

Nuneaton and Bedworth Borough Council Ecology and Geodiversity Assessment (EGA) Borough Plan Publication Version

Prepared by

**Habitat Biodiversity Audit Partnership for Warwickshire, Coventry
and Solihull**

Warwickshire Wildlife Trust

Ecological Services Warwickshire County Council



October 2016



CONTENTS

1. INTRODUCTION.....	3
1.1. Sustainable Development.....	3
1.2. Ecology and Geodiversity Assessment (EGA) Study Objectives.....	3
1.3. The Study Areas.....	4
2. Report Descriptions.....	6
3. Designated Sites.....	7
3.1.1. Statutory Sites.....	7
3.1.2. Sites of Special Scientific Interest SSSI.....	7
3.1.3. Local Nature Reserves.....	7
3.1.4. Non-statutory sites: Local Wildlife Sites.....	8
<i>National Planning Policy</i>	8
<i>Identifying Local Wildlife Sites</i>	9
3.1.5. Non-Statutory Sites: Local Geological Sites.....	10
3.1.6. Warwickshire, Coventry and Solihull Local Biodiversity Action Plan (LBAP).....	10
3.1.7. Hedgerows.....	10
4. Warwickshire Phase 1 Habitats Survey.....	11
4.1. Phase 1 Habitat Distinctiveness.....	12
4.2. Habitat Connectivity.....	13
5. Species Records.....	14
6. Constraints map.....	14
Bibliography.....	15
Appendices.....	16

1. INTRODUCTION

1.1. SUSTAINABLE DEVELOPMENT

The National Planning Policy Framework (NPPF) promotes three dimensions to sustainable development: economic, social and environmental. These dimensions give rise to the need for the planning system to perform a number of roles:

- **an economic role** – contributing to building a strong, responsive and competitive economy, by ensuring that sufficient land of the right type is available in the right places and at the right time to support growth and innovation; and by identifying and coordinating development requirements, including the provision of infrastructure;
- **a social role** – supporting strong, vibrant and healthy communities, by providing the supply of housing required to meet the needs of present and future generations; and by creating a high quality built environment, with accessible local services that reflect the community's needs and support its health, social and cultural well-being; and
- **an environmental role** – contributing to protecting and enhancing our natural, built and historic environment; and, as part of this, helping to improve biodiversity, use natural resources prudently, minimise waste and pollution, and mitigate and adapt to climate change including moving to a low carbon economy

These roles should not be undertaken in isolation, because they are mutually dependent. Economic growth can secure higher social and environmental standards, and well-designed buildings and places can improve the lives of people and communities. Therefore, to achieve sustainable development, economic, social and environmental gains should be sought jointly and simultaneously through the planning system.

This report details the natural environment dimensions of sustainable development.

1.2. ECOLOGY AND GEODIVERSITY ASSESSMENT (EGA) STUDY OBJECTIVES

- Nuneaton and Bedworth Borough Council commissioned the Habitat Biodiversity Audit and Warwickshire County Council to assess the ecology and geodiversity of its development sites in order to prepare ecological and geodiversity policies that are fit for purpose.

- The Assessment will include recommendations for more detailed survey of sites that are considered to have ecological/geological value, together with recommendations regarding the future safeguarding and management of different parts of the buffer areas.
- The text of the Ecological and Geological Assessment Report will be accompanied by a set of maps for each of the potential employment and housing development sites, comprising:
 - a map for each potential development site, identifying locations of UK and Warwickshire BAP and priority habitats and species, as well as areas of irreplaceable natural habitat, such as ancient woodland and veteran trees, designated sites or sites with potential for designation; or where sites have potential to be upgraded, i.e. for example, from a LWS to a LNR;
 - a map for each potential development site showing the Phase 1 Habitat classification (target notes will also be included on the shape files);
 - a map for each potential development site indicating the occurrence of protected/priority species/habitats (target notes will also be included on the shape files); and
 - a connectivity map of the Borough showing the potential for habitats to be linked together and where habitats need to be created.
- Recommend Local Wildlife Sites that are suitable for designation as Local Nature Reserves, prioritising the order of sites to be designated first,
- For each site recommend mitigation strategies to minimise the impact of development on the site's ecology and geodiversity,
- For each site recommend ways in which policies can ensure development can provide net gains in biodiversity,
- Recommend suitable indicators for monitoring biodiversity and geodiversity,
- Recommend an appropriate buffer around Ensor's Pool Special Area of Conservation.

1.3. The Study Areas

The study area consists of the potential employment and potential housing areas (PDAs) as identified by NBBC and listed below. Figure 1 shows the mapped locations of the sites.

