

# Green Cities Webinar Series: Making places greener - practical tools and insights

## Warwickshire, Coventry and Solihull

David Lowe

Team Leader: Ecology, Historic Environment  
& Landscape

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## Context

### PROJECT BOARD





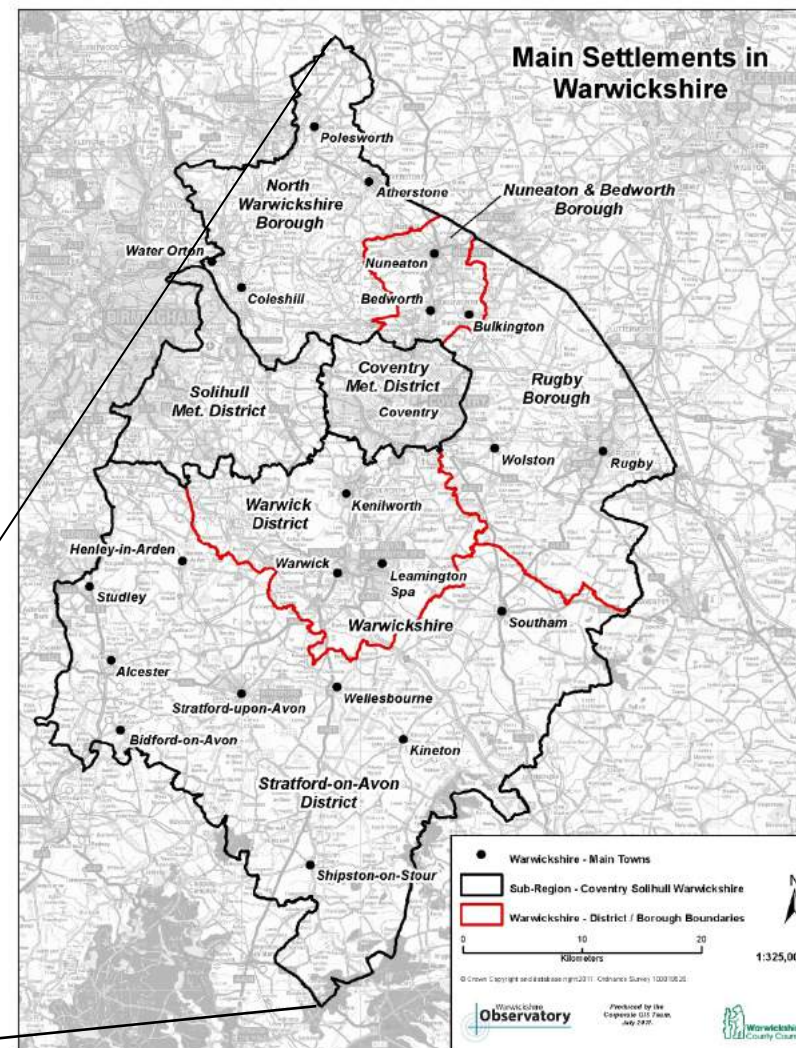






### Researchers



**Main Settlements in Warwickshire**

Warwickshire - Main Towns

Sub-Region - Coventry Solihull Warwickshire

Warwickshire - District / Borough Boundaries

0 10 20 Kilometers

1:325,000

© Crown Copyright and database rights 2011. Ordnance Survey 100010826

Warwickshire Observatory

Produced by the Coventry GIS Team July 2010

Warwickshire County Council

### Advisors





## Context

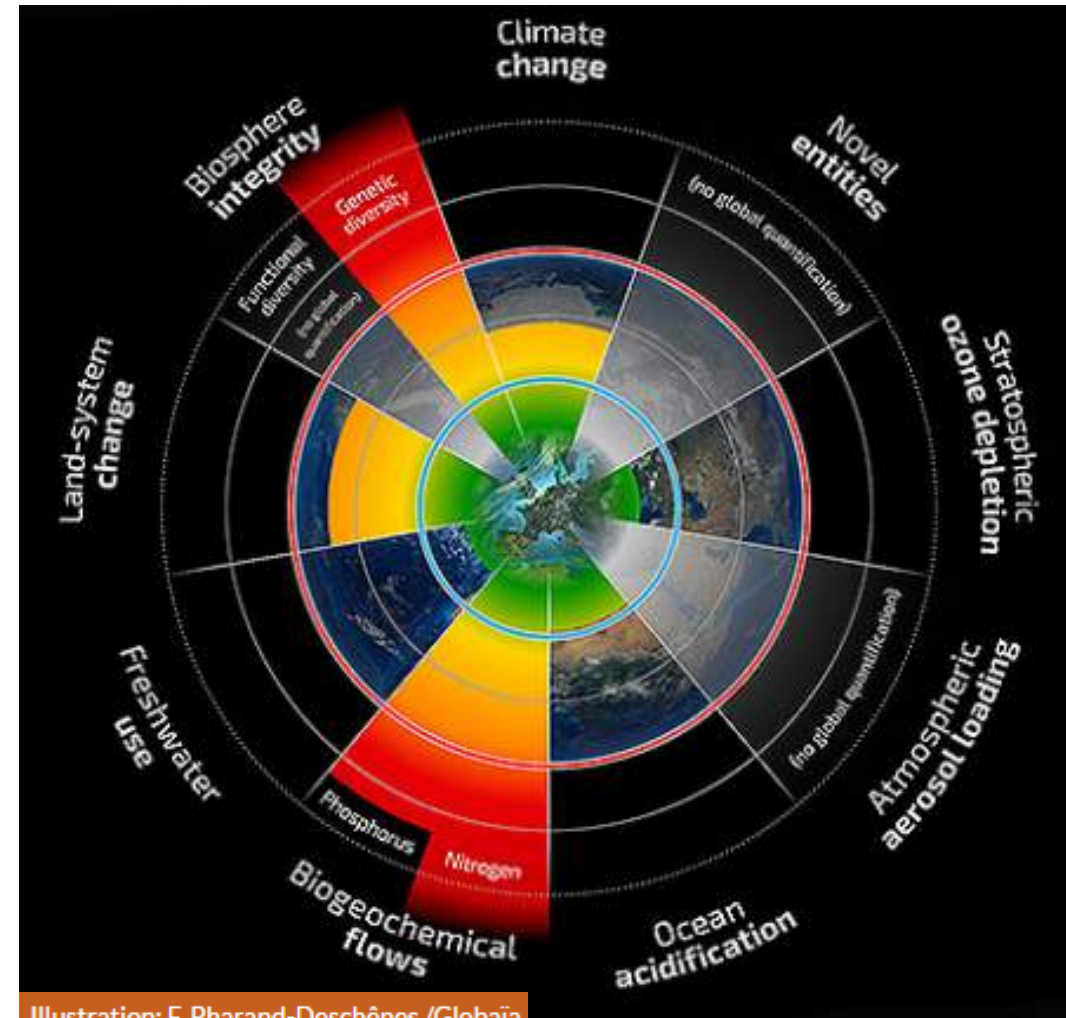
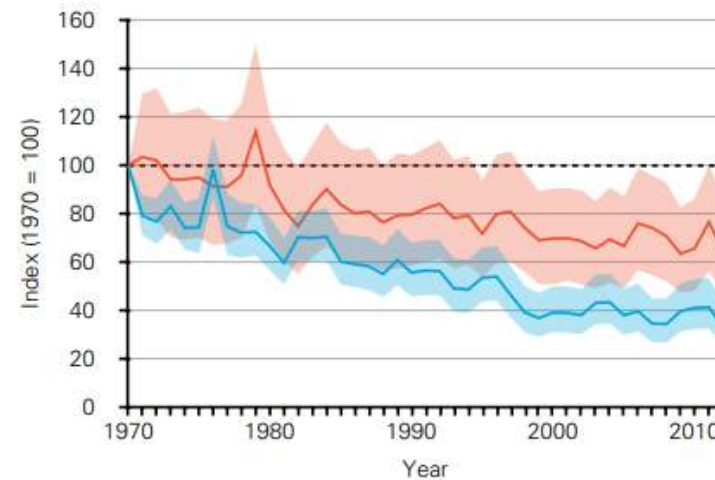


Illustration: F. Pharand-Deschênes / Globaia

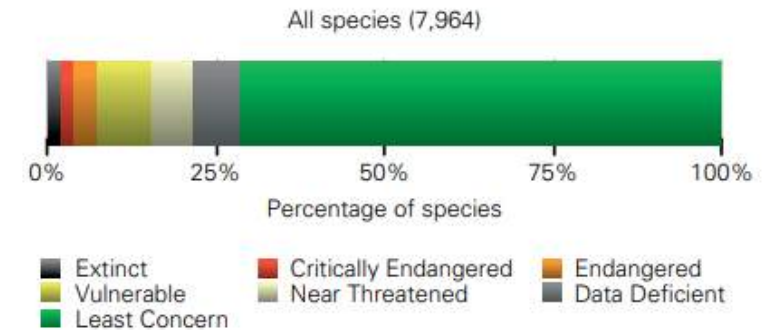


**Figure 3**

The UK Priority Species Indicator<sup>1</sup> shows the Abundance Index (blue) for 213 priority species, and the Occupancy Index (red) for 111 priority species (measured as the proportion of occupied sites). The shaded areas show the 95% confidence intervals.

