FROM STRATEGY TO POLICY THROUGH TO DELIVERY

Warwickshire, Coventry and Solihull

David Lowe

Team Leader: Ecology, Historic Environment & Landscape

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From Strategy to Policy Through to Delivery

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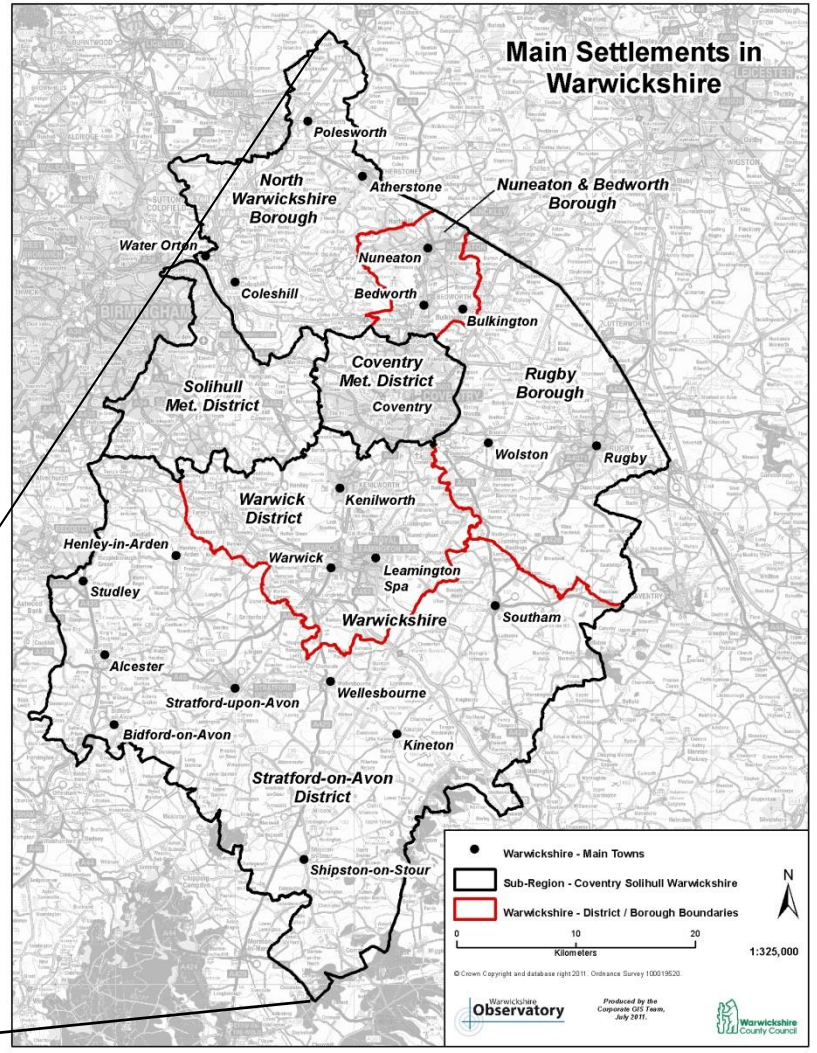
Context

PROJECT BOARD

Researchers

Advisors



Context

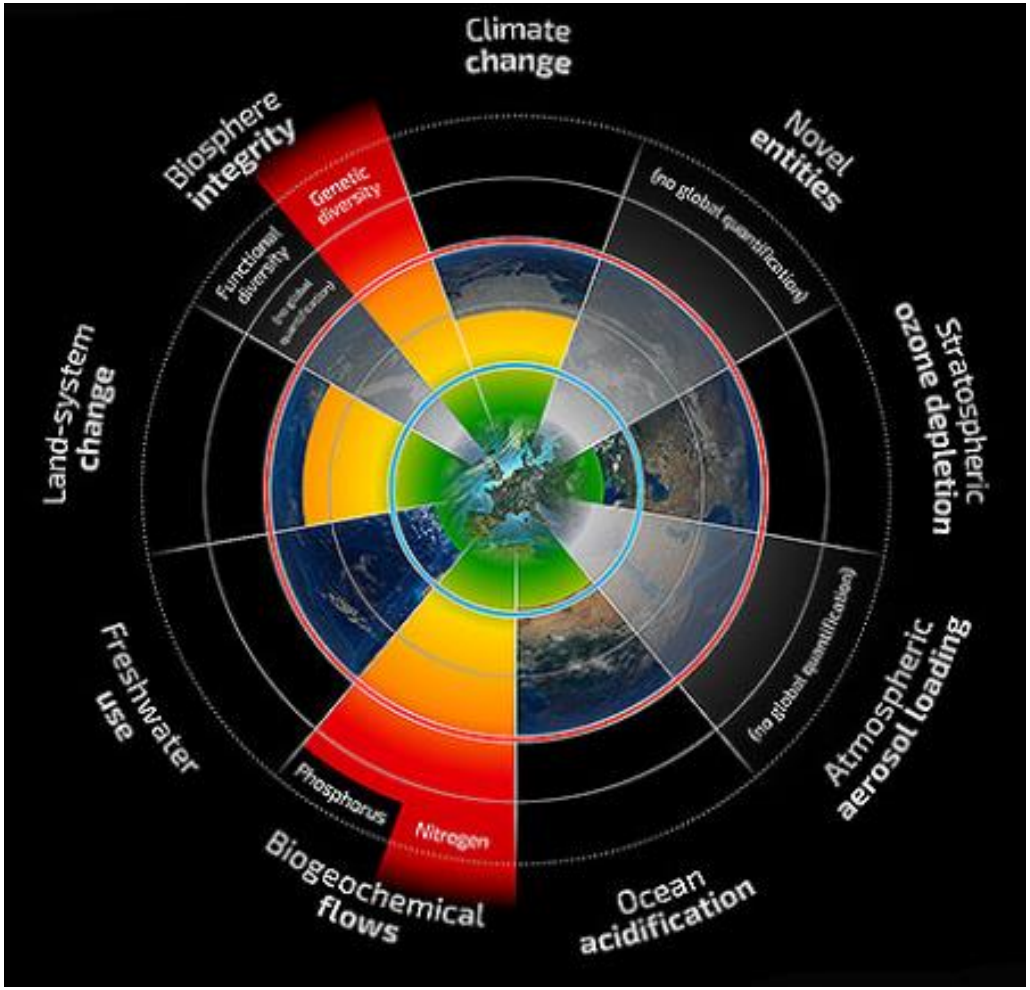


Illustration: F. Pharand-Deschênes /Globaïa

http://www.stockholmresilience.org/research/planetary-boundaries/planetary-boundaries/about-the-research/the-nine-planetary-boundaries.html

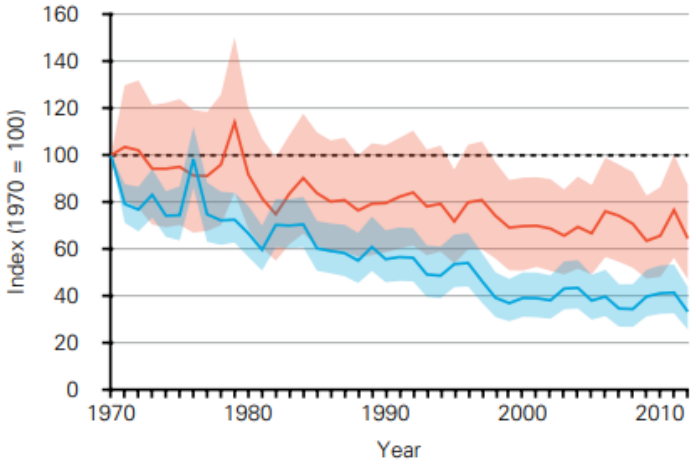


Figure 3

The UK Priority Species Indicator[1] 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

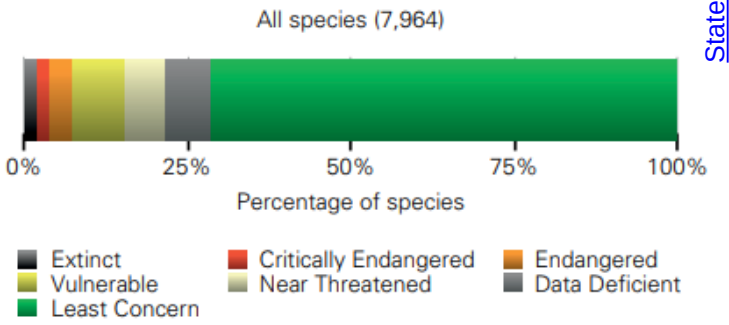
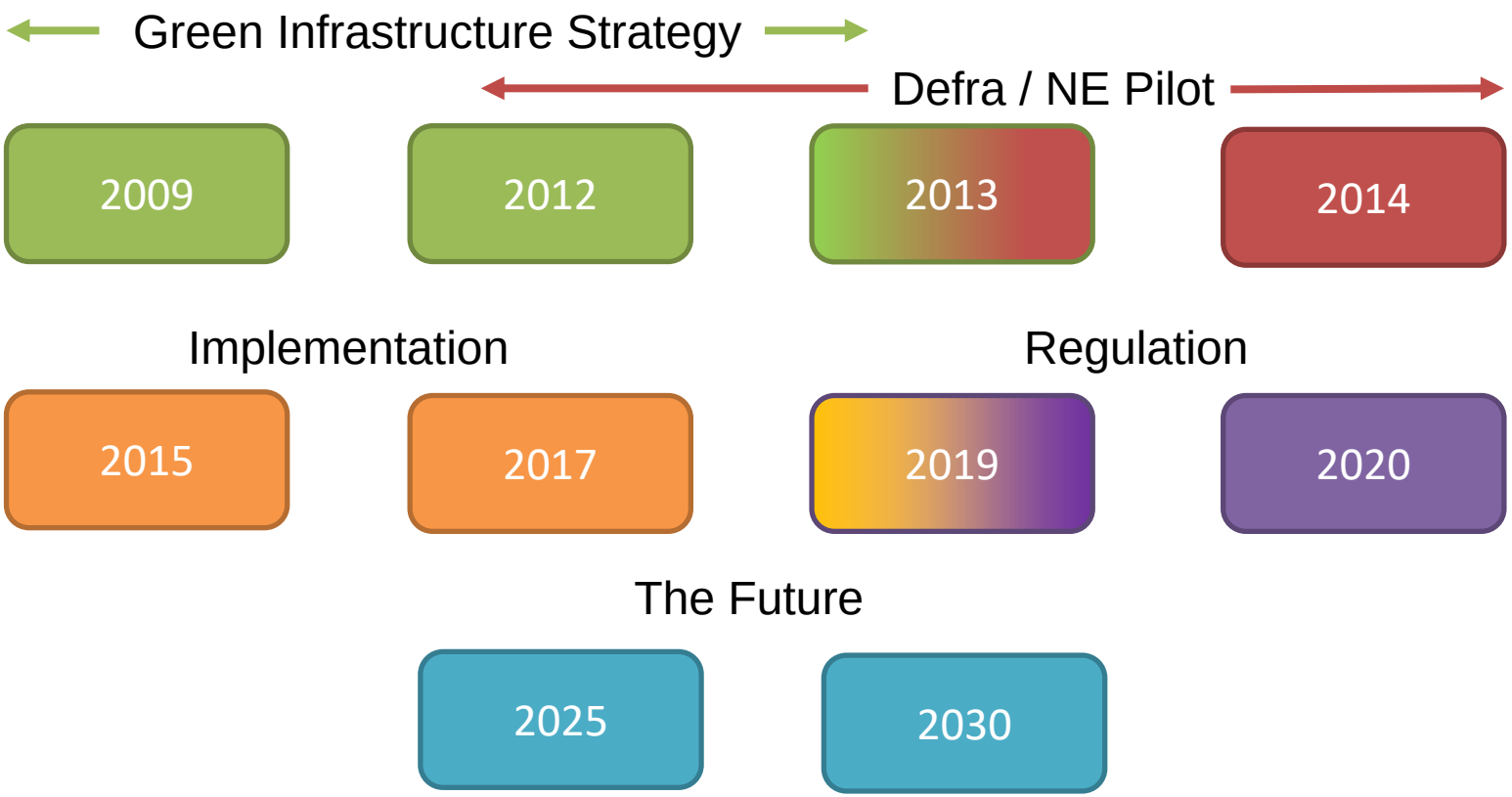


