

LICHFIELD DISTRICT LOCAL DEVELOPMENT FRAMEWORK

AN ECOLOGICAL STUDY



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Executive summary

- A desktop study and field surveys were carried out to examine potential development areas in Lichfield District.
- Potential development areas were examined for known protected species records, habitats and geological features using data from Staffordshire Ecological Record.
- Habitats in each area were surveyed where no current data was available.
- For each area information is provided which sets out implications for protected sites and species, habitats and geology.
- Habitat data provided is an amalgam of 2009 survey data and previous surveys.
- Previous habitat survey data used comprised: 2005 Green Arc study, 2006-7 River Corridor Surveys, 2007-2008 Hedgerow survey, 2003 Sites of County Biological Importance (SBI) survey and the current rolling programme of SBI re-surveys.
- All species information from a wide range of dates is included in the Appendices; the most current / relevant information is within the text of the report.
- Species information was searched for an area of 1 kilometre around the compartment so as to give a comprehensive picture of possible species. This is because species tend to be mobile.
- For each area, initial recommendations for mitigation and management are suggested.
- All designated sites and protected and Biodiversity Action Plan species should be protected from development, where this is not possible adequate mitigation may be possible as a last resort.
- In Armitage (Compartment 2), it is recommended that hedgerows and the watercourse are protected from development. If possible retain semi-improved grassland or provide compensatory habitat. These suggestions could be incorporated into green infrastructure
- In Handsacre (Compartment 3), it is strongly recommended that the Site of County Biological Importance – Tuppenhurst Lane (west of) should be protected and should not be developed. Mitigation of any development in this area should include the creation of surrounding buffering habitat.
- Around Alrewas (Compartment 4a), it is strongly recommended that all areas of habitat, including the designated sites, are protected against development. The compartment would be best left without any further development.
- In Fradley Village (Compartment 4b) it is recommended that hedges and other features including ponds are retained. Species-poor semi-improved grassland should be retained where possible.
- In the Fradley Business Park area (Compartment 4c) the existing Site of County Biological Importance and Biodiversity Alert Sites should be protected. Ponds should also be protected as habitat for toads and great crested newts.
- In the Streethay and Curborough area (Compartment 4d) protect the existing Site of County Biological Importance and Biodiversity Alert Sites. Ponds should also be protected because of the records of toads and great crested newts from the area.
- In central Lichfield (compartment 4e) designated sites and the Leomansley Brook should be protected.
- In the area around Leomansley (part of compartment 4g to north of Walsall Road) development should be avoided.
- At the north east side of Burntwood (Compartment 5a) retain grassland habitat as a buffer to Gentleshaw Common.

- To the north and east of Chasewater (Compartment 5b) it is strongly recommended that no development takes place because of the important habitats and species present.
- In compartment 6 (Whittington), it is recommended that the canal corridor should be protected and enhanced.
- North of Tamworth, in compartment 7, pockets of species-poor semi-improved grassland could form the basis of habitat within green infrastructure of the area.
- West of Shenstone (Compartment 8) it is recommended to retain two Biodiversity Alert Sites, and the semi-improved grassland that links them. Habitat enhancement along the Fotherley Brook corridor would also be beneficial.
- In Compartment 9, Further survey of parkland around Shenstone Court for veteran trees is recommended.
- To the south west of Tamworth (Compartment 10) the Biodiversity Alert Site (BAS) and associated habitats should be protected. These habitats could form the core of any green infrastructure and be enhanced, linking the BAS to the west and south to connect to the large area of open water.
- In compartment 11 (Little Aston) it is recommended that open water habitats are retained, with the possible enhancement of species-poor semi-improved grassland to create linking habitat.
- South of Little Aston (compartment 12) it is recommended that woodland and open water habitats are retained.

Please note:

Data in the report is as up-to-date as possible, however information is continually updated. There are unavoidable delays in adding new species to the Staffordshire Ecological Record database. Publication of data about any area inevitably results in additional records being supplied by naturalists and the general public.

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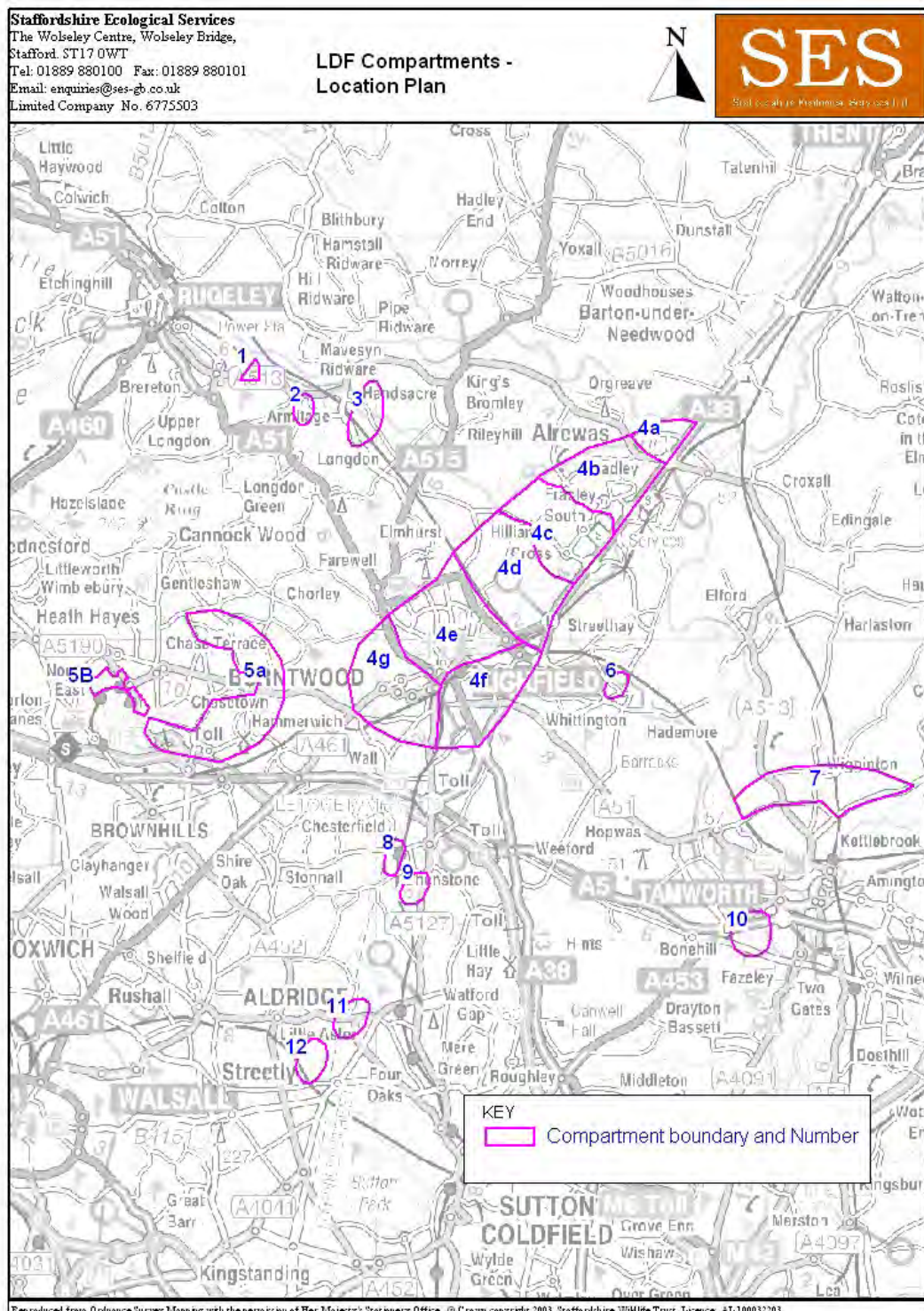
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Map showing location of compartments



1 Introduction

1.1 Background

The Staffordshire Ecological Services was commissioned by the Development Plans Team of Lichfield District Council to carry out a comprehensive ecological desk top study, and phase 1 habitat survey of proposed areas outlined for housing and employment development. There were 12 survey areas in Lichfield, north of Tamworth, south west of Tamworth, around Burntwood, land at Rugeley Power Station, Handsacre, Armitage, Whittington, west of Shenstone, south of Shenstone and two areas at Little Aston.

The study was to include the identification of priority species and habitats which the planning authority have a duty to consider when determining planning applications. This includes Protected and Biodiversity Action Plan Species and habitats.

1.2 Protected and Biodiversity Action Plan Species

Species lists are given for each compartment in the Appendices. These are based on existing data compiled in the Staffordshire Ecological Record database. For many areas species records are not comprehensive, and further survey work is usually required to inform the development process. The species lists should therefore be regarded as a guide to the likely key issues only, and not absolute.

Detailed guidance on species conservation is given in Staffordshire County Council's 'Planning Application Validation: Staffordshire requirements for Biodiversity and Geological Conservation', which can be found in Appendix 1. The following is a brief summary:

Protected Species¹

Relevant legislation

- European Protected Species (as listed on Schedules 2 and 4 of the Conservation (Natural Habitats &c.) Regulations 1994.
- UK Protected Species (Wildlife & Countryside Act 1981 (as amended))
- The Protection of Badgers Act 1992

Species which may be found in Lichfield District include:

Bats (all British species)

Great crested newt

Otter

Dormouse

Adder

Grass snake

Slow worm

Common lizard

Water vole

¹ For a full species list see Defra's European Protected Species guidance note and Natural England's website

Native white-clawed crayfish

Pine marten

A number of species of protected plants

A number of species of protected invertebrates

All wild birds are protected from killing and destruction of nests.

Schedule 1 birds (W&CA 1981), also receive further protection. They include Barn owl, Kingfisher, Little ringed plover, Peregrine falcon and many wetland birds. This is not a comprehensive list – for a full list see Natural England website. It is illegal to disturb these species while they are breeding.

Badgers

Broad guidelines for all the above species:

1. Note any existing records – these may be found using the Staffordshire Ecological Record database, which the Borough Council has access to. Protected species records are denoted by either a red dot in a red circle, or a red square. It is important to note any species on adjoining land as well.
2. State what appropriate surveys will be needed to inform potential development and mitigation proposals.
3. Produce a method statement for protection/ avoidance
4. Decide what avoidance or mitigation will be needed
5. Where possible seek further enhancements
6. Highlighted species carry the strongest levels of protection and / or are most likely to be affected by development.

Biodiversity Action Plan (BAP) Species

Relevant legislation and guidance

- UK BAP species (updated as of 2007)
- Species of Principal Importance in England listed in Section 74 CRow Act 2000 (same as UK BAP in 2002)
- Staffordshire BAP species
- Any local/district BAP species
- PPS9, CRow Act 2000 and NERC Act 2006 give guidance/confer duty to conserve)
-

Species which may be found in Lichfield District include:

Mammals: Brown hare, noctule bat, otter, pipistrelle bat, water vole

Birds: Barn owl, farmland seed-eating birds, grey partridge, lapwing, nightjar, snipe, woodlark, skylark

Reptiles, Fish: Atlantic salmon, grass snake

Amphibians: Great crested newt, natterjack toad

Invertebrates: Bog-bush cricket, ground-nesting solitary bees and wasps, small pearl-bordered fritillary, white-faced darter, native white-clawed crayfish

Plants: Dyer's greenweed, hybrid bilberry, floating water plantain, grass wrack pondweed, native black poplar, pink meadow cap

Broad guidelines for all the above species:

1. Note any existing records – these may be found using the Staffordshire Ecological Record database, which the District Council has access to. BAP species records are denoted by either a green dot in a green circle, or a green square
2. Where a population may be affected state that survey/s will be required.
3. Determine what protection, mitigation and enhancement will be needed to ensure there is no net loss of species. Secure enhancements where possible to achieve net gain.
4. Encourage other appropriate species on site - refer to UK, county or local BAP for targets.

1.3 Site designations

Several site designations may apply in the District, these include:

European designations – Special Area of Conservation, Special Protection Area, RAMSAR site.

National designations – Site of Special Scientific Interest, National Nature Reserve

The Government body - Natural England - will advise on the above.

County designations - Sites of County Biological Importance and Biodiversity Alert Sites. These are surveyed, monitored and designated by a panel of experts from across the county. Published guidelines describing how sites are selected are available²

1.4 General recommendations

Habitats such as woodlands, hedgerows, ponds, heathland and semi-natural grassland should be retained where possible. Where possible links between habitats and existing features should be created and enhanced.

If it is not possible to retain these habitats then new areas of similar habitat should be created.

A strategic approach to habitat creation is desirable, so that efforts can be concentrated where they will be most effective. In general larger areas of habitat are best, and links should be provided between similar habitats. This is particularly important because it is considered that species will stand the best chance of being able to adapt to change (for example climate change) if they are able to move in response.

² Cadman *et al* 'Guidelines for the Selection of Sites of County Biological Importance in Staffordshire', 2007, Staffordshire Wildlife Trust.

2 Compartment Information

2.1 Compartment 1: Land at Rugeley Power Station

2.1.1 Designated Sites

There are no designated nature conservation sites in this compartment.

The open water at Hill Ridware apparently attracts a range of bird species, and should therefore be noted as a key bird site.

2.1.2 Habitats

The area was not surveyed in 2009, because access was refused and the site owners indicated that there is a current planning consent for development of the site for housing.

Habitats in the compartment, which had been identified from a previous survey, include open water, woodland and allotments with a small area of species-poor semi-improved grassland to the north of the area.

2.1.3 Protected species

English Name	Comments	Recommendations
Eurasian Badger	Various locations in area, and likely to be affected by development	Mitigation will depend on size and location of badger groups affected on any given site.
Green Sandpiper	Water edge species recorded from Hill Ridware	Similar habitat present at Rugeley Power Station, so some compensatory habitat should be provided.
Little Plover	Water edge species recorded from Hill Ridware	As above
Northern Pintail	Open water species recorded from Hill Ridware	As above
Pipistrelle	Probably associated with housing and roosting in some houses; likely to be widespread in the area	New housing should ideally have a range of bat-friendly roof tiles and / or bricks. Natural habitat features for foraging should also be provided such as hedges; these would normally be provided within Green Infrastructure.
Polecat	One record only from Brereton	Species probably increasing and may use woodland on site.

2.1.4 Biodiversity Action Plan species

English Name	Comments	Recommendations
Common Snipe	Wetland species recorded from Hill Ridware	Similar habitat may be present at Rugeley Power Station, and if so some compensatory habitat should be provided
Eurasian Tree Sparrow	Open woodland and garden species.	Suitable habitat present at Rugeley Power Stations, so compensatory habitat should be provided
Northern Lapwing	Wetland species recorded from Hill Ridware	Similar habitat may be present at Rugeley Power Station, and if so some compensatory habitat should be provided

2.1.5 Summary recommendations for compartment

This area is not open to the general public, and therefore species records are lacking. It is likely that the bird species found nearby will also use the open water and shoreline within the site. It is therefore recommended that mitigation should include the provision of suitable habitat nearby, and preferably the retention of some open water and woodland within the site. Allotments should be retained because they are an important amenity for public wellbeing. Further adequate survey information should be provided, particularly on the protected species listed above.

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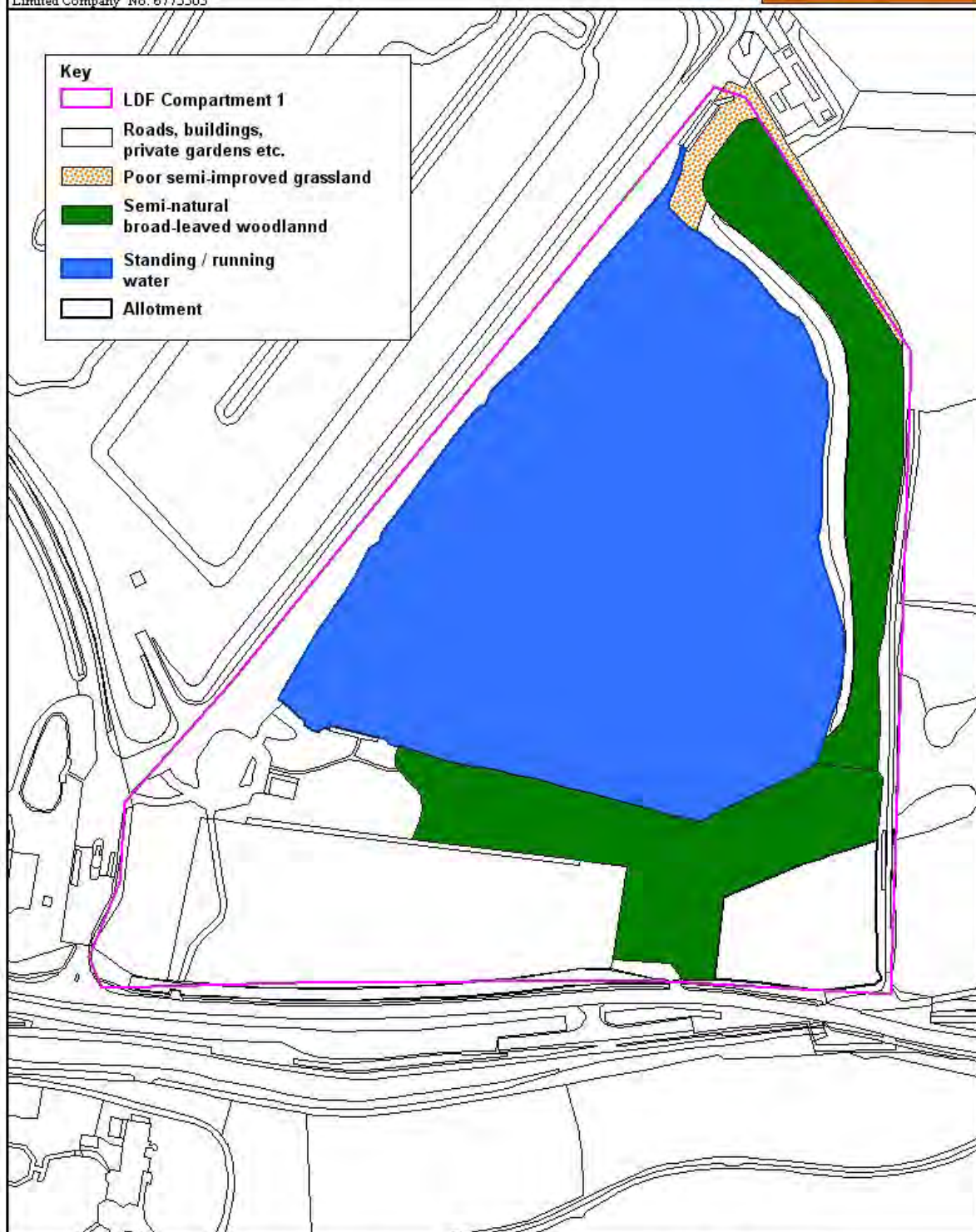


**LDF Compartment 1
Phase 1 habitat map**



Key

-  LDF Compartment 1
-  Roads, buildings,
private gardens etc.
-  Poor semi-improved grassland
-  Semi-natural
broad-leaved woodland
-  Standing / running
water
-  Allotment



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2.2 Compartment 2: Armitage

2.2.1 Designated Sites

Site of County Biological Importance: Hood Lane Hedgerows - Three species-rich hedges on Hood Lane, off the A51 near Armitage.

These hedges should be protected from development, possibly being incorporated into green infrastructure. The green infrastructure could also include the watercourse and other habitat provided as mitigation for loss of grassland habitat.

2.2.2 Habitats

The habitat in the area is mainly species-poor semi-improved grassland, which although not outstanding, is likely to provide suitable foraging habitat for bats and barn owls, and possible nesting habitat for grey partridge. There is also a small watercourse, which crosses the area, linking to the Trent and Mersey Canal and River Trent to the north and may provide suitable habitat for otters.

2.2.3 Protected species

English Name	Comments	Recommendations
Barn Owl	A51, Longdon CP	Grassland within development area is probably suitable for hunting barn owls. Any development should include suitable mitigation.
Common Pipistrelle	Possible roost in house	New housing should ideally have a range of bat-friendly roof tiles and / or bricks. Natural habitat features for foraging should also be provided such as hedges; these would normally be provided within Green Infrastructure.
Eurasian Badger	Several records in area and likely to be affected by development	Mitigation will depend on size and location of badger groups affected on any given site.
European Otter	Trent and Mersey Canal, likely to be using other watercourses in area, including small one within site	Any development likely to affect canal or other watercourse in area should provide cover for otters, possibly in the form of artificial otter holts, or waterside shrub planting.
Pipistrelle	Probably associated with housing and roosting in some houses; likely to be widespread in the area	As common pipistrelle

2.2.4 Biodiversity Action Plan species

English Name	Latin Name	Comments	Year/s Recommendations
Grey Partridge	Perdix perdix	Ground nesting in arable and other habitats, including rushy pastures.	Grassland within development area is probably suitable habitat. Any development should 2003 include suitable mitigation

2.2.5 Summary recommendations for compartment

Protect hedgerows and watercourse from development, retain semi-improved grassland or provide compensatory habitat, possibly within green infrastructure.

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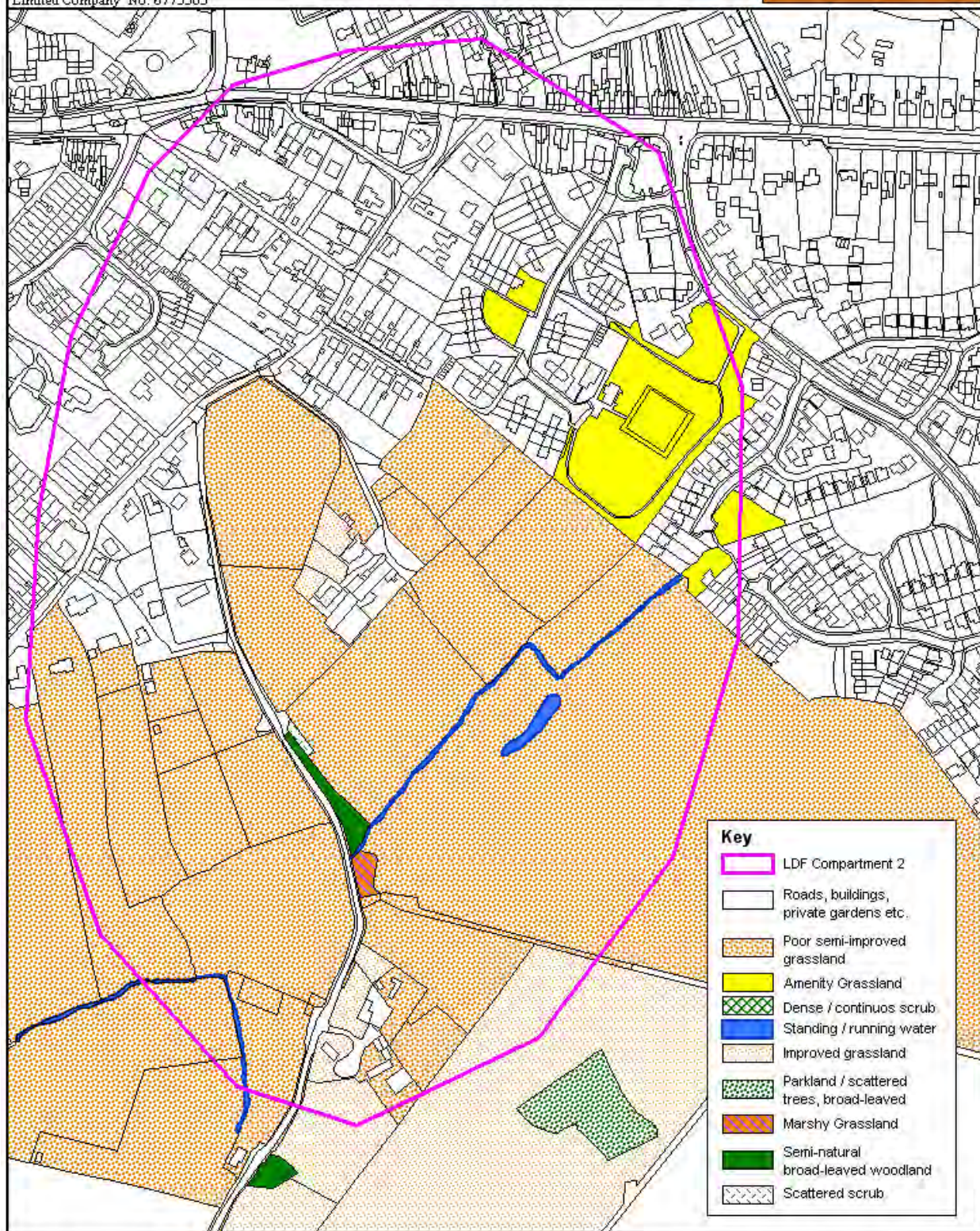
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LDF Compartment 2 Phase 1 habitat map

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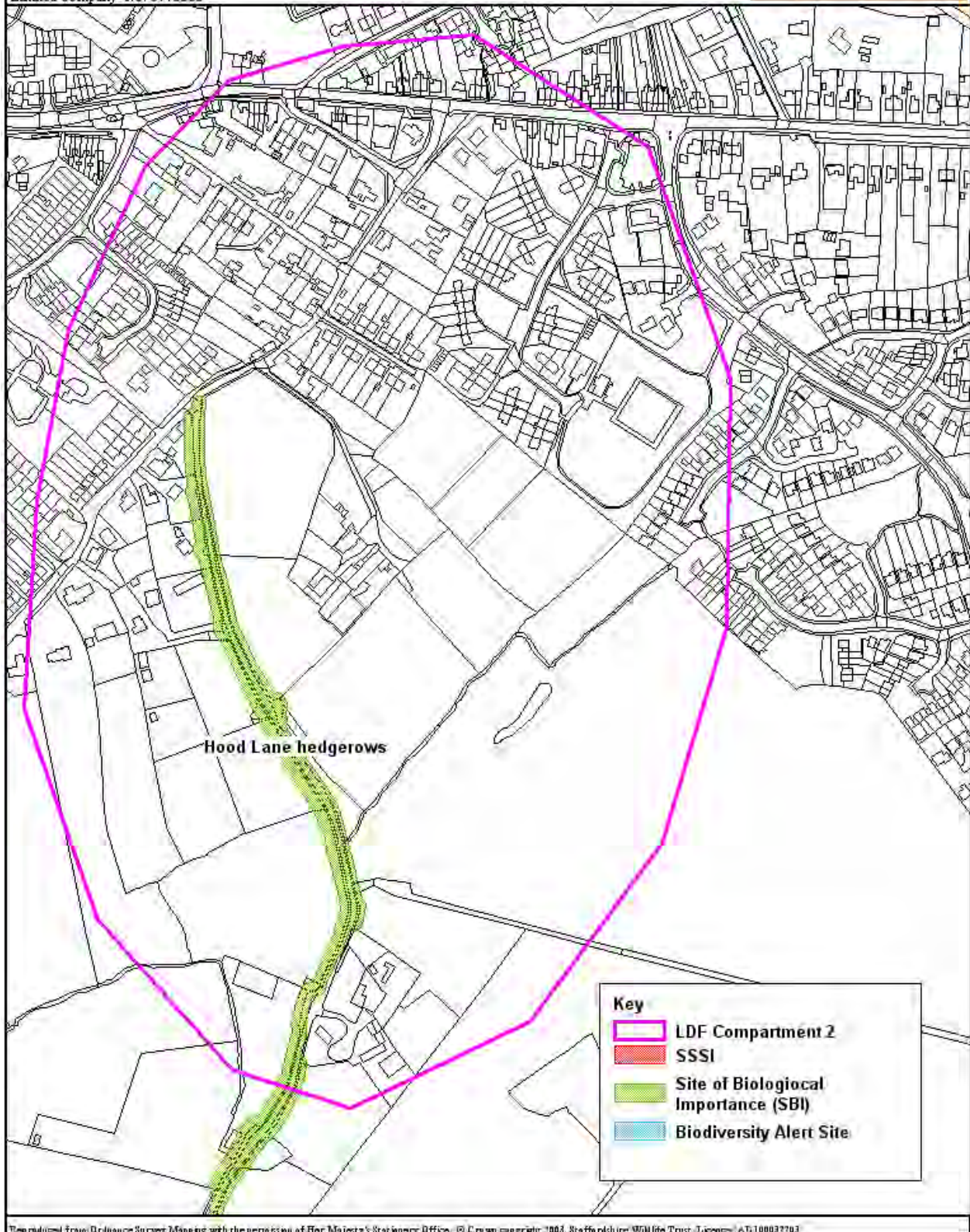
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**LDF Compartment 2 -
Designated sites**

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2.3 Compartment 3: Handsacre

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Draft Ecological Study

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2.3.1 Designated Sites

2 Sites of County Biological Importance:

Trent and Mersey Canal: Armitage Church to Tuppenhurst Road Bridge

The section of the Trent and Mersey Canal is listed as a Site of County Biological Importance because it has good marginal vegetation along the water side.