## [State of Nature 2016](#)

### National Red Lists



**Figure 4**

The percentage of species in each risk category, based on the likelihood of extinction from Great Britain. Species considered to be threatened with extinction from Great Britain are those classified as Critically Endangered, Endangered or Vulnerable in the latest International Union for Conservation of Nature (IUCN) Red List assessments.

# Context

## Warwickshire Biological Record Centre

- 'A Local Records Centre (LRC) is a not-for-profit service run in partnership for the public benefit, which collects, collates, manages and disseminates information of known quality relating to the wildlife, wildlife sites and habitats for a defined geographical area.'\*

\* Source: "NBN Trust Position Statement on Local Records Centres, April 2004"



**Habitat  
Biodiversity  
Audit  
&  
Wildlife Sites  
Project**

- The WBRC holds distribution data on some 15,000 individual species, including protected species, totalling over 3 million records. Most as within over the 4000 'Ecosites'
- Surveying is on-going and is carried out mainly on a voluntary basis by skilled amateur naturalists throughout the county
- The WBRC also receives records from individuals after spotting wildlife during walks or in gardens.

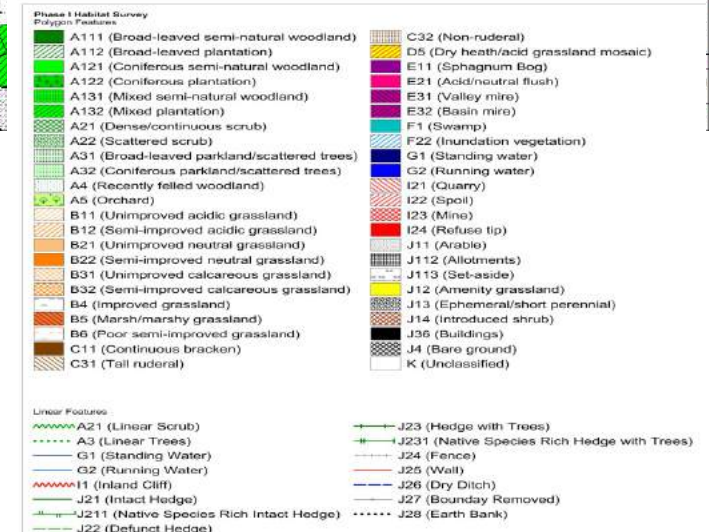
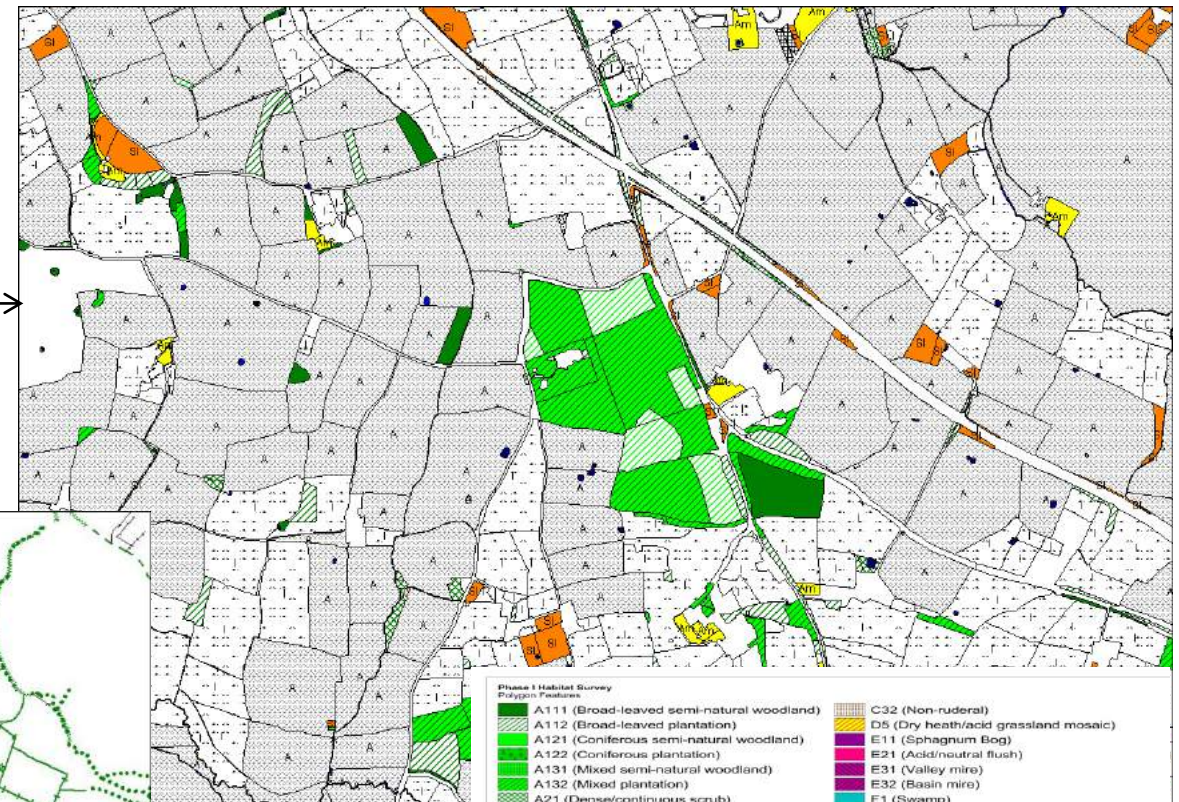
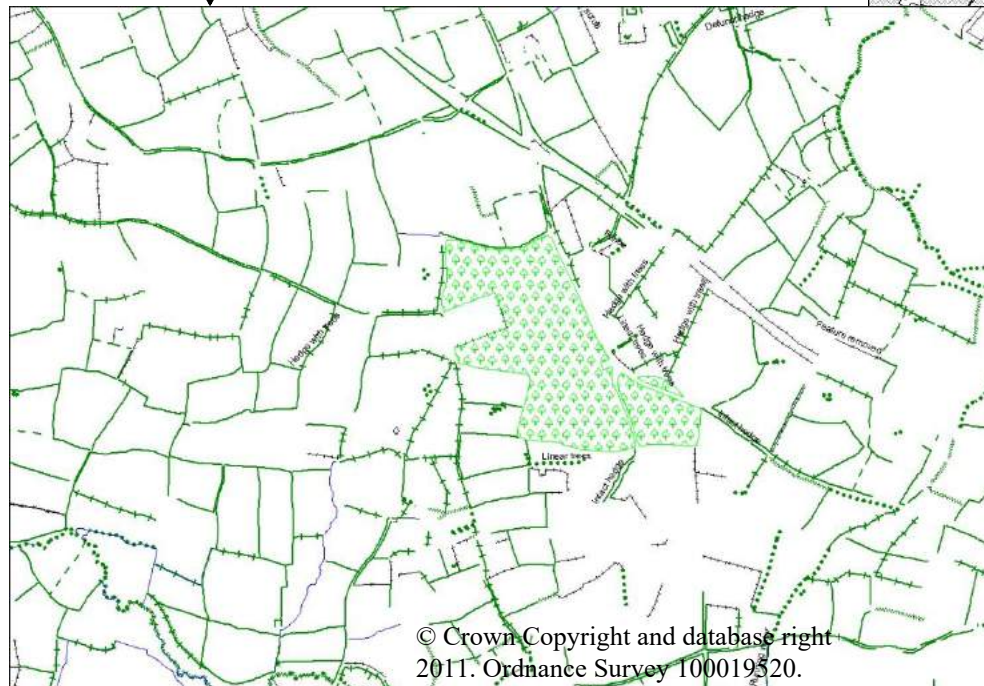
## Context