Figure 4

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.

Content


Green Infrastructure Strategy
Defra / NE Pilot
2009
2012
2013
2014
Implementation
Regulation
2015
2017
2019
2020
The Future
2025
2030

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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

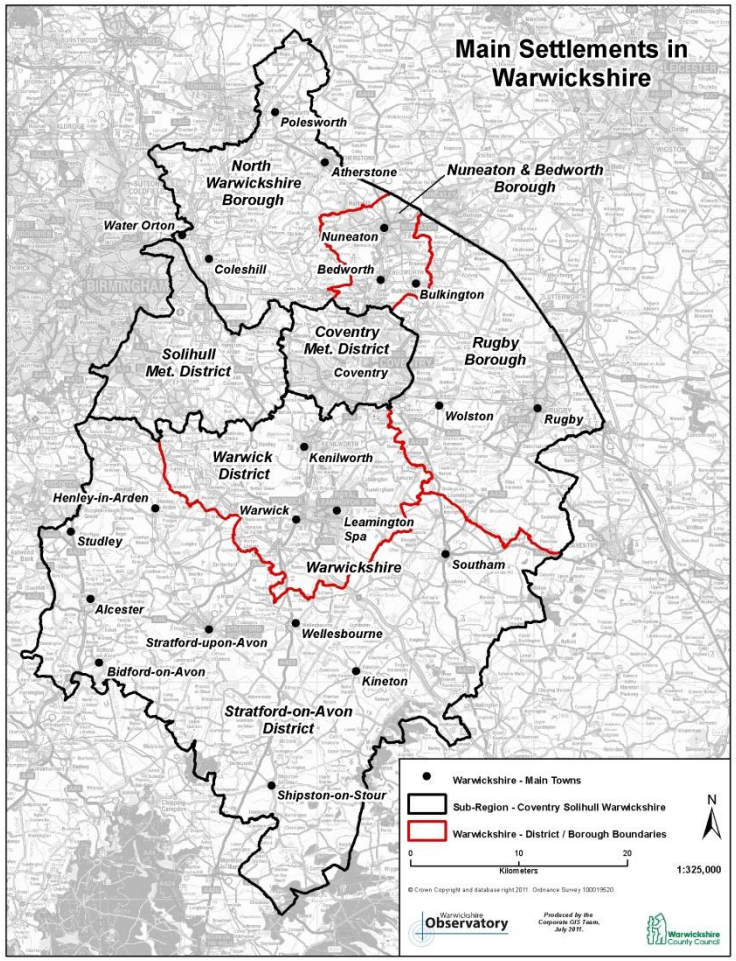
Local

Parish

Authority Area

Sub-regional Area

Adopted in December 2013



GREEN INFRASTRUCTURE 2009 - 2013

Embedded into all Core Strategies as a…

Sub-regional GI Strategy (about to go to consultation)

PART A – STRATEGIC CONTEXT

This part will be 'static'; providing the background and reasoning as to why sub-regional GI Assets are important.

PART B - ASSESSMENTS and RECOMENDATIONS

This part will be 'semi-static'; detailing methods as to how sub-regional GI Assets have been identified and governance models for delivery. This part will only be altered through partner agreement.

PART C - ASSETS and MAPS

This part will be 'living'; showing the location of sub-regional GI Assets as they are now and as they change over time.

NB Covers: Landscape, Accessibility and Biodiversity

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^2
Wetland – Species specific (GCNs)

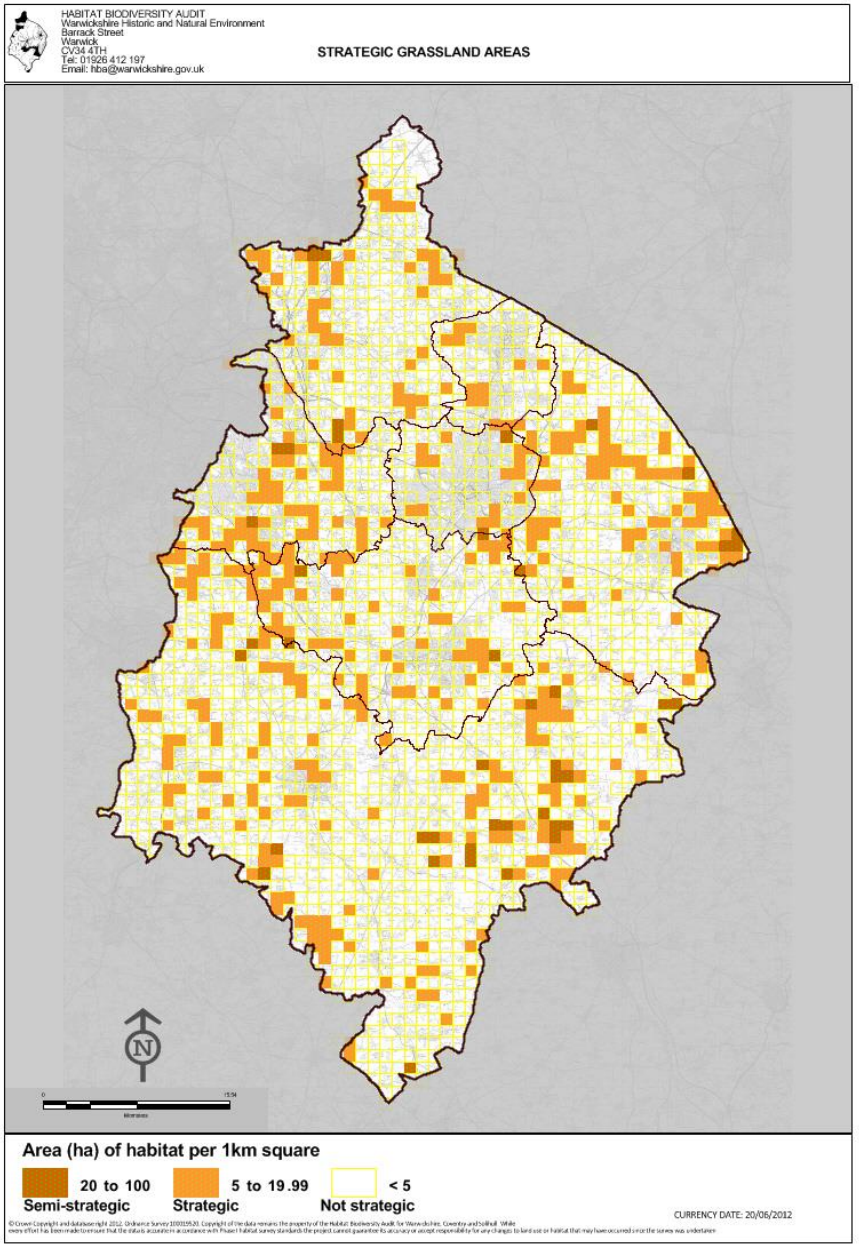
Core Area = 20%+ in 1km^2.

Biodiversity Offsetting Strategy:

