Newt (1990-) |
| Twite (2000-) |
|  |
| **Other datasets:** |
| TPO |
| Kirklees BAP Sites |
|  |
| **Environment Agency:** |
| Risk of Flooding from Rivers & Streams (Medium and High) |
|  |
| **Natural England:** |
| Green Infrastructure Corridors  |
| Impact Risk Zones (IRZs) for SSSIs |
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| **Base layers:** |
| OS MasterMap Topography  |
| Bing Aerial Photography |

**Habitat type categories:**

1. Woodland: broad-leaved/ mixed woodland, including traditional orchards; dense scrub and hedgerows
2. Grassland: semi-improved and unimproved grassland, including upland hay meadow; lowland meadow; lowland dry acid grassland; good quality semi-improved grassland and grass moor
3. Heathland & Bog: upland and lowland dry and wet heathland; bog habitats, including blanket bog; purple moor grass; upland flushes, fens & swamps; bracken
4. Wetland: rivers/ becks (including culverted stretches), ponds, lakes, lowland fen, floodplain grazing marsh, reedbeds
5. Other: quarries; gardens; post-industrial open mosaics on previously developed land

**GIS dataset includes the following information (column headings):**

* Habitat description (e.g.: planted broadleaved woodland and scrub; where possible, using Phase I descriptions)
* Sources of data used to assess field unit (i.e. aerial photographs, phase I or NVC data; other field survey data)
* Designation status (i.e. Local Site; Site of Ecological or Geological Importance; Local Nature Reserve etc.)
* Size (in hectares)
* Additional comments (does it lie within existing Green Infrastructure Corridor)
* Grid reference for centroid of land parcel
* EASTINGS for centroid of land parcel
* NORTHINGS for centroid of land parcel

Note that some of this detail has not been incorporated into the West Yorkshire combined layer. In order to reduce the very large file size polygons have been merged across a full district. For more background detail please refer to West Yorkshire Ecology Service.