## Phase 1 Habitat Data

20% resurveyed annually

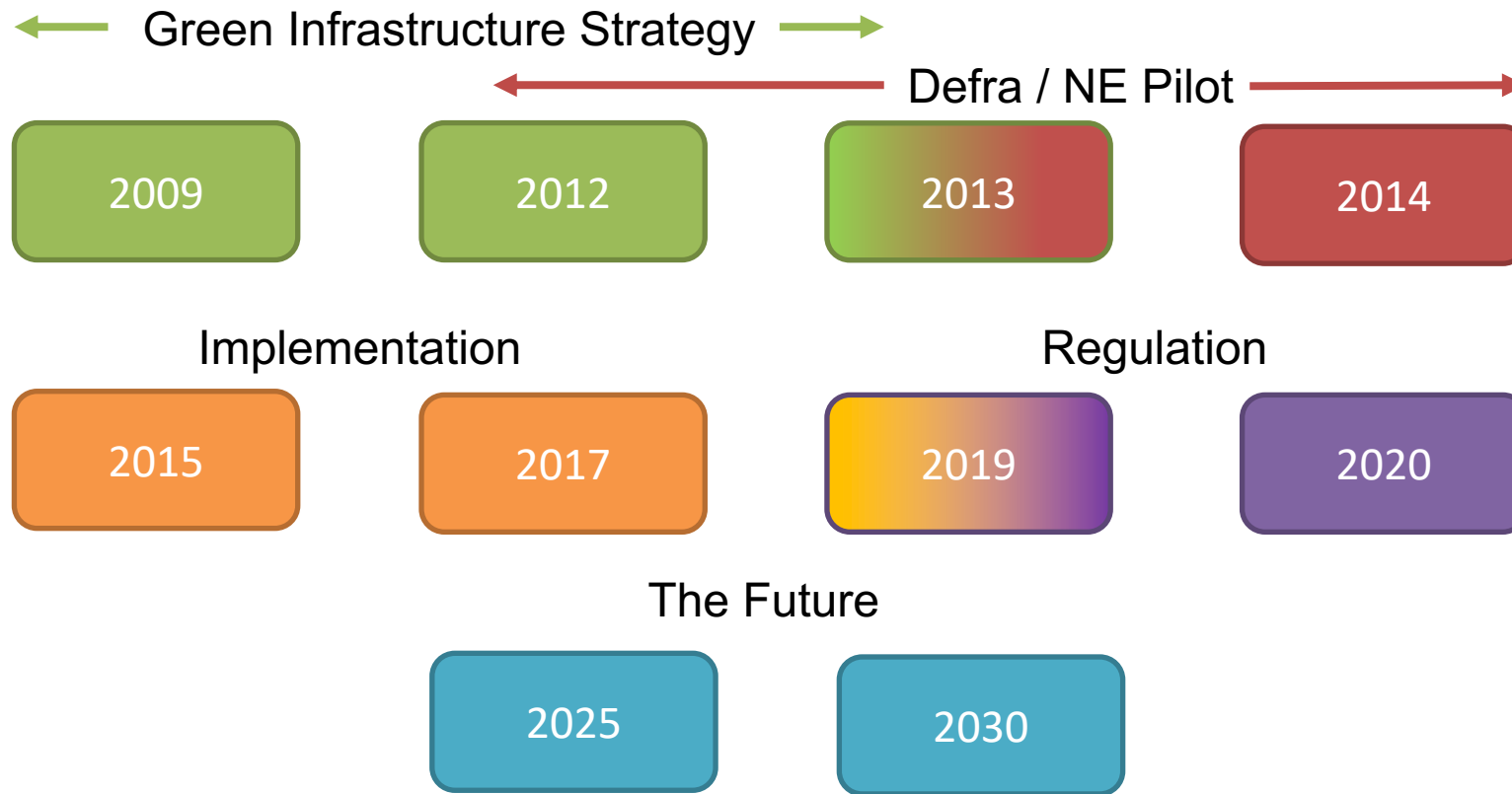
Phase 1 - Linear

Phase 1 - Polygon



Habitat Biodiversity Audit

## Chronology



## GREEN INFRASTRUCTURE 2009 - 2013

The purpose of this Strategy is to provide evidence for the preparation of plans, policies and strategies at a sub-regional level

The Application of the principles:

Site

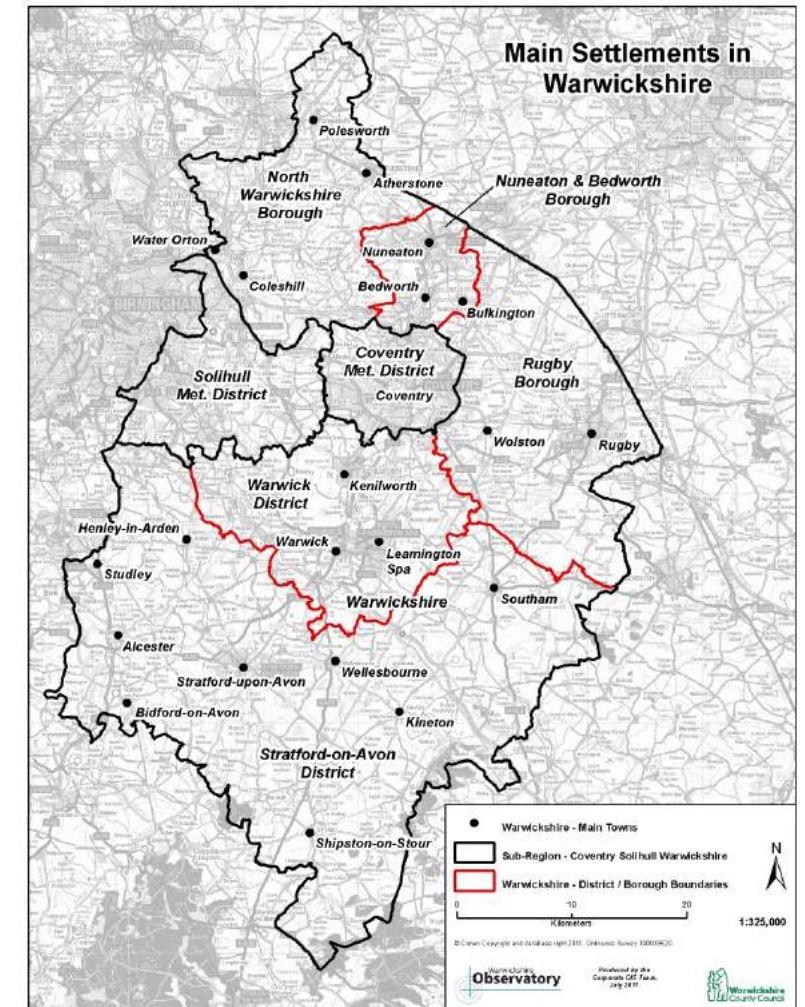
Local

Parish

Authority Area

Sub-regional Area

Adopted in December 2013



## GREEN INFRASTRUCTURE 2009 - 2013

# Biodiversity – Part B

## Biodiversity Core Areas

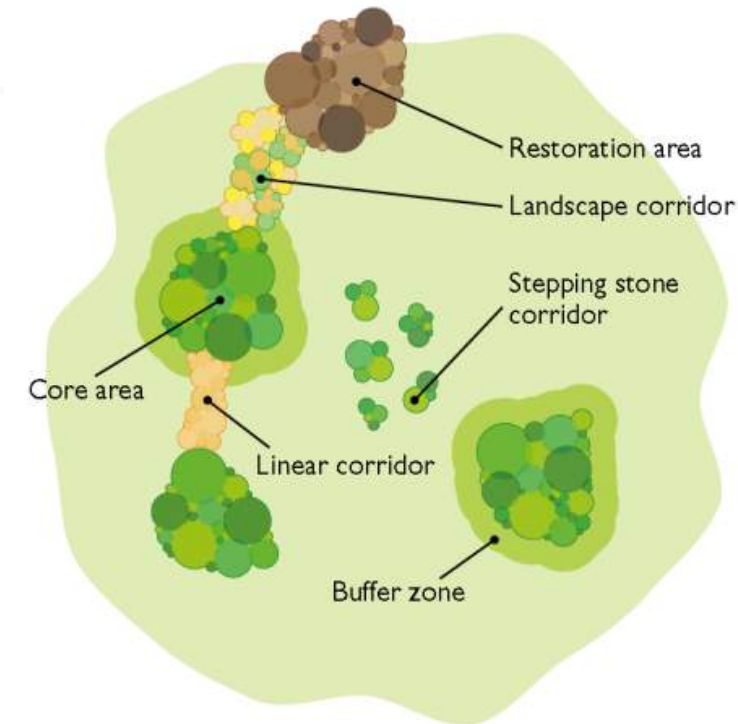
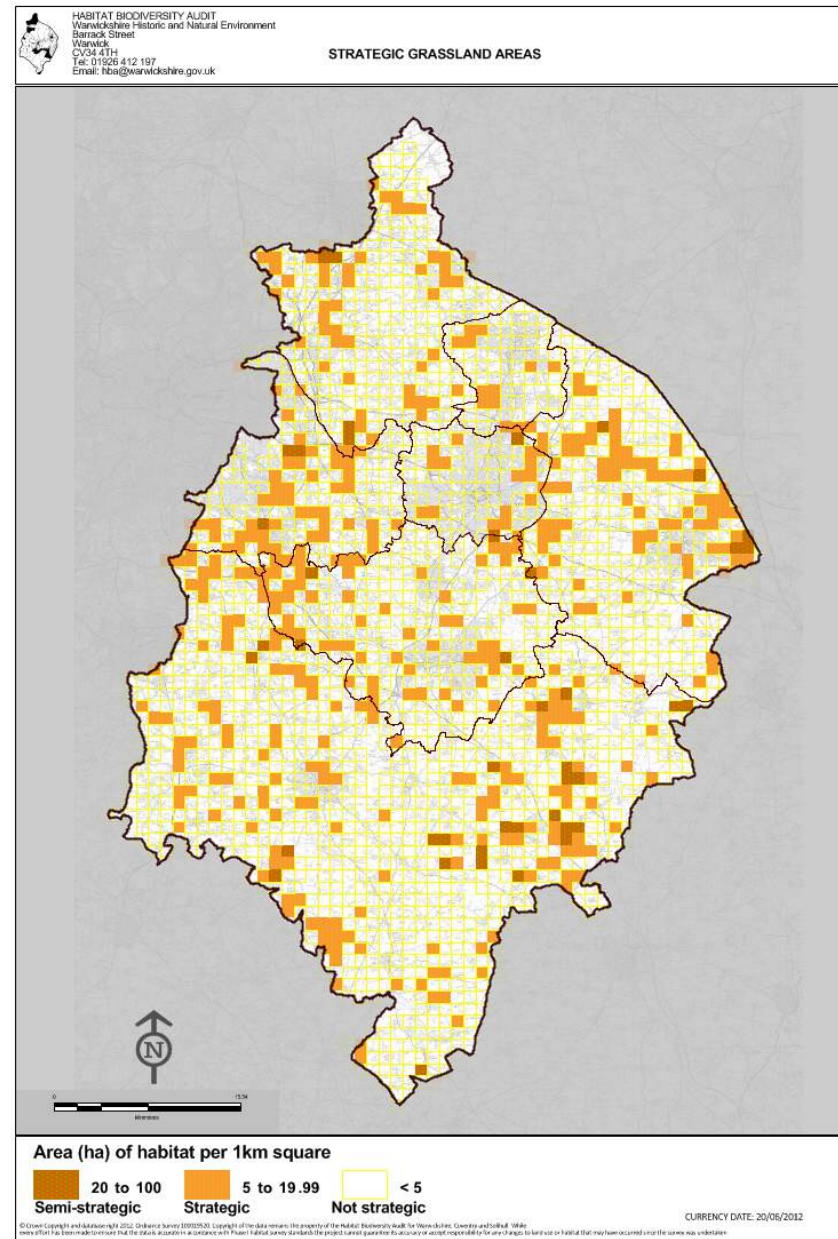
Woodland; Grassland; and Wetlands habitats have been mapped to identify Biodiversity Core Areas