Strategic Area = 5% to 19% in 1km^2

Semi-Strategic Area = >20% in 1km^2

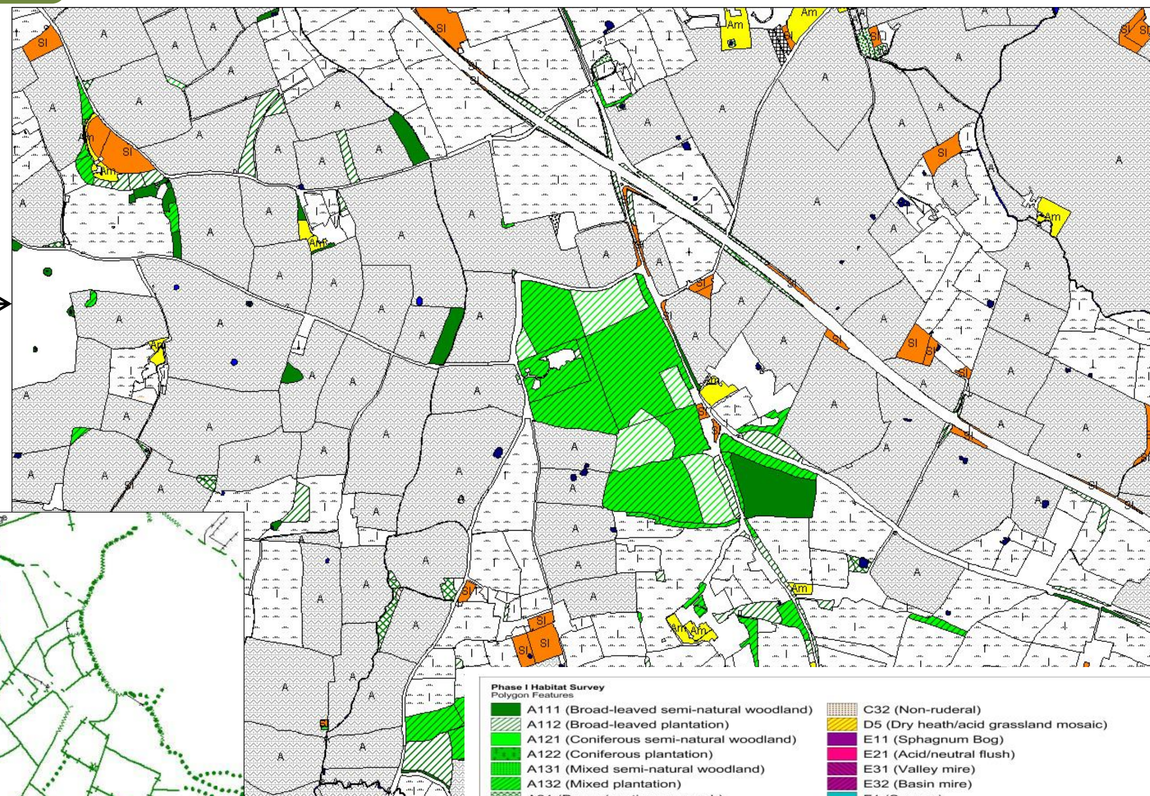
Non Strategic Area = <5% in 1km^2



GREEN INFRASTRUCTURE 2009 - 2013

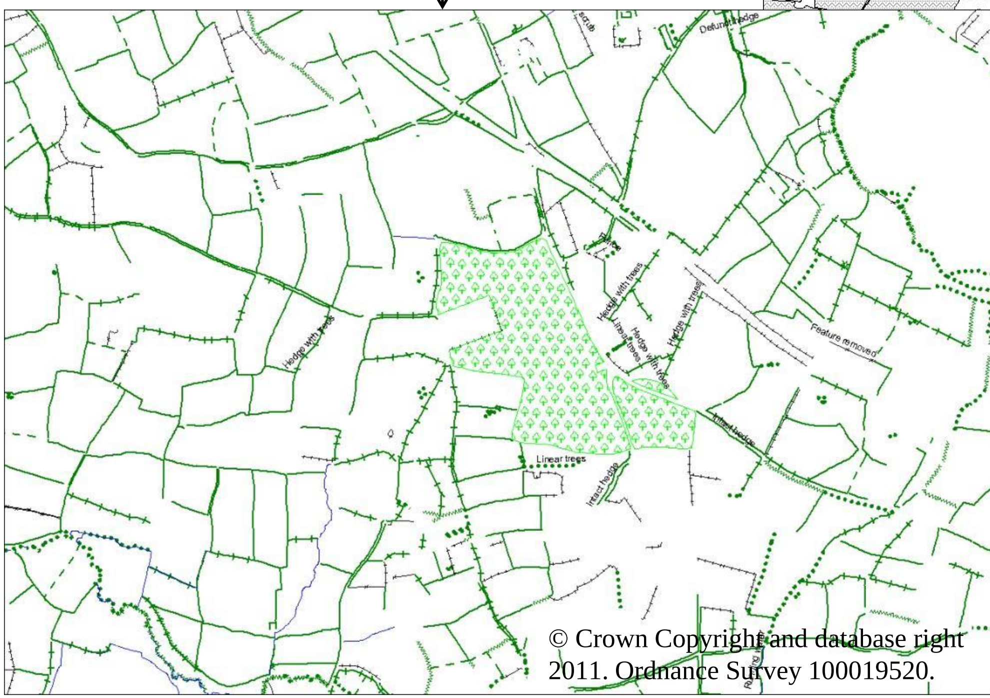
Phase 1 Habitat Data

Phase 1 - Polygon



20% resurveyed annually

Phase 1 - Linear



Habitat Biodiversity Audit

Phase I Habitat Survey
Polygon Features

- A111 (Broad-leaved semi-natural woodland)
- A112 (Broad-leaved plantation)
- A121 (Coniferous semi-natural woodland)
- A122 (Coniferous plantation)
- A131 (Mixed semi-natural woodland)
- A132 (Mixed plantation)
- A21 (Dense/continuous scrub)
- A22 (Scattered scrub)
- A31 (Broad-leaved parkland/scattered trees)
- A32 (Coniferous parkland/scattered trees)
- A4 (Recently felled woodland)
- A5 (Orchard)
- B11 (Unimproved acidic grassland)
- B12 (Semi-improved acidic grassland)
- B21 (Unimproved neutral grassland)
- B22 (Semi-improved neutral grassland)
- B31 (Unimproved calcareous grassland)
- B32 (Semi-improved calcareous grassland)
- B4 (Improved grassland)
- B5 (Marsh/marshy grassland)
- B6 (Poor semi-improved grassland)
- C11 (Continuous bracken)
- C31 (Tall ruderal)
- C32 (Non-ruderal)
- D5 (Dry heath/acid grassland mosaic)
- E11 (Sphagnum Bog)
- E21 (Acid/neutral flush)
- E31 (Valley mire)
- E32 (Basin mire)
- F1 (Swamp)
- F22 (Inundation vegetation)
- G1 (Standing water)
- G2 (Running water)
- I21 (Quarry)
- I22 (Spoil)
- I23 (Mine)
- I24 (Refuse tip)
- J11 (Arable)
- J112 (Allotments)
- J113 (Set-aside)
- J12 (Amenity grassland)
- J13 (Ephemeral/short perennial)
- J14 (Introduced shrub)
- J36 (Buildings)
- J4 (Bare ground)
- K (Unclassified)

Linear Features

- A21 (Linear Scrub)
- A3 (Linear Trees)
- G1 (Standing Water)
- G2 (Running Water)
- I1 (Inland Cliff)
- J21 (Intact Hedge)
- J211 (Native Species Rich Intact Hedge)
- J22 (Defunct Hedge)
- J23 (Hedge with Trees)
- J231 (Native Species Rich Hedge with Trees)
- J24 (Fence)
- J25 (Wall)
- J26 (Dry Ditch)
- J27 (Bounday Removed)
- J28 (Earth Bank)

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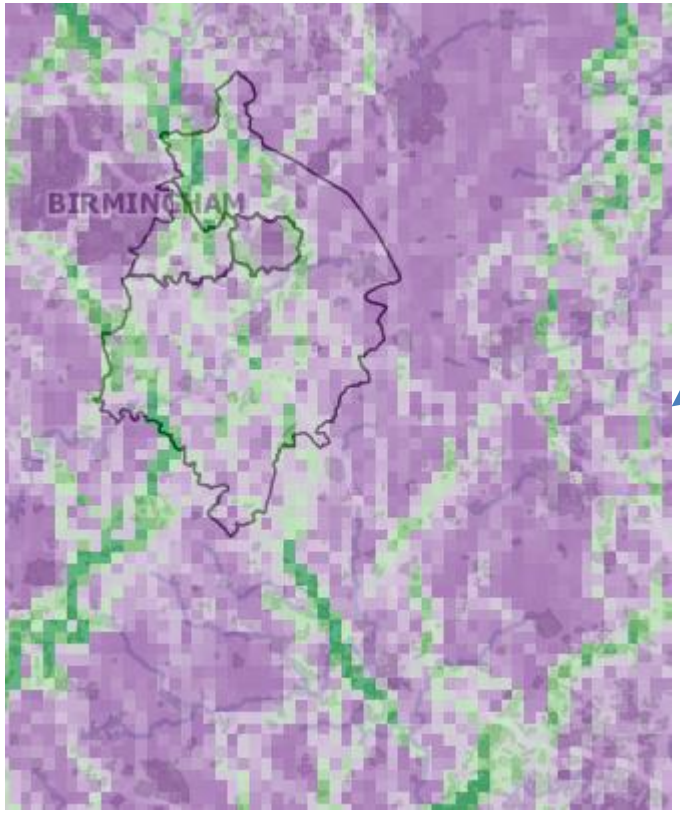