Tuppenhurst Lane (west of)

The site supports a range of habitats that are uncommon in the Lichfield District area, including marshy grassland, unimproved grassland and swamp. The site covers an area of approximately 3 hectares and is dissected by a narrow ditch.

It is strongly recommended that the Tuppenhurst Lane site should be protected from development because it contains important habitats. The area should also be buffered by creation of surrounding rough grassland, which will help management and enable access to be restricted on the designated site.

Key bird sites in the near vicinity are: Bailey Bridge Wetland (also known as Handsacre Flash), Trentside Meadows Nature Reserve (also known as CHADS),

2.3.2 Habitats

Habitats in the area include mainly arable land, with some hedges, small pockets of woodland, canal, ponds, a small watercourse, poor semi-improved grassland and marshy grassland.

2.3.3 Protected species

English Name	Comments	Recommendations
Barn Owl	Recorded in area over a long period. Species requires substantial areas of rough grassland and other suitable habitat to hunt over	SBI within compartment is probably suitable for hunting barn owls. Protect SBI and provide additional rough grassland.
Brambling	Wintering species	Retain hedges and woodlands, or provide mitigatory habitat.
Common Frog	Probably widespread in area	Protect ponds from development and / or mitigate by creating new ponds.
Common Kingfisher	Found on wetland near to site, and may also use canal and other watercourses	Any watercourses within development site should be retained and enhanced, possibly by incorporation into SUDS
Common Pipistrelle	Associated with housing and roosting in some houses; likely to be widespread in the area	New housing should ideally have a range of bat-friendly roof tiles and / or bricks. Natural habitat features for foraging should also be provided such as hedges; these would normally be provided within Green Infrastructure
Eurasian Badger	Probably widespread in area.	Mitigation where possible; this will depend on size and location of badger groups affected on any given site.
European Otter	Recorded from along canal, but probably also uses other watercourses in area	Any watercourses within development site, including canal, should be retained and enhanced, with creation of buffering habitat, and possibly by incorporation into SUDS
European	Records are from Handsacre	As for otter

Water Vole	Flash area, but there is suitable habitat within the compartment	
Fieldfare	Winter visitor, feeding in a range of habitats	As for Brambling
Freshwater White-clawed Crayfish	Records are from Handsacre Flash area, but watercourses and ponds within the compartment may also be suitable	As for otter
Pipistrelle	As common pipistrelle	As common pipistrelle
Redwing	Winter visitor, feeding in fields, hedges and orchards	As for brambling

2.3.4 Biodiversity Action Plan species

English Name	Comments	Recommendations
Brown Hare	Widely distributed in area, usually on arable or grassland	If area is developed, suitable habitat is likely to be lost, so mitigatory habitat should be provided.
Common Cuckoo	Range of habitat, including woods and hedges. Compartment likely to be suitable.	Retain hedges, woodlands and grassland habitats, or provide mitigatory habitat.
Common Grasshopper Warbler	Marshland and scrub. Suitable habitat in and around SBI	Retain hedges, scrub and grassland habitats, especially marshy grassland within SBI.
Common Linnet	Wide range of habitat, mainly farmland and grassland	Retain hedges and grassland habitats, especially marshy grassland within SBI.
Common Snipe	Require wetland. Mainly confined to key sites.	Retain and buffer marshy grassland within SBI.
Harvest Mouse	Tall vegetation usually near water. SBI may be suitable	Retain and buffer suitable habitat, especially marshy grassland within SBI
Northern Lapwing	Prefer wetland and open ground. Suitable habitat within site	Retain and buffer suitable habitat, especially marshy grassland within SBI.
Reed Bunting	Wetland and other habitats	Retain and buffer suitable habitat, especially marshy grassland within SBI.
Sky Lark	Open grassland and other habitats.	If area is developed, suitable habitat is likely to be lost, so mitigatory habitat should be provided
Yellowhammer	Range of habitats, compartment likely to be suitable	Retain hedges, scrub and grassland habitats

2.3.5 Summary recommendations for compartment

It is strongly recommended that the Tuppenhurst Lane site should be protected from development. The area should also be buffered by creation of surrounding rough grassland. In the remainder of the area, other features such as hedges, ponds and watercourses should be protected where possible.

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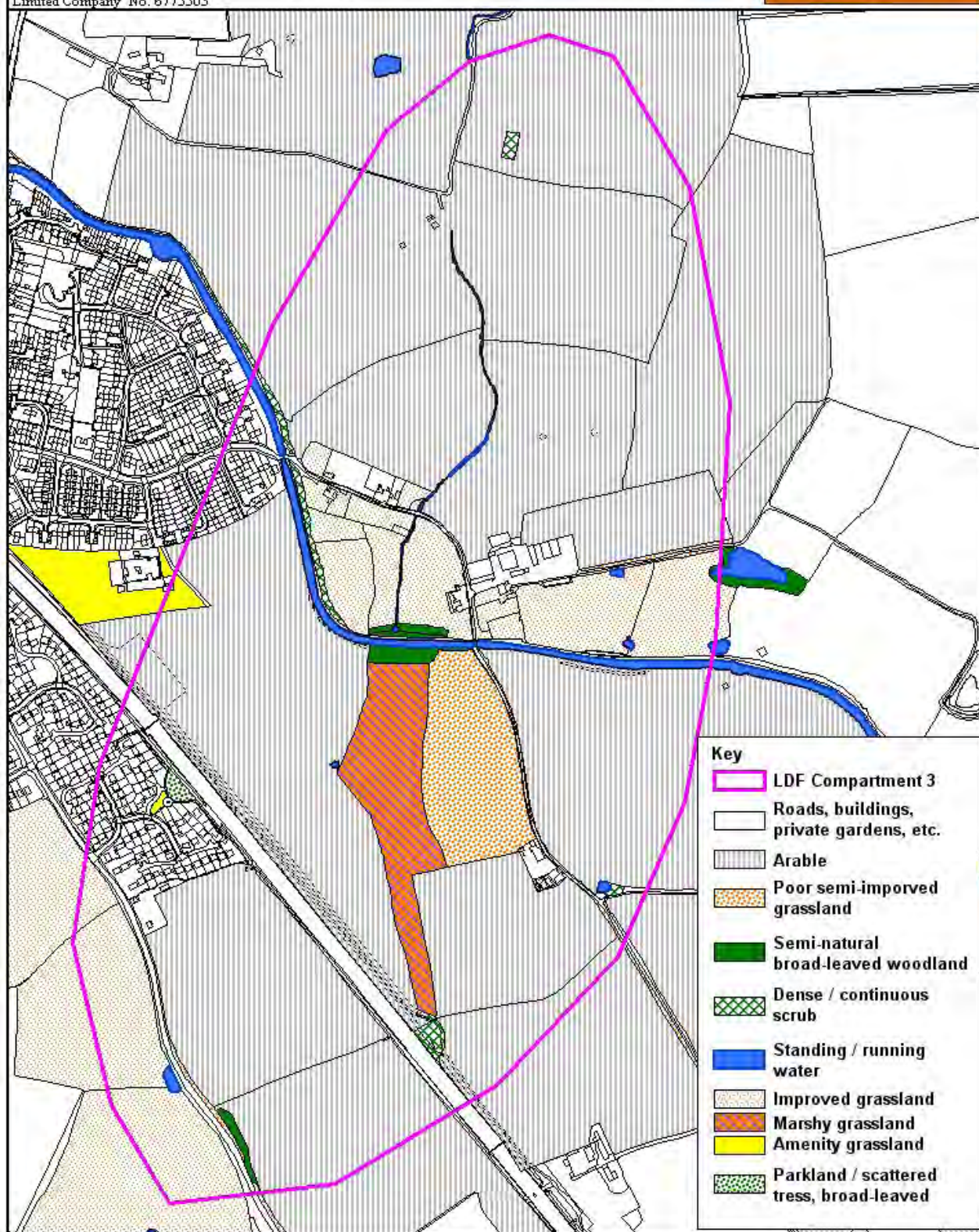
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LDF Compartment 3 - Phase 1 habitat map

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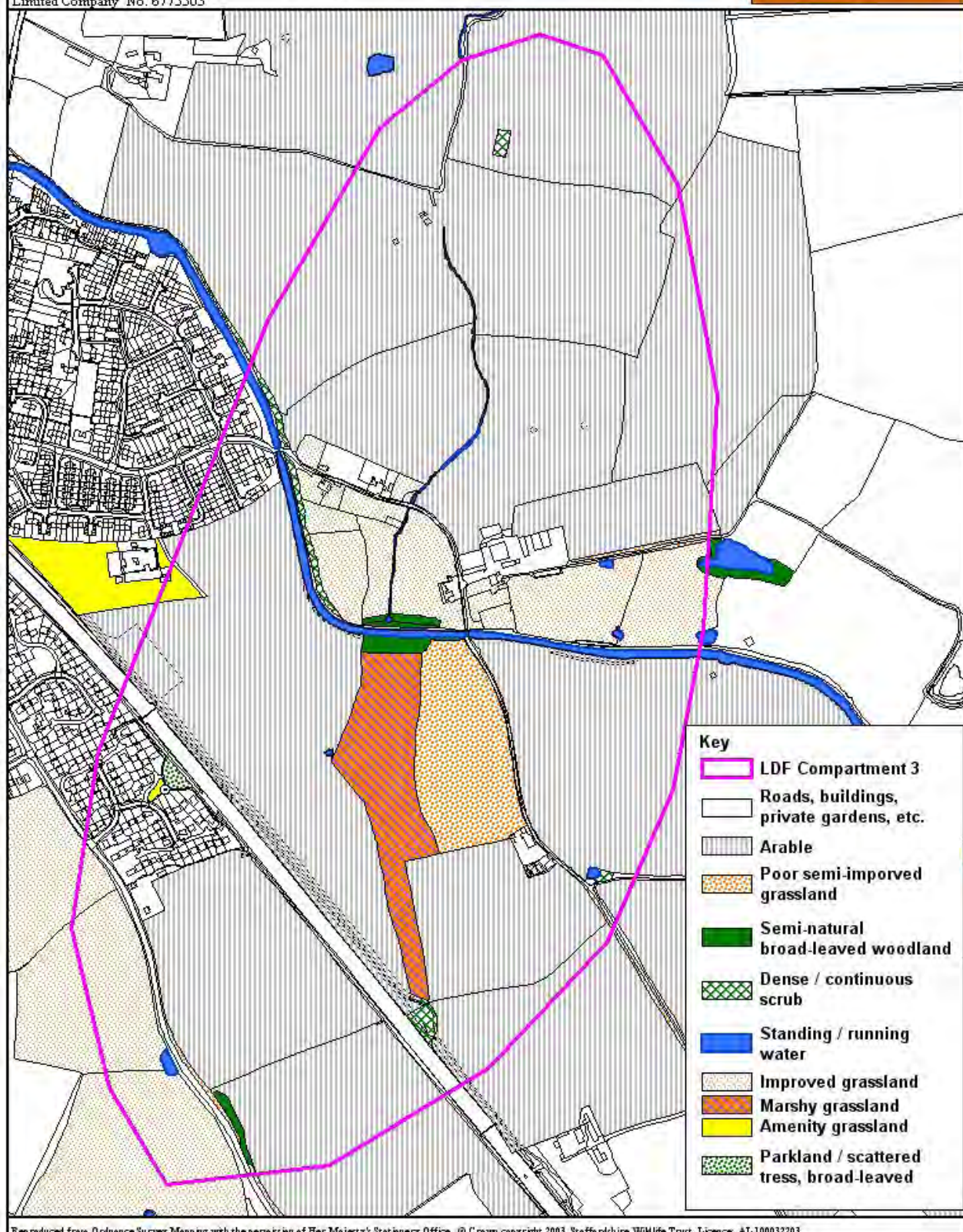


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LDF Compartment 3 - Phase 1 habitat map

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2.4 Land to north east and south west of Lichfield

Lichfield Local Development Framework
Draft Ecological Study

SES
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2.4a Compartment 4a: Area around Alrewas

2.4a Designated Sites

Biodiversity Alert Site:

Alrewas, River Trent and Mill Stream - The site comprises of a small area of marshy grassland, tall ruderals, a stretch of the River Trent and a small tributary called the Mill Stream. This area is one of the key sites in the Staffordshire Washlands Project. It is very valuable area as the meadows adjacent to the river are allowed to flood; this alleviates the flood pressure off near by towns and villages.

Key sites for birds nearby include Croxall Nature Reserve, the National Memorial Arboretum, the Roddige Farm and Whitemoor Hay area, Little Aston (there are two pools to the west of the village), the Overlay / north west Alrewas area and Fradley (the airfield was of importance prior to development and it is possible that some bird species are present on remaining open land).

NB Grasslands to the north of the compartment will be surveyed and assessed against the Guidelines for the Selection of Sites of County Biological Importance in Staffordshire and are likely to be of Site of County Biological Importance (SBI) or Biodiversity Alert Site (BAS) status.

2.4a Habitats

Habitats within the compartment include species-rich semi-improved grassland, species-poor semi-improved grassland, amenity grassland, arable, canal and River Trent, with small patches of woodland. Of particular note, a series of grasslands in 12 fields to the north of the compartment, and one field to the south near the road junction will be subject to further survey and may be of BAS / SBI status.

2.4a Protected species

English Name	Comments	Recommendations
Barn Owl	Species requires substantial areas of rough grassland and other suitable habitat to hunt over	Grassland habitats within compartment are probably suitable for hunting barn owls. Protect semi-improved grassland or provide mitigation
Brambling	Wintering species	Retain hedges and woodland
Brown Long-eared Bat	Usually roosting in loft spaces	Of particular concern where building alterations, including barn conversions are proposed.
Common Frog	Probably widespread in area	Protect ponds from development and / or mitigate by creating new ponds
Common Kingfisher	Found on wetland near to site, and may also use canal and river enhanced.	Any watercourses within site should be retained and
Common Pipistrelle	Associated with housing and roosting in some houses; likely to be widespread in the area	New housing should ideally have a range of bat-friendly roof tiles and / or bricks. Natural habitat features for foraging should also be provided such as hedges; these would normally be provided within Green Infrastructure
Eurasian Badger	Probably widespread in area.	Mitigation where possible; this will depend on size and location of badger groups affected on any given site.
European Otter	Probably also uses all watercourses in area	Any watercourses, including canal, should be retained and enhanced, with creation of buffering habitat, and

		possibly by incorporation into SUDS
Fieldfare	Winter visitor, often seen along hedges	Retain hedges and create new ones, especially with berry-bearing species
Freshwater White-clawed Crayfish	Main threat is from crayfish plague. Populations in headwater streams and isolated ponds now most likely to be free from plague	Care should be taken with small streams, ponds and lakes not to introduce plants or animals from infected sources. These areas should not be connected with main rivers.
Noctule Bat	Mainly associated with trees, particularly old trees with holes for roosting.	Retain hedges and trees, including dead trees. Install bat boxes in young woodlands.
Redwing	Winter visitor, often seen along hedges	As fieldfare

2.4a Biodiversity Action Plan species

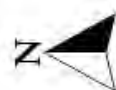
English Name	Comments	Recommendations
Brown Hare	Widely distributed in area, usually on arable or grassland. A key area is around the NMA	Development on any land in this area should provide alternative habitat
Centre-barred Sallow	Moth feeding on ash trees in woodlands and hedges	Retain woodlands and hedges, plant new hedges
Common Grasshopper Warbler	Scrub	Retain woodlands and hedges
Common Linnet	Widespread around area, farmland species	Development on any land in this area should provide alternative habitat
Common Snipe	Species of wet grassland and related habitats.	No wetland within site, so species probably dependant on other areas. No recommendations
Common Toad	Records are now out of date, but Little Aston area may still have populations of toads as this species returns to its ancestral ponds. More recent records from NMA	Retain ponds and suitable surrounding habitat. Create additional habitat.
Corn Bunting	Widespread around area, farmland species	Development on any land in this area should provide alternative habitat
Eurasian Curlew	Species of wet grassland and related habitats.	No wetland within site, so species probably dependant on other areas. No recommendations
Harvest Mouse	Tall vegetation usually near water.	Retain and buffer suitable habitat, especially marshy grassland
Marsh Tit	Mainly found in broad leaved woodland	Retain woodlands
Minor Shoulder-knot	Damp woodland and wetlands, feeding on willow.	Retain woodlands
Northern Lapwing	Arable areas, grassland and wetlands. Probably breeding in area and widely recorded	Retain and buffer suitable habitat. Provide compensatory habitat where suitable habitat is lost, including farmland.
Oak Hook-tip	Oak woodland and parkland, feeds on oak	Retain woodland and hedges.
Shaded Broad-bar	Open habitats, feeding on clover and vetches	Retain and enhance grassland habitats
Sky Lark	Open grassland and other habitats	If area is developed, suitable habitat is likely to be lost, so mitigatory habitat should be provided
Small Heath	Wide range of habitats. Feeds on grasses	Retain and enhance grassland habitats
Spotted Flycatcher	Mature trees, especially in open areas. Croxall NR	Retain woodlands
Wall	Becoming rare inland as species now mainly confined to coast. Grassland and wasteland species	Retain and enhance suitable habitat.
Willow Tit	Willow scrub and similar habitats	Retain woodlands and scrub
Yellowhammer	Range of habitats, compartment likely to be suitable	Retain hedges, scrub and grassland habitats

2.4a Summary recommendations for compartment

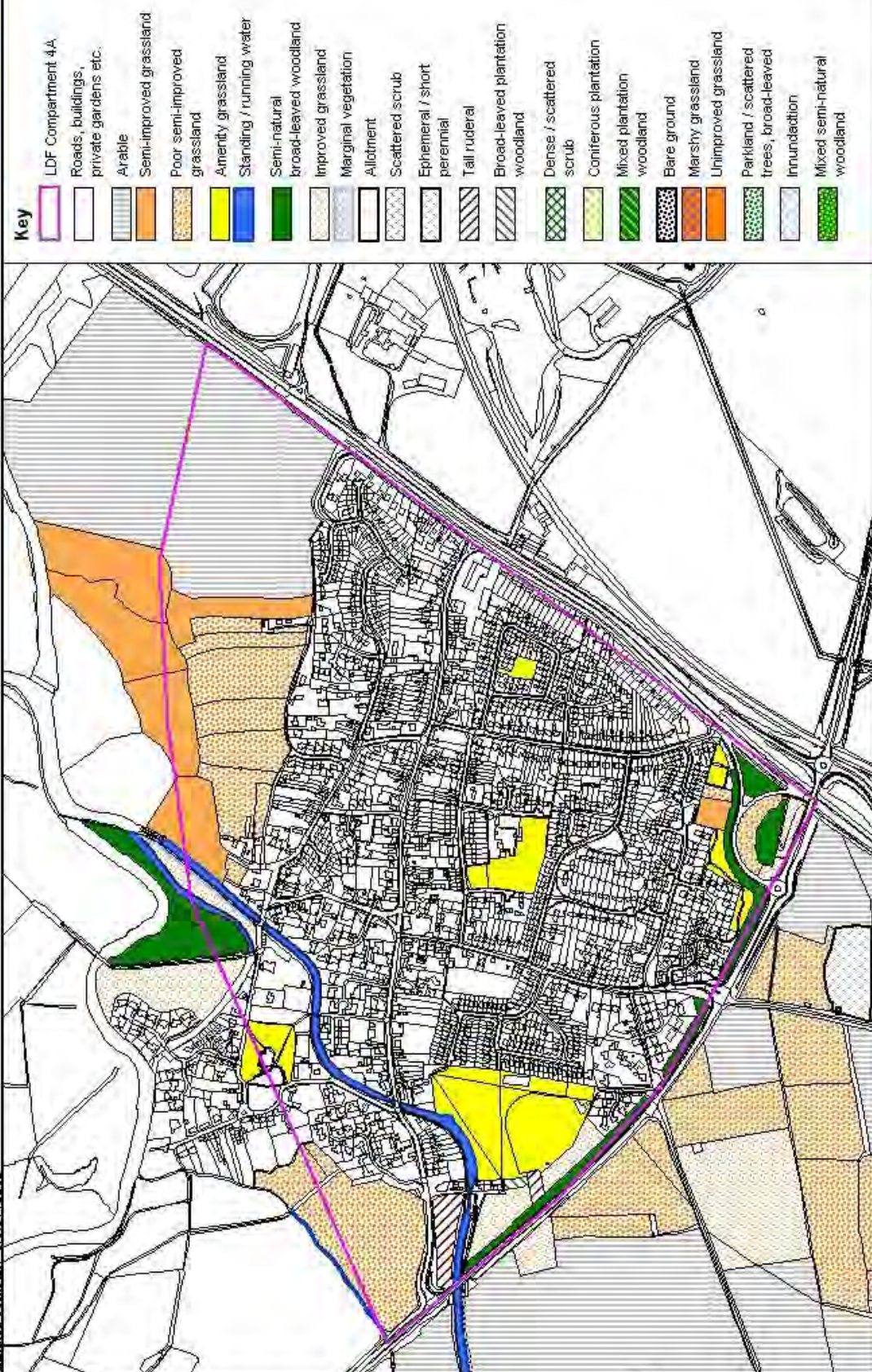
It is strongly recommended that all areas of habitat, including the designated sites, are protected against development. These habitats form the greater part of the compartment outside existing urban land, and the compartment would be best left without any further development.

Development would also have the potential to affect the key bird sites outside the compartment, or the land adjoining them, and is a further reason for development to be avoided if possible.

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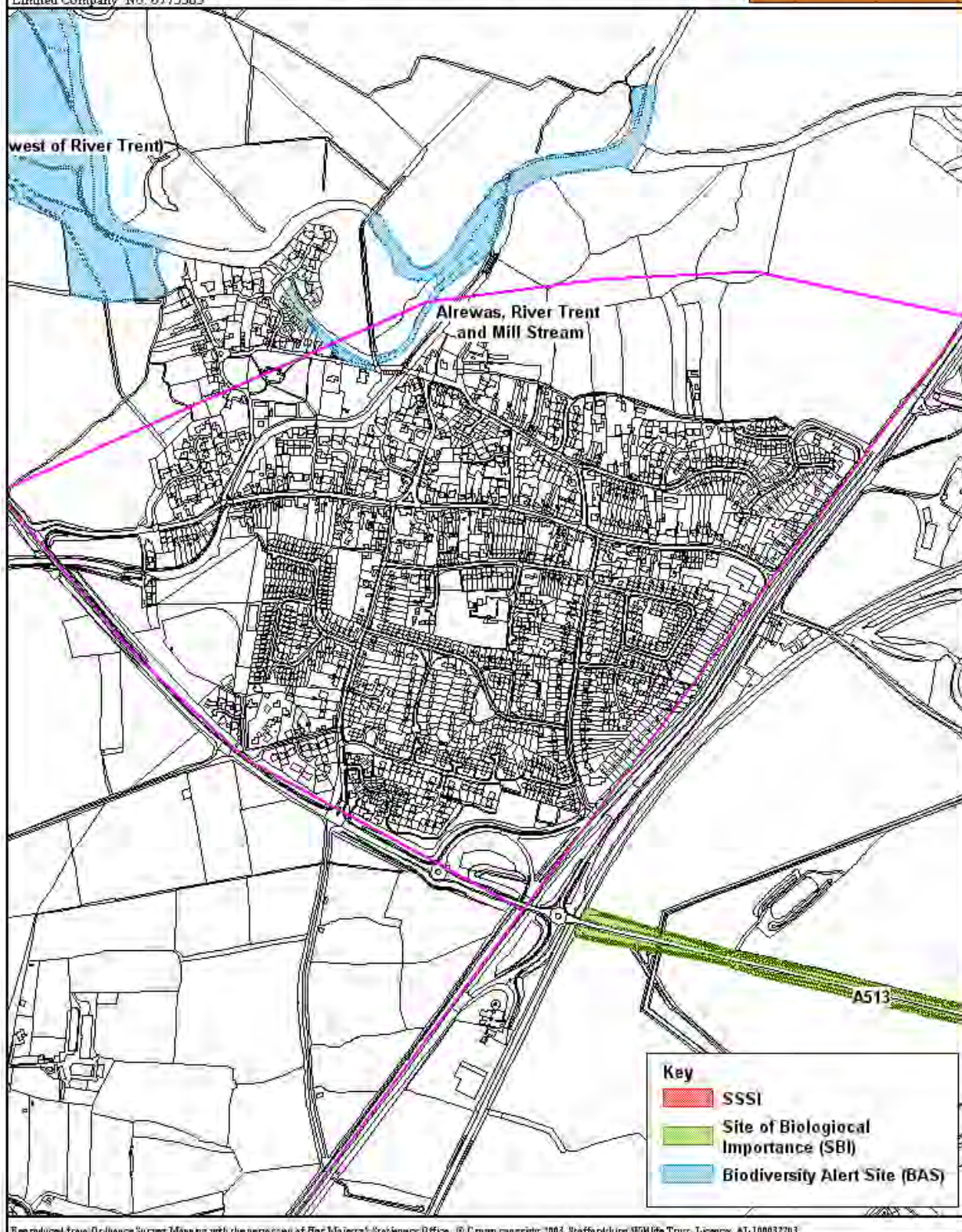
LDF Compartment 4A Phase 1 habitat map



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**LDF Compartment 4A -
Designated sites****SES**
STAFFORDSHIRE ECOLOGICAL SERVICES

2.4b Compartment 4b: Area around Fradley Village

2.4b Designated Sites

Biodiversity Alert Site:

Hay End Lane Hedgerows: Species rich intact hedgerow

2.4b Habitats

The area is mainly arable farmland, with some species-poor semi-improved grassland in smaller fields around the village, and towards Alrewas. Other features of note include the canal corridor, hedges, ponds and a small plantation woodland.