Woodland & Grassland – 1km<sup>2</sup>  
Wetland – Species specific (GCNs)

**Core Area = 20%+ in 1km<sup>2</sup>.**

## Biodiversity Offsetting Strategy:

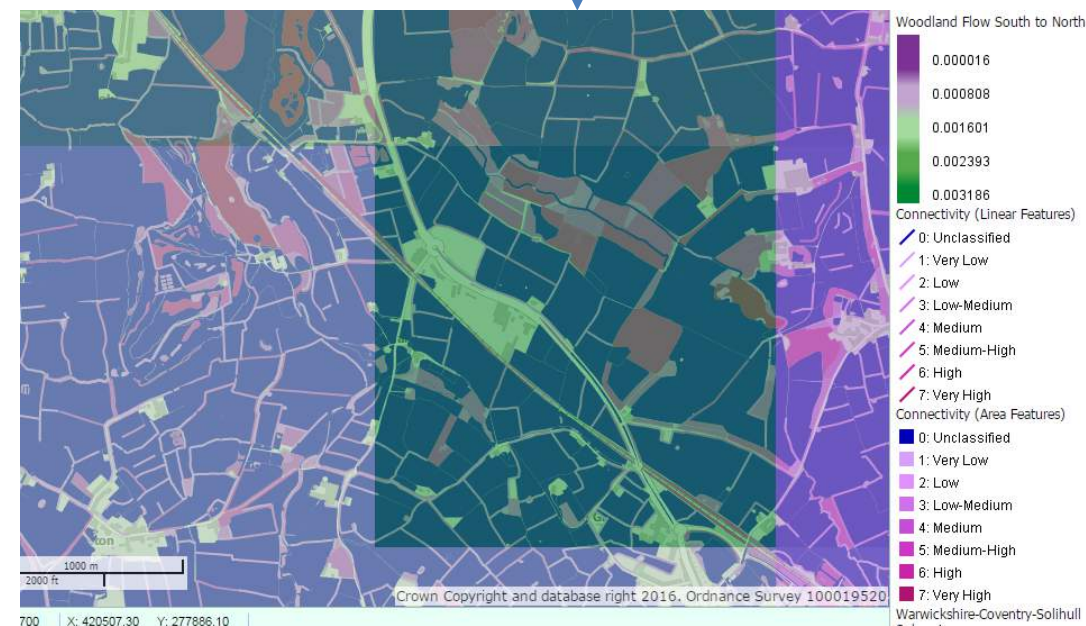
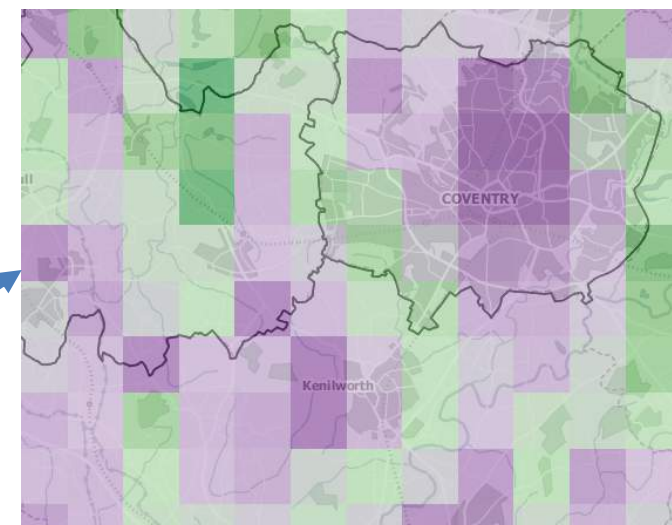
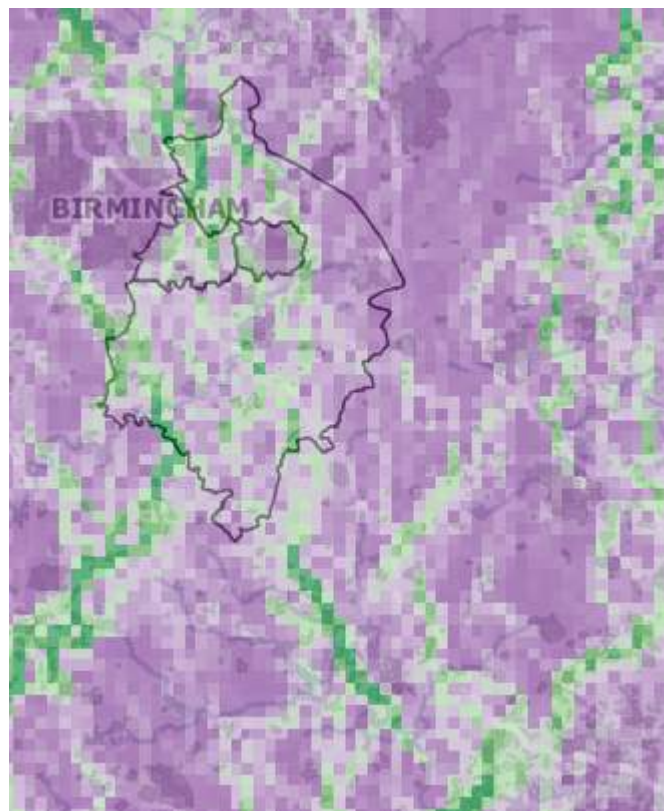
Strategic Area = 5% to 19% in 1km<sup>2</sup>  
Semi-Strategic Area = >20% in 1km<sup>2</sup>  
Non Strategic Area = <5% in 1km<sup>2</sup>