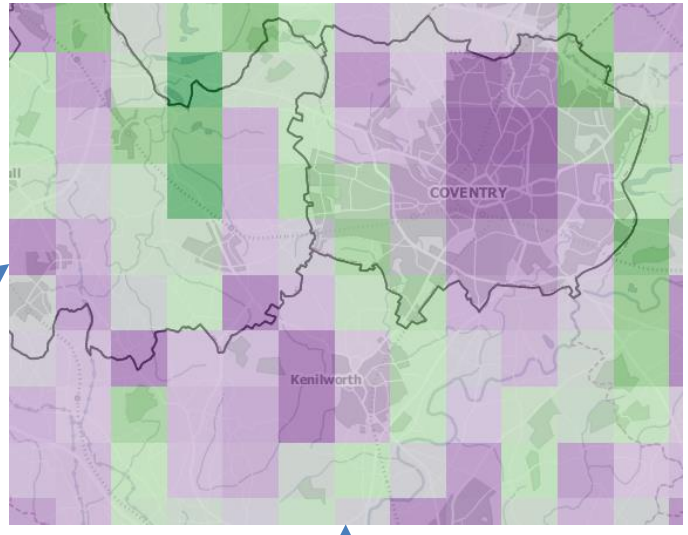

Every decision has a site, local, regional and national implication

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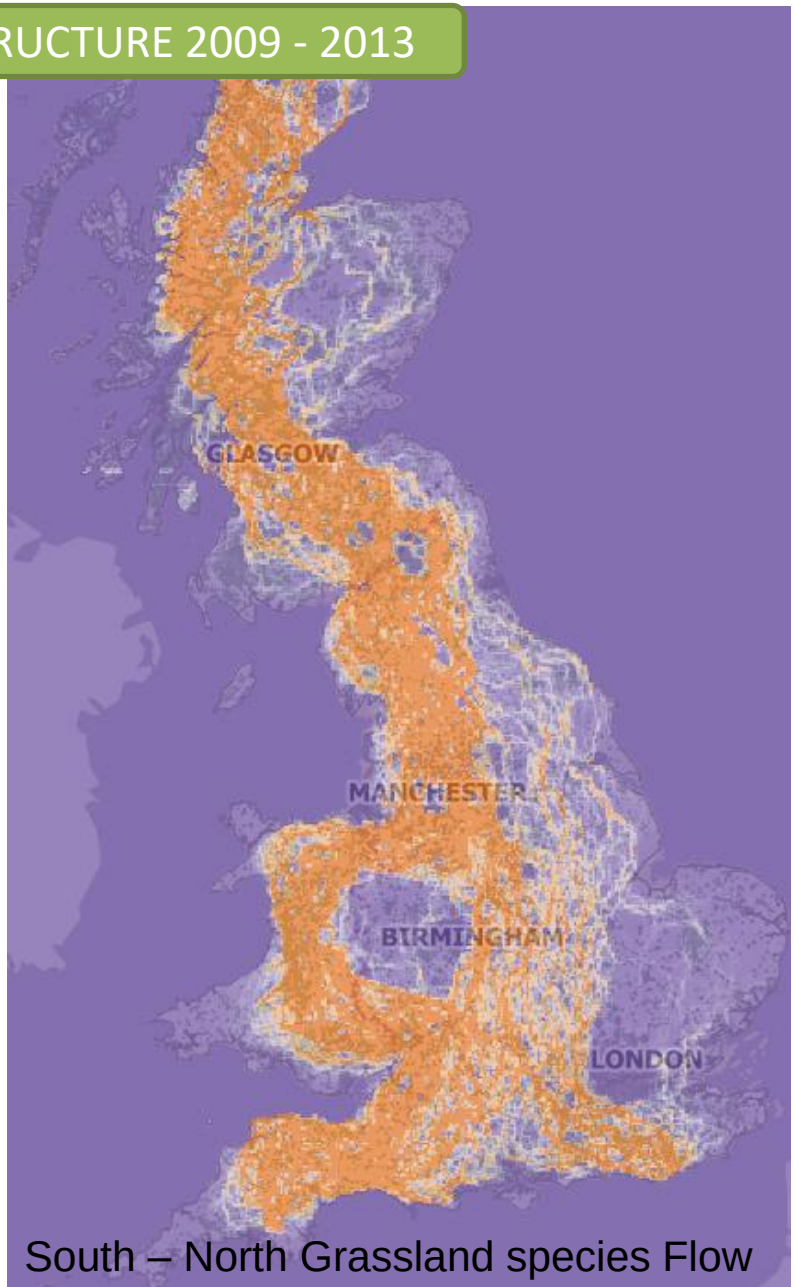
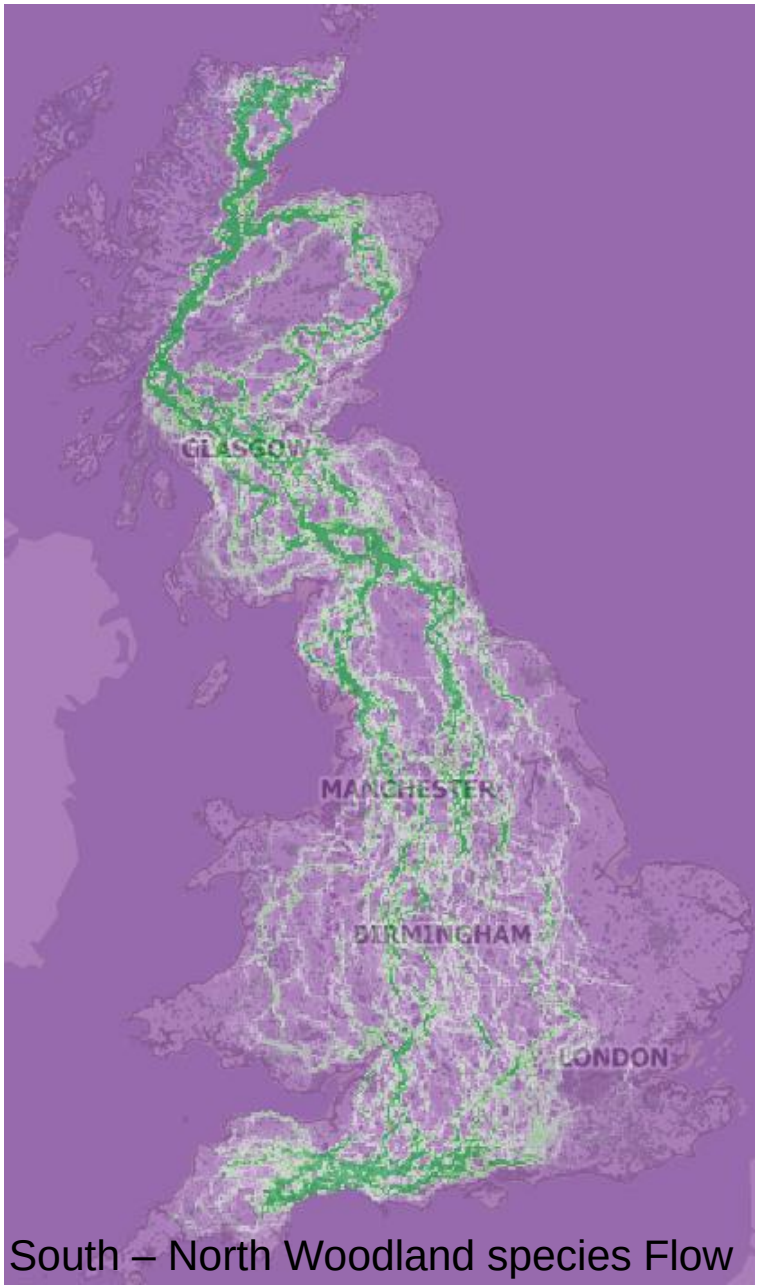
CONDATIS



South – North Grassland species Flow



South – North Woodland species Flow

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GREEN INFRASTRUCTURE 2009 - 2013

North Warwickshire Borough Council (2012)

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 With reference to the sub-regional local Green Infrastructure resource

n infrastructure assets;

links between existing green and to surrounding sub-regional

re assets where specific need has

be provided on site, or where an cted, contributions will be sought cts and improvements within the gion.

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.

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DEFRA / NE PILOT 2012 - 2014

STAGE 1

Survey, list and measure in hectares all habitats on site. Then separate into the following categories:

a. onsite habitats to be **lost**
b. onsite habitats to be **retained** (avoidance)
c. onsite habitats to be retained for **enhancement** (mitigation)
d. offsite habitats **indirectly** impacted

e. What habitats will be created on site as part of the development scheme?

STAGE 2

Calculate the biodiversity value for all habitats and the subsequent **Habitat Impact Score** (HIS) for the habitats within category a. Habitats lost

HIS for a and d = hectares x distinctiveness x condition

Calculate the HCS of the habitats within category d. Indirect impacts

HIS for category d. = (Pre- impact Distinctiveness x condition x hectares) – (Post-impact Distinctiveness x condition x hectares)

Remember no downtrading

STAGE 3

Calculate the Habitat Mitigation Score (HMS) for category e. habitats to be created.

HMS = (target_Distinctiveness x target_Condition x hectares) / Temporal factor / Difficulty factor

Calculate the HMS for category c. habitats to be enhanced.

HMS = (target_Distinctiveness x target_Condition x hectares) – HCS (see Stage 2) / Temporal factor / Difficulty factor

STAGE 4

Calculate the development's Biodiversity Impact Score

Biodiversity Impact Score = Σ HIS – Σ HMS

A x D x C

		Biodiversity distinctiveness		
		Low	Medium	High
Condition	Poor	2	4	6
	Moderate	4	8	12
	Good	6	12	18

Temporal Risk Factor

Years to Target Condition	Multiplier
5	1.2
10	1.4
15	1.7
20	2.0
25	2.4
30	2.8
32	3

Difficulty of Restoration/Creation Risk Factor

Difficulty of Restoration/ Creation	Multiplier
Very high/impossible	10
High	3
Medium	1.5
Low	1

DEFRA / NE PILOT 2012 - 2014

Warwickshire, Coventry & Solihull - Habitat Impact Assessment Calculator

KEY	
	No action required
	Enter value
	Drop-down menu
	Calculation
	Automatic lookup
	Automatic Condition setting
	Result

	Yes/No	Zone Colour
Are Great Crested Newts on or adjacent to your development?	Yes	Red

Local Planning Authority:	
Site name:	
Planning application reference number:	
Assessor:	
Date:	

Please fill in both tables
Please do not edit the formulae or structure
To condense the form for display hide vacant rows, do not delete them
If additional rows are required, or to provide feedback on the calculator please contact WCC Ecological Services 01926 418060

								Habitat Biodiversity Value						
		Existing habitats on site Please enter all habitats within the site boundary		**Habitat distinctiveness**		**Habitat condition**		**Habitats to be retained with no change within development**		**Habitats to be retained and enhanced within development**		**Habitats to be lost within development**		
T. Note	code	Phase 1 habitat description	*Habitat area (ha)*	*Distinctiveness*	*Score*	*Condition*	*Score*	*Area (ha)*	*Existing value*	*Area (ha)*	*Existing value*	*Area (ha)*	*Existing value*	*Comment*
		Direct Impacts and retained habitats			A		B	C	A x B x C = D	E	A x B x E = F	G	A x B x G = H	
	G1	Wetland: Standing water	0.20	High	6	Moderate	2					0.20	**2.40**	
	B6	Grassland: Poor semi-improved grassland	0.50	Medium-Low	3	Poor	1			0.60	1.80			
	B4	Grassland: Improved grassland	1.75	Low	2	Poor	1					1.75	**3.50**	
	G1	Wetland: Standing water	0.17	High	6	Poor	1			0.17	1.02			
	J11	Other: Arable	2.20	Low	2	Poor	1					2.20	**4.40**	
	A111	Woodland: Broad-leaved semi-natural woodland	1.60	High	6	Moderate	2	0.20	2.40	0.90	10.80	0.50	**6.00**	
	G1	Wetland: Standing water	0.20	High	6	Good	3					0.20	**3.60**	
		Total	6.62				Total	0.20	2.40	1.67	13.62	4.85	19.90	J
													∑D + ∑F + ∑H	
											Site habitat biodiversity value		35.92	

Before/after impact		**Indirect Negative Impacts** Including off site habitats	K					Value of loss from indirect impacts K x A x B = Li, Lii	Li - Lii	
Before		Woodland: Mixed semi-natural woodland	0.75	Medium	4	Moderate	2	**6.00**	**3.00**	A131
After		Woodland: Mixed semi-natural woodland		Medium	4	Poor	1	**3.00**		
Before										
After										
Before										
After										
Before										
After										
Before										
After										
		Total	0.75						3.00	HIS = J + M
										Score (HIS) 22.90

Please select time till target condition reached from the list.

CAUTION - Destruction of habitats of high distinctiveness, e.g. lowland meadow or ancient woodland, may be against local policy. Has the mitigation hierarch act to these habitats be avoided?
Any unavoidable loss of habitats of high distinctiveness must be replaced like-for-like.