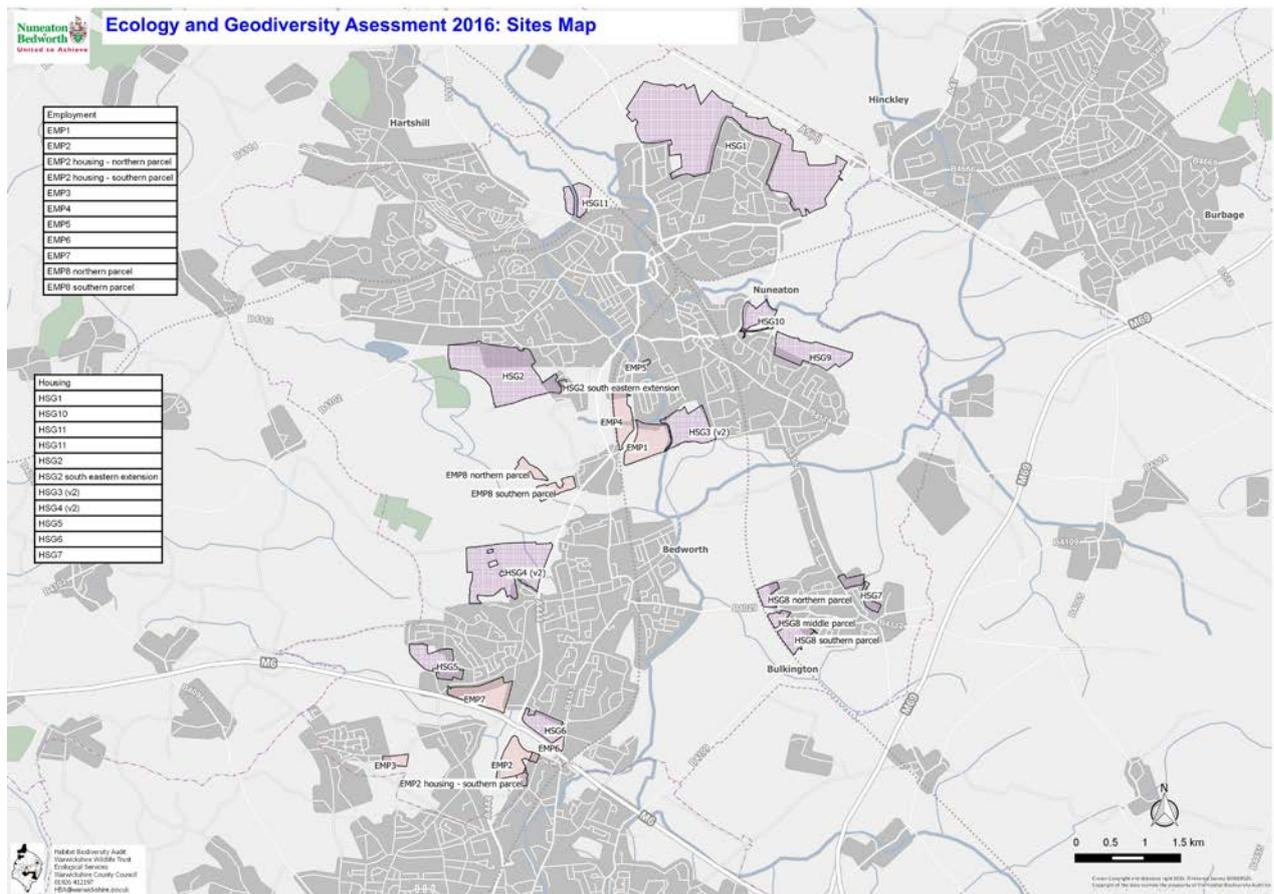
Table 1 Employment Allocations

Number	Site Reference	Hectares
EMP1	Faultlands	7.8
EMP2	Phoenix Way / Wilson's Lane	22.1
EMP3	Prologis Extension	5.33
EMP4	Coventry Road (Griff Hollows)	17.06
EMP5	Caldwell Road	0.64
EMP6	Longford Road	2.0
EMP7	Bowling Green Lane	26.2
EMP8	Griff Lane – North	6.57
EMP8	Griff Lane – South	9.44

Table 2 Housing Allocations

Number	Site Reference	Hectares
HSG1	North of Nuneaton	215.2
HSG2	Arbury	15.3
HSG3	Gipsy Lane	22.8
HSG4	Woodlands	75.6
HSG5	Hospital Lane	22.9
HSG6	School Lane	16.5
HSG7	East of Bulkington	10.2
HSG8	West of Bulkington – North	25.7
HSG9	Golf Drive	33.7
HSG10	Attleborough Fields	15.3
HSG11	Tuttle Hill	12.8