## Lawtonian Principles – Making Space for Nature

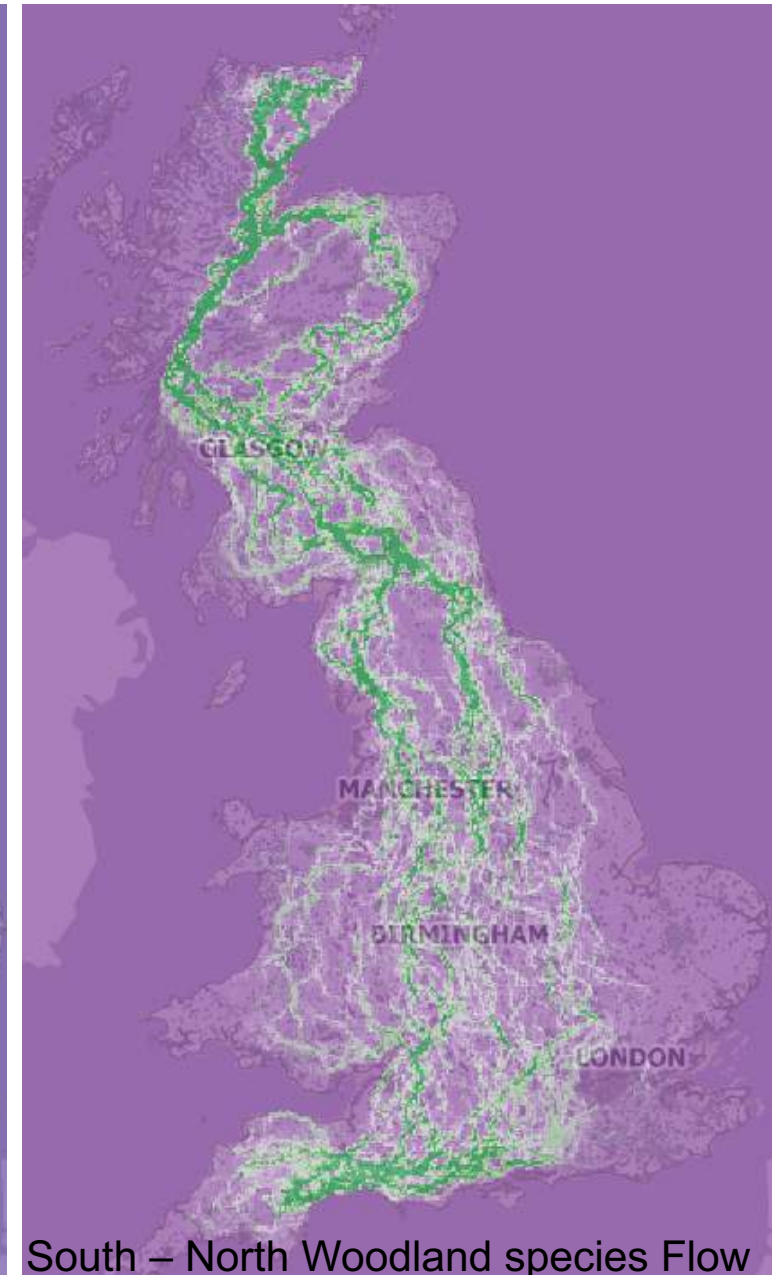
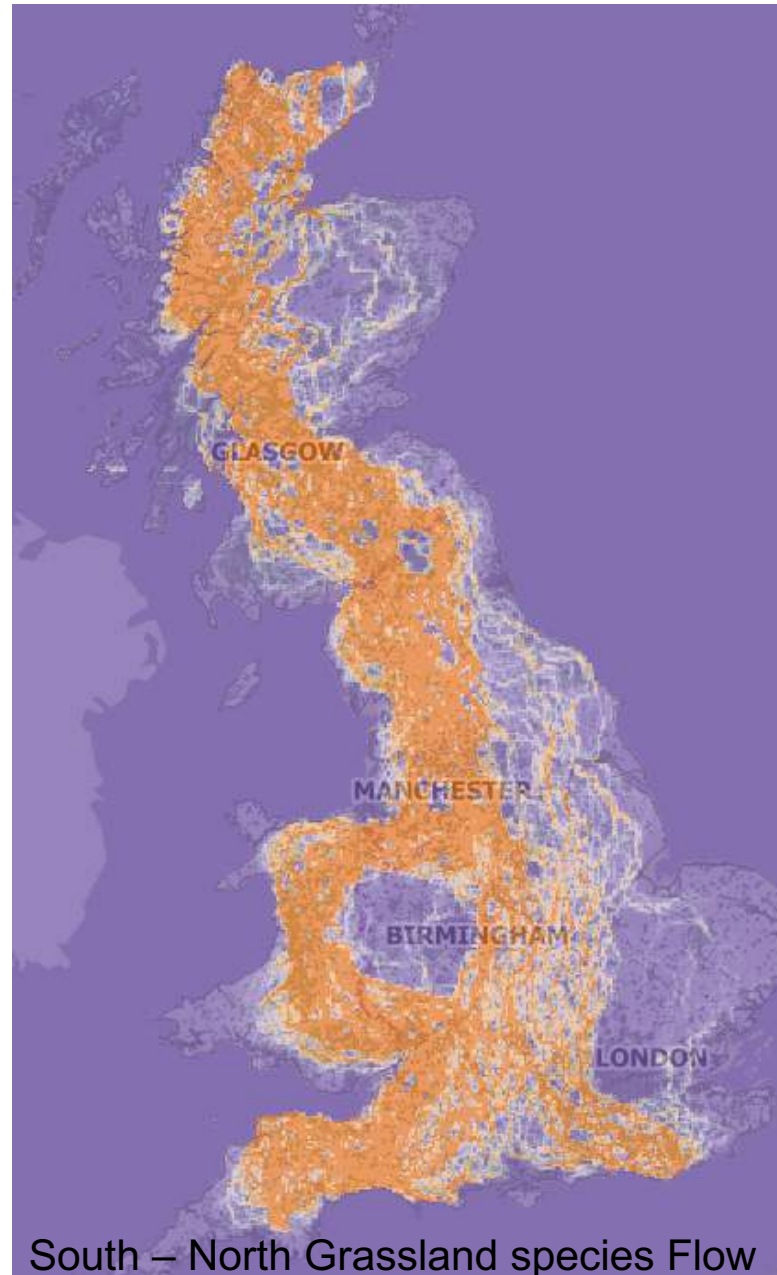
## GREEN INFRASTRUCTURE 2009 - 2013

Every decision  
has a site, local,  
regional and  
national  
implication



GREEN INFRASTRUCTURE 2009 - 2013

CONDATIS



## GREEN INFRASTRUCTURE 2009 - 2013

### North Warwickshire Borough Council (2012)

#### NW12 Nature Conservation

Sites of Special Scientific Interest (SSSI's) will be subject to a high degree of protection, in view of their national importance. Development adversely affecting a SSSI will only be permitted where the benefits of the development at this sites clearly outweigh the likely impacts on the site and any broader impacts on the national network of SSSI's.

Development that damages habitats and features of regional or local importance for nature conservation will only be permitted where there are no alternatives to the development taking place in that location. Where appropriate, developments will be required to help secure the beneficial management of such features.

Development should help ensure that there is no net loss of biodiversity and geological interest, and where appropriate contributions will be sought to ensure the enhancement of biodiversity, geological and other natural features in line with local, regional and national priorities for nature conservation.

#### NW13 Green Infrastructure

Throughout the Borough a comprehensive network of high quality, multi-functional, green spaces, corridors and other environmental features will be maintained, enhanced and created for flora, fauna and humans, which link into the sub-regional green infrastructure networks.

Development proposals must demonstrate how they contribute to maintaining and enhancing a comprehensive and strategically planned green infrastructure network, where appropriate. With reference to the sub-regional Strategy for Green Infrastructure and the local Green Infrastructure resource development should:

- Maintain and enhance existing green infrastructure assets;
- Optimise opportunities to create links between existing green infrastructure within the district and to surrounding sub-regional networks;
- Help deliver new green infrastructure assets where specific need has been identified.

Where new green infrastructure can not be provided on site, or where an existing asset is lost or adversely affected, contributions will be sought towards wider green infrastructure projects and improvements within the district or, where appropriate, in the sub-region.

# Biodiversity Offsetting / Biodiversity Net Gain

All **minor** and **major** applications will need to calculate Biodiversity Impacts, be this positive (gain), negative (loss) or neutral.

$$\text{The Value of the Future Habitat} - \text{The Value of the Existing Habitat} = \text{Biodiversity Gain or Loss}$$



# The Biodiversity Metric 2.0

auditing and accounting for  
biodiversity

## Calculation Tool

Open Tool

Beta Version - July 2019

Beta Test

ISBN 978-1-78354-539-1

Stephen Panks (Senior Specialist Biodiversity Net Gain - Natural England)  
Sam Arthur (Associate Ecologist & Biodiversity Net Gain Specialist - FPCR)



A-1 Site Habitat Baseline						
Condense / Show Columns		Condense / Show Rows		Main Menu		
				Instructions		
Ref	Broad Habitat	Habitats and areas		Habitat distinctiveness		Condition
		Habitat type	Area (hectares)	Distinctiveness	Score	
1	Urban	Urban - Allotments		Medium	4	
2	Urban	Urban - Brown roof		Medium	4	
3	Urban	Urban - Cemeteries and churchyards		Medium	4	
4	Urban	Urban - Introduced shrub		Low	2	
5	Urban	Urban - Rain garden		Low	2	
6	Urban	Urban - Vegetated garden		Low	2	
7	Urban	Urban - Street Tree		Low	2	
8						
9						

DEFRA / NE PILOT 2012 - 2014

## Biodiversity Impact Assessment Summary Sheet....Vers 19.1

Habitat Impacts	Loss	Gain	Impact	%age losses	Compensatory Unit loss	Indicative Offset (ha)	WCC Offset units	WCC Indicative Offset Contribution	Warwickshire County Council is currently
Woodland Habitat	9.00	5.08	-3.92	39.60	-4.49	10.48	-4.49	£190,518	
Grassland Habitat	3.50	3.64	0.14						
Wetland Habitat	6.00	2.97	-3.03	30.61	-3.47	3.69	-6.85	£617,845	
Other Habitat (incl. Built Env)	4.40	1.45	-2.95	29.80	-3.38	Transferred to Wetland			
<b>Total</b>	<b>22.90</b>	<b>13.14</b>	<b>-9.76</b>	<b>100.01</b>	<b>-11.34</b>	<b>14.17</b>	<b>-11.34</b>	<b>£808,363</b>	
		Trading down	-1.59						
			-11.35						

Hedgerow Impacts	Loss	Gain	Trading down	Impact	Unit loss	Indicative Offset (km)	WCC Offset units	WCC Offset Contribution
Hedgerow	18.40	15.10	-1.80	-5.10	-5.10	0.93	-5.10	£564,383

	Waterbodies (Breeding Habitat)				Terrestrial (feeding habitat)		Total Scores	
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Great Crested Newts Impacts	No. of Waterbodies	Total area of standing water	No. of Connected Waterbodies	Total area of Connected Waterbodies	Carrying capacity of functioning Waterbodies	Available Area to GCNs	Carrying Capacity Score	Estimated GCN population	supportable Population Class	Water Body Offset required (ha)	Terrestrial Habitat Offset required (ha)
Existing Habitat	3	0.57	3	0.57	228	8.51	1802	2030	Medium		
Future Habitat	2	0.47	0	0.00	0	9.02	2525	2525	Medium	4.56	None

Provides an indicative cost of the Financial Contribution that Warwickshire County Council is likely to ask for.

- Viability Assessment?
- Layout options
- Discussions between Landscape Architect / Ecologists and clients as well as Local Authority.

**Note** the above is an hypothetical example taken from the Warwickshire County Council draft GCN integrated Defra Net Gain metric. It therefore shows habitat and newt offset cost calculations.