2.4b Protected species

English Name	Comments	Recommendations
Barn Owl	Species requires substantial areas of rough grassland and other suitable habitat to hunt over	Grassland habitats within compartment are probably suitable for hunting barn owls. Protect semi-improved grassland and hedges or provide mitigation.
Brambling	Wintering species, feeding in hedges and woodlands	Retain hedges and woodlands, or provide mitigatory habitat.
Brown Long-eared Bat	Usually roosting in loft spaces	Of particular concern where building alterations, including barn conversions are proposed.
Common Frog	Probably widespread in area	Protect ponds from development and / or mitigate by creating new ponds
Common Kingfisher	Recorded from Fradley Junction. Requires watercourses or open water	Provide buffering habitat along canal and other watercourses
Common Pipistrelle	Probably associated with housing and roosting in some houses; likely to be widespread in the area	New housing should ideally have a range of bat-friendly roof tiles and / or bricks. Natural habitat features for foraging should also be provided such as hedges; these would normally be provided within Green Infrastructure
Daubenton's Bat	Roosts in buildings and bridges. Frequently found near water.	Protect open water and suitable built features
Eurasian Badger	Probably widespread in area.	Mitigation where possible; this will depend on size and location of badger groups affected on any given site.
European Otter	Probably uses all watercourses in area	Any watercourses, including canal, should be retained and enhanced, with creation of buffering habitat, and possibly by incorporation into SUDS
European Water Vole	Canal and other watercourses may provide suitable habitat	As for otter
Fieldfare	As brambling	Retain woodlands and hedges
Great Crested Newt	Species breeds in still, open water and uses a range of habitats at other times of year. Recorded from Fradley Business Park	Protect ponds and surrounding habitats
Noctule Bat	Mainly associated with trees, particularly old trees with holes for roosting.	Retain hedges and trees, including dead trees. Install bat boxes in young woodlands.
Pipistrelle	As Common pipistrelle	As Common Pipistrelle
Redwing	Winter visitor feeding along hedges and in fields Little Aston (west)	Retain hedges and woodlands, or provide mitigatory habitat
Spiky Bog-moss	Pool Wood and Fradley Reservoir	Protect site on which this species found, ensuring hydrology of the site is also protected.
Whiskered Bat	Summer roosts in trees and buildings. May hibernate in	Retain mature trees and protect suitable built features. Retain woodlands or provide mitigation

caves or tunnels. Prefers woodlands for feeding, often near water

2.4b Biodiversity Action Plan species

English Name	Comments	Recommendations
Brindled Beauty	Woodland and suburban species, feeds on broad leaved trees.	Retain woodlands or provide mitigation
Brown Hare	Widely distributed in area, usually on arable or grassland	If area is developed, suitable habitat is likely to be lost, so mitigatory habitat should be provided
Common Linnet	Farmland species	Development on any land in this area should provide alternative habitat
Common Snipe	Species of wet grassland and related habitats.	No wetland within site, so species probably dependant on other areas. No recommendations
Common Toad	Several locations in area Little Aston, Alrewas and a balancing pond at Fradley Business Park.	Retain ponds and suitable surrounding habitat. Create additional habitat.
Corn Bunting	Widespread around area, farmland species	Development on any land in this area should provide alternative habitat
Green-brindled Crescent	Woodland, hedgerows and suburban areas, feeding on trees.	Retain woodlands and hedges
Grey Partridge	Ground nesting in arable and other habitats, including rushy pastures.	Provide compensatory areas where suitable habitat, such as farmland, is lost.
Northern Lapwing	Wetland and arable species. Suitable habitat is present in area	Retain and buffer suitable habitat. Provide compensatory habitat where suitable habitat is lost, including farmland.
Oak Hook-tip	Oak woodland and parkland, feeds on oak	Retain woodland and hedges.
Rosy Minor	Grassland, feeding on grasses	Retain and enhance grassland habitats, or provide mitigation
Sallow	Damp woodland and other marshy places, feeding on willow and other plants.	Habitats within compartment unlikely to be suitable
Shaded Broad-bar	Open habitats, feeding on clover and vetches	Retain and enhance grassland habitats, or provide mitigation
Sky Lark	Open grassland and other habitats	If area is developed, suitable habitat is likely to be lost, so mitigatory habitat should be provided
Wall	Becoming rare inland as species now mainly confined to coast. Grassland and wasteland species.	Retain and enhance suitable habitat
White-letter Hairstreak	East of A38 at Fradley, relies on Elm. Likely to be within compartment if elm is present.	Where woodland and hedges contain elm, protect from development
Yellow Wagtail	Wetland species,	Retain and enhance wetland habitats.
Yellowhammer	Range of habitats, compartment likely to be suitable	Retain hedges, scrub and grassland habitats

2.4b Summary recommendations for compartment

Retain designated hedges and other features including ponds. Retain species-poor semi-improved grassland where possible, and particularly where it links to other habitats and between Fradley Village and Alrewas.

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LDF Compartment 4B Phase 1 habitat map

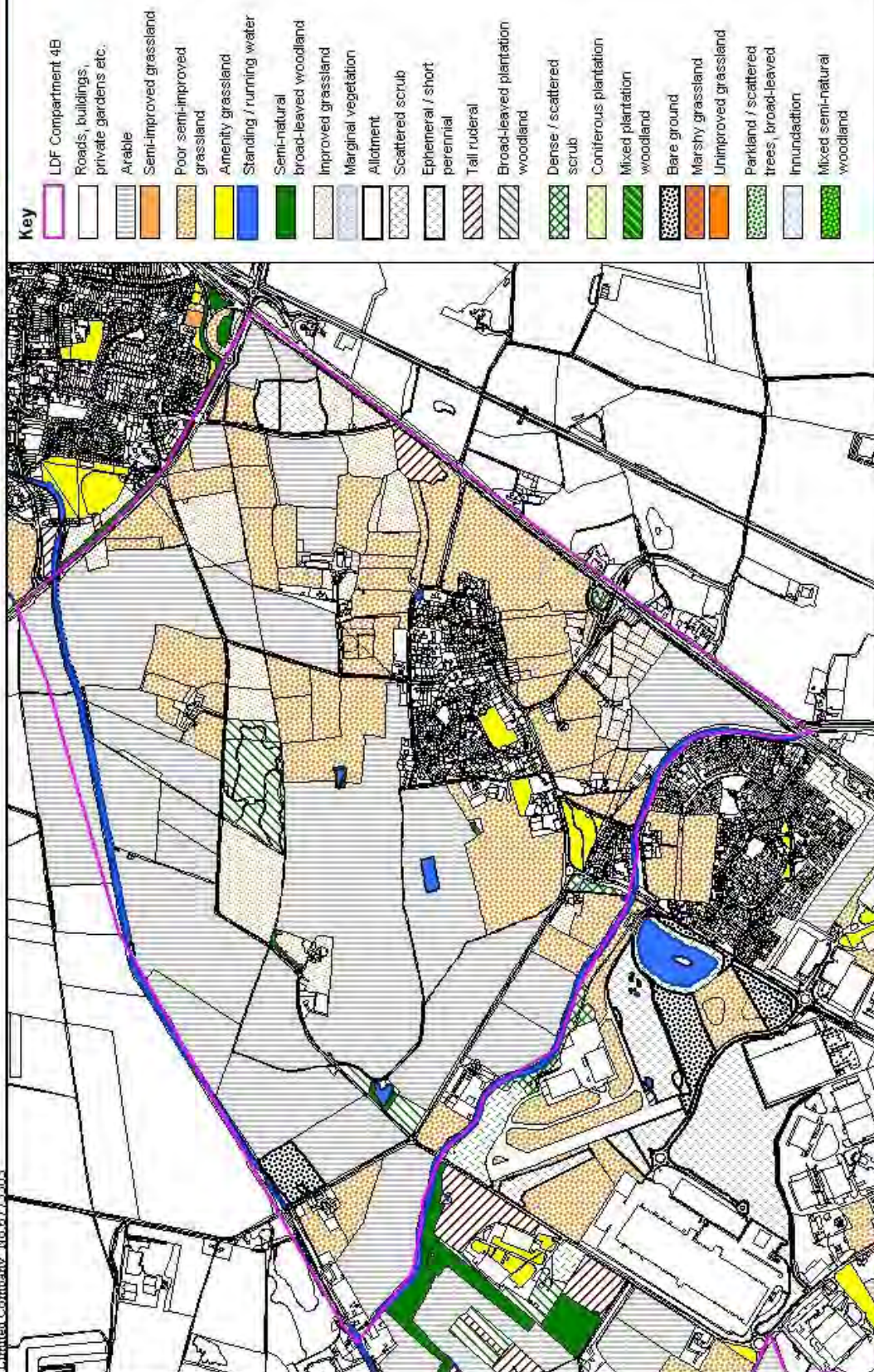


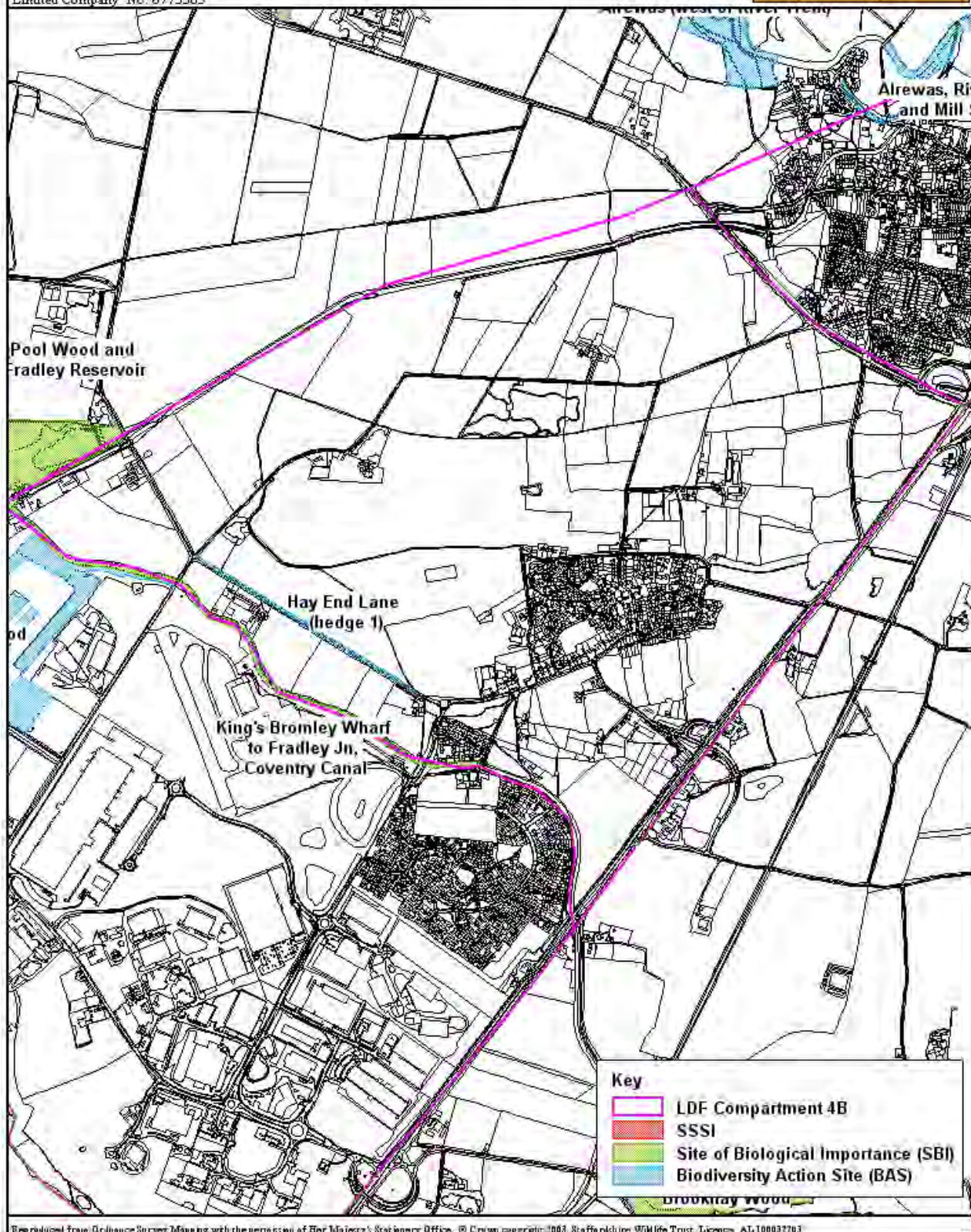
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**LDF Compartment 4B -
Designated sites**



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2.4c *Compartment 4c: Area around Fradley Business Park*

2.4c *Designated Sites*

Site of County Biological Importance:

Trent and Mersey Canal and Coventry Canal: King's Bromley Wharf to Fradley Junction and Fradley Junction to Fradley Bridge - sections of the Trent and Mersey Canal and the Coventry Canal. The marginal and bankside vegetation throughout the site is varied. Generally both canals support a similar range of emergent species, usually comprised of reed-sweet grass, branched bur-reed and sweet-flag. Additional species occur, such as flowering rush, arrowhead and greater tussock-sedge which are rare or uncommon in the county.

Two Biodiversity Alert Sites:

Fradley Wood - Fradley Wood formerly occupied an extensive area beside the Coventry and Trent and Mersey canals where they join at Fradley Junction. These canals provide a link to other woodlands in the area. It has since been reduced in extent, with much of the central area felled and currently planted with arable crops or left fallow. Part has been put down to grass and is cattle- grazed.

A public footpath runs through the site with a substantial block of woodland directly to its south west and more fragmented, regular-shaped, woodland blocks to the north east.

Most of the woodland blocks to the north east of the footpath are very dense and are dominated by silver birch. Additional canopy species include oak, sycamore and alder.

Woodend Lock (south-east of) - The site comprises a small area of deciduous woodland lying between the road and a steep embankment rising up to the Trent and Mersey canal. The Curborough Brook flows along the western edge of the woodland. The woodland canopy is of mature common oak with alders abundant near the pond and on the brook margins. Associated species include a number of herbs indicative of ancient woodland such as yellow archangel, dog's mercury and ramsons which is particularly prevalent on the stream banks.

2.4c Habitats

Habitats outside designated sites are mainly fragmented areas of species-poor semi-improved grassland, with ponds and small areas of woodland.

2.4c Protected species

English Name	Comments	Recommendations
Barn Owl	Species requires substantial areas of rough grassland and other suitable habitat to hunt over	Grassland habitats within compartment are probably suitable for hunting barn owls. Protect semi-improved grassland
Blunt-leaved Bog-moss	Ravenshaw Wood, Black Slough & Slaish	Protect site on which this species found, ensuring hydrology of the site is also protected.
Brambling	Wintering species	Retain hedges and woodlands, or provide mitigatory habitat.
Brown Long-eared Bat	Usually roosting in loft spaces	Roosts in buildings and bridges. Frequently found near water.
Common Frog	Balancing pond, Fradley Business Park; Probably widespread in area.	Protect ponds from development and / or mitigate by creating new ponds.
Common Kingfisher	Requires watercourses or open water – recorded from Fradley Junction	Provide buffering habitat along canal and other watercourses
Common Pipistrelle	Probably associated with housing and roosting in some houses; likely to be widespread in the area	New housing should ideally have a range of bat-friendly roof tiles and / or bricks. Natural habitat features for foraging should also be provided such as hedges; these would normally be provided within Green Infrastructure
Eurasian Badger	Probably widespread in area	Mitigation where possible; this will depend on size and location of badger groups affected on any given site.
European Otter	Requires substantial cover near water, often in tree roots, trees or scrub. Feeds mainly on fish.	Any watercourses within development site, including canal, should be retained and enhanced, with creation of buffering habitat, and possibly by incorporation into SUDS
European Water Vole	Require well-vegetated water edge habitat, where not occupied by their main predator, mink.	As for otter
Feathery Bog-moss	Ravenshaw Wood, Black Slough & Slaish	Protect site on which this species found, ensuring hydrology of the site is also protected.
Great Crested Newt	Species breeds in still, open water and uses a range of habitats at other times of year. Recorded from Fradley Business Park, Alrewas CP	Protect ponds and surrounding habitats
Noctule Bat	Mainly associated with trees, particularly old trees with holes for roosting.	Retain hedges and trees, including dead trees. Install bat boxes in young woodlands.
Redwing	Winter visitor, feeding in fields, hedges and orchards	Retain hedges and woodlands, or provide mitigatory habitat.
Spiky Bog-moss	Pool Wood and Fradley Reservoir	Protect site on which this species found, ensuring hydrology of the site is also protected.
Whiskered Bat	Summer roosts in trees and buildings. May hibernate in caves or tunnels. Prefers woodlands for feeding, often near water	Retain woodlands, or provide mitigatory habitat. Protect features such as tunnels and suitable buildings.

2.4c Biodiversity Action Plan species

English Name	Comments	Recommendations
August Thorn	Woodland and suburban habitats. Feeds on trees	Retain hedges and woodlands, or provide mitigatory habitat.
Brown Hare	Widely distributed in area, usually on arable or grassland	If area is developed, suitable habitat is likely to be lost, so mitigatory habitat should be provided
Common Linnet	Wide range of habitat, mainly farmland and grassland	Retain hedges and grassland habitats, especially marshy grassland
Common Toad	Records are now out of date, but Little Aston area may still have populations of toads as this species returns to its ancestral ponds. More recent records for Alrewas and Fradley Business Park	Retain ponds and suitable surrounding habitat. Create additional habitat.
Corn Bunting	Widespread around area, farmland species	Retain and buffer suitable habitat. Provide compensatory habitat where suitable habitat is lost, including farmland.
Dusky Thorn	Woodland and suburban habitats. Feeds on ash trees.	Retain hedges and woodlands, or provide mitigatory habitat.
Green-brindled Crescent	Woodland, hedgerows and suburban areas, feeding on trees.	Retain hedges and woodlands, or provide mitigatory habitat.
Grey Partridge	Ground nesting in arable and other habitats, including rushy pastures.	Retain and buffer suitable habitat. Provide compensatory habitat where suitable habitat is lost, including farmland.
Minor Shoulder-knot	Damp woodland and wetlands, feeding on willow.	Fradley Wood area may be suitable.
Northern Lapwing	Wetland and arable species	Retain and buffer suitable habitat. Provide compensatory habitat where suitable habitat is lost, including farmland.
Oak Hook-tip	Oak woodland and parkland, feeds on oak	Retain woodland and hedges.
Reed Bunting	As Northern Lapwing	As Northern Lapwing
Sallow	Damp woodland and other marshy places, feeding on willow and other plants.	Fradley Wood may be suitable
Shaded Broad-bar	Open habitats, feeding on clover and vetches	Retain and enhance grassland habitats
Sky Lark	Open grassland and other habitats	If area is developed, suitable habitat is likely to be lost, so mitigatory habitat should be provided
White-letter Hairstreak	east of A38 at Fradley. Relies on Elm. Likely to be within compartment if elm is present	Retain hedges and woodlands, or provide mitigatory habitat with elm.
Willow Tit	Willow scrub and similar habitats	Retain hedges and woodlands, or provide mitigatory habitat.
Yellowhammer	Range of habitats, compartment likely to be suitable	Retain hedges, scrub and grassland habitats

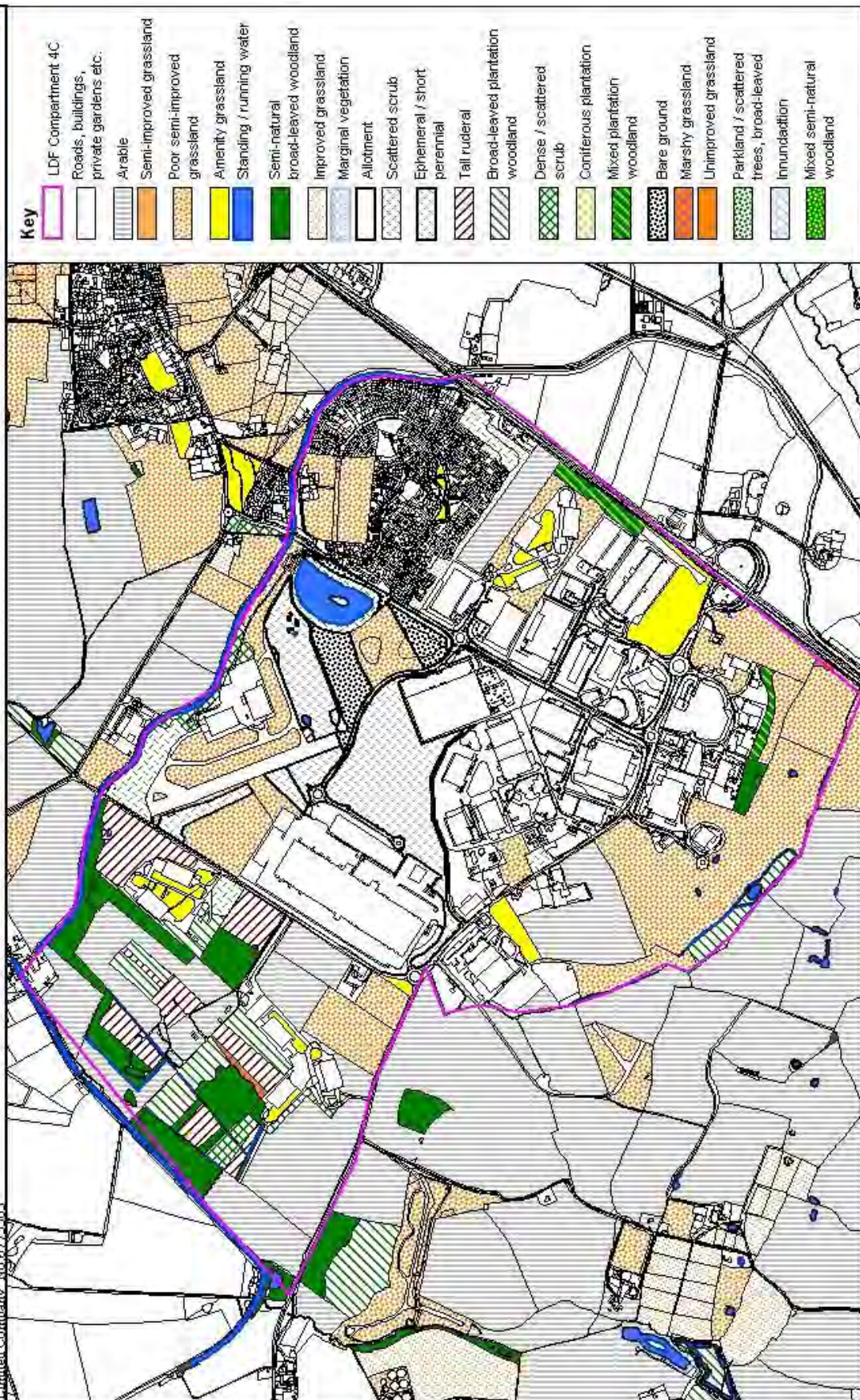
2.4c Summary recommendations for compartment

Protect the existing Site of County Biological Importance and Biodiversity Alert Sites from development. Ponds should also be protected because of the records of toads and great crested newts from the area.

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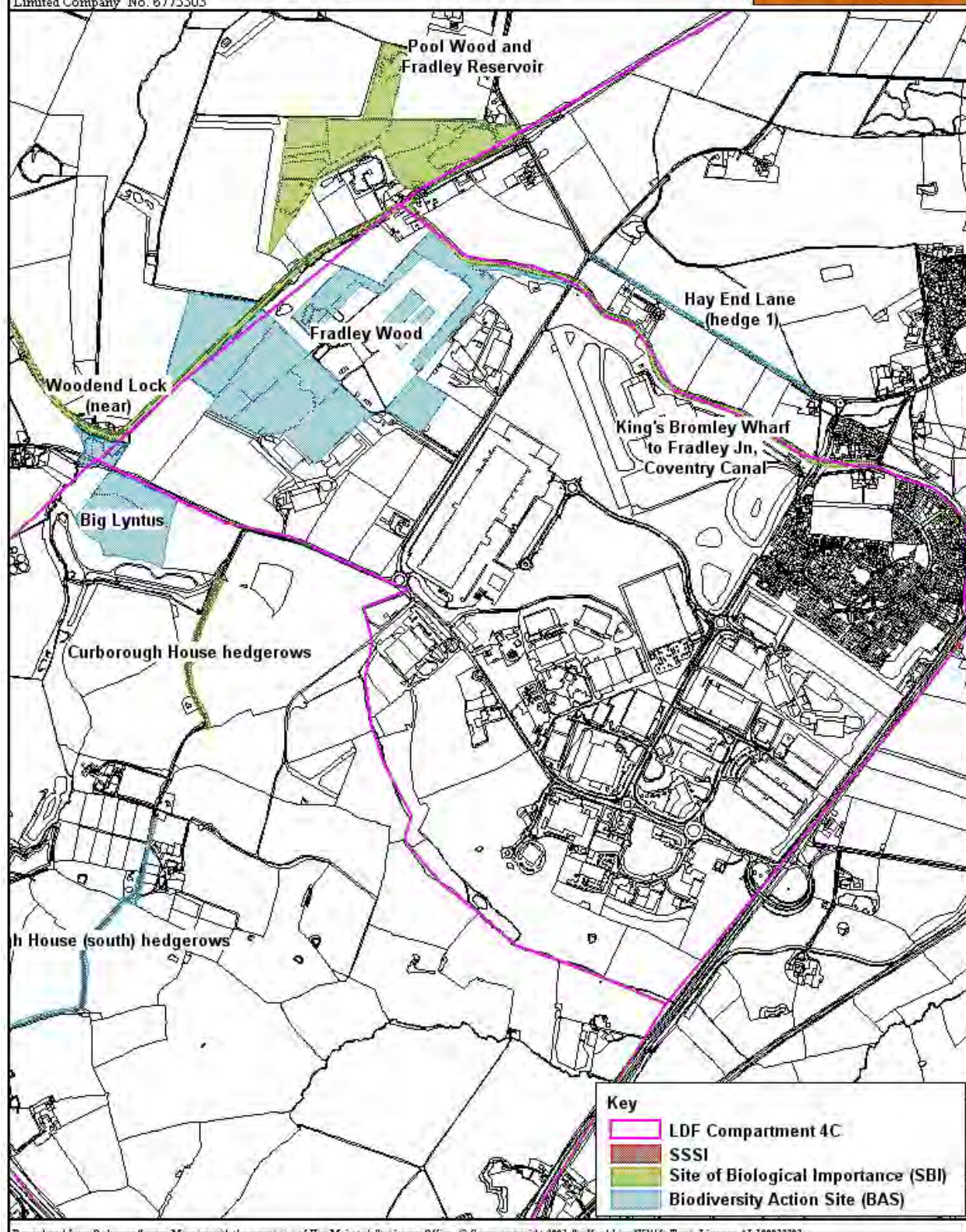
LDF Compartment 4C Phase 1 habitat map



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**LDF Compartment 4C -
Designated sites****SES**
Staffordshire Ecological Services

2.4d Compartment 4d: Area around Streethay and Curborough

2.4d Designated Sites

Site of County Biological Importance:

Curborough House Hedgerows – Species rich intact hedgerows

Four Biodiversity Alert Sites:

Big Lyntus - The woodland is mainly comprised of mixed plantation trees with a small area of broadleaved woodland. Much of the ground flora is dominated by bracken. The northern end of the site, nearest the road, has a relatively diverse ground flora consisting of bluebells, woodsage, greater stichwort and yellow archangel

Curborough Hall Farm Hedgerows: - Species rich intact hedgerow

Curborough House (south) Hedgerows: - Species rich intact hedgerow

Fullbrook Farm Hedgerows: - Species rich intact hedgerow

2.4d Habitats

The habitat in the area is mainly arable farmland, with a number of ponds and a few fragments of species-poor semi-improved grassland. Woodland and hedges are found in the designated sites and elsewhere.

2.4d Protected species

English Name	Comments	Recommendations
Barn Owl	Species requires substantial areas of rough grassland and other suitable habitat to hunt over	Grassland habitats within compartment are probably suitable for hunting barn owls. Protect semi-improved grassland
Blunt-leaved Bog-moss	Found in - Ravenshaw Wood, Black Slough & Slaish	Protect site on which this species found, ensuring hydrology of the site is also protected.
Brambling	Wintering species	Retain hedges and woodlands, or provide mitigatory habitat.
Brandt's Bat	Summer roosts in trees and buildings. May hibernate in caves or tunnels. Prefers woodlands for feeding, often near water	Retain woodlands, and as common pipistrelle..
Brown Long-eared Bat	Usually roosting in roof spaces	Of particular concern where building alterations, including barn conversions are proposed.
Common Frog	Probably widespread in area	Protect ponds from development and / or mitigate by creating new ponds.
Common Pipistrelle	Probably associated with housing and roosting in some houses; likely to be widespread in the area	New housing should ideally have a range of bat-friendly roof tiles and / or bricks. Natural habitat features for foraging should also be provided such as hedges; these would normally be provided within Green Infrastructure
Eurasian Badger	Probably widespread in area	Protect where possible; mitigation will depend on size and location of badger groups affected on any given site.
European	Recorded from Coventry Canal, likely	Any development likely to affect canal or other

Otter	to be using ponds and other watercourses in area, including small one within site	watercourse in area should provide cover for otters, possibly in the form of artificial otter holts, or waterside shrub planting
Feathery Bog-moss	Found in - Ravenshaw Wood, Black Slough & Slaish	Protect site on which this species found, ensuring hydrology of the site is also protected.
Freshwater White-clawed Crayfish	Main threat is from crayfish plague. Populations in headwater streams and isolated ponds now most likely to be free from plague. Stowe Pool SSSI is notified for its crayfish population	Care should be taken with small streams, ponds and lakes not to introduce plants or animals from infected sources. These areas should not be connected with main rivers.
Great Crested Newt	Species breeds in still, open water and uses a range of habitats at other times of year. Location of record not clear	Protect ponds and surrounding habitats
Noctule Bat	Mainly associated with trees, particularly old trees with holes for roosting.	Retain hedges and trees, including dead trees. Install bat boxes in young woodlands.
Redwing	Winter visitor, feeding in fields, hedges and orchards	Retain hedges and woodlands, or provide mitigatory habitat.