Note the above BIA is an hypothetical example taken from the Warwickshire County Council draft GCN integrated Defra Net Gain metric. It therefore it includes a question about GCNs.

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
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		
Total	22.90	13.14	-9.76	100.01	-11.34	14.17	-11.34	**£808,363**
		Trading down	-1.59					
			-11.35					

Warwickshire County Council is currently

Great Crested Newt Compensation

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			
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)**
Exisitng 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

The Warwickshire BIA provides an indicative cost for offsetting. This enables an applicant to make decisions to either further ‘green’ a develop to reduce the contribution, accept the cost and/or absorb the cost into any existing or future land cost negotiations. The applicant’s ecological consultants can assist in these decisions… not the LA Ecologists.

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.

DEFRA / NE PILOT 2012 - 2014

Warwickshire BIA – Summary Sheet

Habitat Impacts	Loss	Gain	Impact	%age losses	Compensatory Unit loss	Indicative Offset (ha)	WCC Offset units	WCC Indicative Offset Contribution
Woodland Habitat	0.00	23.98	23.98					
Grassland Habitat	9.78	48.57	38.79					
Wetland Habitat	0.00	5.77	5.77				-3.23	£131,672
Other Habitat (incl. Built Env)	88.55	16.78	-71.77	100.00	-3.23	Transferred to Wetland		
Total	98.33	95.10	-3.23	100.00	-3.23	0.00	-3.23	**£131,672**
		Trading down	0.00					
			-3.23					

Warwickshire County Council is currently transferring 'Other' habitat loss to Wetland Creation

Hedgerow Impacts	Loss	Gain	Trading down	Impact	Unit loss	Indicative Offset (km)	WCC Offset units	WCC Offset Contribution
Hedgerow	0.00	0.00		0.00				

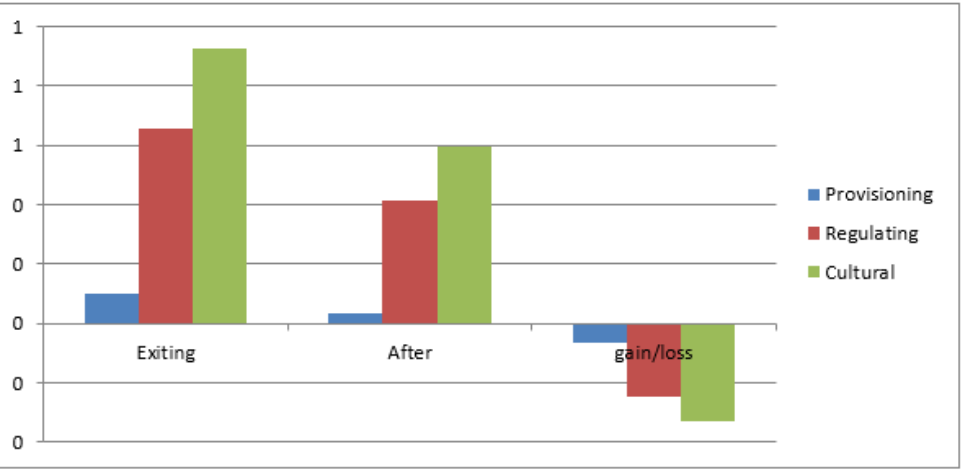
Provides an indicative cost of the Financial Contribution that Warwickshire County Council is likely to ask for.

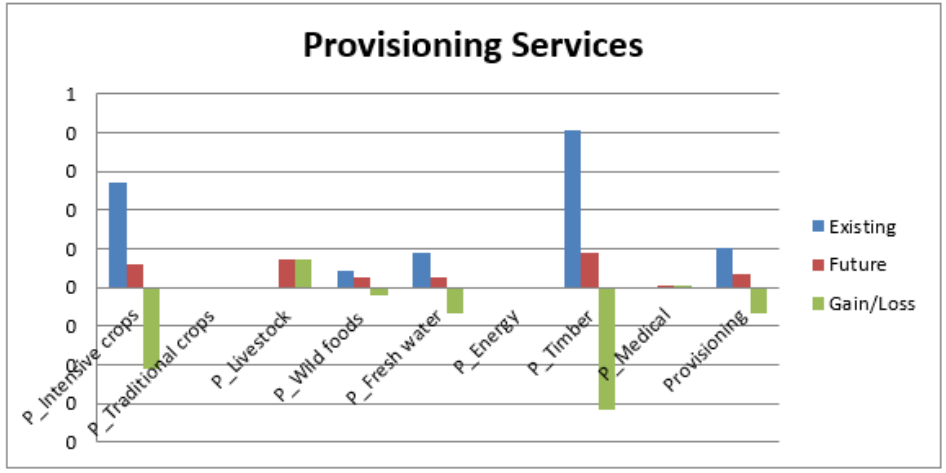
- Viability Assessment?
- Layout options
- Discussions between Landscape Architect / Ecologists and clients as well as Local Authority.

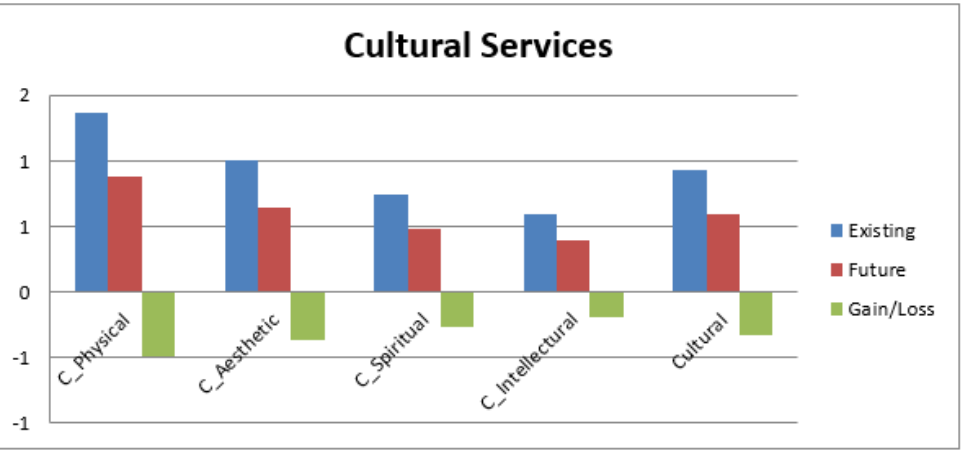
DEFRA / NE PILOT 2012 - 2014

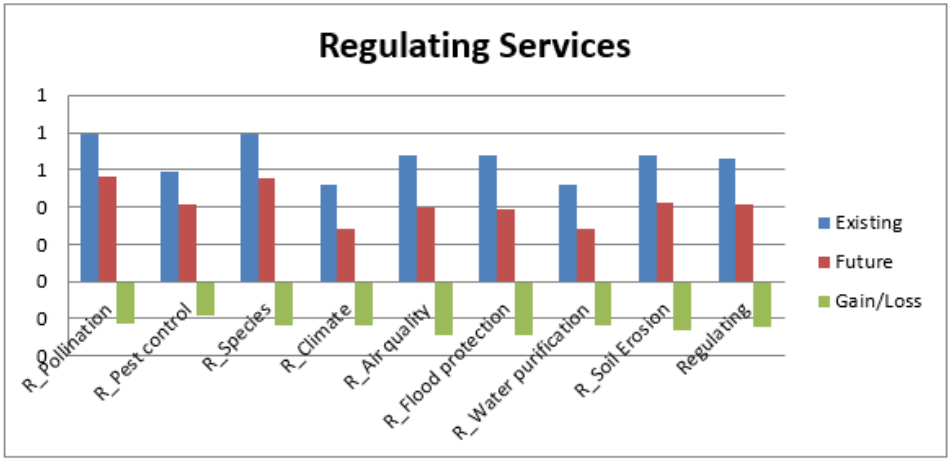
Warwickshire BIA – Summary Sheet

ECOSYSTEM SERVICES ANALYSIS









Implementation 2012+

Developer Options

- **Developers have to identify an offset site prior to commencement of works**
  - Do it themselves (within a wider landholding?)
  - Go to a broker

- **Developers can pay a financial contribution to Warwickshire County Council and we will find a site**
  - Enables quick starts

Delivered through an obligation (s106) or condition (not preferred)

Can cater for

- Full application
- Outline applications
- Multi-phased applications

Single Payment or Staggered Payments

Implementation 2012+

First Public Inquiry test case (APP/E3715/V/12/2179915: APPLICATION BY WILLIAM KENDRICK & SONS LIMITED – LAND AT STRETTON CROFT, BURBAGE LE10 3JB (August 2013)

"The Secretary of State agrees with the Inspector that the proposal, together with the proposed ecological mitigation, would comply with the policies in the Framework, particularly in relation to protected species and to biodiversity interests within the wider environment; and that it would provide a significant benefit in nature conservation terms (IR8.77)."

"Although there would remain some biodiversity loss, this could be compensated for through a biodiversity offsetting scheme in accordance with the principles set out in the NPPF. Mr Lowe, WCC Principal Ecologist, **has undertaken the work to evaluate the level of offsetting required, and this would be delivered within the RBC area funded by a payment from the Applicant** through the unilateral undertaking. Mr Lowe confirms that with the biodiversity offsetting funded by this scheme there would be a net gain in biodiversity.". Paragraph 8.77 states "**Overall, I conclude … that the proposal, together with the proposed ecological mitigation, would comply with Government policies in the NPPF particularly in relation to protected species and to biodiversity interests within the wider environment**."

"The Secretary of State also agrees with the Inspector's reasoning and conclusions on the S106 planning obligation (IR8.80-8.81). **He agrees with the Inspector that all of the provisions of the S106 planning obligation are necessary to make the development acceptable in planning terms**, directly related to the development, and fairly and reasonably related in scale and kind to the development; and can therefore be regarded as complying with Regulation 122 of the CIL Regulations, Policy CS10 of the RBCCS, and paragraph 204 of the Framework (IR8.81)."

"The planning obligation was discussed in detail at the Inquiry. The LPA considers the planning obligation is required in relation to the **biodiversity offsetting (a) necessary to make the development acceptable in planning terms; (b) directly related to the development and (c) fairly and reasonably related in scale and kind to the development** … From all the evidence that is before me I consider that all of the provisions of the S106 planning obligation are necessary. They meet the 3 tests of Regulation 122 of the CIL Regulations 2010, Policy CS10 of the RBCCS and paragraph 204 of the NPPF. I accord the S106 planning obligation significant weight and I have had regard to it as a material consideration in my conclusion."