Implementation 2012+

First S106 Contributions came in 2015/2016 and up to 2018/2019 secured a total of £2,252,787.81

To be allocated	£1,083,479.73	
Committed	£672,220.14	
Contribution due	£253,706.00	
Environment Bank Ltd	£243,381.94	estimate
		<b>£2,252,787.81</b>

Have enhanced / created

- 6 Grassland sites
- 1 Ancient Woodland site
- 4 Pond sites (ready for GCN strategy)
- 30+ sites in the pipeline

circa.  
40 ha

Implementation 2012+

## Section 39 Wildlife and Countryside Act Agreement

CHERRY ORCHARD BRICKPIT  
ECOLOGICAL MANAGEMENT PLAN



Written by  
Helen Pearce BSc (Hons) GradCIEEM  
February 2016

Ecological Services  
Economic Growth  
Communities  
Warwickshire County Council  
PO Box 43, Warwick CV34 4SX  
Tel: 01926 412088

(Name of landowner)

and

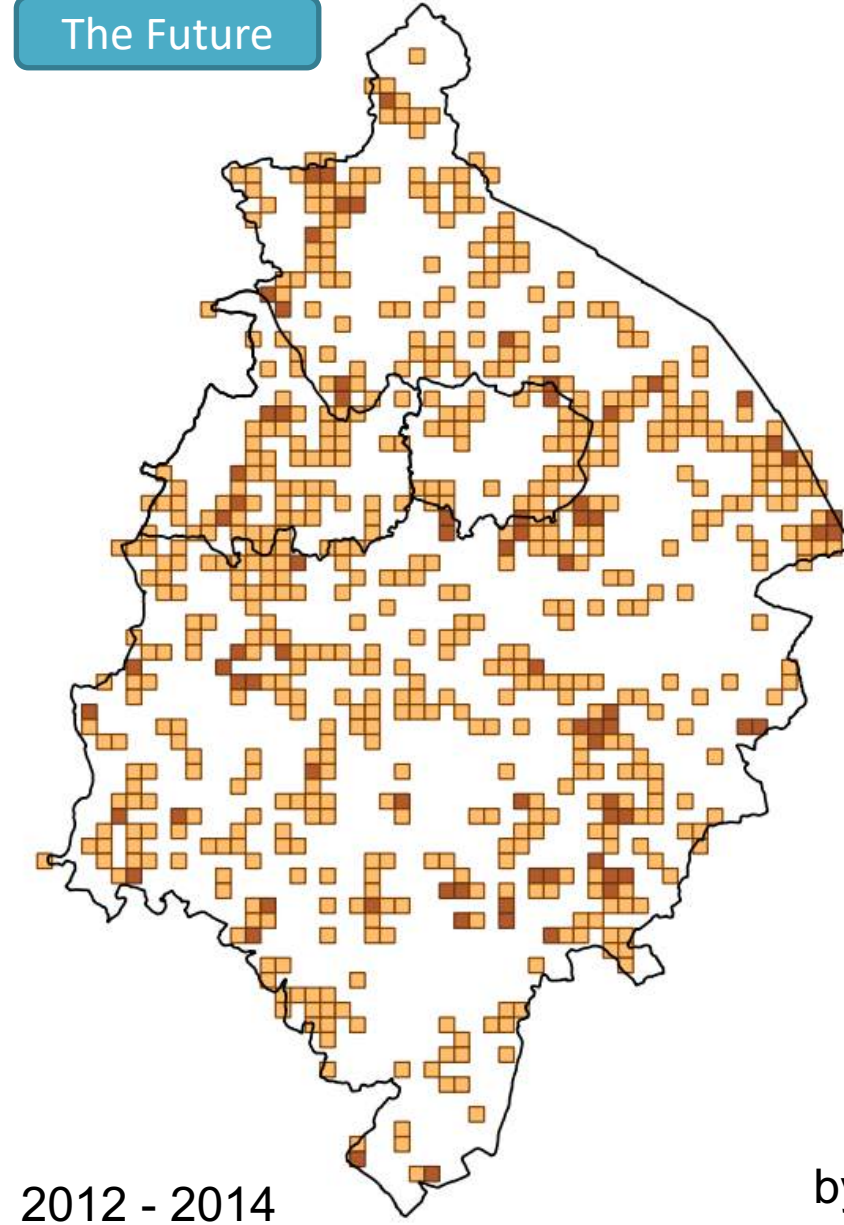
Warwickshire County Council

Management Agreement pursuant to Section 39 of the Wildlife and Countryside Act  
1981

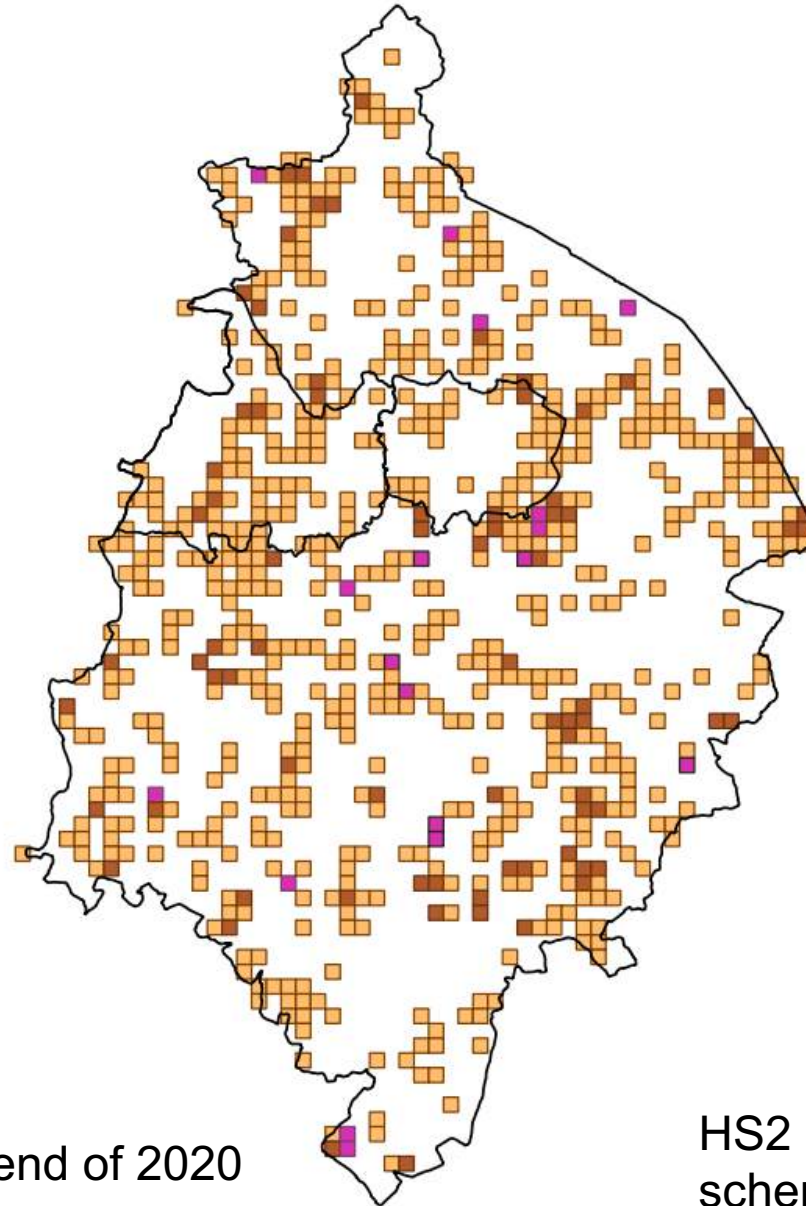
In relation to land at [address/description of land]