2.4d Biodiversity Action Plan species

English Name	Comments	Recommendations
August Thorn	Woodland and suburban habitats. Feeds on trees	Retain woodlands, or provide mitigatory habitat.
Brown Hare	Rather old record	If area is developed, surveys should be carried out to see whether species is still present, if so mitigatory habitat should be provided
Centre-barred Sallow	Moth feeding on ash trees in woodlands and hedges	Retain hedges and woodlands, or provide mitigatory habitat.
Common Linnet	Wide range of habitat, mainly farmland and grassland	Retain hedges and grassland habitats, especially marshy grassland
Common Toad	Records are now out of date, but Little Aston area may still have populations of toads as this species returns to its ancestral ponds. More recent records for Fradley Business Park	Retain ponds and suitable surrounding habitat. Create additional habitat.
Grey Partridge	Ground nesting in arable and other habitats, including rushy pastures.	Retain and buffer suitable habitat. Provide compensatory habitat where suitable habitat is lost, including farmland.
Minor Shoulder-knot	Damp woodland and wetlands, feeding on willow.	If possible, retain woodland to north of site which may be suitable.
Northern Lapwing	Wetland or open farmland with wetland nearby	Retain and buffer suitable habitat. Provide compensatory habitat where suitable habitat is lost, including farmland.
Oak Hook-tip	Oak woodland and parkland, feeds on oak	Retain woodland and hedges.
Shaded Broad-bar	Open habitats, feeding on clover and vetches	Retain and enhance grassland habitats
Sky Lark	Open grassland and other habitats	If area is developed, suitable habitat is likely to be lost, so mitigatory habitat should be provided
White-letter Hairstreak	Relies on Elm. Likely to be within compartment if elm is present	Retain hedges and woodlands, or provide mitigatory habitat with elm.
Yellowhammer	Range of habitats, compartment likely to be suitable	Retain hedges, scrub and grassland habitats

2.4d Summary Recommendations for Compartment

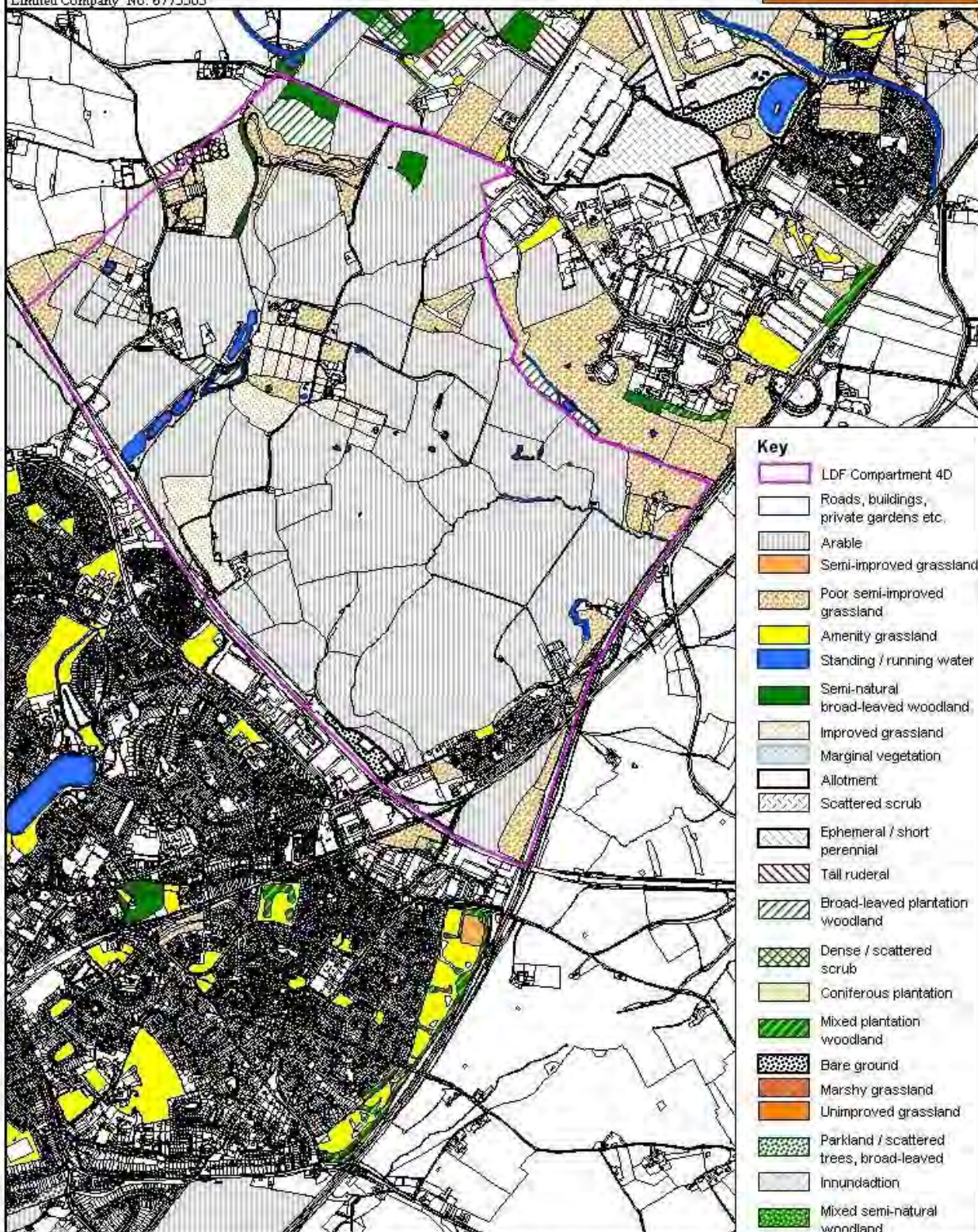
Protect the existing Site of County Biological Importance and Biodiversity Alert Sites from development. Ponds should also be protected because of the records of toads and great crested newts from the area. Where possible links between habitats and existing features should be created and enhanced.

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LDF Compartment 4D Phase 1 habitat map



Key

- LDF Compartment 4D
- Roads, buildings, private gardens etc.
- Arable
- Semi-improved grassland
- Poor semi-improved grassland
- Amenity grassland
- Standing / running water
- Semi-natural broad-leaved woodland
- Improved grassland
- Marginal vegetation
- Allotment
- Scattered scrub
- Ephemeral / short perennial
- Tall ruderal
- Broad-leaved plantation woodland
- Dense / scattered scrub
- Coniferous plantation
- Mixed plantation woodland
- Bare ground
- Marshy grassland
- Unimproved grassland
- Parkland / scattered trees, broad-leaved
- Inundation
- Mixed semi-natural woodland

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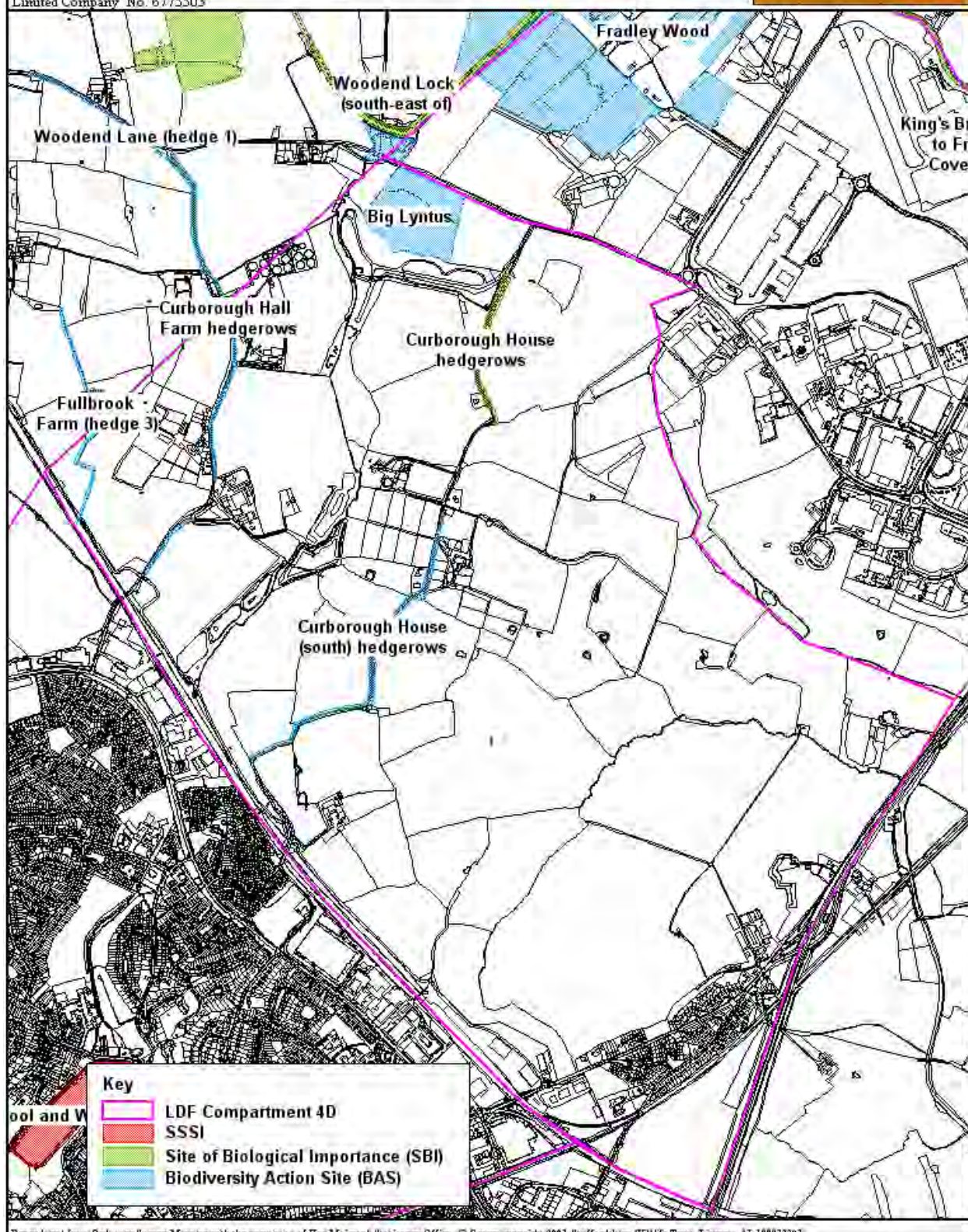
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LDF Compartment 4D - Designated sites

SES



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2.4e *Compartment 4e: Area around Lichfield Centre*

2.4e *Designated Sites*

Stowe Pool and Walk Mill Clay Pit Site of Special Scientific Interest

Stowe Pool and Walk Mill Clay Pit are two water bodies which support large and healthy populations of native white-clawed crayfish. Stowe Pool lies in the centre of Lichfield in an area of public open space. Formerly a water supply reservoir, it receives water from the Leomansley Brook, via Minster Pool.

Walk Mill Clay Pit is a flooded, disused clay pit in Cheslyn Hay (outside the compartment).

2.4e *Habitats*

The compartment is mainly urban, with open water at Stowe Pool SSSI, Minster Pool and another pool in Beacon Park. All of these pools are fed by the Leomansley Brook, which is the main watercourse in the area. There is a small area of woodland to the south of the area, off Church Street. The remaining semi-natural habitats in the area are found in a narrow strip at Christian Fields.

2.4e *Protected species*

English Name	Comments	Recommendations
Barn Owl	Species requires areas of rough grassland and other suitable habitat. Recorded from rough grassland near disused railway	Protect semi-improved grassland, particularly near disused railway.
Brambling	Wintering species	Retain hedges and woodlands, or provide mitigatory habitat.
Brandt's Bat	Summer roosts in trees and buildings. May hibernate in caves or tunnels. Prefers woodlands for feeding, often near water	Retain woodlands. Protect suitable structures, such as tunnels. Also as common pipistrelle
Brown Long-eared Bat	Usually roosting in loft spaces, often in older buildings. Feed in open woodland and parkland.	Of particular concern where building alterations, including barn conversions are proposed.
Common Frog	Old record from Leomansley Pool, Probably widespread in area	Protect ponds from development and / or mitigate by creating new ponds.
Common Pipistrelle	Probably associated with housing and roosting in some houses; likely to be widespread in the area	New housing should ideally have a range of bat-friendly roof tiles and / or bricks. Natural habitat features for foraging should also be provided such as hedges; these would normally be provided within Green Infrastructure
Daubenton's Bat	Roosts in buildings and bridges. Frequently found near water.	Protect waterside habitats. Also as common pipistrelle
Eurasian Badger	Probably widespread in area	Protect where possible; mitigation will depend on size and location of badger groups affected on any given site.
European Water Vole	Require well-vegetated water edge habitat, where not occupied by their main predator, mink	Any development likely to affect watercourses in area should protect the watercourse and provide a wide buffer strip of vegetation along the banks
Freshwater White-clawed Crayfish	Main threat is from crayfish plague. Populations in headwater streams and isolated ponds now most likely to be free from plague. Stowe Pool	Care should be taken with small streams, ponds and lakes not to introduce plants or animals from infected sources. These areas should not be connected with main rivers.

SSSI		
Great Crested Newt	Species breeds in still, open water and uses a range of habitats at other times of year. Recorded from Leomansley Pool,	Protect ponds and surrounding habitats
Noctule Bat	Mainly associated with trees, particularly old trees with holes for roosting.	Retain hedges and trees, including dead trees. Install bat boxes in young woodlands.
Whiskered/Brandt's Bat	Summer roosts in trees and buildings. May hibernate in caves or tunnels. Prefers woodlands for feeding, often near water	As Brandt's bat

2.4e Biodiversity Action Plan species

English Name	Comments	Recommendations
August Thorn	Woodland and suburban habitats. Feeds on trees	Retain hedges and woodlands, or provide mitigatory habitat.
Brown Hare	Probably still present in area, usually on arable or grassland	If area is developed, suitable habitat is likely to be lost, so mitigatory habitat should be provided
Centre-barred Sallow	Moth feeding on ash trees in woodlands and hedges	Retain hedges and woodlands, or provide mitigatory habitat.
Common Bullfinch	Found in woodlands and hedgerows	Retain hedges and woodlands, or provide mitigatory habitat.
Common Linnet	Wide range of habitat, mainly farmland and grassland	Retain hedges and grassland habitats, especially marshy grassland
Common Snipe	Species of wet grassland and related habitats.	Probably confined to Pipe Green area. Protect Pipe Green Common and retain and buffer marshy grassland elsewhere.
Common Toad	Records are now out of date, but area may still have populations of toads as this species returns to its ancestral ponds. Records from Little Aston and Leomansley.	Retain ponds and suitable surrounding habitat. Create additional habitat.
Dusky Thorn	Woodland and suburban habitats. Feeds on ash trees.	Retain hedges and woodlands, or provide mitigatory habitat.
Hawfinch	Woodland species, feeding on shoots, seeds and fruits	Retain hedges and woodlands, or provide mitigatory habitat.
Northern Lapwing	Wetland and arable species	Retain and buffer suitable habitat. Provide compensatory habitat where suitable habitat is lost, including farmland.
Oak Hook-tip	Oak woodland and parkland, feeds on oak	Retain hedges and woodlands, or provide mitigatory habitat.
Shaded Broad-bar	Open habitats, feeding on clover and vetches	Retain and enhance grassland habitats
Sky Lark	Open grassland and other habitats	If area is developed, suitable habitat is likely to be lost, so mitigatory habitat should be provided
Willow Tit	Willow scrub and similar habitats	Retain scrub and woodlands, or provide mitigatory habitat.
Yellowhammer	Range of habitats, compartment likely to be suitable	Retain hedges, scrub and grassland habitats

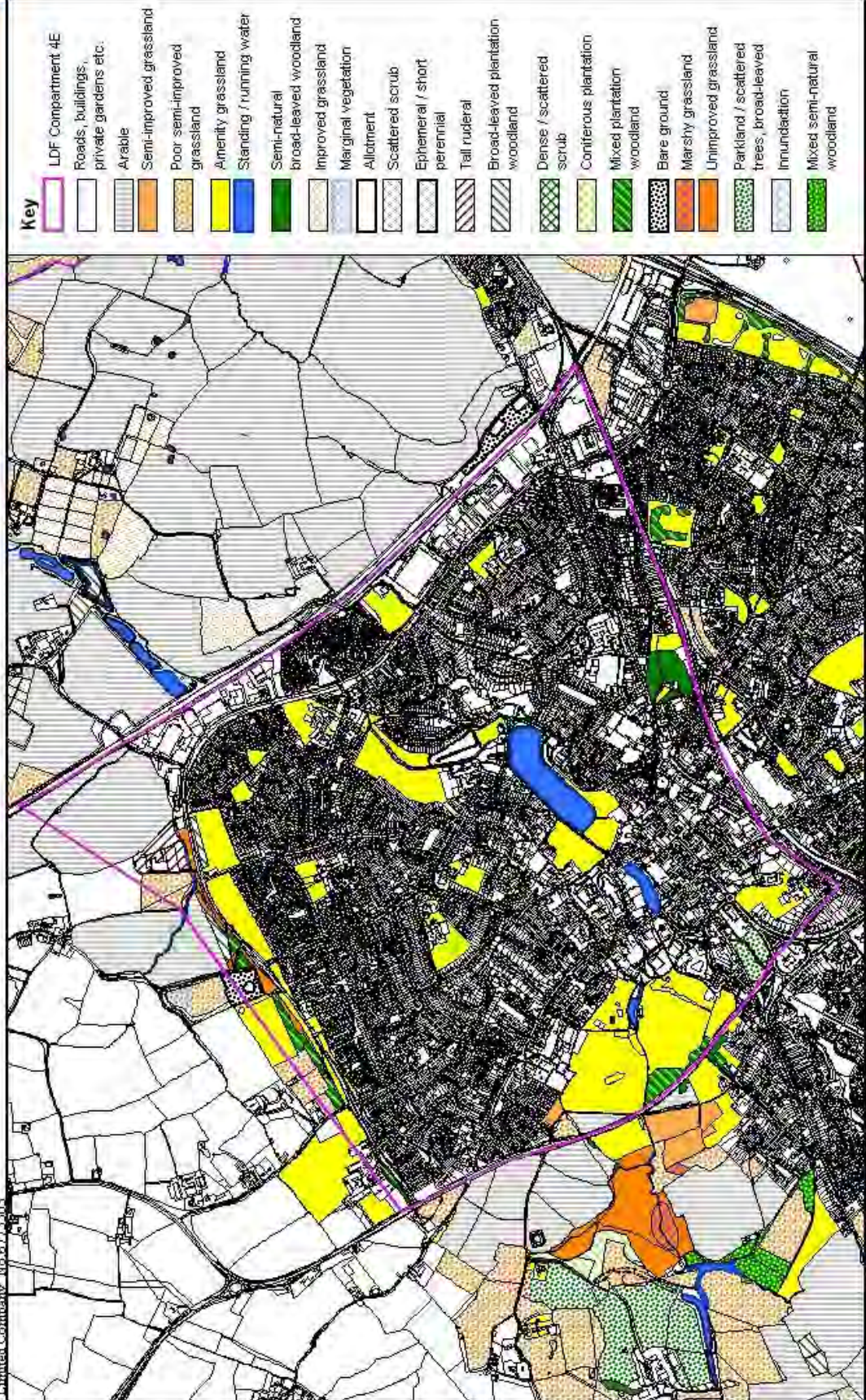
2.4e Summary recommendations for compartment

Protect designated sites, including the Leomansley Brook as this is the water supply for the SSSI. Other habitats should also be retained and enhanced where possible.

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LDF Compartment 4E Phase 1 habitat map



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2.4f *Compartment 4f: Area around Lichfield South*

2.4f *Designated Sites*

There are no designated sites in the Compartment

2.4f *Habitats*

There is little semi-natural habitat in the compartment, which mainly comprises arable farmland, with urban areas and amenity grassland. A small area (1 hectare) of neutral grassland appears to have been created in Darnford Park, which may be worth considering for designation as a BAS. There is a small block of nine fields of species-poor semi-improved grassland to the south of the London Road, which may form a link between the City and the open areas to the south.

2.4f *Protected species*

English Name	Comments	Recommendations
Barn Owl	Species requires areas of rough grassland and other suitable habitat. Recorded from rough grassland near disused railway	Protect semi-improved grassland, particularly near disused railway.
Brambling	Wintering species	Retain hedges and woodlands, or provide mitigatory habitat.
Brown Long-eared Bat	Usually roosting in loft spaces	Of particular concern where building alterations, including barn conversions are proposed.
Common Frog	Probably widespread in area	Protect ponds from development and / or mitigate by creating new ponds.
Common Kingfisher	The pools and weirs, Freeford Manor and Swinfen Park	Retain and buffer open water habitats
Common Pipistrelle	Probably associated with housing and roosting in some houses; likely to be widespread in the area	New housing should ideally have a range of bat-friendly roof tiles and / or bricks. Natural habitat features for foraging should also be provided such as hedges; these would normally be provided within Green Infrastructure
Daubenton's Bat	Roosts in buildings and bridges. Frequently found near water.	Area unlikely to be suitable for feeding. Otherwise as common pipistrelle
Eurasian Badger	Probably widespread in area	Protect where possible; mitigation will depend on size and location of badger groups affected on any given site.
European Water Vole	Require well-vegetated water edge habitat, where not occupied by their main predator, mink.	Any development likely to affect watercourses in area should protect the watercourse and provide a wide buffer strip of vegetation along the banks
Freshwater White-clawed Crayfish	Main threat is from crayfish plague. Populations in headwater streams and isolated sources. Ponds now most likely to be free from plague. Stowe Pool SSSI	Care should be taken with small streams, ponds and lakes not to introduce plants or animals from infected sources. These areas should not be connected with main rivers.
Great Crested Newt	Species breeds in still, open water and uses a range of habitats at other times of year. Recorded from Johnson Close,	Protect ponds and surrounding habitats
Noctule Bat	Mainly associated with trees, particularly old trees with holes for roosting.	Retain hedges and trees, including dead trees. Install bat boxes in young woodlands.

2.4f Biodiversity Action Plan species

English Name	Comments	Recommendations
August Thorn	Woodland and suburban habitats. Feeds on trees	Retain woodlands or provide mitigation
Brindled Beauty	Woodland and suburban species, feeds on broad leaved trees.	Retain woodlands or provide mitigation
Centre-barred Sallow	Moth feeding on ash trees in woodlands and hedges	Retain woodlands and hedges or provide mitigation
Common Linnet	Wide range of habitat, mainly farmland and grassland	Retain hedges and grassland habitats, especially marshy grassland
Common Toad	Records are now out of date, but Little Aston area may still have populations of toads as this species returns to its ancestral ponds.	Retain ponds and suitable surrounding habitat. Create additional habitat.
Corn Bunting	Widespread around area, farmland species	Retain and buffer suitable habitat. Provide compensatory habitat where suitable habitat is lost, including farmland.
Dusky Thorn	Woodland and suburban habitats. Feeds on ash trees.	Retain woodlands or provide mitigation
Northern Lapwing	Wetland and farmland	Retain and buffer suitable habitat. Provide compensatory habitat where suitable habitat is lost, including farmland.
Oak Hook-tip	Oak woodland and parkland, feeds on oak	Retain woodland and hedges.
September Thorn	Woodland, parkland and gardens. Feeds on trees.	Retain woodlands or provide mitigation
Shaded Broad-bar	Open habitats, feeding on clover and vetches	Retain and enhance grassland habitats
Sky Lark	Open grassland and other habitats	If area is developed, suitable habitat is likely to be lost, so mitigatory habitat should be provided
Spotted Flycatcher	Mature trees, especially in open areas.	Retain mature trees where possible
Willow Tit	Willow scrub and similar habitats	Retain scrub and woodlands or provide mitigation
Yellowhammer	Range of habitats, compartment likely to be suitable	Retain hedges, scrub and grassland habitats

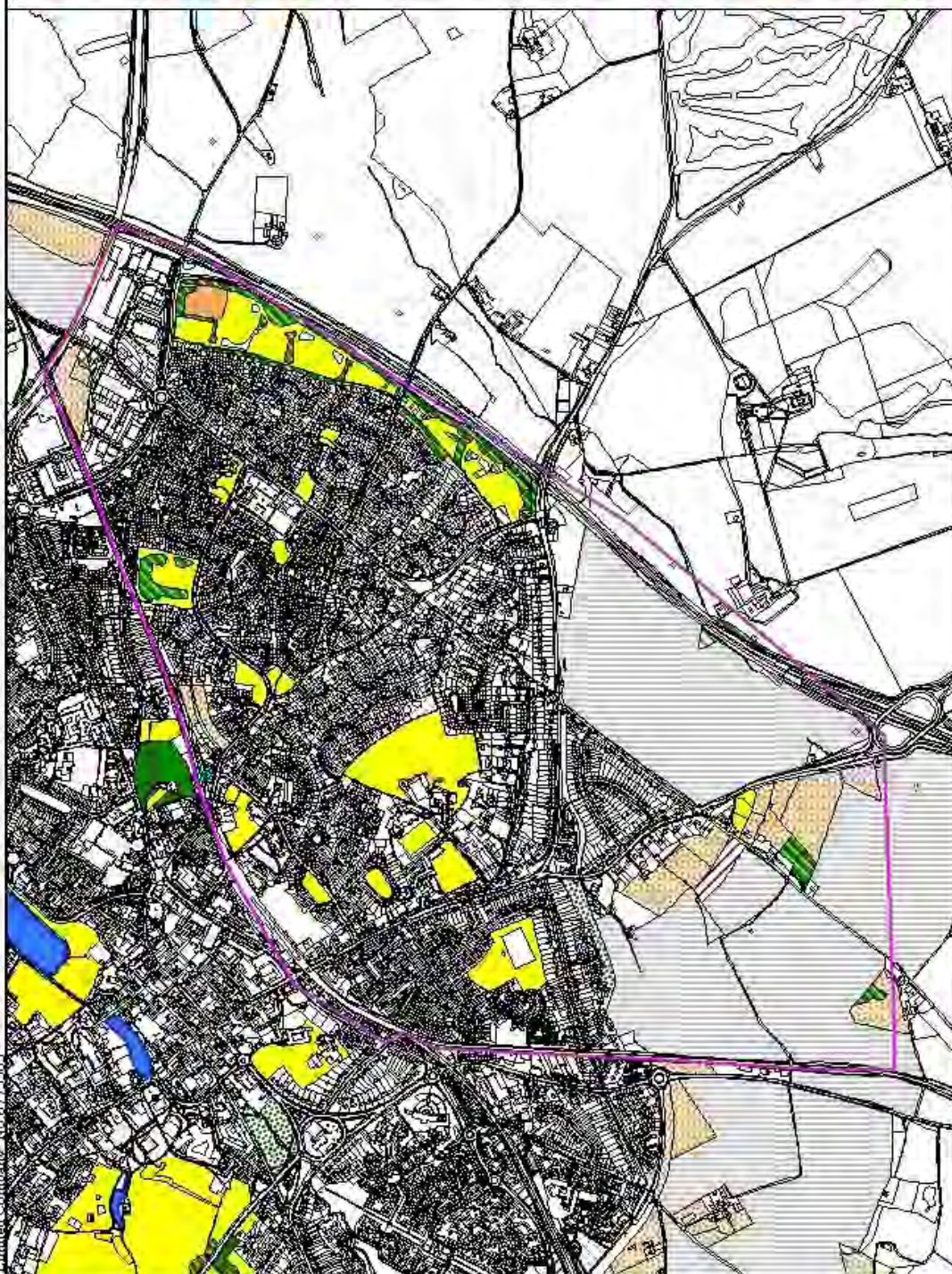
2.4f Summary recommendations for compartment

Consider grassland in Darnford Park for designation. Protect and enhance the grasslands near the London Road if possible.

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LDF Compartment 4F Phase 1 habitat map



Key

	LDF Compartment 4F
	Roads, buildings, private gardens etc.
	Arable
	Semi-improved grassland
	Poor semi-improved grassland
	Amenity grassland
	Standing / running water
	Semi-natural broad-leaved woodland
	Improved grassland
	Marginal vegetation
	Allotment
	Scattered scrub
	Epiphytic / short perennial
	Tall ruderal
	Broad-leaved plantation woodland
	Dense / scattered scrub
	Coniferous plantation
	Mixed plantation woodland
	Bare ground
	Marshy grassland
	Unimproved grassland
	Parkland / scattered trees, broad-leaved
	Inundation
	Mixed semi-natural woodland

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2.4g Compartment 4g: Area around Pipe Green and Leomansley

2.4g Designated Sites

Site of County Biological Importance:

Pipe Green Common - Pipe Green Common is a very diverse site and is of great ecological importance. The majority of the meadows are well drained and support a short grassland sward with a diverse range of grasses and broadleaved herbs. There are small patches of acidic grassland. The northern section was found to support bee orchid, adder's-tongue fern and common spotted orchid. The central section, next to the Leamons Brook, supports a wide range of wetland plants including Marsh pennywort, ragged robin, marsh ragwort, marsh valerian and meadowsweet were also present. Snipe have been recorded on the site in the past.