Figure -1 Employment and Housing Allocations 2016



2. REPORT DESCRIPTIONS

Each individual site report is divided into the following headings:

- Site name and area in hectares
- Overview
- Key Features
- Recommendations
- Designated Sites
- Phase 1 Habitat Distinctiveness / Target notes
- Biodiversity off-setting units
- Phase 1 Habitat Connectivity
- Protected Species and Important species

3. DESIGNATED SITES

The primary objective of nature conservation is to ensure that the national heritage of wild flora and fauna and geological and physiographic features remains as large and as diverse as possible, so that society may use and appreciate its value to the fullest extent (NCC 1989). The protection and management of areas of importance for wild flora and fauna and their habitat is regarded as the cornerstone of British conservation policy. The principal statutory means of achieving this is by designation of sites for their conservation importance.

3.1.1. STATUTORY SITES

A very small number of sites of nature conservation importance in Warwickshire receive statutory protection. Statutory sites in Warwickshire comprise 13 Local Nature Reserves and 57 Sites of Special Scientific Interest (SSSIs). Of these, Ensor's Pool in Nuneaton and Bedworth Borough is also a Special Areas of Conservation (SACs), reflecting its international importance.

Table 3 below lists the designated sites for Nuneaton and Bedworth including both the statutory and non-statutory sites.

Table 3 Nuneaton and Bedworth Site Designations

Site Designation	Count	Area (ha)	% Area***
Sites of Special Scientific Interest (SSSIs)	2	15.33	0.19
Local Geological Sites	8	35.00	0.44
Local Nature Reserves*	3	38.73	0.49
Local Wildlife Sites – Status LWS**	40	355.80	4.52
Local Wildlife Sites – Status potential	46	331.51	4.21
Local Wildlife Sites – Status deferred	3	21.93	0.28
Local Wildlife Sites – Status destroyed	6	454.39	5.77
Local Wildlife Sites – Status rejected	16	112.00	1.42
Ancient Woodland	22	125.28	1.59

*Ensor's Pool is both a SSSI/SAC and a Local Nature Reserve

**LWS designated sites completed in 2012

***Nuneaton and Bedworth Borough total area 7,872 hectares

3.1.2. SITES OF SPECIAL SCIENTIFIC INTEREST SSSI

Sites of Special Scientific Interest (SSSI) represent areas of the country's best wildlife and geological sites. SSSIs are legally protected under the Wildlife and Countryside Act 1981, as amended by the Countryside and Rights of Way (CROW) Act 2000 and the Natural Environment and Rural Communities (NERC) Act 2006.

3.1.3. LOCAL NATURE RESERVES

A Local Nature Reserve (LNR) is a statutory designation made under section 21 of the National parks and Access to the Countryside Act 1949 and amended by

Schedule 11 of the Natural Environment and Rural Communities Act 2006. All district and county councils have powers to acquire, declare and manage LNRs. To qualify for LNR status a site must be of importance for wildlife, geology, education or public enjoyment.

3.1.4. NON-STATUTORY SITES: LOCAL WILDLIFE SITES

The few sites which have statutory designations because of their international or national interest represent the top of the hierarchy of protection. These sites are selected according to standardised criteria and procedures. Second tier, non-statutory sites, covering local nature conservation importance, are more difficult to classify as they have no legislative basis or standardised definition. The Warwickshire, Coventry and Solihull Local Wildlife Sites Project in 2000 set out to formerly identify Sites of Importance for Nature Conservation (SINCs), now known as Local Wildlife Sites (LWS). The formal process for identifying, surveying and designating Local Wildlife Sites is set out in ***The Green Book: Guidance for the Selection of Local Wildlife Sites in Warwickshire, Coventry and Solihull*** (Habitat Biodiversity Audit, 2014).

NATIONAL PLANNING POLICY

The Government's National Planning Policy Framework (NPPF) (Communities and Local Government, 2012) launched in March 2012 replaced PPS9. It states that the distinction should continue to be made between the hierarchy of international, national and locally designated sites, so that protection is commensurate with their status and gives appropriate weight to their importance. It advocates the protection of Local Sites recognising their importance and the contribution that they make to wider ecological networks.

The NPPF states that Local Planning Authorities should:

“Set out a strategic approach to their local plans, planning positively for the creation, protection, enhancement and management of networks of biodiversity and green infrastructure.”

