Biodiversity net gain.
Good practice principles
for development

Case studies

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17 Strategic mapping: Solihull, Warwickshire, Coventry

Details	
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17.1 PROJECT SUMMARY

The aim of the sub-regional GI strategy is to fulfil two priorities for each of the woodland, grassland and wetland habitat categories:

1   Connect together individual sub-regional GI biodiversity assets to form core areas.

2   Connect the core areas together (subject to point 1 being achieved) to form large functional clusters. The Warwickshire, Coventry and Solihull GI strategy (CSWAPO, 2018) identifies sub-regional biodiversity assets that collectively form core areas for woodland, grassland and wetland habitats and the pathways between them. Core areas are 1 km² that contain more than 20 hectares of a suitable habitat category within them. This approach enables Warwickshire County Council (WCC) to identify strategic enhancement areas that have less than 20 hectares of a suitable habitat category within them. This threshold is based on the theory that if a 1 km² which has 20 hectares of a habitat category within it will 'function', ie species will be able to freely move between each GI asset.
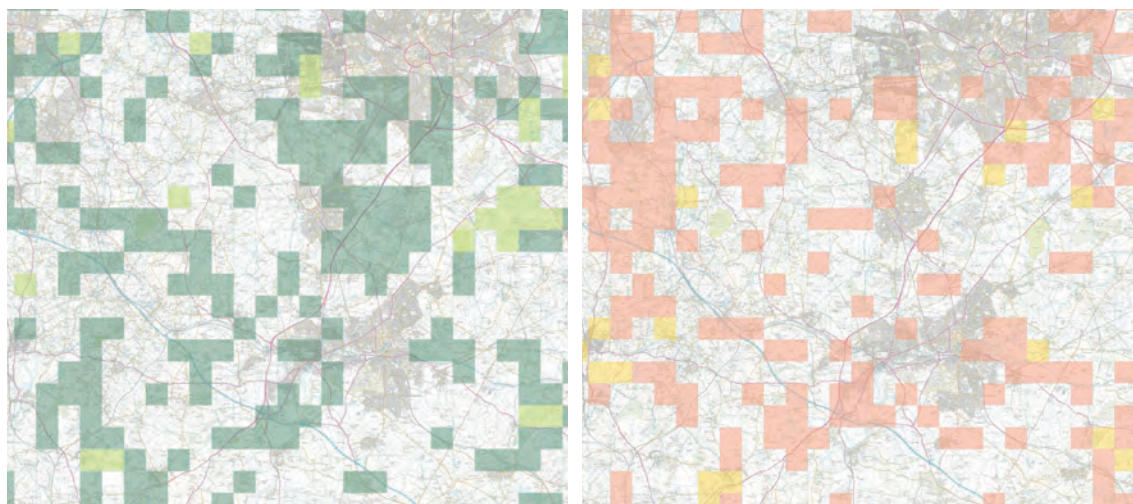
Figure 17.1   Core area and strategic enhancement area

WCC and the University of York used the sub-regional Phase 1 habitat biodiversity audit (HBA) data to identify local connectivity networks at a field and hedge level (Moilanen and Nieminen, 2002). This information is used within planning functions to secure biodiversity connectivity objectives at a site level to meet sub-regional objectives.

However, the WCC needs to know how the sub-region fits into a national picture. To do this they obtained other local record centre plus Landcover 2007 habitat data covering an area from Bristol to The Wash and modelled regional ecological flows (Condatis, Liverpool University). The Council with the Centre for Ecology and Hydrology (CEH), Natural England and Liverpool University have just modelled UK flows (to be published).
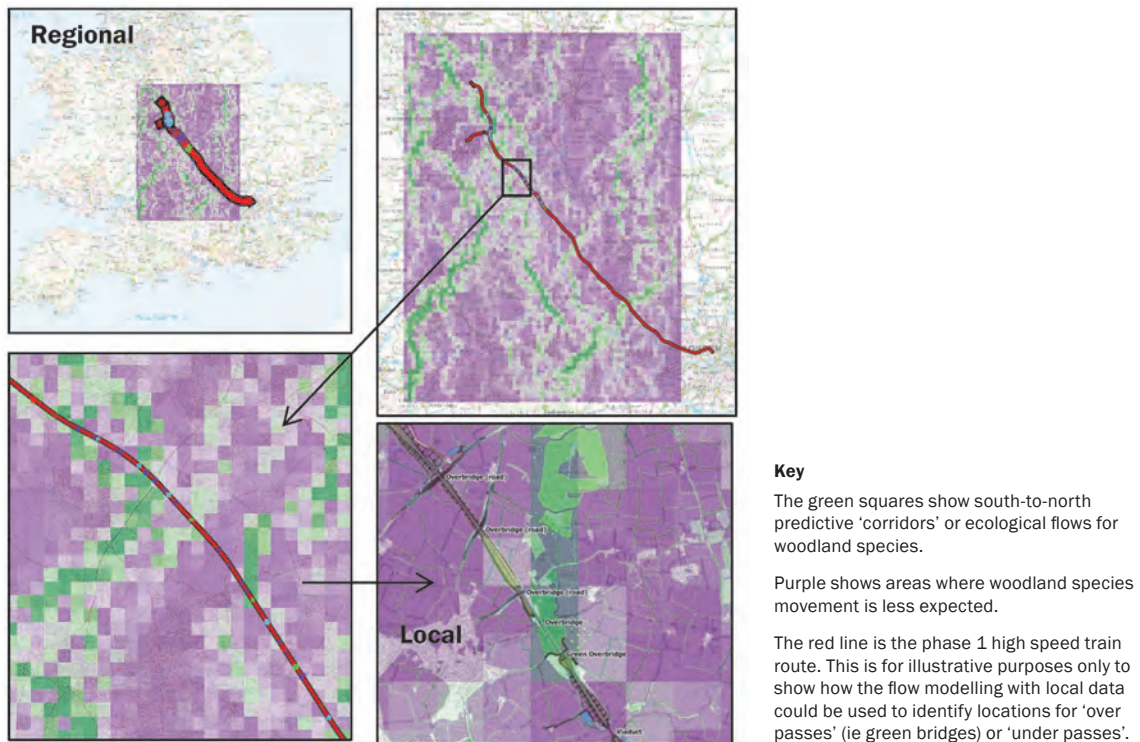
Key

The green squares show south-to-north predictive 'corridors' or ecological flows for woodland species.

Purple shows areas where woodland species movement is less expected.

The red line is the phase 1 high speed train route. This is for illustrative purposes only to show how the flow modelling with local data could be used to identify locations for 'over passes' (ie green bridges) or 'under passes'.

Figure 17.2   Ecological flow maps using HBA and Landcover (2007) data and how they interact with the high speed train route

17.2 OUTCOMES

The strategy can be used by anyone who influences land use and land management at a sub-regional, county, borough, parish, farm, site and field level. So, every decision, however small, could influence national ecological connectivity.