2.4g Habitats

The compartment may be divided into three areas:

- To the north of the Walsall Road, around Pipe Green Common and Leomansley Wood. This area has considerable semi-natural habitat, including ancient woodland and efforts in this area should focus on buffering and expanding these habitats. **Development should be avoided.**
- To the south of Walsall Road and north of disused canal, the area is arable, improved grassland and species-poor semi-improved grassland, with ponds on the boundary. In this area existing habitats could form the core of any green infrastructure and be enhanced appropriately.
- To the south of the disused canal, the area is mainly arable, with small patches of species-poor semi-improved grassland and ponds on the boundary. In this area habitats could form the core of any green infrastructure and be enhanced appropriately.

2.4g Protected species

English Name	Comments	Recommendations
Barn Owl	Species requires areas of rough grassland and other suitable habitat. Recorded from rough grassland near disused	Protect semi-improved grassland, particularly near disused railway.
Brambling	Wintering species	Retain hedges and woodlands, or provide mitigatory habitat.
Brown Long-eared Bat	Usually roosting in loft spaces, often in older buildings. Feed in open woodland and parkland.	Of particular concern where building alterations, including barn conversions are proposed.
Common Frog	Old record from Leomansley Pool, Probably widespread in area	Protect ponds from development and / or mitigate by creating new ponds.
Common Pipistrelle	Probably associated with housing and roosting in some houses; likely to be widespread in the area	New housing should ideally have a range of bat-friendly roof tiles and / or bricks. Natural habitat features for foraging should also be provided such as hedges; these would normally be provided within Green Infrastructure
Daubenton's Bat	Roosts in buildings and bridges. Frequently found near water.	Protect open water habitats, also as common pipistrelle
Eurasian Badger	Probably widespread in area	Protect where possible; mitigation will depend on size and location of badger groups affected on

		any given site.
European Water Vole	Require well-vegetated water edge habitat, where not occupied by their main predator, mink.	Any development likely to affect watercourses in area should protect the watercourse and provide a wide buffer strip of vegetation along the banks
Fieldfare	Wintering species	As brambling
Freshwater White-clawed Crayfish	Main threat is from crayfish plague. Populations in headwater streams and isolated ponds now most likely to be free from plague. Stowe Pool SSSI	Care should be taken with small streams, ponds and lakes not to introduce plants or animals from infected sources. These areas should not be connected with main rivers.
Great Crested Newt	Species breeds in still, open water and uses a range of habitats at other times of year. Recorded from Leomansley Pool,	Protect ponds and surrounding habitats
Marsh Frog	Introduced species, usually found in drainage ditches.	Conservation action should aim to prevent its spread.
Noctule Bat	Mainly associated with trees, particularly old trees with holes for roosting.	Retain hedges and trees, including dead trees. Install bat boxes in young woodlands.
Whiskered/Brandt's Bat	Summer roosts in trees and buildings. May hibernate in caves or tunnels. Prefers woodlands for feeding, often near water	Retain woodlands or provide mitigation. Also as common pipistrelle

2.4g Biodiversity Action Plan species

English Name	Comments	Recommendations
August Thorn	Woodland and suburban habitats. Feeds on trees	Retain woodlands or provide mitigation
Brindled Beauty	Woodland and suburban species, feeds on broad leaved trees.	Retain woodlands or provide mitigation
Brown Hare	Widely distributed in area, usually on arable or grassland	If area is developed, surveys should be carried out to see whether species is still present, if so mitigatory habitat should be provided
Centre-barred Sallow	Moth feeding on ash trees in woodlands and hedges	Retain woodlands and hedges or provide mitigation
Common Bullfinch	Found in woodlands and hedgerows	Retain woodlands and hedges or provide mitigation
Common Linnet	Widespread on farmland, especially to southwest of Lichfield.	Retain hedges and grassland habitats, especially marshy grassland
Common Snipe	Species of wet grassland and related habitats. Pipe Green	Probably confined to Pipe Green Common area. Protect Pipe Green Common and retain and buffer marshy grassland elsewhere.
Common Toad	Some records are now out of date, but Little Aston and Leomansley Pool areas may still have populations of toads as this species returns to its ancestral ponds. More recent records for Pipe Grange	Retain ponds and suitable surrounding habitat. Create additional habitat.
Corn Bunting	Widespread around area, farmland species	Retain and buffer suitable habitat. Provide compensatory habitat where suitable habitat is lost, including farmland.
Crescent	Species of damp, marshy woodland and moorland	Suitable habitat may be found around the Pipe Green area.
Dusky Thorn	Woodland and suburban habitats. Feeds on ash trees.	Retain woodlands or provide mitigation
Ear Moth	Damp habitats, feeds on grasses and other plants.	Suitable habitat may be found around the Pipe Green area.

Hawfinch	Woodland species, feeding on shoots, seeds and fruits	Retain woodlands or provide mitigation
House Sparrow	Species of gardens and farmland	Retain and buffer suitable habitat. Provide compensatory habitat where suitable habitat is lost, including farmland.
Lesser Spotted Woodpecker	Woods, parkland and gardens	Retain woodlands or provide mitigation
Marsh Tit	Mainly found in broad leaved woodland	Retain woodlands or provide mitigation
Minor Shoulder-knot	Damp woodland and wetlands, feeding on willow.	Retain woodlands or provide mitigation
Neglected Rustic	Heathland species	Suitable habitat may be found around the Pipe Green area.
Northern Lapwing	Widespread in area, especially on farmland	Retain and buffer suitable habitat. Provide compensatory habitat where suitable habitat is lost, including farmland.
Oak Hook-tip	Oak woodland and parkland, feeds on oak	Retain woodland and hedges.
Rosy Minor	Grassland, feeding on grasses	Suitable habitat may be found around the Pipe Green area.
Rosy Rustic	Waste ground and marshy places, feeding mainly on docks	Suitable habitat may be found around the Pipe Green area.
Sallow	Damp woodland and other marshy places, feeding on willow and other plants.	Suitable habitat may be found around the Pipe Green area.
September Thorn	Woodland, parkland and gardens. Feeds on trees.	Retain woodlands or provide mitigation
Shaded Broad-bar	Open habitats, feeding on clover and vetches	Retain and enhance grassland habitats
Sky Lark	Open grassland and other habitats	If any of area is developed, suitable habitat is likely to be lost, so mitigatory habitat should be provided
Spotted Flycatcher	Mature trees, especially in open areas.	Suitable habitat is present in the Pipe Green area
Willow Tit	Willow scrub and similar habitats	Retain scrub and woodlands or provide mitigation
Wood Warbler	Woodland without shrub layer.	Retain woodlands or provide mitigation
Yellowhammer	Range of habitats, compartment likely to be suitable	Retain hedges, scrub and grassland habitats

2.4g Summary recommendations for compartment

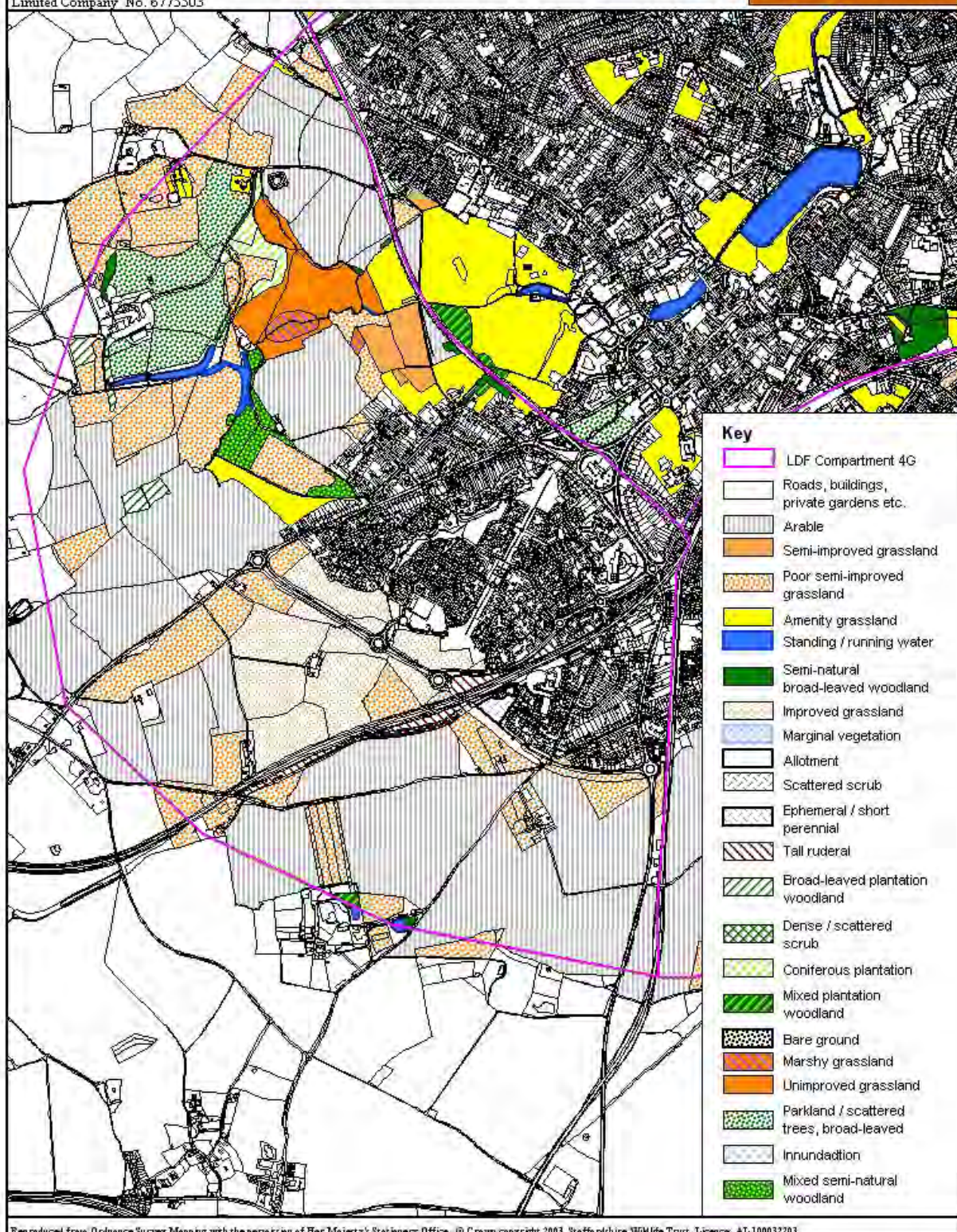
Development should be avoided in the whole of the area around Leomansley to the north of the Walsall Road. In the remainder of the compartment habitats could form the core of any green infrastructure and be enhanced appropriately

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**LDF Compartment 4G
Phase 1 habitat map**



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**LDF Compartment 4G -
Designated sites**

SES



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2.5 Around Burntwood

Lichfield Local Development Framework
Draft Ecological Study

SES

2.5a Compartment 5a: North, east and south Burntwood

2.5a Designated Sites

2 Biodiversity Alert Sites:

Cresswell Green Hedgerow: Species rich intact hedgerow

Woodhouses Hedgerow: Species rich intact hedgerow

2.5a Habitats

The area has a significant proportion of species-poor semi-improved grassland to the north near Gentleshaw Common Site of Special Scientific Interest (SSSI), which may be important in providing additional habitat for species found on the Common. The land between Hammerwich and Burntwood and pockets of land around the Toll Road junction are similar. Although species-poor, this rough grassland is likely to provide habitat for species such as barn owls and bats to hunt over. The area of this type of habitat is very limited in Lichfield District, and it should be retained wherever possible, and especially near to the SSSI. Where possible, opportunities for habitat enhancement should be sought.

2.5a Protected species

English Name	Comments	Recommendations
Barn Owl	Recorded in area over a long period. Species requires substantial areas of rough grassland and other suitable habitat to hunt over	Grassland habitats within compartment are probably suitable for hunting barn owls. Protect semi-improved grassland
Brambling	Wintering species	Retain hedges and woodlands, or provide mitigatory habitat.
Brown Long-eared Bat	Usually roosting in loft spaces	Of particular concern where building alterations, including barn conversions are proposed.
Common Crossbill	Feeds in conifer plantations.	Protect woodlands, or provide mitigation.
Common Frog	Widespread in ponds and lakes in area	Protect ponds from development and / or mitigate by creating new ponds.
Common Kingfisher	Chasewater and Jeffreys Swag, requires watercourses or open water	Retain and buffer open water and watercourses
Common Lizard	Prefers warm, open habitats, with rubble etc., for shelter.	Protect habitats of this type; new areas of habitat could include features suitable for reptiles.
Common Pipistrelle	Probably associated with housing and roosting in some houses; likely to be widespread in the area	New housing should ideally have a range of bat-friendly roof tiles and / or bricks. Natural habitat features for foraging should also be provided such as hedges; these would normally be provided within Green Infrastructure.
Cow-horn Bog-moss	Chasewater Heaths SSSI	Protect site on which this species found, ensuring hydrology of the site is also protected.
Eurasian Badger	Probably widespread in area	Protect where possible; mitigation will depend on size and location of badger groups affected on any given site.
European Nightjar	Species of heathland and young plantation.	Area unlikely to be suitable
European Water Vole	Require well-vegetated water edge habitat, where not occupied by their main predator, mink.	Any development likely to affect watercourses in area should protect the watercourse and and provide a wide buffer strip of vegetation along

		the banks
Floating Water-plantain	Plant species of clean, open water	Protect site on which this species found, ensuring hydrology of the site is also protected.
Freshwater White-clawed Crayfish	Main threat is from crayfish plague. Populations in headwater streams and isolated ponds now most likely to be free from plague. Recorded from Chasewater, Anglesey Branch Canal, Jeffreys' Swag	Care should be taken with small streams, ponds and lakes not to introduce plants or animals from infected sources. These areas should not be connected with main rivers.
Fringed Bog-moss	Species of wet, acidic habitat, found in the bog below Chasewater dam.	Protect site on which this species found, ensuring hydrology of the site is also protected.
Grass Snake	Found in rough land and pasture, often near water. Feeds on frogs etc.	Area may be suitable. Protect rough grassland habitats, or provide mitigation.
Moss species	Species of wet, acidic habitat, found in the bog below Chasewater dam	Protect site on which this species found, ensuring hydrology of the site is also protected.
Noctule Bat	Mainly associated with trees, particularly old trees with holes for roosting.	Retain hedges and trees, including dead trees. Install bat boxes in young woodlands.
Papillose Bog-moss	Species of wet, acidic habitat, found on Gentleshaw Common	Protect site on which this species found, ensuring hydrology of the site is also protected.
Slender Cow-horn Bog-moss	Species of wet, acidic habitat, found in the bog below Chasewater dam	Protect site on which this species found, ensuring hydrology of the site is also protected.
Spiky Bog-moss	Species of wet, acidic habitat, found in the bog below Chasewater dam	Protect site on which this species found, ensuring hydrology of the site is also protected.

2.5a Biodiversity Action Plan Species

English Name	Comments	Recommendations
August Thorn	Woodland and suburban habitats. Feeds on trees	Retain woodlands, or provide mitigatory habitat
Brown Hare	Widely distributed in area, usually on arable or grassland. Records from area around NMA	If area is developed, suitable habitat is likely to be lost, so mitigatory habitat should be provided
Centre-barred Sallow	Moth feeding on ash trees in woodlands and hedges	Retain hedges and woodlands, or provide mitigatory habitat
Common Bullfinch	Found in woodlands and hedgerows	Retain hedges and woodlands, or provide mitigatory habitat
Common Cuckoo	Range of habitat, including woods and hedges. Recorded from NMA	Retain hedges, woodlands and grassland habitats, or provide mitigatory habitat, especially near to NMA
Common Linnet	Widespread around area. Wide range of habitat, mainly farmland and grassland	Retain hedges and grassland habitats, especially marshy grassland
Common Snipe	Species of wet grassland and related habitats. Recorded from key wetland sites in area	Probably confined to key wetland sites. Protect key sites and retain and buffer marshy grassland elsewhere.
Common Toad	Records are now out of date, but Little Aston area may still have populations of toads as this species returns to its ancestral ponds. More recent records for NMA	Retain ponds and suitable surrounding habitat. Create additional habitat.
Corn Bunting	Widespread around area, farmland species	If area is developed, suitable habitat is likely to be lost, so mitigatory habitat should be provided
Dusky Thorn	Woodland and suburban habitats. Feeds on ash trees.	Retain hedges and woodlands, or provide mitigatory habitat
Grey Partridge	Ground nesting in arable and other habitats, including rushy pastures.	If area is developed, suitable habitat is likely to be lost, so mitigatory habitat should be provided
Harvest Mouse	Tall vegetation usually near water.	Retain and buffer suitable habitat, especially marshy grassland
Hawfinch	Woodland species, feeding on shoots, seeds and fruits	Retain woodlands, or provide mitigatory habitat

Marsh Tit	Mainly found in broad leaved woodland	Retain woodlands, or provide mitigatory habitat
Northern Lapwing	Recorded from a number of sites in area, mainly wetlands.	Retain and buffer suitable habitat. Provide compensatory habitat where suitable habitat is lost, including farmland.
Oak Hook-tip	Oak woodland and parkland, feeds on oak	Retain woodland and hedges.
September Thorn	Woodland, parkland and gardens. Feeds on trees.	Retain woodlands, or provide mitigatory habitat
Shaded Broad-bar	Open habitats, feeding on clover and vetches	Retain and enhance grassland habitats
Sky Lark	Open grassland and other habitats	If area is developed, suitable habitat is likely to be lost, so mitigatory habitat should be provided
Spotted Flycatcher	Mature trees, especially in open areas.	Retain mature trees and woodlands, or provide mitigatory habitat
Yellowhammer	Range of habitats, compartment likely to be suitable	Retain hedges, scrub and grassland habitats

2.5a *Summary Recommendations for Compartment*

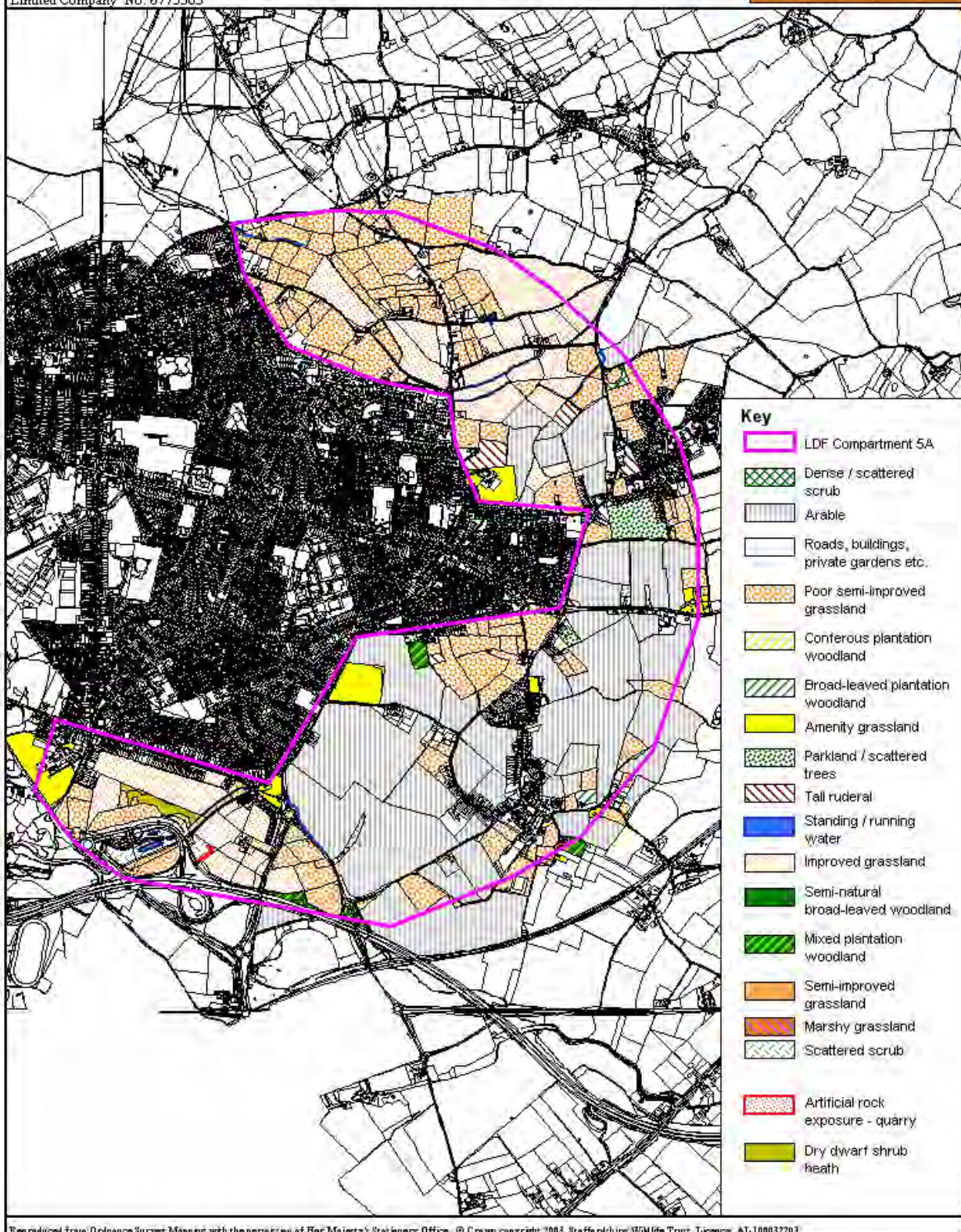
Protect hedgerows, particularly Biodiversity Alert Sites, and species-poor semi-improved grassland from development. Enhance areas of existing habitat where possible.

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LDF Compartment 5A - Phase 1 habitat map



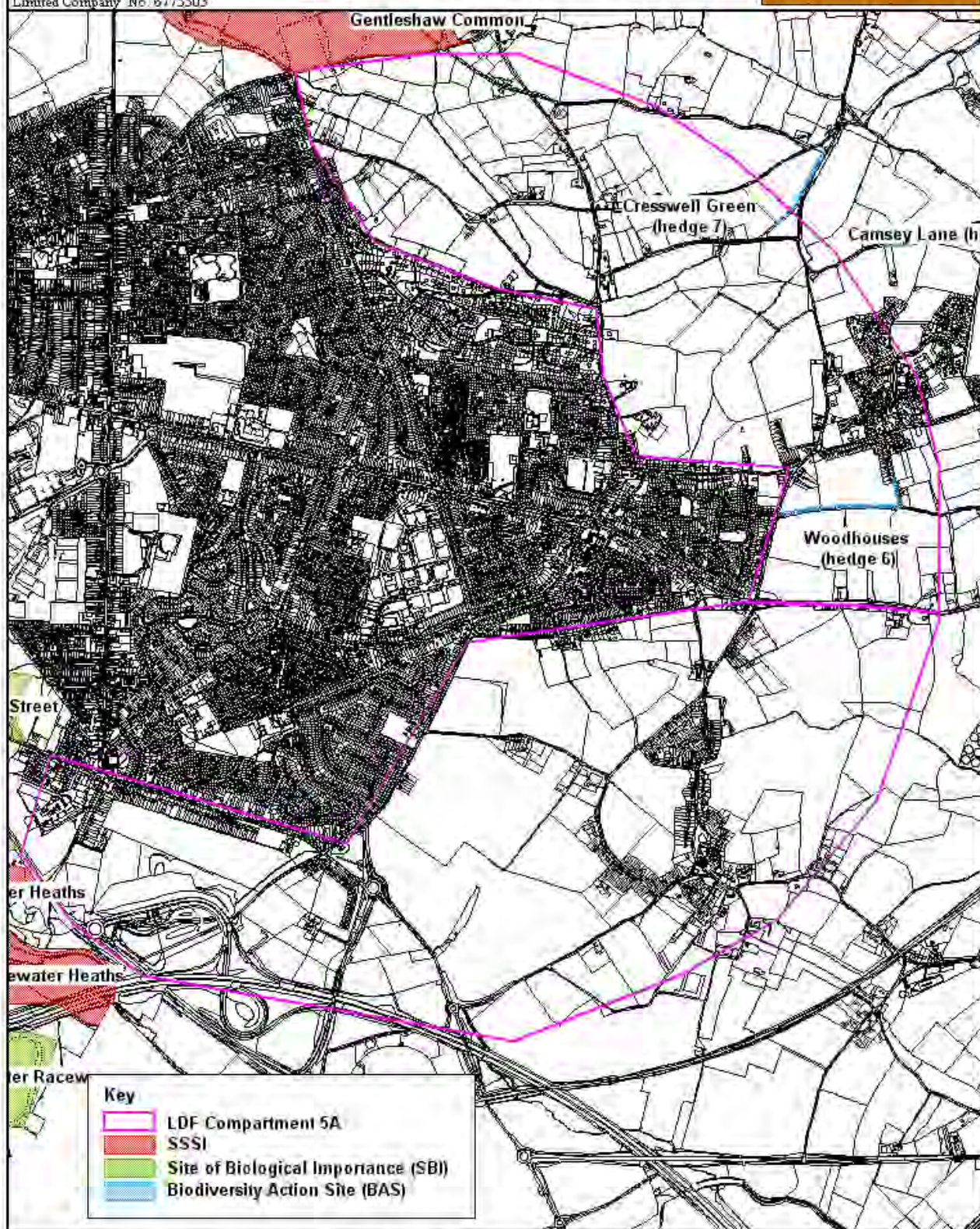
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**LDF Compartment 5A -
Designated sites**



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2.5b *Compartment 5b: Around Chasewater*

2.5b *Designated Sites*

Sites of County Biological Importance:

Chasewater and Norton Bog - Master site for a large SBI that includes Norton Bog and Chasewater

Norton Bog and Tip Site, This sub-site comprises an area of derelict land and colliery spoil tips that lies between the A5 to the north and the old mineral railway line to the south. The site supports a mosaic of mainly scrub with secondary woodland, grassy glades, wet areas with remnants of the original wet heathland flora and some lag pools and extensive reedmace beds. Heathland plants appear throughout the grassed areas.

Chasewater Disused Railway and Reclaimed Land, This sub-site comprises a mosaic of habitats including grassland, deciduous plantation, reclaimed spoil mounds and a disused railway line with a ditch running beside it. The railway line and ditch support several uncommon and rare species including common spotted orchid, marsh arrowgrass and annual wall rocket. Near to Chasetown there is a scrubby area and a small pond that supports breeding populations of several species of dragonflies.

Norton Bog, An area of birch and willow scrub which has grown up over old mine-workings, merging into an open area which is mainly heathland.

Church Street

The Church Street site contains a selection of important semi-natural habitat types that are featured in the Staffordshire Biodiversity Action Plan (SBAP), these include acid grassland and wet woodland. In addition, the site also features a number of vascular plant species that are considered to rare or very rare in Staffordshire. The site is currently owned and managed by Lichfield District Council.

Chasewater Disused Tip

Chasewater Disused Tip was initially identified during the surveys for the current report. The detailed surveys of the site were undertaken by the Wildlife Sites Officers based at Staffordshire Wildlife Trust, and the site was subsequently designated as a SBI by the Staffordshire SBI Grading Committee.