To minimise impacts on biodiversity and geodiversity, planning policies should:

- *“Plan for biodiversity at a landscape-scale across local planning policies;*
- *Identify and map components of the local ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity, wildlife corridors and stepping stones that connect them, and areas identified by local Partnerships for habitat restoration and creation;*
- *Promote the preservation, restoration and re-creation of priority habitats, ecological networks and the protection and recovery of priority species populations, linked to national and local targets, and identify suitable indicators for monitoring biodiversity in the plan;*

- *Where Nature Improvement Areas (NIAs) are identified in Local Plans, consider specifying the types of development that may be appropriate in these Areas.”*

IDENTIFYING LOCAL WILDLIFE SITES

The Government recognises that our natural heritage is not confined to the various statutory designated sites but is found throughout the countryside and many urban areas. The Government also recognises that local authorities designate sites of local nature conservation value themselves and looks to them to take account of nature conservation interests in all their activities.

“Local Planning authorities should have regard to the relative significance of international, national and local and informal designations in considering the weight to be attached to nature conservation interests. They should only apply local designations to sites of substantive nature conservation value, and take care to avoid unnecessary constraints on development”.

Local Wildlife Sites help buffer and connect natural areas, providing ecological networks and increasing resilience of biodiversity to pressure of land use and climate change (Lawton L.H., 2010). They contribute to the quality of life and the health and well-being of communities and provide important open space in urban areas.

Making Space for Nature (Lawton D.H., 2010) delivered to government in September 2011, asserts that Local Wildlife Sites are highly vulnerable to damage and loss, and recommended improving their protection and management, underlining that Local Sites are *“important to future ecological networks, because they not only provide wildlife refuges in their own right, but can act as stepping stones and corridors to link and protect nationally and internationally designated sites”*. Building on this, recommendation 12 of the Review was that Local Authorities should take responsibility for the identification and monitoring of Local Wildlife Sites, and that their management must be improved.

The Government response to *Making Space for Nature*, published alongside the Natural Environment White Paper, (Defra, 2011), encouraged Local Site Partnerships to continue to implement Defra’s Local Sites guidance and play an increased role in identifying, protecting and managing Local Sites. The subsequent *England Biodiversity Strategy 2020* (Defra, 2011) restated that Government will encourage local authorities to take a more active and positive role in the management of Local Sites, including through reporting data on such sites in the Government’s new Single Data List.

3.1.5. NON-STATUTORY SITES: LOCAL GEOLOGICAL SITES

For many years, schemes to conserve wildlife sites not enjoying the statutory protection of Sites of Special Scientific Interest (SSSIs) have been operating successfully throughout Britain, but schemes to protect non-statutory geological and geomorphological sites are far less widespread. Those that do exist have much in common with their biological partners - sites are selected and managed by locally based groups, and safeguarded through local authority planning policies and the involvement of site owner(s).

LGSs are any geological or geomorphological sites, excluding SSSIs, in a county that are considered worthy of protection for their educational, research, historical or aesthetic importance. RIGS are broadly analogous to non-statutory wildlife sites and are often referred to locally by the same name. They can include important teaching sites, wildlife trust reserves, Local Nature Reserves and a wide range of other sites. LGSs are not regarded as 'understudy' SSSIs, but as sites of regional importance in their own right.

3.1.6. WARWICKSHIRE, COVENTRY AND SOLIHULL LOCAL BIODIVERSITY ACTION PLAN (LBAP)

The Warwickshire, Coventry and Solihull Local Biodiversity Action Plan (LBAP) provide a local response to the UK Government's National Action Plans for threatened habitats and species. The LBAP contributes to national targets wherever these are relevant to the Warwickshire sub-region but also sets local targets. The LBAP action plans for all local habitats can be found on the Warwickshire County Council Heritage and Culture web site <http://heritage.warwickshire.gov.uk/ecology/lbap/>

The Warwickshire, Coventry and Solihull LBAP habitats equivalent to the Warwickshire Phase 1 habitat survey are shown in the technical section 8.2, p.94.

3.1.7. HEDGEROWS

The Hedgerows Regulations: A Guide to the Law and Good Practice (Defra, 1997) sets out the criteria that must be used by the local planning authority in determining which hedgerows are important. The criteria relate to the value of hedgerows from an archaeological, historical, landscape or wildlife perspective. They exclude hedgerows that are less than 30 years old. If a hedgerow is at least 30 years old and qualifies under any one of the criteria, then it is important.

A Biodiversity Action Plan (BAP) priority hedgerow is defined as having more than 80% native woody species, including at least five (four in northern and eastern England, upland Wales and Scotland) woody species that are either native

somewhere in the UK or which are archaeophytes¹. If this is the case then the hedgerow is defined as species-rich.