## 30 year agreements

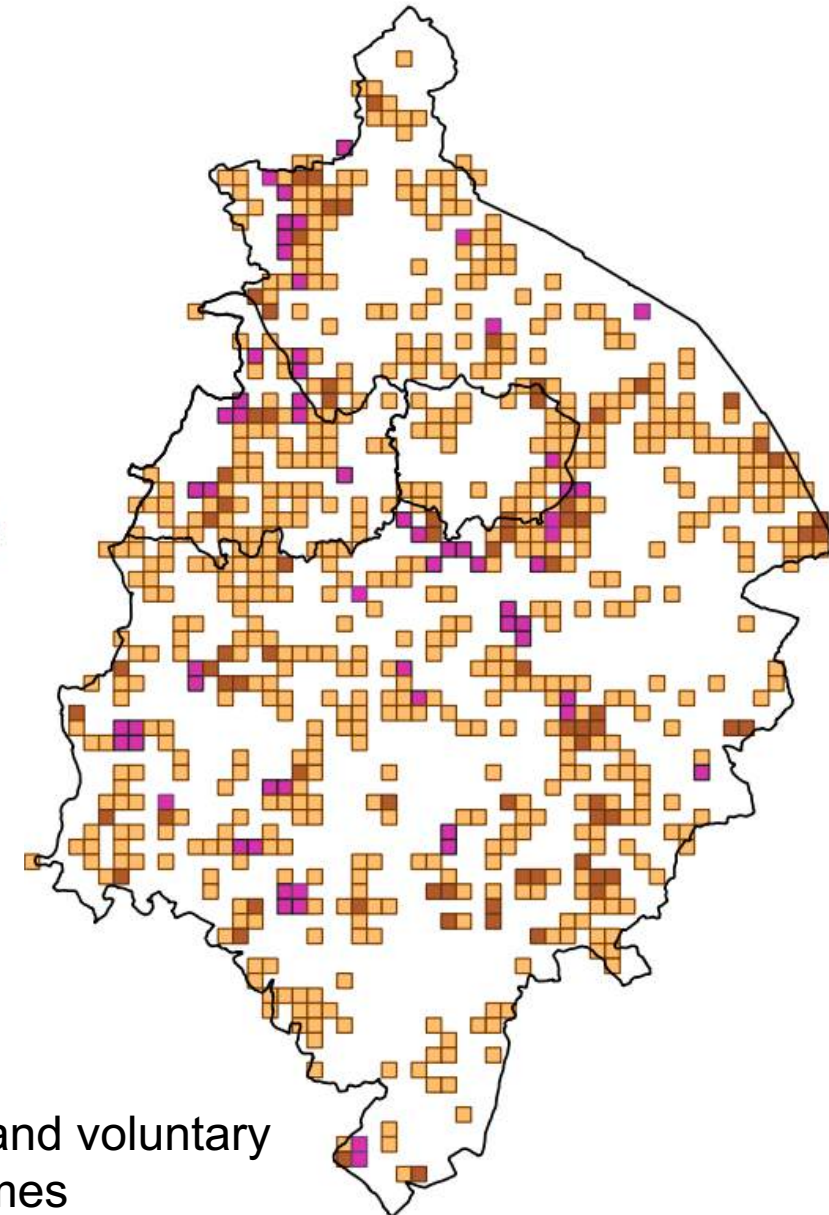
## The Future



2012 - 2014

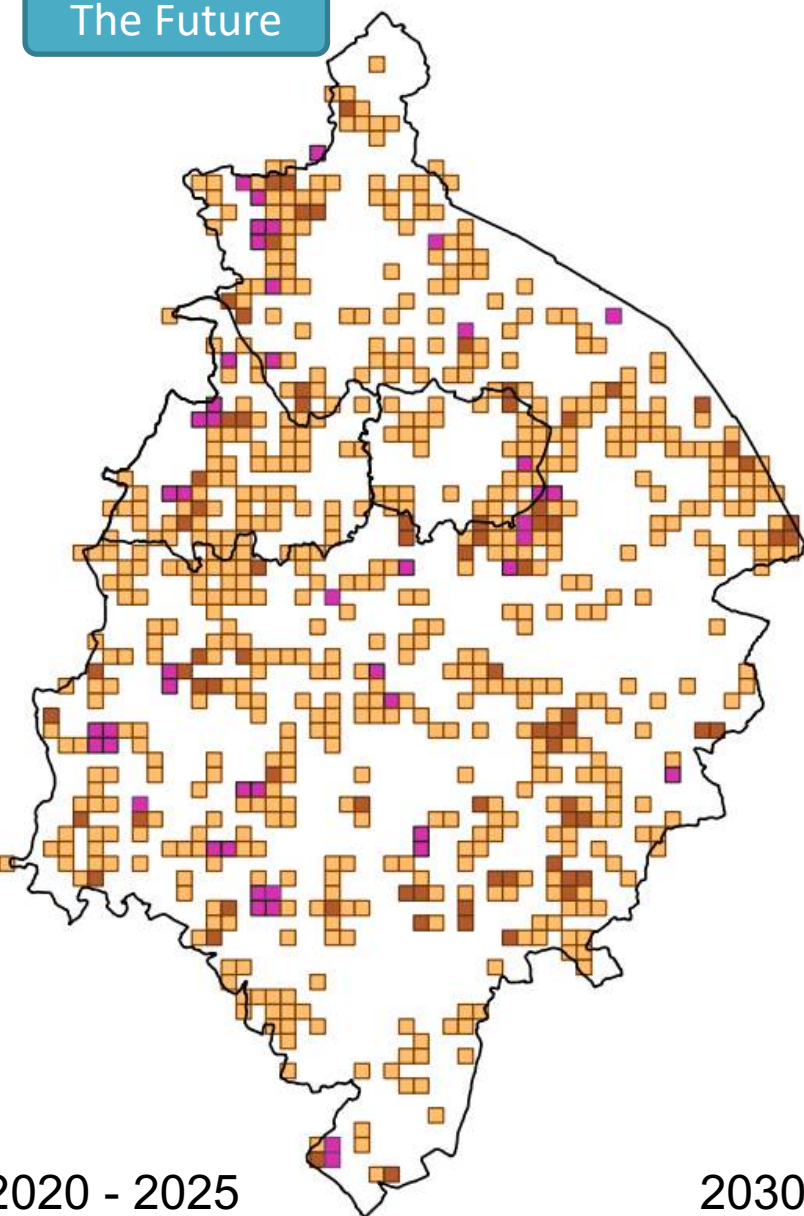


by end of 2020

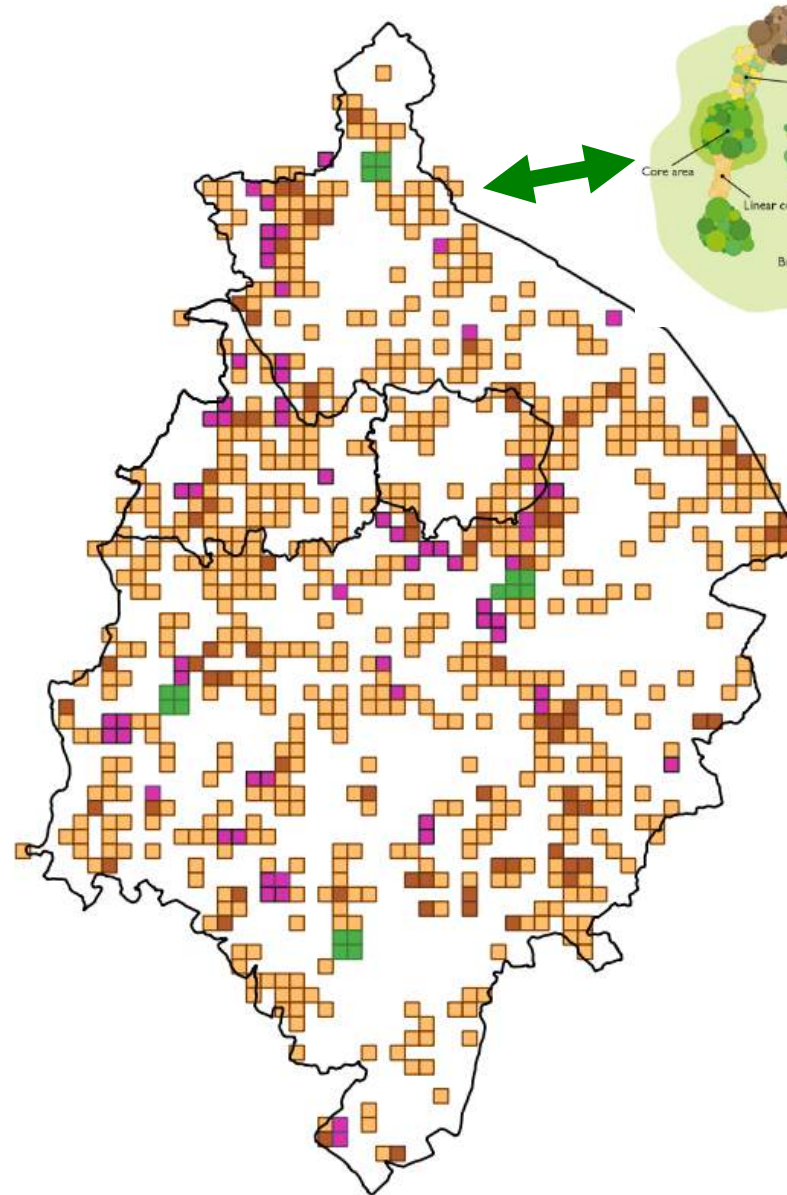


HS2 and voluntary  
schemes

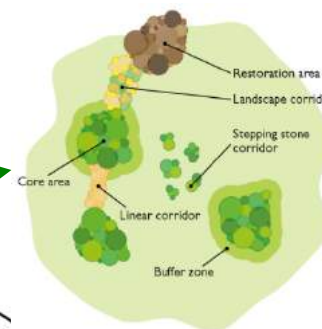
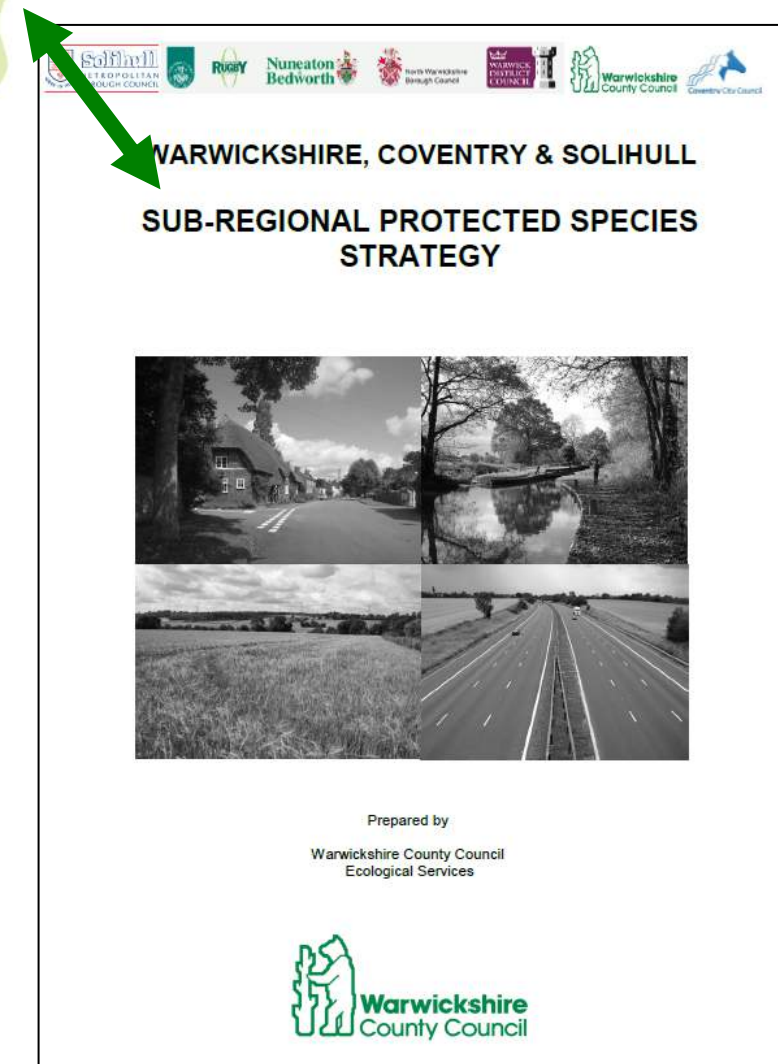
## The Future



2020 - 2025




2030

**WARWICKSHIRE, COVENTRY & SOLIHULL**  
**SUB-REGIONAL PROTECTED SPECIES**  
**STRATEGY**

Prepared by  
Warwickshire County Council  
Ecological Services



# Species Integration

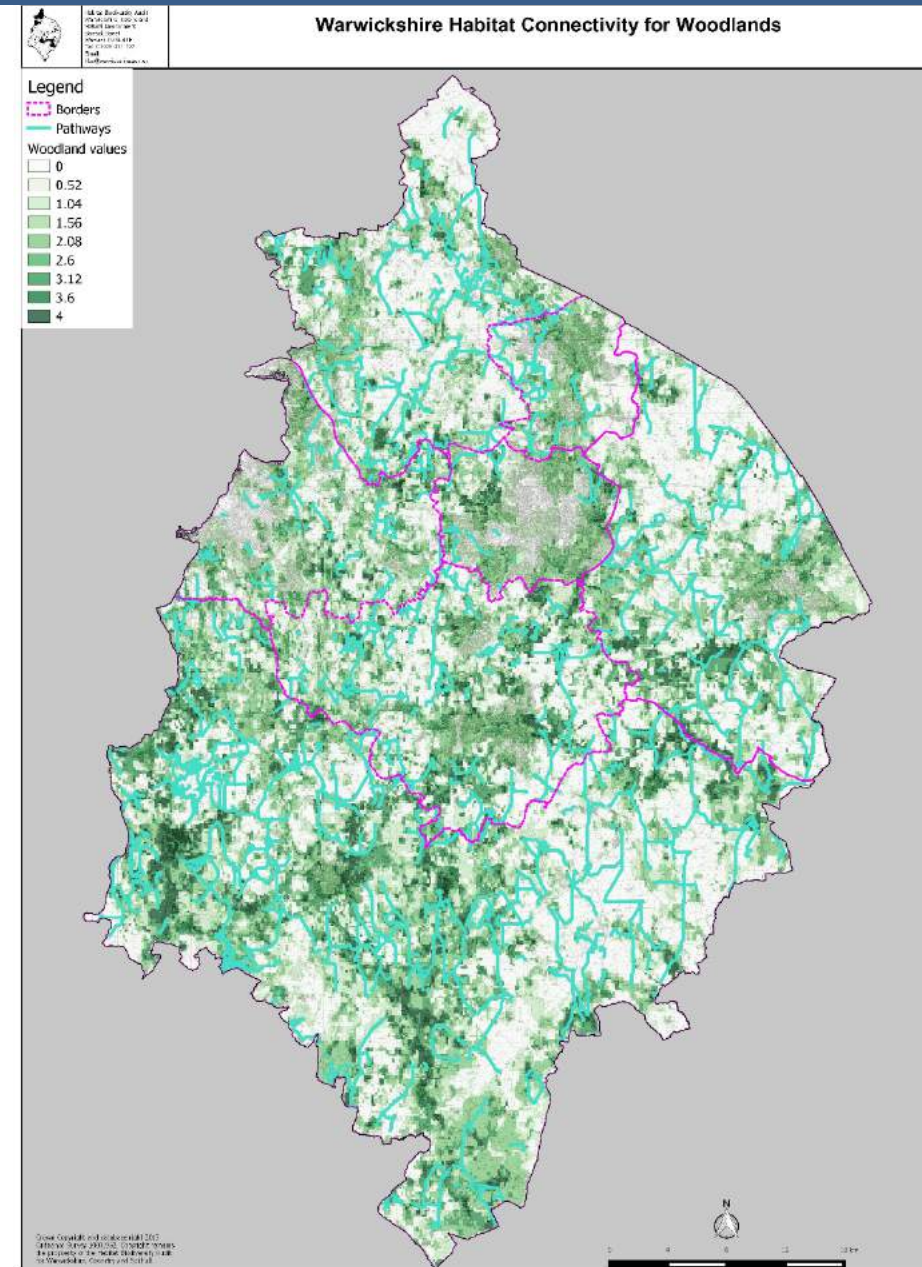
## Protected Species Strategy

### Vision

*A diverse and well-managed Warwickshire, Coventry and Solihull that is able to support healthy and sustainable populations for all Protected and Locally Important species. This will be the result of a well-connected and biodiversity resilient landscape, supporting economic growth, social health and climate change adaptation.*

## Executive Summary (Draft)

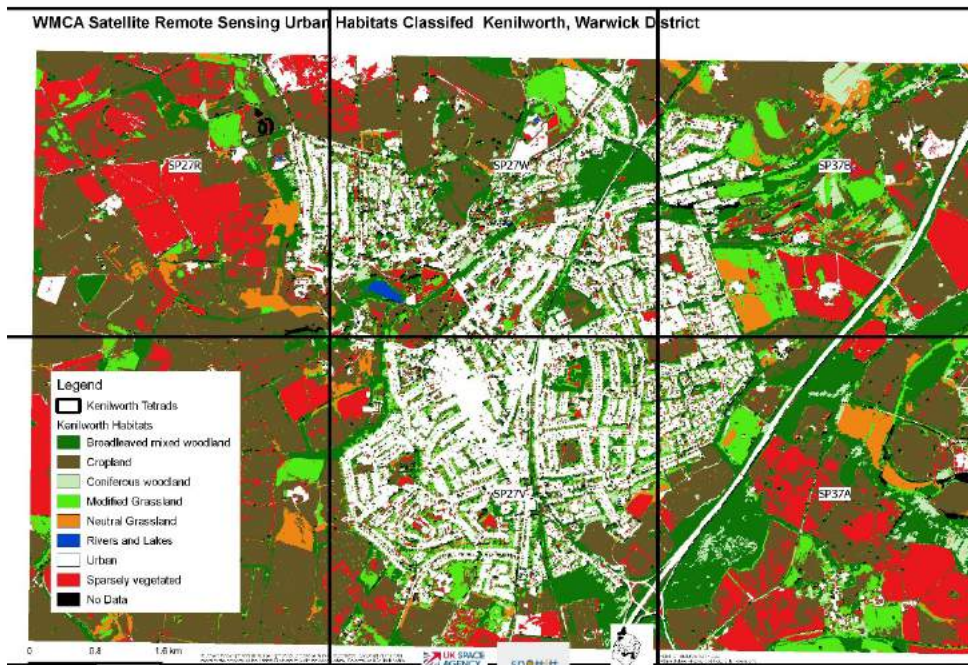
Biodiversity conservation means preserving the species throughout its natural range. This ensures the species is represented in the different environments and the variety of circumstances in which it naturally functions.



## Cities....

### Kenilworth

Satellite imagery  
translated to habitat-  
types (UKHab) to map  
connectivity in urban  
areas



# **ALL YOU NEED TO KNOW TO** **DELIVER**

## **BIODIVERSITY NET GAIN**

**3 Day Course to cover all a Local  
Authority requires to deliver  
Biodiversity Net Gain.**

**LOCATION:** [Marle Hall Education Centre](#), Llandudno  
junction, Wales

**Provisional Cost: £260**  
**all costs included - food, bed, pool table**

**INTERESTED ?**

**Please register an interest**

**[Doodle Poll](#)**

### **COURSE CONTENT:**

- Defra 2.0 metric including UK Hab and recent updates
- Local Plan Policy wording
- SPD formation
- Condition and Obligation wordings
- Financial Contributions (tariffs)
- Burdens on Planning Authorities / Partners
- Business Plan for 100% cost recovery and some?
- Delivering Offsets as a Broker
- Delivering Offsets as a Regulator
  - + legal agreement
  - + national register (if known by then)
- Delivering Offsets other ways!

**Anything else you think you /we should know**