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
		£2,252,787.81

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

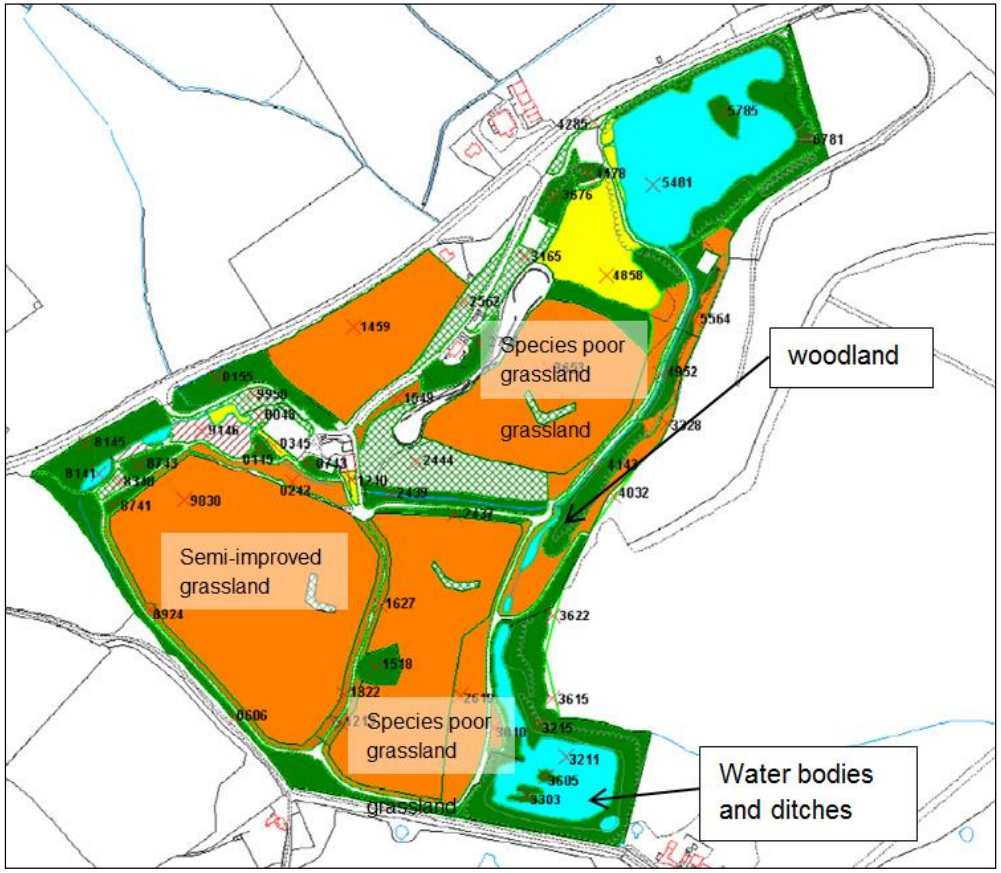
Implementation 2012+

Case Study

Existing Units

Existing biodiversity value of 4.1ha Species Poor Grassland = **8.2** units (4.1ha)

Existing biodiversity value of 10.4ha Poor Semi-improved Grassland = **41.6** units



Potential Credits

To enhance the Species Poor Grassland to Semi-improved Grassland

in 10 years would generate

5.86 credits gain.

To enhance the *species-poor*

Semi-improved Grassland

to *species-rich* Semi-improved Grassland in 10 years would generate

9.90 credits gain

The Total Grassland units available on the site = **15.76** credits

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

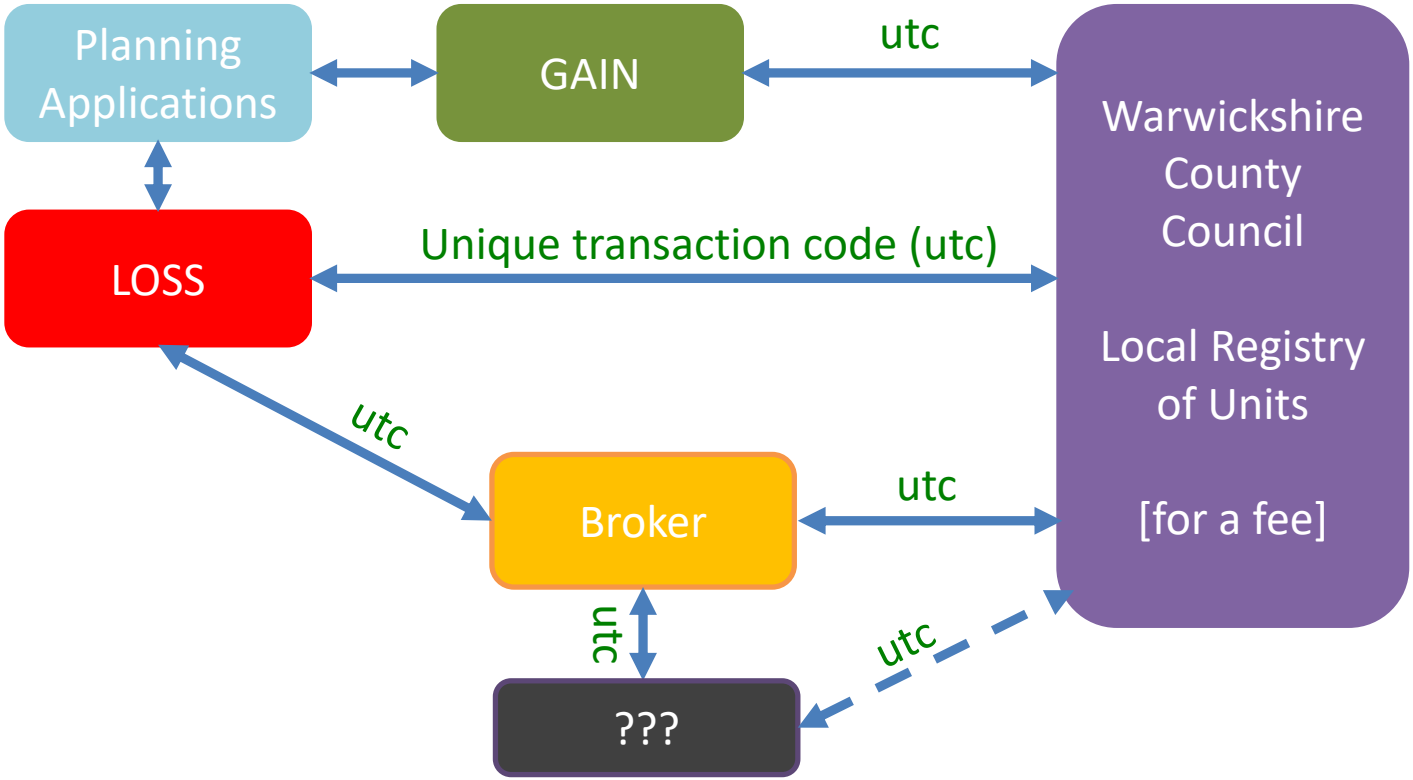
In relation to land at [address/description of land]

Regulation

The market is forming in Warwickshire:

Brokers

- Warwickshire County Council
- Environment Bank Ltd
- Individual Landowners / Land Agents



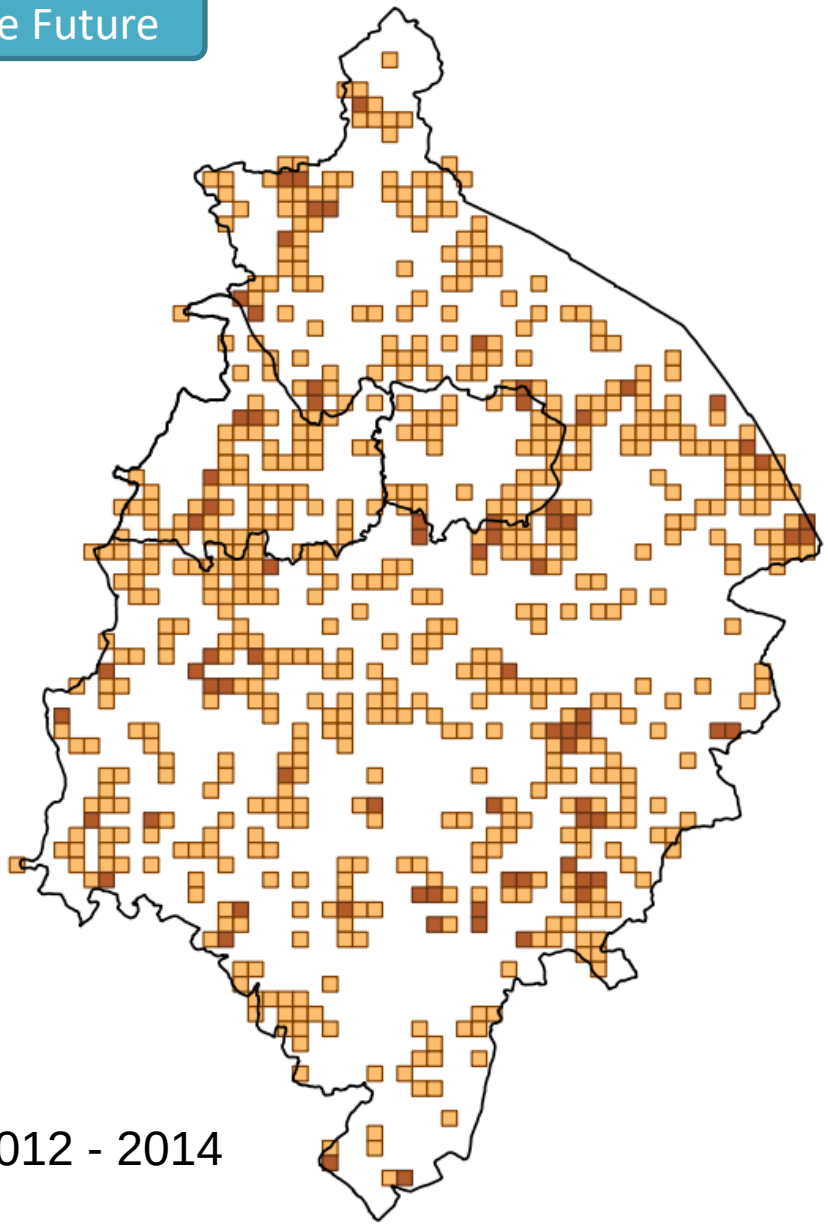
From Strategy to Policy Through to Delivery