The Hedgerows Regulations states that the hedgerow does not have to contain trees, but any trees in it form part of the hedgerow. Where a former hedgerow has not been actively managed and has grown into a line of trees it is not covered by the regulations. However, lines of trees may be protected under existing licensing procedures for felling or by Tree Preservation Orders (TPOs).

The Phase 1 habitat survey identifies different types of field boundaries including hedgerows. The Phase 1 survey is not an exhaustive assessment of hedgerows but is an indicator towards good or poor hedgerows. More detailed hedgerow surveys should be undertaken where a hedgerow has been identified as being species rich. The standard survey methodology should follow the guidelines set out in the Hedgerow Survey Handbook (defra, 2007 2nd ed)

Species-rich hedgerows can also be designated as Local Wildlife Sites as set out in The Green Book (Habitat Biodiversity Audit, 2014 Section 9.3. p.57).

4. WARWICKSHIRE PHASE 1 HABITATS SURVEY

The national Phase 1 habitat survey is a well-established, general purpose survey devised to provide rapid mapping over wide areas of the British countryside. The methodology is set out in the "*Handbook for Phase 1 habitat survey: A technique for environmental audit*" (Nature Conservancy Council 1990, 2010 ed.). The handbook has been revised and reprinted with minor revisions to mainly take account of the introduction and wider use of Geographical Information System (GIS).

The first field surveys for the Warwickshire sub-region are recorded in the 2001 Phase 1 survey for 1996 up to 2000. In 2001 the completed surveys were digitised and recorded in the HBA's GIS. The original Phase 1 survey was augmented by aerial survey interpretation from 1991 aerial imagery. Since the first survey was completed a mechanism has been established to update the Phase 1 survey on a regular basis and the original survey has become the baseline data from which all subsequent surveys are based. The continuous revision of the Phase 1 objective was to update the Warwickshire sub-region every 5 years, subject to resources. In addition to the field survey revision, HBA has access to the latest aerial imagery for 2013 from aerial surveys commissioned by Warwickshire County Council. For details of the Warwickshire Phase 1 habitat survey categories please refer to the technical appendix section 8 of this document.

¹ Being recorded as naturalised in the wild before 1500 AD

4.1. PHASE 1 HABITAT DISTINCTIVENESS

The habitat distinctiveness categories and their associated scores have been taken from the Biodiversity Offsetting Pilot in the UK National Ecosystem Assessment (UK NEA, 2011), Appendix 1. The scores have been interpreted as those that best match the Warwickshire sub-region Phase 1 habitat scheme (see technical sections 8.3 p.96 and 8.4 p.97 for the Phase 1 habitat distinctiveness area and linear features scores).

The habitat distinctiveness categories can also be interpreted as areas of habitat importance or sensitivity, and are a useful way of simplifying the 57 Phase 1 map categories. Distinctiveness also assigns a score to the habitats which are most bio-diverse and those that are not. The Phase 1 habitat categories alone do not determine biodiversity.

Each Phase 1 habitat type has been given a distinctiveness score:

- 6 – High distinctiveness
- 5 – Medium / High distinctiveness
- 4 – Medium distinctiveness
- 3 – Low / Medium distinctiveness
- 2 – Low distinctiveness.

High distinctiveness scores equate to areas of highest biodiversity, including all unimproved habitats. High distinctiveness will also incorporate statutory sites, Local Wildlife Sites and the Biodiversity Action Plan (BAP) habitats. The high distinctiveness category for linear habitats includes species-rich hedgerows.

Moderate distinctiveness scores are a mid-way assessment for areas that are either a transition from high to low or vice versa; or are of indeterminate biodiversity. Examples include semi-improved neutral grassland, scrub and tall ruderal² which are transitional and temporary habitats. Linear sites with moderate scores include intact hedgerows.

Low distinctiveness scores are areas of low biodiversity interest. These areas cover the majority of the sub-region, including for example agricultural farmland, amenity

² Ruderal from the latin for rubble or rubbish refers to cleared areas that have become colonised by pioneer plant species, typical tall perennial or biennial dicotyledon plant species include Rosebay (*Chamerion angustifolium*), Common nettle (*Urtica dioica*) and Japanese Knotweed (*Fallopia japonica*).

grassland and coniferous plantation woodland. Low linear scores are associated with defunct hedgerows, fences and dry ditches.