The site is characteristic of the UK BAP priority habitat ‘Open Mosaic Habitats on Previously Developed Land’, although the area is in a rather late successional stage. The habitats, which have come to dominate the area, include semi-improved neutral grassland, with large areas of wet broad-leaved woodland situated to the northwest and east of the site. Large areas of dense scrub occur to the northeast and are located throughout the central area of the site. Smaller habitats including areas of standing water, tall ruderal, swamp, bare ground and wet heath/acid grassland mosaic are situated throughout the site. Scattered trees and scrub are situated throughout the grassland, and dense scrub areas on the site

2.5b Protected species

English Name	Comments	Recommendations
Adder	Mainly confined to heathland in Staffs.	Protect heathland and similar habitats
Blunt-leaved Bog-moss	Species of wet, acidic habitat, found in Norton Bog	Protect site on which this species found, ensuring hydrology of the site is also protected.
Brambling	Wintering species	Retain hedges and woodlands, or provide mitigatory habitat.
Common Frog	Several records from area	Protect ponds from development and / or mitigate by creating new ponds.
Common Kingfisher	Requires watercourses or open water; recorded from Chasewater	Retain and buffer open water habitats
Common Lizard	Prefers warm, open habitats, with rubble etc., for shelter.	Protect habitats of this type; new areas of habitat could include features suitable for reptiles.
Common Pipistrelle	Associated with housing, probably widespread in area	New housing should ideally have a range of bat-friendly roof tiles and / or bricks. Natural habitat features for foraging should also be provided such as hedges; these would normally be provided within Green Infrastructure
Common Scoter	Open water species	Retain open water habitats
Cow-horn Bog-moss	Species of wet, acidic habitat, found in Norton Bog	Protect site on which this species found, ensuring hydrology of the site is also protected.
Daubenton's Bat	Roosts in buildings and bridges. Frequently found near water.	Protect open water habitats. Also as common pipistrelle.
Eurasian Badger	Widespread and likely to be affected by development	Protect where possible; mitigation will depend on size and location of badger groups affected on any given site.
European Water Vole	Require well-vegetated water edge habitat, where not occupied by their main predator, mink	Any development likely to affect watercourses in area should protect the watercourse and provide a wide buffer strip of vegetation along the banks
Five-ranked Bog-moss	Species of wet, acidic habitat, found in Norton Bog	Protect site on which this species found, ensuring hydrology of the site is also protected.
Floating Water-plantain	Plant species of clean, open water found on the north shore, Chasewater	Protect site on which this species found, ensuring hydrology and water quality of the site is also protected.
Fringed Bog-moss	Species of wet, acidic habitat, found in No Man's Bank	Protect site on which this species found, ensuring hydrology of the site is also protected.
Great Crested Newt	Species breeds in still, open water and uses a range of habitats at other times of year. Recorded from Cuckoo Bank and No Man's Bank	Protect ponds and surrounding habitats
Green Sandpiper	Water edge species recorded from Chasewater	If similar habitat lost then some compensatory habitat should be provided
Moss species	Species of wet, acidic habitat, found in Biddulph's Pool	Protect site on which this species found, ensuring hydrology of the site is also protected.
Noctule Bat	Mainly associated with trees, particularly old trees with holes for roosting.	Retain hedges and trees, including dead trees. Install bat boxes in young woodlands.
Red Bog-moss	Species of wet, acidic habitat, found in Chasewater Heaths SSSI	Protect site on which this species found, ensuring hydrology of the site is also protected.
Slender Cow-horn Bog-moss	Species of wet, acidic habitat, found in No Man's Bank	Protect site on which this species found, ensuring hydrology of the site is also protected.
Spiky Bog-moss	Species of wet, acidic habitat, found in No Man's Bank	Protect site on which this species found, ensuring hydrology of the site is also protected.
Wood Lark	Mainly a heathland species, rarely breeding in Staffs.	Protect heathland habitats

2.5b Biodiversity Action Plan species

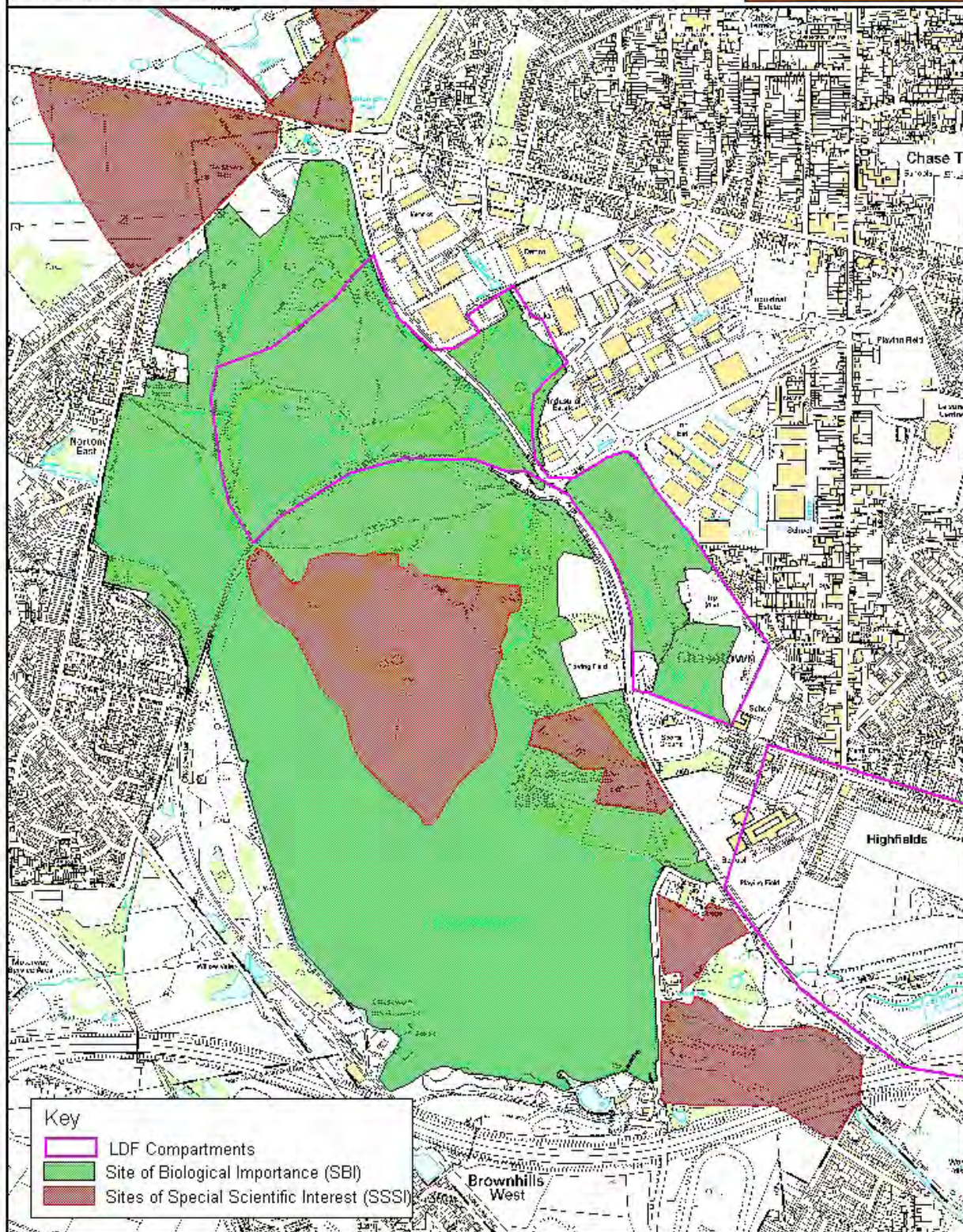
English Name	Comments	Recommendations
Blue Mason Bee	Cavity nesting bee, feeding on plants with tube-shaped flowers.	Protect bare ground habitats, including heathland and open mosaic habitat on previously developed land.
Broom Moth	Species of open woodland and heathland, feeding on broom, bracken and other plants.	Protect heathland and woodland habitats
Brown Hare	Widely distributed in area, usually on arable or grassland	If area is developed, suitable habitat is likely to be lost, so mitigatory habitat should be provided.
Common Bullfinch	Found in woodlands and hedgerows	Retain hedges and woodlands, or provide mitigatory habitat
Common Cuckoo	Range of habitat, including woods and hedges.	Retain hedges, woodlands and grassland habitats, or provide mitigatory habitat
Common Linnet	Wide range of habitat, mainly farmland and grassland	Retain hedges and grassland habitats, especially marshy grassland
Common Toad	Records are now out of date, but Cuckoo Bank and No Man's Bank areas may still have populations of toads as this species returns to its ancestral ponds.	Retain ponds and suitable surrounding habitat. Create additional habitat.
Dingy Skipper	Area is an important stronghold for this species, which appears to prefer grasslands or previously developed land, feeding on vetches.	Protect open habitats, including grassland and open mosaic habitat on previously developed land.
Eurasian Curlew	Species of wet grassland and related habitats.	Protect wetland habitat, or provide suitable mitigation.
Grey Partridge	Ground nesting in arable and other habitats, including rushy pastures.	Retain farmland habitats, or provide compensatory habitat.
Grizzled Skipper	Warm places in sparse vegetation in a range of habitats. Feeds on plants of the rose family.	Protect heathland, grassland and open mosaic habitat on previously developed land.
Heath Rustic	Heathland species, feeding on heather.	Protect heathland habitats
insect - hymenopteran	Found in bare and patchy ground, feeding on a range of species, including willow scrub and on species in the daisy family.	Protect bare ground habitats, including heathland and open mosaic habitat on previously developed land
insect - hymenopteran	Found on sites with Andrena species (solitary bees); a cleptoparasite of certain common Andrena species	Protect bare ground habitats, including heathland and open mosaic habitat on previously developed land
Lesser Redpoll	Woodland species, feeds on tree seeds.	Retain woodlands, or provide mitigatory habitat.
Lesser Spotted Woodpecker	Woods, parkland and gardens	Retain woodlands, or provide mitigatory habitat.
Neglected Rustic	Heathland species	Protect heathland habitats
Northern Lapwing	Recorded from a number of sites, including heathland.	Retain and buffer suitable habitat. Provide compensatory habitat where suitable habitat is lost, including farmland.
Rosy Minor	Grassland, feeding on grasses	Retain grassland habitats
Sallow	Damp woodland and other marshy places, feeding on willow and other plants.	Retain suitable habitats.
Shaded Broad-bar	Open habitats, feeding on clover and vetches	Retain and enhance grassland habitats
Sky Lark	Open grassland and other habitats	If area is developed, suitable habitat is likely to be lost, so mitigatory habitat should be provided
Small Heath	Wide range of habitats. Feeds on grasses	No specific recommendations
Small Square-spot	Range of habitats, feeds on a range of plants	No specific recommendations
Song Thrush	Woods, hedges, parks and gardens	No specific recommendations
Spinach	Moth of woodland and suburban habitats,	No specific recommendations

	feeding on currant species.	
Spiny Mason Wasp	Feeds on beetle larvae	No specific recommendations
Tree Pipit	Found in young conifers or heathland.	Protect heathland habitats
Willow Tit	Willow scrub and similar habitats	Retain woodlands, or provide mitigatory habitat.
Yellow Wagtail	Wetland species, Chasewater	Retain suitable habitats
Yellowhammer	Range of habitats, compartment likely to be suitable	Retain hedges, scrub and grassland habitats

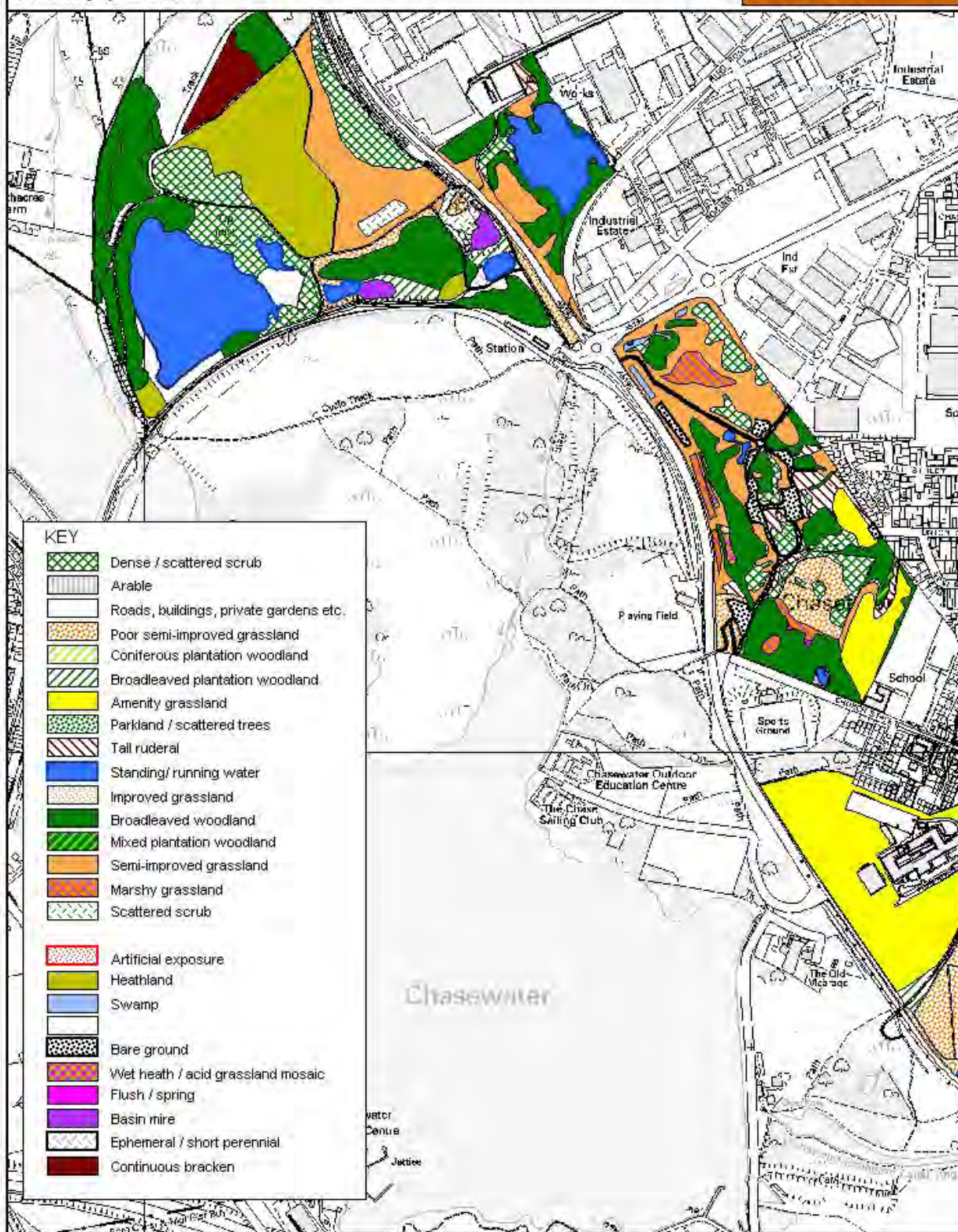
2.5b *Summary recommendations for compartment*

It is strongly recommended that the area is not developed, because it contains a range of habitats of Site of County Biological Importance status, including UK Biodiversity Action Plan habitats such as wet woodland and open mosaic habitat on previously developed land. In addition, a number of species of county and regional importance, such as dingy skipper have been recorded from the area, and it is important to keep as large an area of linked habitat as possible. Links to areas outside the compartment should also be considered, for example towards Gentleshaw Common Site of Special Scientific Interest.

Lichfield LDF Compartments 5b- Designated Sites



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2.6 Compartment 6: Whittington

2.6.1 Designated Sites

Site of County Biological Importance:

Coventry Canal (Huddlesford to Whittington) - A botanically diverse stretch of canal, flowing 1.2 km from Huddlesford Junction to Swan Bridge in Whittington

2.6.2 Habitats

Area 6 is mainly arable, with two blocks of species-poor semi-improved grassland and two ponds. The Coventry Canal crosses the area.

2.6.3 Protected species

English Name	Comments	Recommendations
Freshwater White-clawed Crayfish	Main threat is from crayfish plague. May be present in canal	Care should be taken with canal not to introduce plants or animals from infected sources.
Common Pipistrelle	Probably associated with housing and roosting in some houses; likely to be widespread in the area	New housing should ideally have a range of bat-friendly roof tiles and / or bricks. Natural habitat features for foraging should also be provided such as hedges; these would normally be provided within Green Infrastructure. Links to canal through GI would also be helpful.
Daubenton's Bat	Roosts in buildings and bridges. Frequently found near water.	Protect canal corridor. Also as for common pipistrelle.
Eurasian Badger	Widespread species in Staffordshire. Creates burrows (setts) in dry, usually sandy areas. Feeds on a wide range of insects, fruit etc.	Protect where possible; mitigation will depend on size and location of badger groups affected on any given site.
European Otter	Species now present on many watercourses in Staffs. Requires substantial cover near water, often holts, or waterside shrub planting found in large exposed tree roots, trees or scrub. Feeds mainly on fish.	Any development likely to affect canal should provide cover for otters, possibly in the form of artificial otter
Noctule Bat	Mainly associated with trees, particularly old trees with holes for roosting.	Retain hedges and trees, including dead trees. Install bat boxes in young woodlands.

2.6.4 Biodiversity Action Plan species

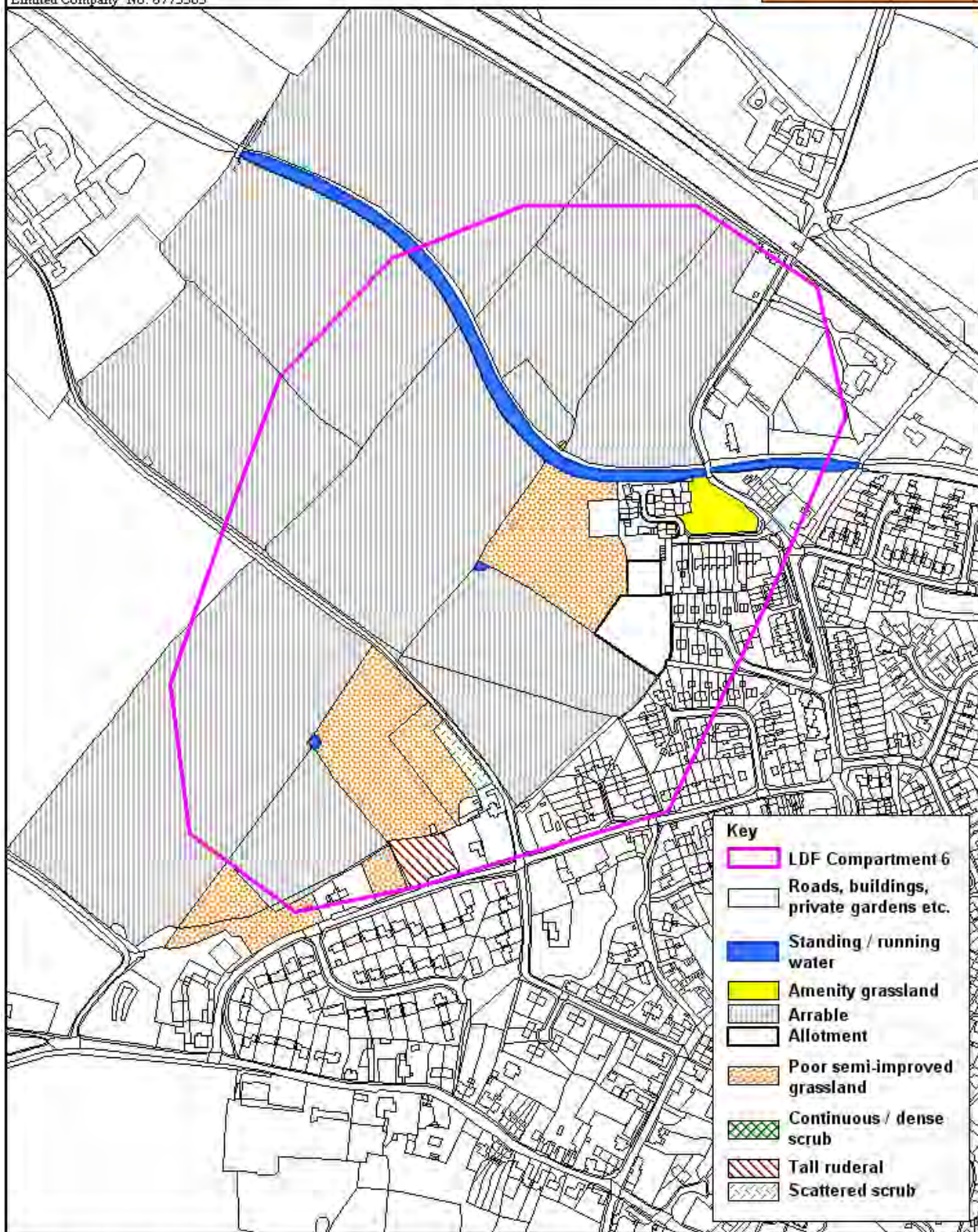
English Name	Comments	Recommendations
Northern Lapwing	Farmland or wetland species	If area is developed, suitable habitat is likely to be lost, so mitigatory habitat should be provided.
Brown Hare	Widely distributed in area, usually on arable or grassland	If area is developed, suitable habitat is likely to be lost, so mitigatory habitat should be provided.

2.6.5 Recommendations for compartment

Protect and enhance the canal corridor by creating appropriate habitats alongside it. The canal and other habitats could form the core of any green infrastructure and be enhanced appropriately.

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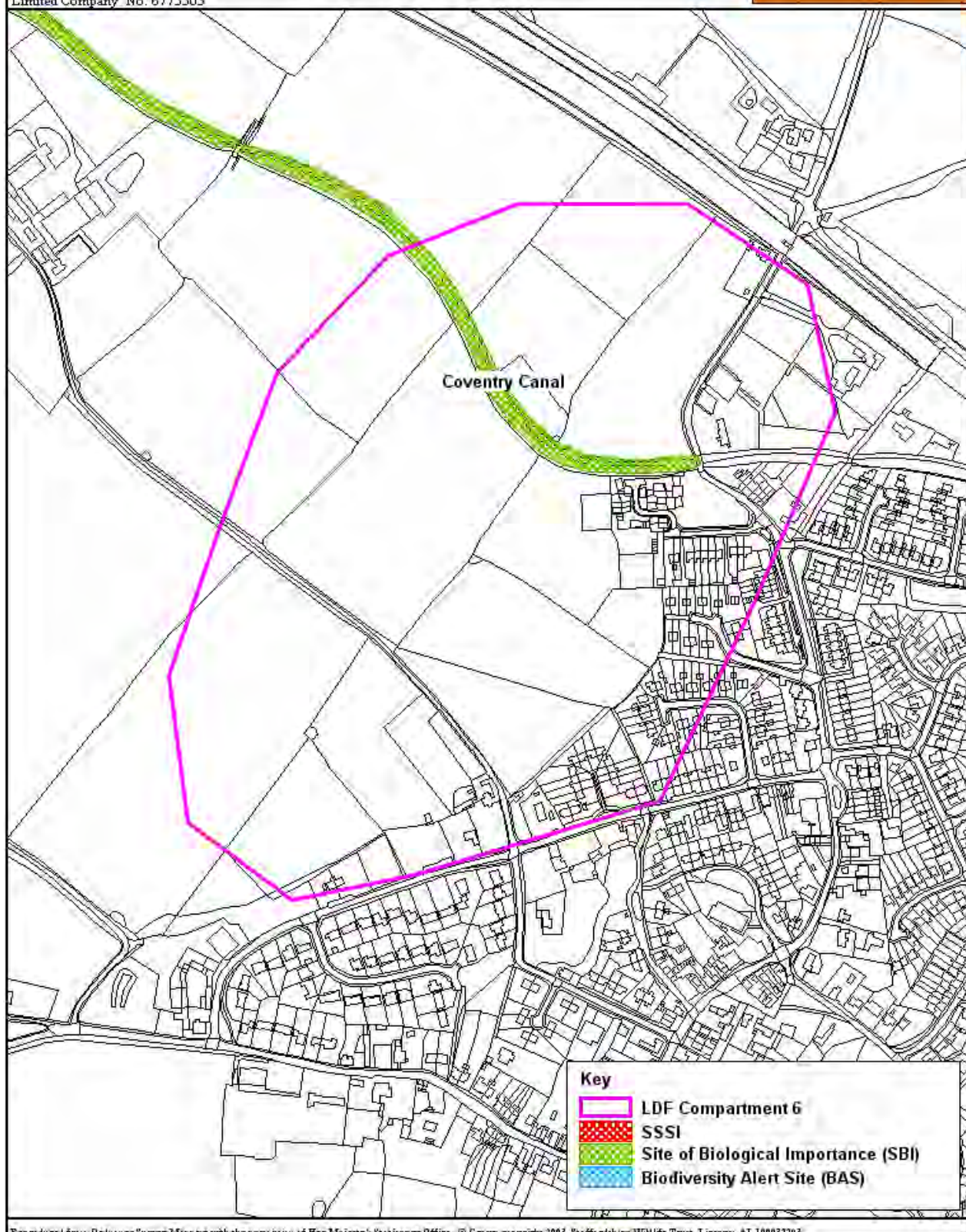
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**LDF Compartment 6 -
Phase 1 habitat map****SES**
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**LDF Compartment 6 -
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2.7 Compartment 7: Land to North of Tamworth

Lichfield Local Development Framework
Draft Ecological Study



2.7.1 Designated Sites

There are no designated sites in the Compartment

2.7.2 Habitats

The area is mainly arable land with small areas of species-poor semi-improved grassland.

2.7.3 Protected species

English Name	Comments	Recommendations
Barn Owl	Species requires substantial areas of rough grassland and other suitable habitat to hunt over	Protect rough grassland, or provide mitigation
Brown Long-eared Bat	Usually roosting in loft spaces	Of particular concern where building alterations, including barn conversions are proposed.
Common Frog	Syerscote, Wiggington. Most records now old, but probably still widespread in area	Protect ponds from development and / or mitigate by creating new ponds.
Pipistrelle	Associated with housing and roosting in some houses; widespread in the area	New housing should ideally have a range of bat-friendly roof tiles and / or bricks. Natural habitat features for foraging should also be provided such as hedges; these would normally be provided within Green Infrastructure.
Eurasian Badger	Widespread species in Staffordshire. Creates burrows (setts) in dry, usually sandy areas. Feeds on a wide range of insects, fruit etc.	Protect where possible; mitigation will depend on size and location of badger groups affected on any given site.
Great Crested Newt	Species breeds in still, open water and uses a range of habitats at other times of year. Recorded from near Dunstall Farm	Protect ponds and surrounding habitats

2.7.4 Biodiversity Action Plan species

English Name	Comments	Recommendations
Common Toad	Many records for Syerscote are now out of date, but area may still have populations of toads as this species returns to its ancestral ponds.	Retain ponds and suitable surrounding habitat. Create additional habitat.
Feathered Gothic	Rough grassland, feeding on grasses	Retain rough grassland habitat where possible, or provide compensatory habitat.
Figure of Eight	Moth feeding on shrub species, including apple and hawthorn.	Retain hedges where possible, or provide compensatory habitat.
Ghost Moth	Grassy areas, feeding on grasses and other plants.	Retain rough grassland habitat where possible, or provide compensatory habitat
Sky Lark	Open grassland and other habitats	If area is developed, suitable habitat is likely to be lost, so mitigatory habitat should be provided

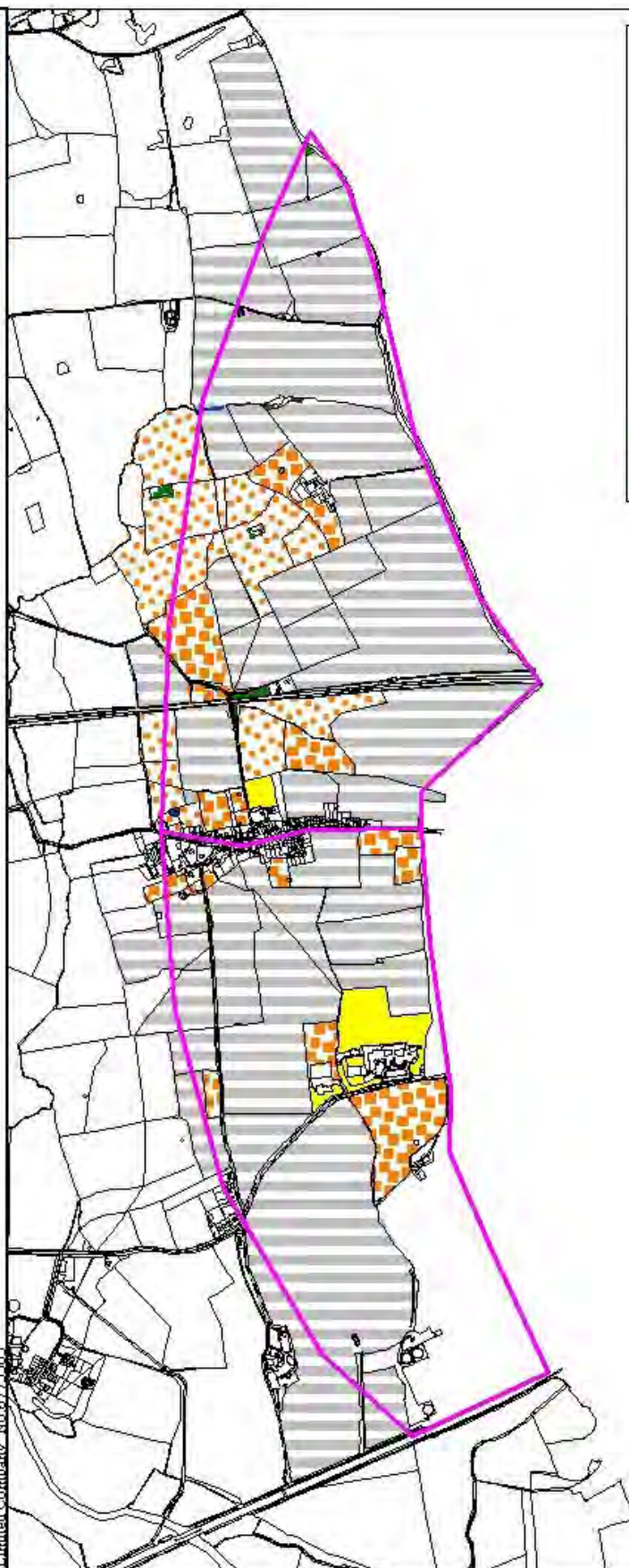
2.7.5 Summary recommendations for compartment

The pockets of species-poor semi-improved grassland could form the basis of habitat within green infrastructure of the area, and could be linked and buffered by the creation of other grassland habitats.