David Lowe (Team Leader: Ecology, Archaeology & Landscape)

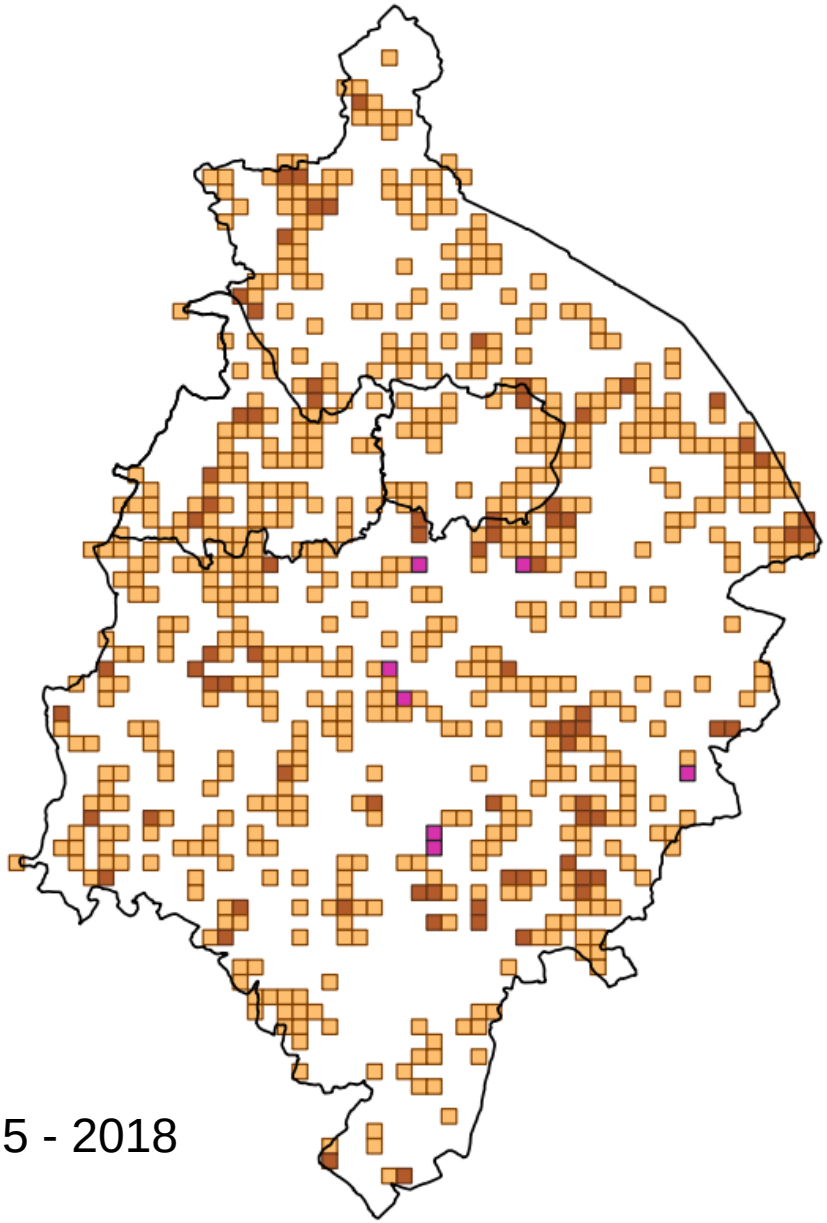
Warwickshire County Council

CIEEM AWARDS 2019 WINNER – Planning Authority of the Year

The Future



2012 - 2014



2015 - 2018

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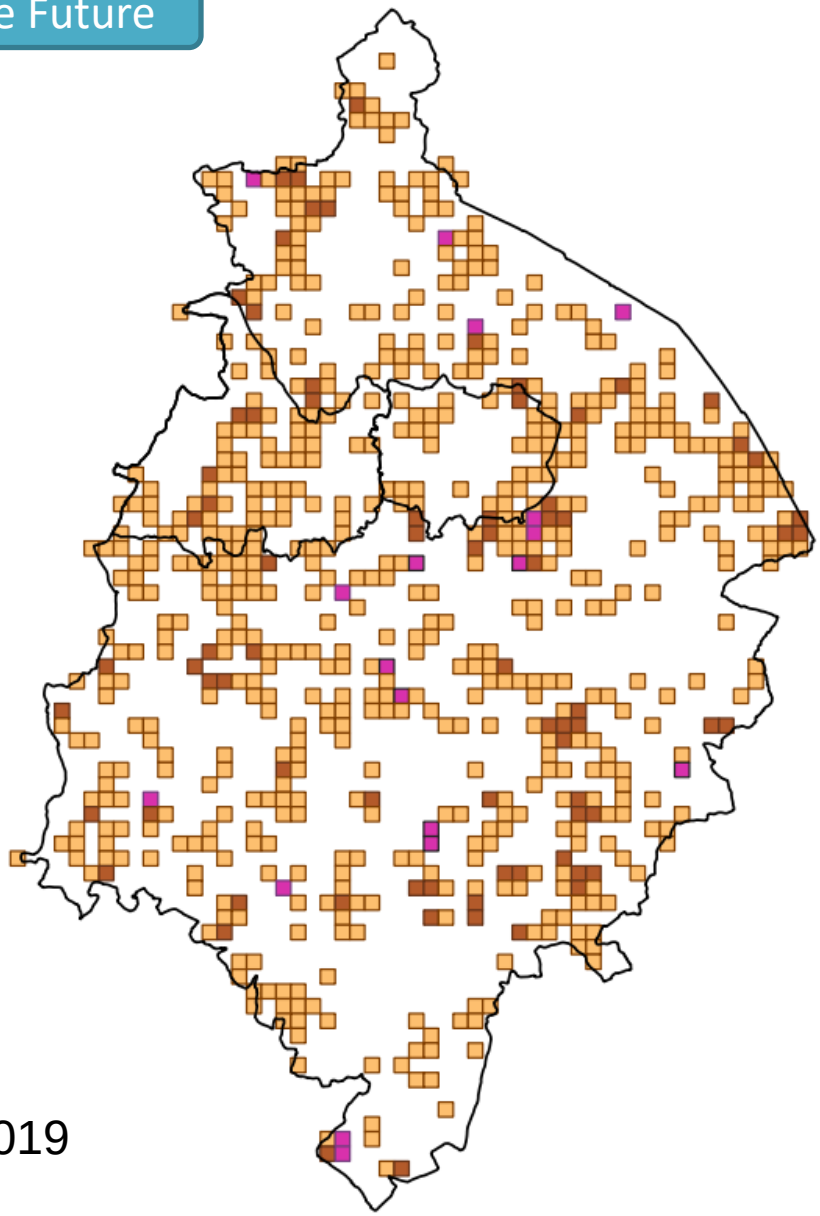
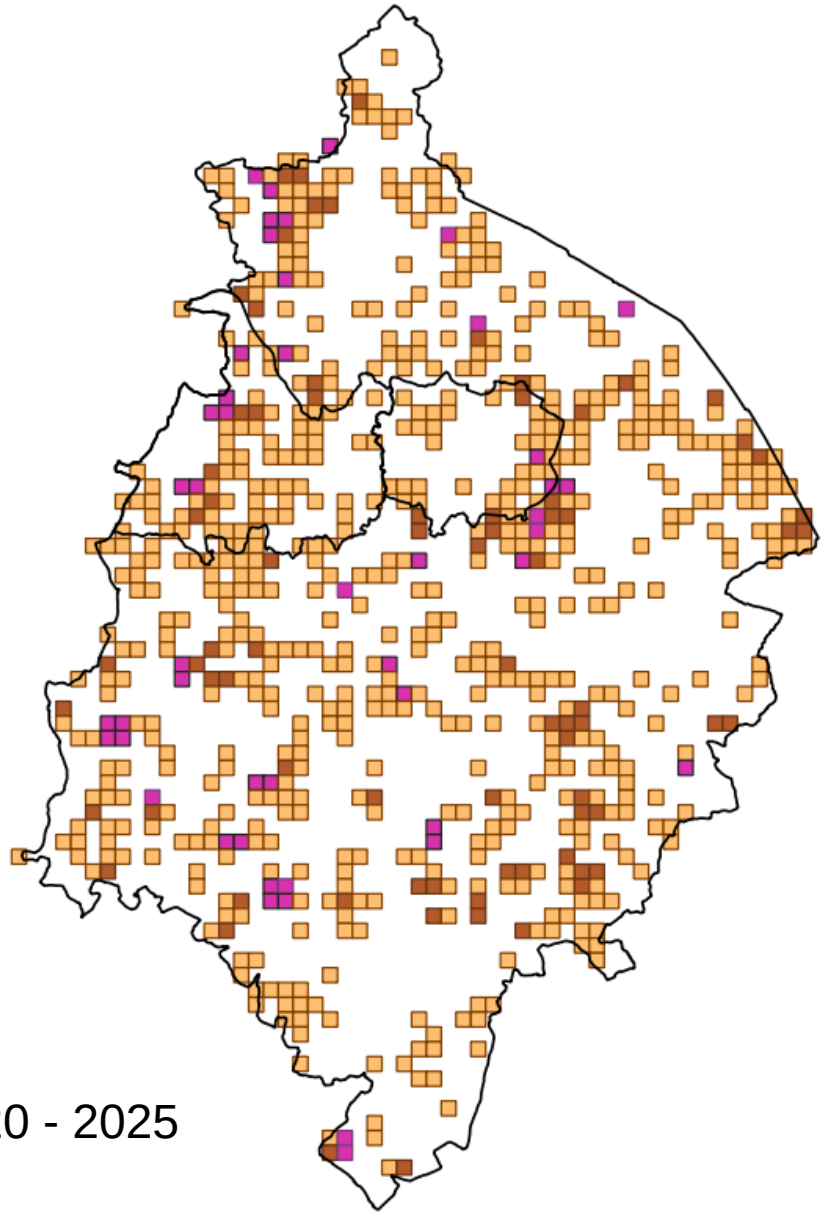
AWARDS 2019 WINNER Planning Authority of the Year