The distinctiveness categories can be further adapted and refined to best suit the Warwickshire sub-region habitats. For example scrub can be sub-divided into open scattered scrub that has a grass understory with a score of 4 to distinguish it from dense scrub with no understory with a score of 3. Mosaic sites such as former industrial land may have higher scores due to the variety of habitats found in one area. Distinctiveness scores are an intrinsic requirement for the proposed biodiversity off-setting schemes and will be a requirement for determining the value of habitats.

Ancient Woodland and SSSIs and considered as irreplaceable habitats and although are given a score of 6 for the purpose of mapping they are to be avoided. By definition, they are not replaceable.

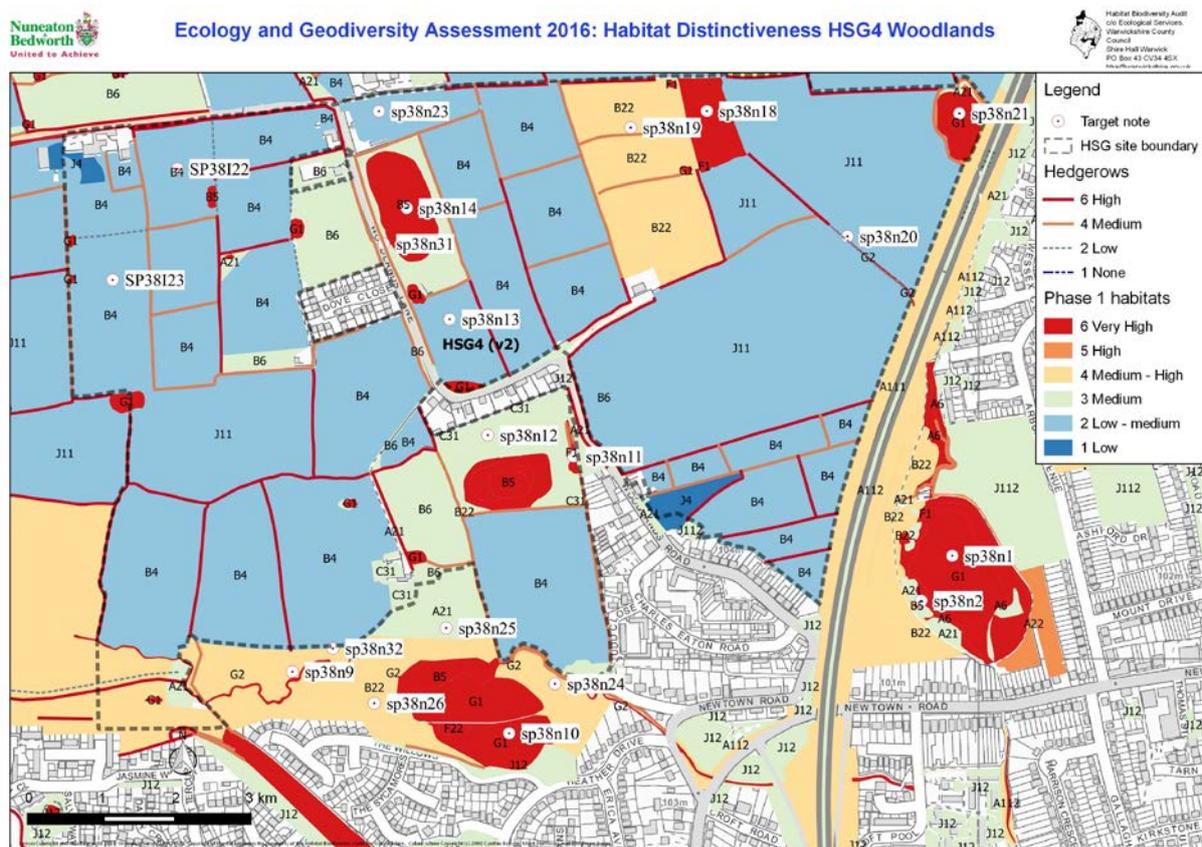


Figure 2 Phase 1 habitat distinctiveness

4.2. HABITAT CONNECTIVITY

Landscape habitat connectivity for The Warwickshire sub-region was used as part of the ecological assessment of service villages in Stratford-upon-Avon (Habitat Biodiversity Audit and WCC Ecological Services, July 2012) The study acquired the

technical services from the Environment Department, University of York to calculate connectivity using the Incidence Function Model (IFM) (Nieminen, 2002) (Hanski, 2001 repr.) The model measures the distance between suitable habitats using a set dispersal distance of a study species. For the Stratford project habitat patches included both the Phase 1 polygons for semi-natural habitats and intact hedgerows recorded as linear features in the Phase 1

The study used dispersal distances of 500m and 1000m around each of the habitat features. These two dispersal distances were applied to 3 groupings of broad habitat types:

- Semi-natural woodland including scrub and intact hedgerows
- Semi-natural grasslands and intact hedgerows
- Ponds

The quality and level of detail afforded by the Phase I cover data allow the results to be used as measures of structural connectivity, where the physical connectedness of the landscape elements of habitat patches and linear features can be assessed.