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LDF Compartment 7 Phase 1 habitat map



Key	
	Region
	Semi-natural, broad-leaved woodland
	Roads, buildings, private gardens etc.
	Arable
	Static / running water
	Broad-leaved plantation
	Improved grassland
	Poor semi-improved grassland
	Dense / continuous scrub
	Amenity grassland

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2.8 Compartment 8: West of Shenstone

2.8.1 Designated Sites

Two Biodiversity Alert Sites:

Malkin's Coppice A small pocket of woodland (listed on the ancient woodland inventory) surrounded by arable fields and buildings. The canopy is dominated by oak and birch. Bracken dominates the ground layer; bluebells are frequent along the woodland edges. The scrub layer is sparse, with occasional rowan, holly and honeysuckle. Hazel has been planted in places, and deadwood is a frequent feature in the woodland. There is a network of newly created paths through the woodland

The Little Holmes, Shenstone - The majority of the site comprises of semi-improved grassland, a lack of appropriate management has resulted in vigorous grasses taking hold. This site is bounded by houses on its southern and eastern edges and is used as an amenity area for dog walkers. A well-used footpath runs along side the Crane Brook, which flows along the northern boundary of the site. The northern bank is lined with alder, crack willow and poplars. The brook lacks in-channel vegetation, and only small amounts of water crow-foot and water starwort are present. Emergent vegetation such as brooklime, fool's watercress and branched bur-reed are frequent. The brook appears suitable (in places) for water voles.

2.8.2 Habitats

Significant habitats within this area are mainly found within the two Biodiversity Alert Sites noted above. In addition, three small fields with species-poor semi-improved grassland link Malkin's Coppice and the Little Holmes along Lynn Lane, and the Fotherley Brook crosses the area.

2.8.3 Protected species

English Name	Comments	Recommendations
Common Kingfisher	Requires watercourses or open water. Recorded from Fotherley Rough	Any development likely to affect watercourse should protect the watercourse and its banks.
Eurasian Badger	Probably widespread and likely to be affected by development	Protect where possible; mitigation will depend on size and location of badger groups affected on any given site.
European Water Vole	Recent record nearby	Any development likely to affect watercourse should protect the watercourse and provide a wide buffer strip of vegetation along the banks
Whiskered/Brandt's Bat	Summer roosts in trees and buildings. May hibernate in caves or tunnels. Prefers woodlands for feeding, often near water	Retain woodland on site, or mitigate. New housing should ideally have a range of bat-friendly roof tiles and / or bricks. Natural habitat features for foraging should also be provided such as hedges; these would normally be provided within Green Infrastructure

2.8.4 Biodiversity Action Plan species

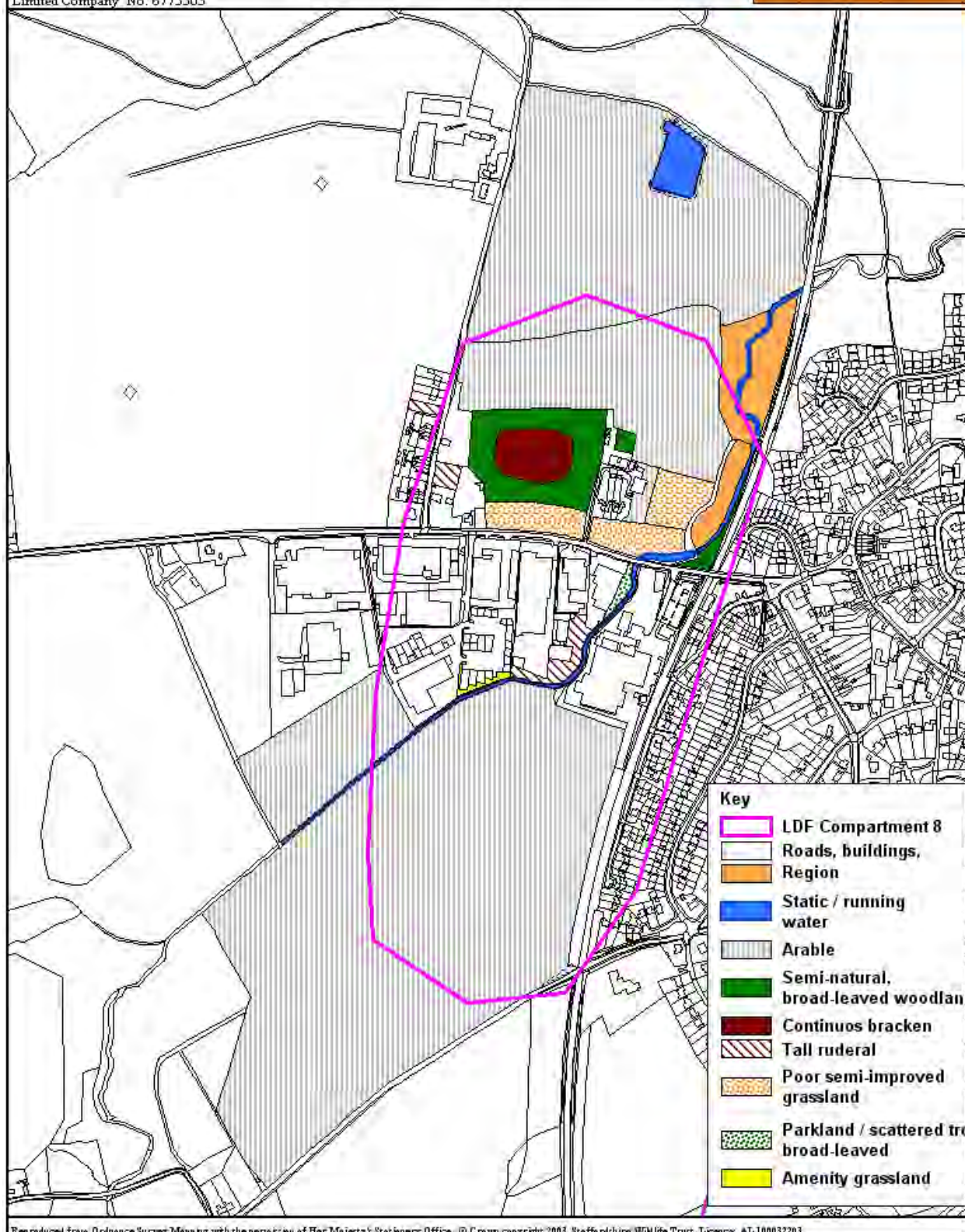
English Name	Comments	Recommendations
Sky Lark	Requires open grassland and other farmland habitats.	If area is developed, suitable habitat is likely to be lost, so mitigatory habitat should be provided.

2.8.5 *Summary recommendations for compartment*

Retain the two Biodiversity Alert Sites, and the species-poor semi-improved grassland that links them. Habitat enhancement along the Fotherley Brook corridor would also be beneficial.

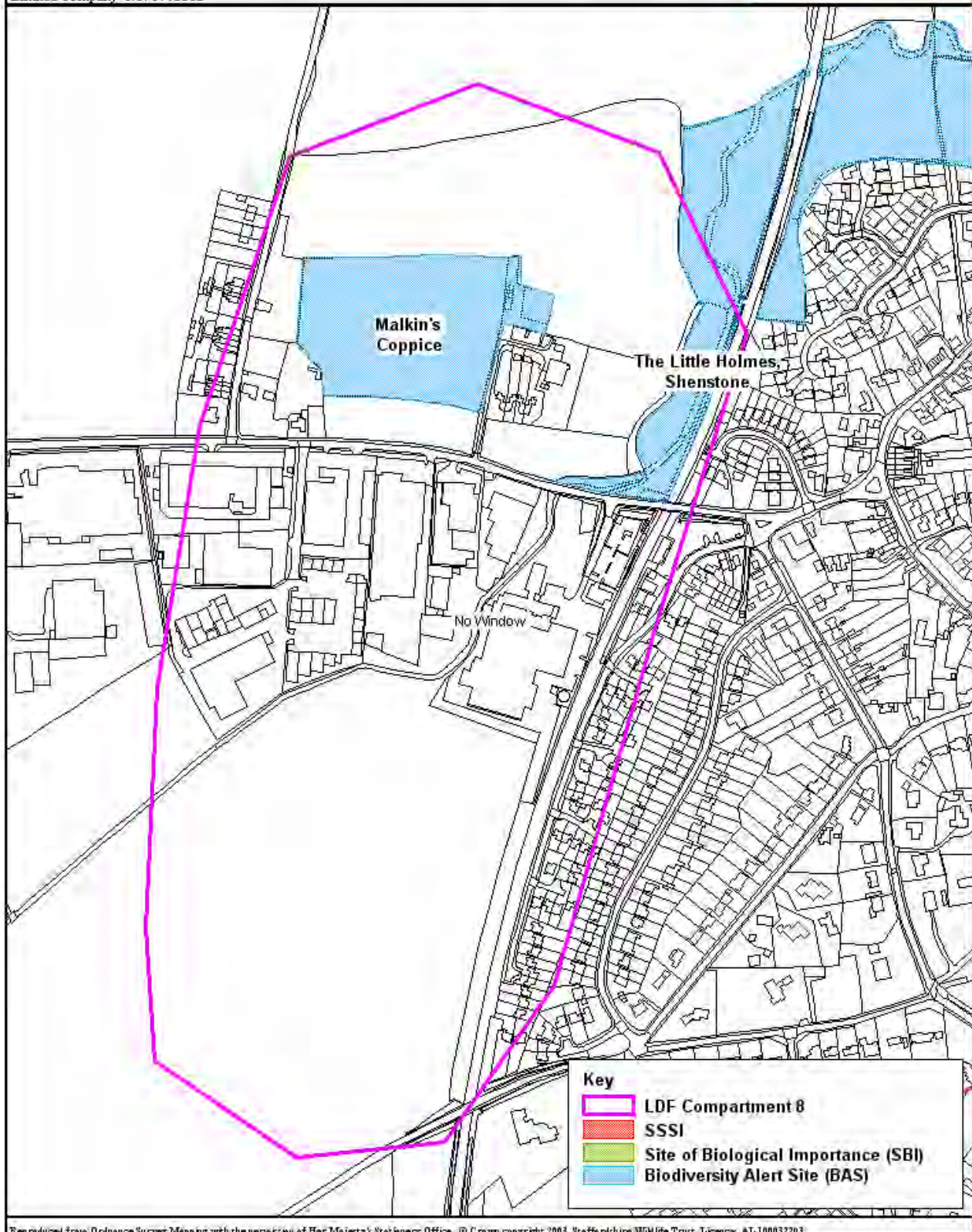
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2.9 Compartment 9: South of Shenstone

Lichfield Local Development Framework
Draft Ecological Study

SES
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2.9.1 Designated Sites

There are no designated sites in the Compartment.

2.9.2 Habitats

The area around Shenstone Court is parkland with mature trees. This will require further survey to determine whether the trees are veteran trees, as these can be important for specialist invertebrates and other species. There is also a belt of woodland, which runs across the compartment. Remaining habitats in the area are arable and species-poor semi-improved grassland.

2.9.3 Protected species

English Name	Comments	Recommendations
Common Kingfisher	Requires watercourses or open water. Recorded from Fotherley Rough	Any development likely to affect watercourses in area should protect the watercourse and its banks
Eurasian Badger	Widespread and likely to be affected by development Creates burrows (setts) in dry, usually sandy areas. Feeds on a wide range of insects, fruit etc.	Protect where possible; mitigation will depend on size and location of badger groups affected on any given site.
Whiskered/Brandt's Bat	Summer roosts in trees and buildings. May hibernate in caves or tunnels. Prefers woodlands for feeding, often near water	Protect woodlands, or provide compensatory habitat. New housing should ideally have a range of bat-friendly roof tiles and / or bricks. Natural habitat features for foraging should also be provided such as hedges; these would normally be provided within Green Infrastructure

2.9.4 Biodiversity Action Plan species

There are no specific recommendations for the Biodiversity Action Plan species listed in the appendix.

2.9.5 Summary recommendations for compartment

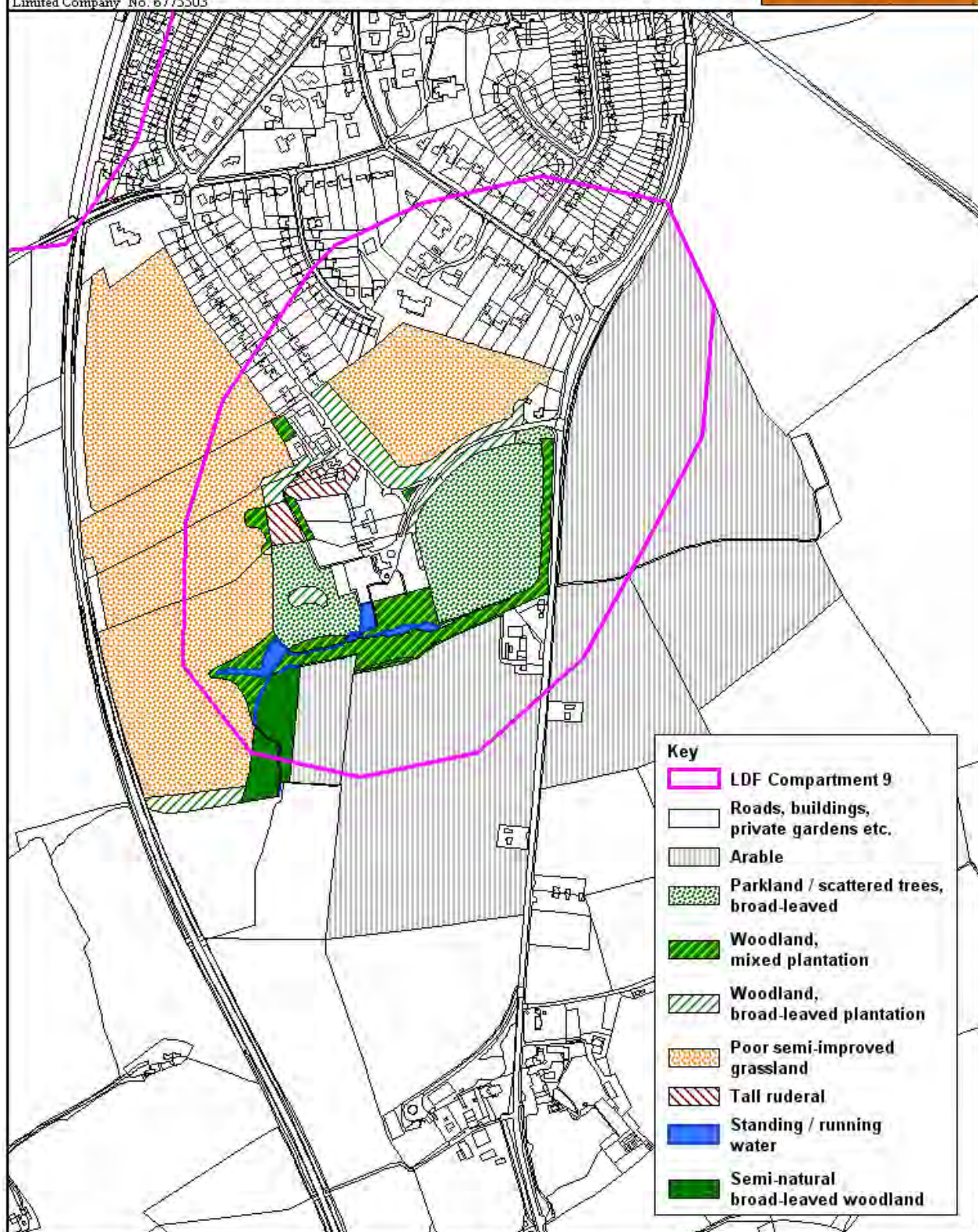
Further survey is required for veteran trees. The habitat around Shenstone Court should be retained and enhanced.

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2.10 Compartment 10: South west of Tamworth

2.10.1 Designated Sites

Site of County Biological Importance:

Bonehill Bridge (South of): The site consists of two semi-improved neutral fields adjacent to the canal south of Bonehill Bridge, together with a large field drain and area of swamp. The surrounding area is mainly arable, with improved horse grazed grassland to the south and residential development to the east of the canal.

The grassland has a high proportion of herbs together with a mixture of both coarse and finer grasses, whilst the drain and swamp areas have a large amount of diverse marginal vegetation. An area of broadleaved woodland exists at the north of the site, which was not included in the original BAS, but perhaps should be added as this may be wet woodland (UK Biodiversity Action Plan habitat).

2.10.2 Habitats

Outside the BAS, there are areas of wet woodland, scrub, open water and species-poor semi-improved grassland. Several small watercourses cross the compartment. The canal and one small drain form natural links under the A5 corridor.

2.10.3 Protected species

English Name	Comments	Recommendations
Barn Owl	Species requires substantial areas of rough grassland and other suitable habitat to hunt over. Recorded from Lakeside Estate, Tamworth Borough	Protect semi-improved grassland, particularly near Lakeside Estate.
Common Frog	Widespread in area	Protect ponds from development and / or mitigate by creating new ponds.
Common Kingfisher	Widespread in area	Any development in area should protect watercourses and open water
Common Pipistrelle	Probably associated with housing and roosting in some houses; likely to be widespread in the area	New housing should ideally have a range of bat-friendly roof tiles and / or bricks. Natural habitat features for foraging should also be provided such as hedges; these would normally be provided within Green Infrastructure.
Eurasian Badger	Widespread and likely to be affected by development. Creates burrows (setts) in dry, usually sandy areas. Feeds on a wide range of insects, fruit etc.	Protect where possible; mitigation will depend on size and location of badger groups affected on any given site.
European Otter	Probably moves along River Tame and connected watercourses. Requires substantial cover near water, often in tree roots, trees or scrub. Feeds mainly on fish.	Any watercourses within development site, including canal, should be retained and enhanced, with creation of buffering habitat, and possibly by incorporation into SUDS
European Water Vole	Require well-vegetated water edge habitat, where not occupied by their main predator, mink.	Any watercourses in area should be protected and a wide buffer strip of vegetation along the banks should be provided
Grass Snake	Several records for area, including relatively recent ones. Found in rough land and pasture, often near water. Feeds on frogs etc.	Any watercourses and ponds in area should be protected.

2.10.4 Biodiversity Action Plan species

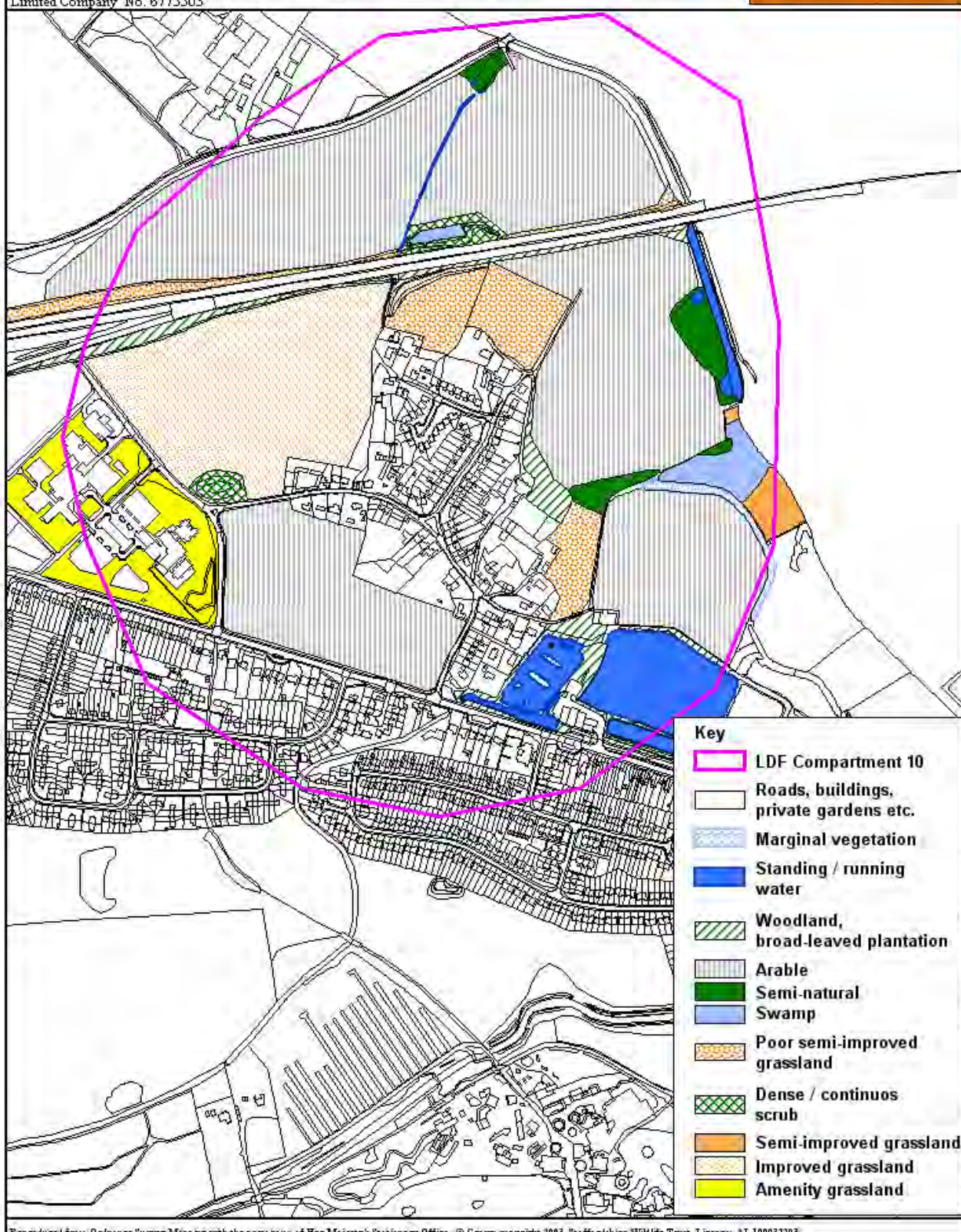
Latin Name	Comments	Recommendations
Brindled Beauty	Woodland and suburban species, feeds on broad leaved trees.	Retain woodland habitat
Broom Moth	Species of open woodland and heathland, feeding on broom, bracken and other plants.	Semi-improved grassland to east of compartment may be suitable.
Brown Hare	Widely distributed in area, usually on arable or grassland	If area is developed, suitable habitat is likely to be lost, so mitigatory habitat should be provided.
Common Snipe	Species of wet grassland and related habitats. Recorded from Broad Meadow and Tameside	Probably confined to specific sites. Protect Sites.
Common Starling	Found in woodland, reedbeds and gardens	Retain woodland and swamp habitats.
Common Toad	Records are now out of date, but Drayton Manor Park area may still have populations of toads as this species returns to its ancestral ponds.	Retain ponds and suitable surrounding habitat. Create additional habitat.
Dark Brocade	The species inhabits heathland and similar habitats. The caterpillars feed on a wide range of herbaceous plants and trees, as well as grasses.	Semi-improved grassland to east of compartment may be suitable.
Ear Moth	Damp habitats, feeds on grasses and other plants.	Retain swamp and other wet habitats.
Ghost Moth	Grassy areas, feeding on grasses and other plants.	Retain grassland habitats, or provide mitigation.
Harvest Mouse	Tall vegetation usually near water.	Retain and buffer suitable habitat, especially marshy grassland
Northern Lapwing	Wetlands and farmland	Retain and buffer suitable habitat. Provide compensatory habitat where suitable habitat is lost, including farmland.
Oak Hook-tip	Oak woodland and parkland, feeds on oak	Retain woodland and hedges.
Reed Bunting	As Lapwing	As Lapwing
Rosy Rustic	Waste ground and marshy places, feeding mainly on docks	Retain swamp habitat.
Shaded Broad-bar	Open habitats, feeding on clover and vetches	Retain and enhance grassland habitats
Sky Lark	Open grassland and other habitats	If area is developed, suitable habitat is likely to be lost, so mitigatory habitat should be provided
Yellowhammer	Range of habitats, compartment likely to be suitable	Retain hedges, scrub and grassland habitats

2.10.5 Summary recommendations for compartment

Protect the BAS and associated habitats from development. Habitats described above could form the core of any green infrastructure and be enhanced appropriately, in particular linking the BAS to the west and south to connect to the large area of open water.



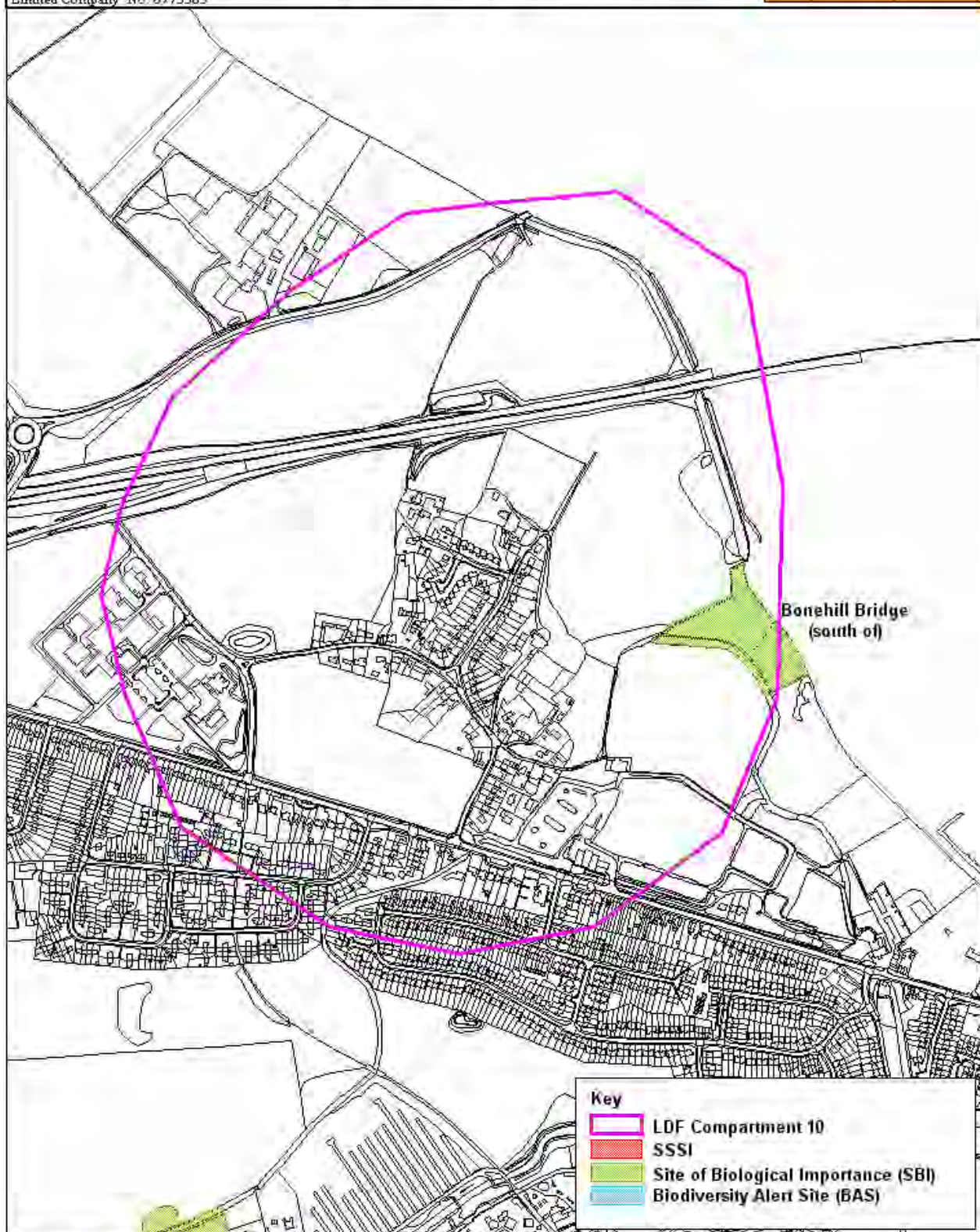
LDF Compartment 10 - Phase 1 habitat map



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**LDF Compartment 10 -
Designated sites****SES**

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2.11 Compartment 11: Little Aston

Lichfield Local Development Framework
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SES

2.11.1 Designated Sites

There are no designated sites in the Compartment

2.11.2 Habitats

Habitats in the compartment are mainly arable and amenity grassland. Open water is an important feature of the area. There are also two small blocks of species-poor semi-improved grassland

2.11.3 Protected species

see appendix 11

English Name	Comments	Recommendations
Brambling	Wintering species	Retain hedges and woodlands, or provide mitigatory habitat.
Common Frog	Probably widespread in area	Protect ponds from development and / or mitigate by creating new ponds.
Noctule Bat	Mainly associated with trees, particularly old trees with holes for roosting.	Retain hedges and trees, including dead trees. Install bat boxes in young woodlands.
Redwing	Winter visitor, feeding in fields, hedges and orchards	Retain hedges and woodlands, or provide mitigatory habitat.