The Future

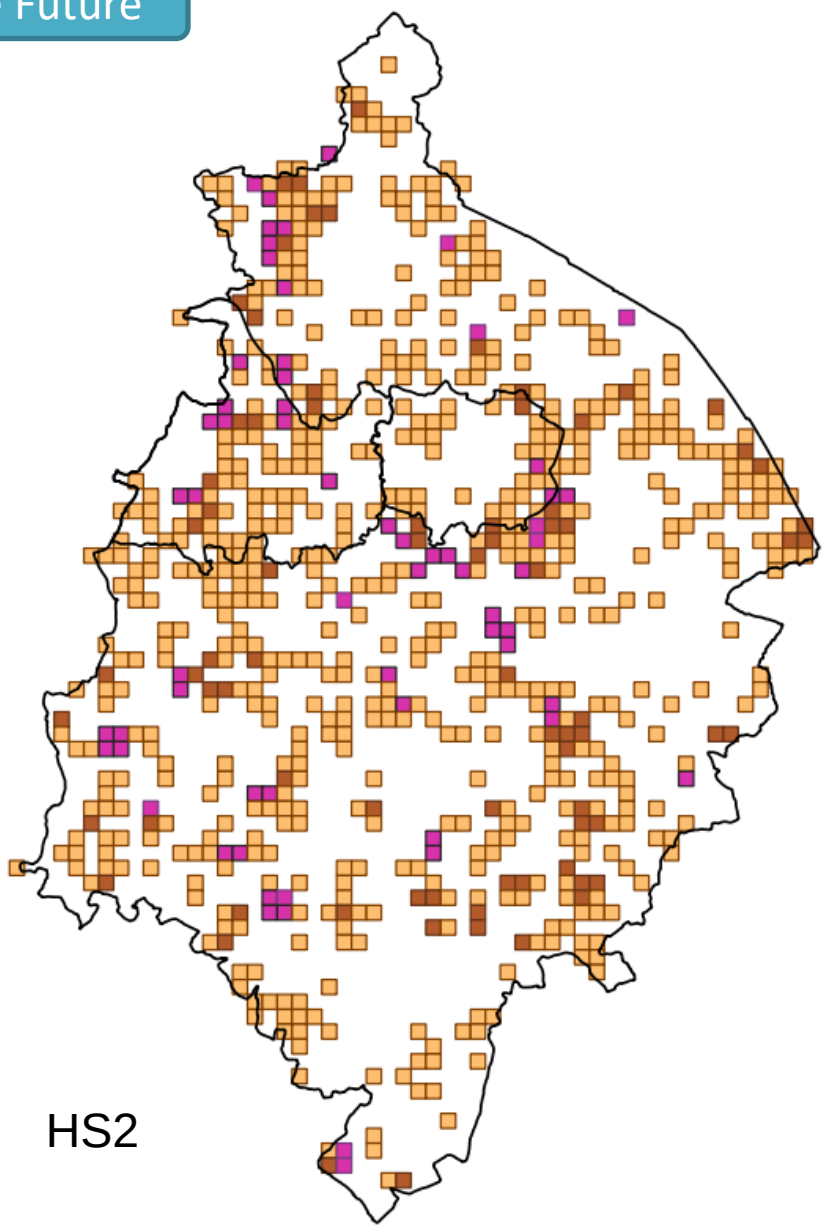


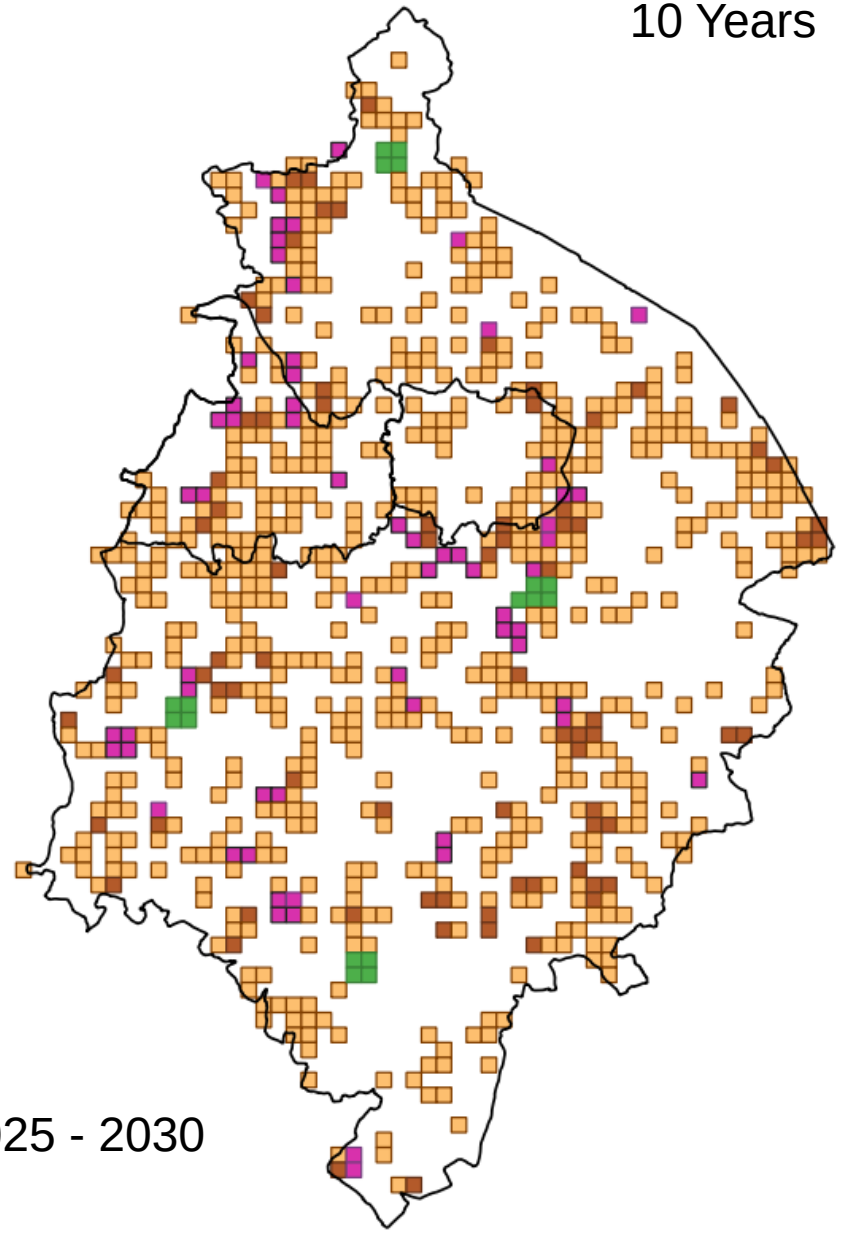
2019



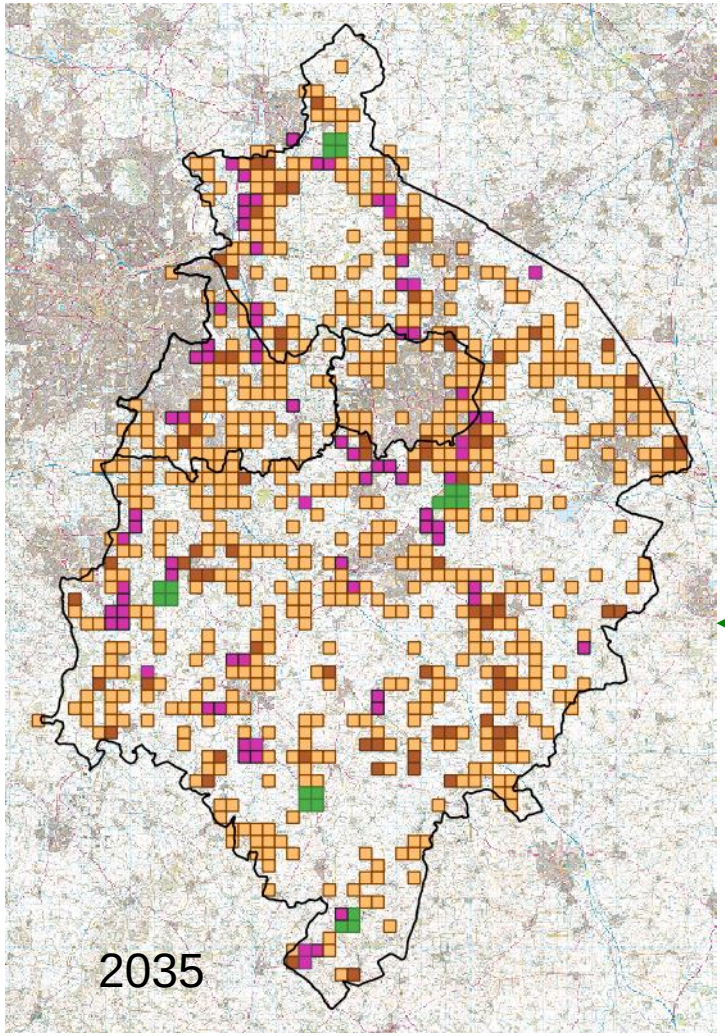
2020 - 2025

The Future



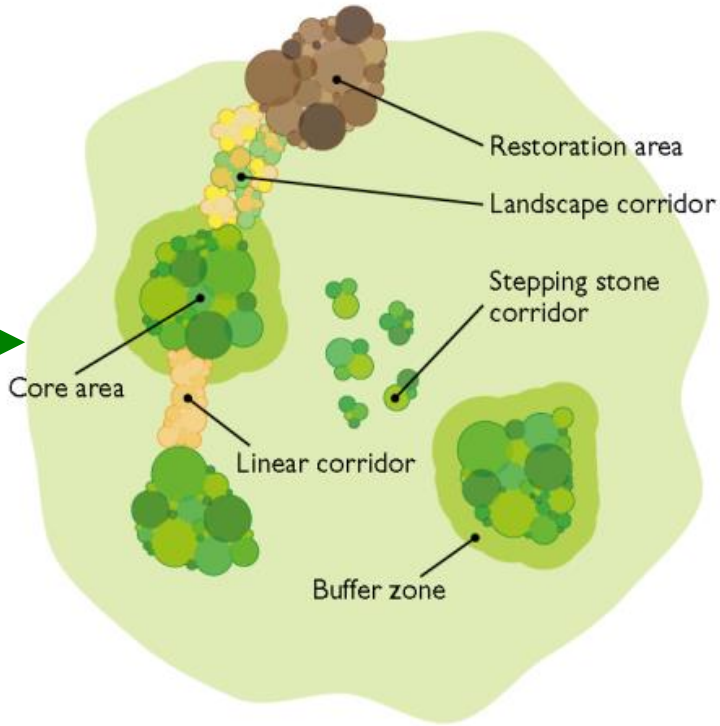


Landscape Ecology



davidlowe@warwickshire.gov.uk

maps.warwickshire.gov.uk/greeninfrastructure



MORE, BIGGER, BETTER and CONNECTED