5. SPECIES RECORDS

Species information is based on existing records within the Warwickshire Biological Record Centre (WBRC). For this report EU and UK protected species, UK Biodiversity Action Plan, Local Biodiversity Action Plan species and rare and endangered species have been noted where records are held digitally. These records have been used with local knowledge to provide spatial interpretation for each site.

This interpretation is based on data and information available at the time of preparing this report. Please note that lack of records may well indicate that no survey work has yet been undertaken, and does not indicate that species are necessarily absent. Protected species may be using the site and surrounding area and appropriate survey work may be required to establish their presence and to inform mitigation measures to ensure that they are not impacted by any proposed works.

The areas marked in green on the above constraints map indicate where development should be avoided and ecological enhancement encouraged.

6. CONSTRAINTS MAP

These are areas where development should look to avoid within the design of the scheme or features that need to be considered during the layout. They include:

- 30m buffer around woodland
- 8m buffer either side of adjacent to watercourses
- 8m buffers around ponds
- 5m buffer either side of intact hedgerows
- Areas of medium to high distinctiveness grassland (values 4, 5 & 6)

BIBLIOGRAPHY

- Defra 1997 *The Hedgerows Regulations 1007 A guide to the Law and Good Practice* London HMSO
- defra 2007 2nd ed *Hedgerow Survey Handbook: a standard procedure for local surveys in the UK* London defra
- Defra 2012 *Biodiversity Offsetting Technical Paper* London HM Government
- Habitat Biodiversity Audit 2012 *HBA Habitats Guide* Warwick HBA Warwickshire Coventry & Solihull
- Habitat Biodiversity Audit 2014 *The Green Book: Guidance for the Selection of Local Wildlife Sites in Warwickshire, Coventry and Solihull* Warwick HBA Local Wildlife Sites Project
- Habitat Biodiversity Audit and WCC Ecological Services July 2012 *Ecological and Geological Study of Local Service Villages* Warwick Warwickshire County Council
- JNCC 2010 *Handbook for Phase 1 habitat survey: a technique for environmental audit* Peterborough JNCC
- JNCC/Defra July 2010 *UK Biodiversity Action Plan Priority Habitat Descriptions - Open Mosaics on Previously Developed Land* Defra/JNCC
- 2010 *Making Space for Nature: a review of England's wildlife sites and ecological network* London defra
- 2010 *Making Space for Nature: a review of England's wildlife sites and ecological network* London Defra
- Metapopulation Ecology* 2001 repr. Oxford Oxford University Press
- Simple Connectivity Measures in Spatial Ecology 2002 *Ecology* 83(4) 1131-1145
- WCC Ecological Services & Habitat Biodiversity Audit July 2012 *Stratford-on-Avon District Council Ecological and Geological Study of Local Service Villages* Warwick Warwickshire County Council
- WCC Ecological Services & Habitat Biodiversity Audit and WCC Landscape Architects November 2013 *Warwick District Council Landscape Sensitivity and Ecological & Geological Study* Warwick Warwickshire County Council

APPENDICES

Table 4 Equivalence of urban habitats in UK BAP and Phase 1 surveys

Habitats of national (N) and local (L) importance. UKBAP; Biodiversity Action Plan for Warwickshire, Coventry and Solihull)	Habitats identified in the Phase 1 survey (NCC/EN/NE)
WOODLAND Ancient semi-natural woodland (N) Wood pasture and parkland (N) Orchards (N) Scrub and Carr (L)	WOODLAND Semi-natural and broadleaved (A111) Parkland and scattered trees (A3) Orchards (A5) Scattered Scrub (A22) Wet woodland (A116)
HEATHLAND Lowland heathland (N)	HEATHLAND Dry heath /acid grassland mosaic (D5)
GRASSLAND Lowland meadows (N) Lowland calcareous grassland (N) Lowland dry acid grassland (N) Floodplain grazing marsh (N)	GRASSLAND and MARSH Unimproved and semi-improved neutral grassland (B21/B22) Unimproved and semi-improved calcareous grassland (B31/B32) Unimproved and semi-improved acidic grassland (B11/B12) Marsh/marshy grassland (B5)
WETLAND Mesotrophic Lakes (N) Eutrophic standing waters (N) Ponds (N) Reedbed (N) Fen and Swamp (N) Rivers and streams (N) Canals (L)	WETLAND Standing water (G1) Swamp (F1) Inundation vegetation (F22) Running water (G2)
FARMLAND Arable field margins (N) Hedgerows (N)	FARMLAND Set aside (J113) Hedgerows intact (J21) with trees (J23) Native species rich (J211) with trees (J231)
BUILT ENVIRONMENT Gardens, Parks and Churchyards (L) Parks and public open spaces (L) Roadside verges (L) Allotments (L) School grounds (L) Open mosaic on previously developed land (N) Disused industrial (L) Quarries and gravel pits (L)	BUILT ENVIRONMENT Introduced shrub (J14), Amenity grassland (J12) Ephemeral/short perennial (J13) Tall herb – ruderal (C31) Tall herb - non-ruderal (C32) Quarry (J21) Bare ground (J4)

Table 5 Phase 1 habitat distinctiveness Area Features

ID	Phase 1 code	Habitat description	IHS Code	Distinctiveness	Score
1	A111	Broad-leaved semi-natural woodland	WB3	High	6
2	A112	Broad-leaved plantation	WB3Z	Medium	4
3	A122	Coniferous plantation	WCZ	Low	2
4	A131	Mixed semi-natural woodland	WB1	Medium/High	5
5	A132	Mixed plantation	WB1	Low/Medium	2
6	A21	Dense continuous scrub	WB2	Low/Medium	3
7	A22	Scattered scrub	WB2	Medium	4
8	A31	Broad-leaved parkland/scattered trees	TS11	High	6
9	A32	Coniferous parkland/scattered trees	TS13	Medium/High	5
10	A4	Recently felled woodland		Low	2
11	A5	Orchard	CL31	High	6
12	B12	Semi-improved acidic grassland	GU0	High	6
13	B21	Unimproved neutral grassland	GN1	High	6
14	B22	Semi-improved neutral grassland	GU0	Medium	4
15	B31	Unimproved calcareous grassland	GC0	High	6
16	B32	Semi-improved calcareous grassland	GU0	High	6
17	B4	Improved grassland	G10	Low	2
18	B5	Marsh/marshy grassland	EM0	High	6
19	B6	Poor semi-improved grassland	GU0	Low/Medium	3
20	C31	Tall ruderal		Low/Medium	3
21	F1	Swamp	EM1	High	6
22	F22	Inundation vegetation	EM2	High	6
23	G1	Standing water	AP11	High	6
24	G2	Running water	AR1	High	6
25	I21	Quarry (active)	RE21	Low	2
26	I24	Refuse tip	RE24	Low	2
27	J11	Arable	CR2	Low	2
28	J112	Allotments	UA33	Low/Medium	3
29	J113	Set-aside (field margins)	CR61	Medium	4
30	J12	Amenity grassland	GL1	Low/Medium	3
31	J13	Ephemeral/short perennial		Low/Medium	3
32	J14	Introduced shrub		Low	2
33	J4	Bare ground		None	1
34	C11	Continuous bracken	BR0	Low	2
35	C32	Non-ruderal		Medium	4
36	B11	Unimproved acidic grassland	GA1	High	6
37	D5	Dry heath/acidic grassland mosaic	HE1/GA	High	6
38	E32	Basin Mire	EM3	High	6
39	A121	Coniferous semi-natural woodland	WCZ	Medium	6
40	E21	Acid/neutral flush	EM0	High	6
41	E11	Sphagnum Bog	E00	High	6

42	I22	Spoil	RE22	Low	2
----	-----	-------	------	-----	---

Table 6 Phase 1 habitat Distinctiveness - Linear Features

ID	Phase 1 code	Habitat description	IHS Code	Distinctiveness	Score
43	A21	Linear scrub		Medium	4
44	A3	Linear trees	LF1Z	Medium	4
45	G1	Standing water (wet ditches)	AC111	High	6
46	G2	Running water	AR1	High	6
47	I1	Inland cliff		Medium	4
48	J21	Intact hedge	LF11Z	High	6
49	J211	Native species rich intact hedge	LF111	High	6
50	J22	Defunct hedge	LF1Z	Low	2
52	J23	Hedge with trees	LF11Z	High	6
53	J231	Native species rich hedge with trees	LF111	High	6
54	J24	Fence	LF26	Low	2
55	J25	Wall	LF23	Low	2
56	J26	Dry ditch	LF24	Low	2
58	J28	Earth bank	LF22	Low	2
59	A113	Wet woodland	WB34	High	6
60	F21	Emergent vegetation	EM21	High	6