2.11.4 Biodiversity Action Plan species

English Name	Comments	Recommendations
Common Linnet	Wide range of habitat, mainly farmland and grassland	Retain hedges and grassland habitats.
Common Toad	Records are now out of date, but area may still have populations of toads as this species returns to its ancestral ponds. Little Aston,	Retain ponds and suitable surrounding habitat. Create additional habitat.
Eurasian Tree Sparrow	Open woodland and garden species.	Retain hedges and woodlands, or provide mitigatory habitat.
Northern Lapwing	Wetland and farmland	Retain and buffer suitable habitat. Provide compensatory habitat where suitable habitat is lost, including farmland.
Reed Bunting	Wetland and farmland	As Lapwing
Sky Lark	Open grassland and other habitats	If area is developed, suitable habitat is likely to be lost, so mitigatory habitat should be provided
Willow Tit	Willow scrub and similar habitats	Retain hedges and woodlands, or provide mitigatory habitat.
Yellowhammer	Range of habitats, compartment likely to be suitable	Retain hedges, scrub and grassland habitats

2.11.5 Summary recommendations for compartment

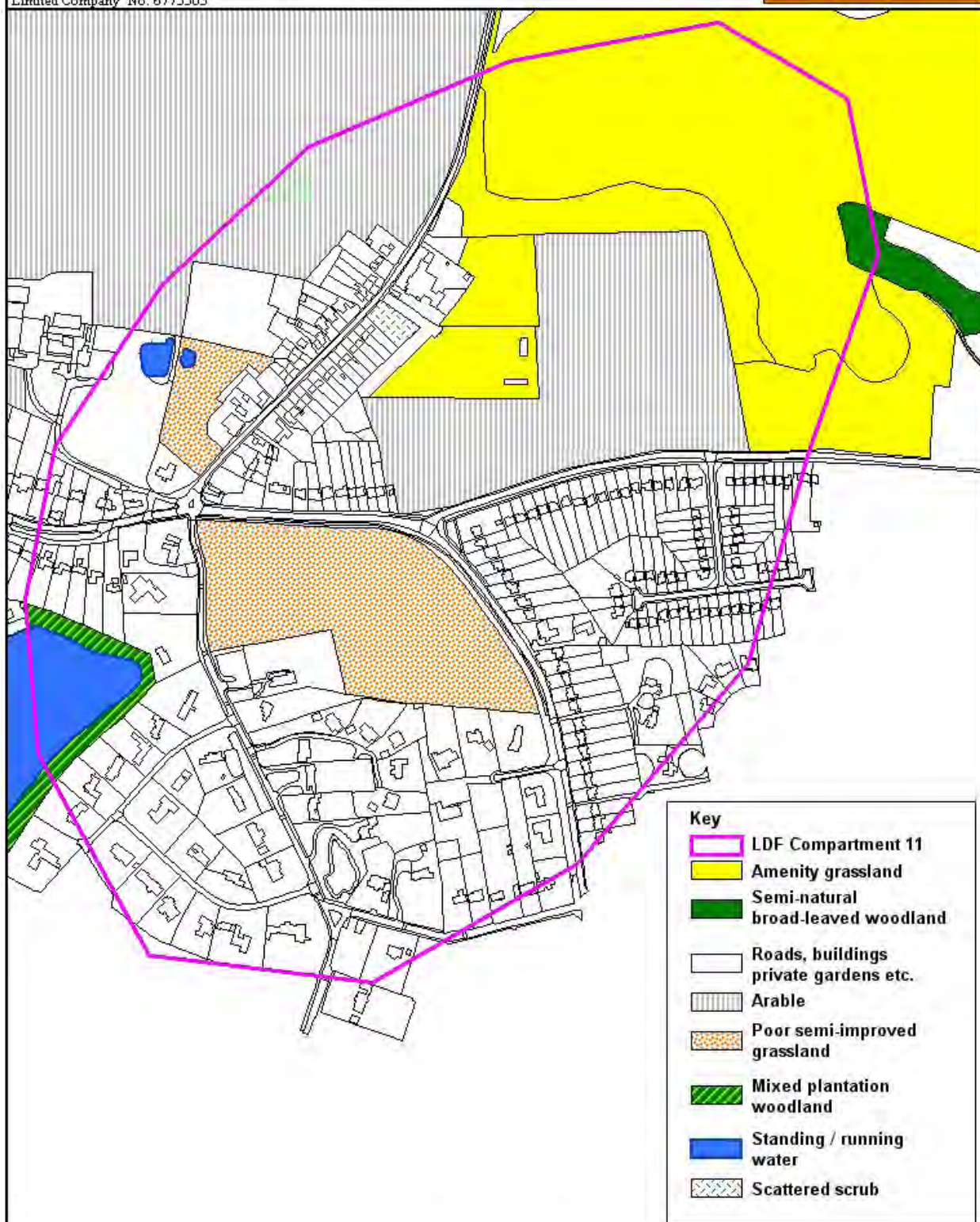
Retain open water habitats, possibly enhancing species-poor semi-improved grassland off Forge Lane and / or Walsall Road to create linking habitat.

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**LDF Compartment 11 -
Phase 1 habitat map****SES**

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2.12 Compartment 12: South of Little Aston

2.12.1 Designated Sites

There are no designated sites in the Compartment

2.12.2 Habitats

The main habitat of interest within the compartment is woodland. There is open water on the golf course and near Hingleys Coppice to the south west.

2.12.3 Protected species

English Name	Comments	Recommendations
Adder	Mainly species of heathland or heathy habitats in Staffordshire. Recorded from Streetly and Sutton Park area; mainly historic records. Most recent is 1990	Compartment may be suitable, as it is close to Sutton Park. Retain woodland and scrub habitat.
Brambling	Wintering species	Retain hedges and woodlands, or provide mitigatory habitat.
Eurasian Badger	Widespread and likely to be affected by development. Creates burrows (setts) in dry, usually sandy areas. Feeds on a wide range of insects, fruit etc.	Protect where possible; mitigation will depend on size and location of badger groups affected on any given site.
Fieldfare	Wintering species	As brambling
Noctule Bat	Mainly associated with trees, particularly old trees with holes for roosting.	Retain hedges and trees, including dead trees. Install bat boxes in young woodlands.
Redwing	Winter visitor, feeding in fields, hedges and orchards	Retain hedges and woodlands, or provide mitigatory habitat.

2.12.4 Biodiversity Action Plan species

English Name	Comments	Recommendations
August Thorn	Woodland and suburban habitats. Feeds on trees	Retain hedges and woodlands, or provide mitigatory habitat.
Brindled Beauty	Woodland and suburban species, feeds on broad leaved trees.	Retain hedges and woodlands, or provide mitigatory habitat.
Centre-barred Sallow	Moth feeding on ash trees in woodlands and hedges	Retain hedges and woodlands, or provide mitigatory habitat.
Common Linnet	Wide range of habitat, mainly farmland and grassland	Retain hedges and grassland habitats, especially marshy grassland
Common Toad	Records are now out of date, but area may still have populations of toads as this species returns to its ancestral ponds.	Retain ponds and suitable surrounding habitat. Create additional habitat.
Dusky Thorn	Woodland and suburban habitats. Feeds on ash trees.	Retain hedges and woodlands, or provide mitigatory habitat.
Neglected Rustic	Heathland species	Compartment may be suitable, as it is close to Sutton Park. Retain woodland and scrub habitat.
Northern Lapwing	Wetland and farmland	Retain and buffer suitable habitat. Provide compensatory habitat where suitable habitat is lost, including farmland.
Oak Hook-tip	Oak woodland and parkland, feeds on oak	Retain woodland and hedges.

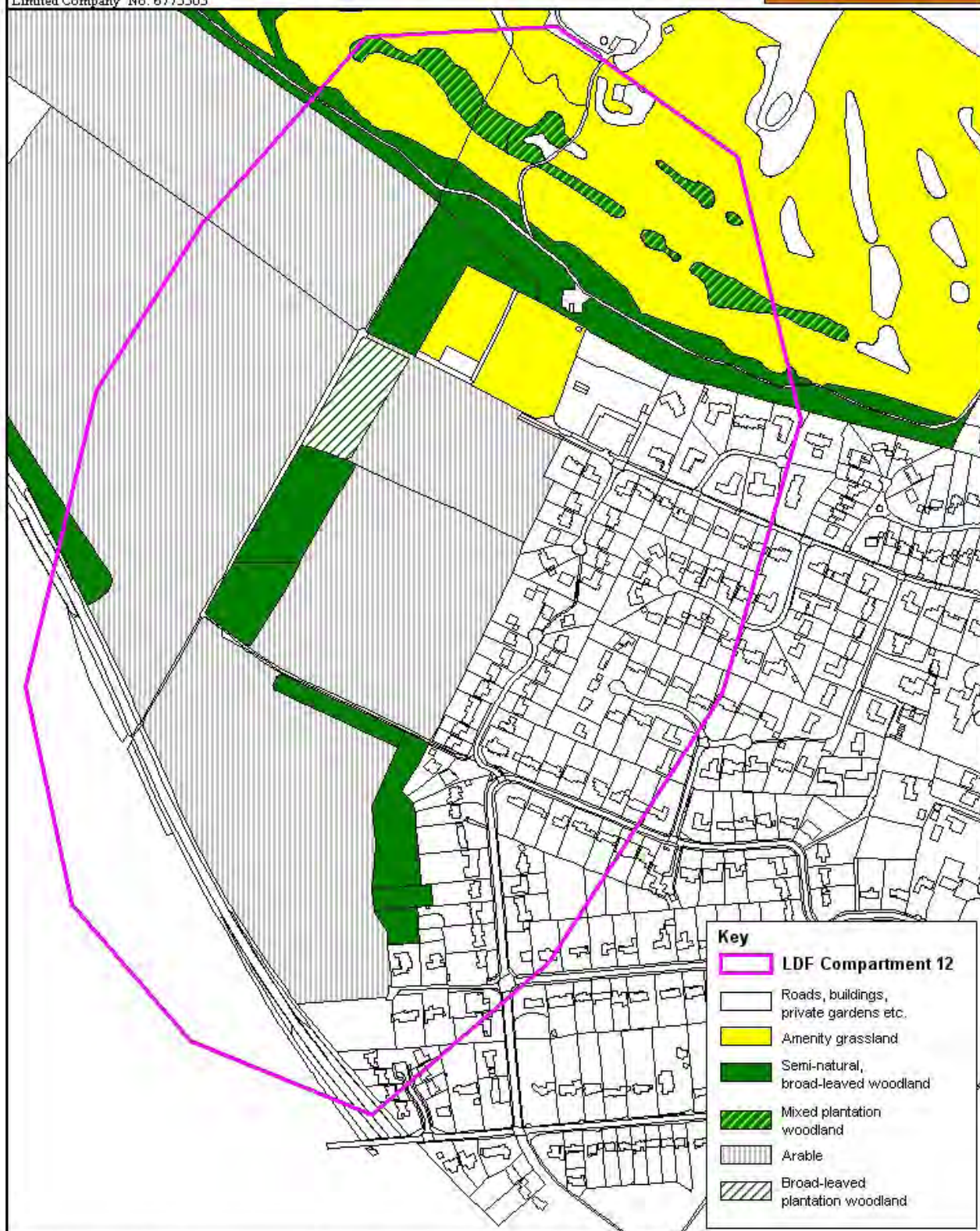
Reed Bunting	Wetland and farmland	As Lapwing
Shaded Broad-bar	Open habitats, feeding on clover and vetches	Retain and enhance grassland habitats
Sky Lark	Open grassland and other habitats	If area is developed, suitable habitat is likely to be lost, so mitigatory habitat should be provided
Willow Tit	Willow scrub and similar habitats	Retain hedges and woodlands, or provide mitigatory habitat.
Yellowhammer	Range of habitats, compartment likely to be suitable	Retain hedges, scrub and grassland habitats

2.12.5 Summary recommendations for compartment

Retain woodland and open water habitats, possibly enhancing arable land within the compartment to create linking habitat.

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Phase 1 habitat map****SES**
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Appendices

Appendix 1 – Summary Site Descriptions and Species Lists for Land at Rugeley Power Station

English Name	Latin Name	Comments	Year/s	Recommendations
Common Kingfisher	<i>Alcedo atthis</i>	Hill Ridware and golf course, probably on watercourses or open water	2003-2006	No specific recommendations
Common Tern	<i>Sterna hirundo</i>	Open water species recorded from Hill Ridware	2004	No specific recommendations
Eurasian Badger	<i>Meles meles</i>	Various locations in area, and likely to be affected by development	2000-2005	Mitigation will depend on size and location of badger groups affected on any given site.
Eurasian Hobby	<i>Falco subbuteo</i>	Tree nesting species, in a range of habitats.	2003-2004	No specific recommendations
Freshwater White-clawed Crayfish	<i>Austropotamobius pallipes</i>	Only recorded from one location in area, and record not recent	1993	No specific recommendations
Green Sandpiper	<i>Tringa ochropus</i>	Water edge species recorded from Hill Ridware	2000	Similar habitat present at Rugeley Power Station, so some compensatory habitat should be provided.
Little Plover	<i>Charadrius dubius</i>	Water edge species recorded from Hill Ridware	2000-2003	As above
Northern Pintail	<i>Anas acuta</i>	Open water species recorded from Hill Ridware	2002	As above
Peregrine Falcon	<i>Falco peregrinus</i>	Probably hunting over area. Nests on cliffs and tall buildings	2000	No specific recommendations
Pipistrelle	<i>Pipistrellus pipistrellus sensu lato</i>	Probably associated with housing and roosting in some houses; likely to be widespread in the area	1988-1994	New housing should ideally have a range of bat-friendly roof tiles and / or bricks. Natural habitat features for foraging should also be provided such as hedges; these would normally be provided within Green Infrastructure.
Polecat	<i>Mustela putorius</i>	Farmland and gardens. eat rabbits and rats.	1993	No specific recommendations
Red Bog-moss	<i>Sphagnum capillifolium</i>	Very old record for this species. Probably now absent	1921	No specific recommendations
Tundra Swan	<i>Cygnus columbianus</i>	Rare species not resident	2003	No specific recommendations
English Name	Latin Name	Comments	Year/s	Recommendations
Common Grasshopper Warbler	<i>Locustella naevia</i>	One nearby record only. Nests in scrub.	2008	No specific recommendations
Common Snipe	<i>Gallinago gallinago</i>	Wetland species recorded from Hill Ridware	2000-2004	Similar habitat may be present at Rugeley Power Station, and if so some compensatory habitat should be provided
Eurasian Tree Sparrow	<i>Passer montanus</i>	Open woodland and garden species.	2000-2001	Suitable habitat present at Rugeley Power Stations, so compensatory habitat should be provided
Northern Lapwing	<i>Vanellus vanellus</i>	Wetland species recorded from Hill Ridware	1995-2003	Similar habitat may be present at Rugeley Power Station, and if so some compensatory habitat should be provided
West European Hedgehog	<i>Erinaceus europaeus</i>	Probably widespread in area in a range of habitats	1977-2007	No specific recommendations
Yellow Wagtail	<i>Motacilla flava</i>	Wetland species, one record only from Hill Ridware	2005	No specific recommendations

Appendix 2 – Summary Site Descriptions and Species Lists for Armitage

Hood Lane Hedgerows Draft SBI Report

01/85/13

SK080151

Hedgerow 1

Hood Lane: Species rich intact hedgerow: J211

Length: 480.9 metres

Site Description - SBI

This Hedgerow is situated on the eastern boundary of Hood Lane which leads off the A51 into Armitage.

Structurally the hedge is valued in particular for its large height, good structure and large number of species in the hedge canopy, which was 13. The hedge has eleven standard trees along its length, one young tree and a small bank. With these assets it scored 1 on the HEGS scoring system. The modified HEGS form also yields the SBI score, which in this case was 16 and coupled with the HEGS score this hedge came out as a SBI.

This hedge has species such as Field Maple, Wych Elm which has become scarce due to Dutch elm disease and Ash. In the grass verge there was Meadowsweet, Greater Stitchwort, Wild Strawberry. Wood Speedwell, Yellow Archangel, Common Dog's Violet and Dog's Mercury. The hedge also had more common species Hawthorn and Bramble frequently along its length. This hedgerow hasn't been recently managed. Suggested management would be cutting it to an A-shape every 3 years ideally between January and February with periodic restoration to prevent formation of gaps. Grass verges of two metres should also be kept and trimmed outside of the bird nesting season ideally in June-July and cuttings should be removed to prevent improvement.

Hedgerow 3

Hood Lane: Species rich intact hedgerow: J211

Length: 407.7 metres

Site Description - SBI

This Hedgerow is situated on the eastern boundary of Hood Lane, which leads off the A51 into Armitage. It runs adjacent to Brick Kiln Farm.

Structurally the hedge is valued in particular for its large height, good structure and large number of species in the hedge canopy, which was 16. The hedge has eleven standard trees along its length and a small bank. With these assets it scored -1 on the HEGS scoring system. The modified HEGS form also yields the SBI score, which in this case was 13 and coupled with the HEGS score this hedge came out as a SBI.

This hedge has species such as Wild Cherry, Wych Elm (which has become scarce due to Dutch elm disease), Gooseberry, Wild Privet and Ash. In the grass verge there was Meadowsweet, Greater Stitchwort and Dog's Mercury. The hedge also had more common species Hawthorn and Bramble frequently along its length. This hedgerow hasn't been recently managed. Suggested management would be cutting it to an A-shape every 3 years ideally between January and February with periodic restoration to prevent formation of gaps. Grass verges of two metres should also be kept and trimmed outside of the bird nesting season ideally in June-July and cuttings should be removed to prevent improvement.

Hedgerow 4

Hood Lane: Species rich intact hedgerow: J211

Length: 407.7 metres

Site Description - SBI

This Hedgerow is situated on the western boundary of Hood Lane which leads off the A51 into Armitage. It runs opposite to Brick Kiln Farm.

Structurally the hedge is valued in particular for its good structure and large number of species in the hedge canopy, which was 14. The hedge has seventeen standard trees along its length and three young trees, which are beneficial to the regeneration of the hedge. There was a small ditch and a bank. With these assets it scored -1 on the HEGS scoring system. The modified HEGS form also yields the SBI score, which in this case was 15 and coupled with the HEGS score this hedge came out as a SBI.

This hedge has species such as Field Maple, Wych Elm (which has become scarce due to Dutch elm disease), Honeysuckle, Hop and Ash. In the grass verge there was Wild Strawberry, Greater Stitchwort, Meadow Vetchling, Hard rush and Dog's Mercury. The hedge also had more common species Hawthorn and Bramble frequently along its length. This hedgerow has been recently cut. Suggested management would be cutting it to an A-shape every 3 years ideally between January and February with periodic restoration to prevent formation of gaps. Grass verges of two metres should also be kept and trimmed outside of the bird nesting season ideally in June-July and cuttings should be removed to prevent improvement.

Biodiversity Action Plan Species

English Name	Latin Name	Comments	Year/s	Recommendations
Grey Partridge	Perdix perdix	Ground nesting in arable and other habitats, including rushy pastures.	2003	Grassland within development area is probably suitable habitat Any development should include suitable mitigation
West European Hedgehog	Erinaceus europaeus	Probably widespread in	1966-2008	No specific recommendations

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area

Appendix 3 – Summary Site Descriptions and Species Lists for Handsacre

Staffordshire Ecological Record SBI Report

01/86/63

Site Name:

**Trent and Mersey Canal: Armitage Church to
Tuppenhurst Road Bridge**

Locality Type:

Canals

Grid Ref.:

SK078165

GB Vice-County: Staffordshire

Civil Parish: Armitage with Handsacre (Lichfield, Staffordshire, England)

Keywords

Keyword

Details

Date

Original Recorder Code

329

no date

Biotopes (Habitats)

Code	Habitat	Area
A11	Woodland: broadleaved	0.08ha
A2	Scrub	0.16ha
B212	Grassland: neutral, unimproved, lowland	1.05ha
B52	Grassland: marshy, lowland	0.18ha
C11	Tall herb and fern: Bracken, continuous	
C2-3	Other tall herb and fern communities	
C31	Tall herb and fern: other, tall ruderal	
F21	Marginal/inundation: marginal	0.19ha
G125	Open water: canal	2.2km
J222	Boundaries, defunct hedge, species-poor	

Dimensions

Dimension

Value/units

altitude

70m

length

2.2km

Contacts

Contact information withheld.

Site Description

Source:

Cadman & Henshall, 2003

Summary: This 2.2km stretch of canal was surveyed from the towpath along the northern bank, the southern bank of the canal is adjoined by an industrial estate and housing. Adjacent to the northern bank lays arable fields separated from the canal by an almost continuous hedgerow. Much of the canal banks are sheet piled.

A narrow band of marginal vegetation is present along some sections of the canal, however in certain sections no marginal vegetation is present at all. Branched bur reed, reed canary grass and reed sweet grass were the most abundant species. The greatest amount of marginal vegetation is present along the southern bank and the bottom section near Tuppenhurst Road Bridge (SK095538- SK094613). Sweet flag, false fox sedge, gypsywort, marsh woundwort and meadow sweet were recorded in this section. Cyprus sedge, that is rare in the county was recorded in 1995, however it was not located during this survey (however the southern bank was not accessible). The canal appeared to be quite heavily used by boats, this may have affected the amount and quality of the marginal vegetation. No in channel or floating vegetation was observed.

The towpath and adjoining grassland strip is cut very short. It was noted that much of the marginal vegetation had also been strimed. It would be beneficial if a wider band of vegetation could be left between the canal and towpath, and marginal vegetation allowed to establish.

Source: **Radford, Dr Elaine, 1995**

Summary: This stretch of the canal has good bands of marginal vegetation along some of its length comprising mainly stands of sweet flag, branched bur-reed, reed canary grass, reed sweet-grass and in one locality, cyperus sedge which is rare in the county.

The towpath, which differs in width along its length, has a varied and diverse flora whose character differs from place to place. The extent to which the towpath vegetation is managed is also variable. This variation is described under each section, the canal having been divided into convenient lengths relating to physical feature such as bridges.

Fauna

Both mallard and moorhen breed along the canal and a local resident reported that swans, which were noted at the site, have bred successfully in the three previous seasons. A heron was observed in flight along the canal and a few common resident birds such as wren, seen along the hedgerows.

Bibliography

described **Cadman, D. & Henshall, S. (2003)**

Resurvey of Lichfield District; Staffordshire Wildlife Trust, Wolseley Bridge (2)

described **Radford, E. & Bryant, M. (1995)**

The SBI Resurvey of Lichfield 1995; Staffordshire Wildlife Trust, Sandon, Staffordshire

Staffordshire Ecological Record SBI Report

01/95/72

Site Name:

Tuppenhurst Lane (west of)

Locality Type:

**Neutral grassland
{B}**

Grid Ref.:

SK097152

Civil Parish: Armitage with Handsacre (Lichfield, Staffordshire, England)

Civil Parish: King's Bromley (Lichfield, Staffordshire, England)

Keywords

Keyword

Details

Date

Original Recorder Code

350022

no date

Biotopes (Habitats)

Code	Habitat	Area
A111	Woodland: broadleaved, semi-natural	0.82
A21	Scrub: dense/continuous	0.04
A22	Scrub: scattered	
B21	Grassland: neutral, unimproved	0.56
B5	Grassland: marsh/marshy grassland	1.67
F1	Swamp	0.09
F21	Marginal/inundation: marginal	

Dimensions

Dimension

Value/units

altitude

75-80m

size

3.18ha

Contacts

Contact information withheld.

Site Description

Source:

Cadman & Weightman, 2005

Summary: The site is located to the west of Tuppenhurst Lane, which is situated in the village of Handsacre, and runs parallel with the B5014. The site consists of an area of land that is located to the direct south of the Trent and Mersey Canal and to the northwest of Westview Cottages. The surrounding landscape consists of arable and improved grassland fields with networks of predominantly hawthorn hedgerows. The site supports a range of habitats that are uncommon in the Lichfield District area, including marshy grassland, unimproved grassland and swamp. The site covers an area of approximately 3 hectares and is dissected by a narrow ditch. The narrow ditch is covered by a dense, wooded canopy which is dominated by alder, with other species including hawthorn, goat willow, grey willow and, rarely, ash. The corresponding ground flora at the time of survey was sparse and predominantly limited to occasional occurrences of red campion, bramble and common nettle. Aquatic species were absent. To the west of the ditch the grassland appears to have escaped agricultural improvement and this, in combination with the high water table, has enabled a diverse assemblage of botanical species to prevail. This side of the site boasts a large region of marshy grassland and an area of unimproved neutral grassland. The marshy grassland is predominantly composed of huge swathes of tufted hair-grass, soft rush and sharp flowered rush. The habitat type also contains a wide selection of plant species that are associated with wet and marsh communities, these include marsh horsetail, marsh ragwort, ragged robin, meadowsweet, sneezewort, compact rush, great burnet and common marsh bedstraw. The marshy grassland sward also supports a variety of sedge species such as carnation, glaucous, hairy and, rarely, brown sedge. Scrub, in the form of hawthorn and alder, is also prevalent throughout the assemblage. To the south of the marshy grassland is a stand of unimproved neutral grassland. The unimproved neutral grassland supports vast swathes of common knapweed, with locally frequent stands of ribwort plantain, germander speedwell, meadow vetchling and red fescue. Bugle and ground ivy are also prominent nearer to the wooded ditch. On initial investigation the western side appears rank and currently displays signs of an absence of an appropriate management regime. The introduction of grazing is a priority for this area of the site. The introduction of grazing will prevent competitive species such as false oat-grass and cock's-foot from gaining a foothold and reducing the diversity of the site. Species such as creeping thistle, bramble and common nettle, which in small amounts are beneficial for a range of invertebrate species, also require controlling as they are beginning to form significant stands throughout the area. The western boundary of the site is composed of a line of mature trees, these comprise pedunculate oak, ash, blackthorn and alder. The eastern side of the ditch is very different in appearance to the western side. Marshy grassland is still the dominant habitat type but the species composition is noticeably different. Sedges in the form of hairy sedge and brown sedge, which is uncommon in Staffordshire, form large, dense stands while smaller stands of sharp-flowered rush and soft rush are intermingled throughout. Isolated pockets of meadowsweet are also scattered throughout the habitat. The southern area of the eastern side was fenced by an electric fence and had recently been grazed although stands of sharp-flowered rush were still evident. A narrow ditch occupies the eastern boundary of the site. The ditch was filled by a dense sward of reed canary-grass at the time of survey. Hawthorn scrub was also in evidence among this region. In the northern area of the eastern side the marshy grassland exhibits a selection of species, including great pond-sedge, which signifies a transitional zone heading to a large stand of swamp vegetation. The area of swamp is dominated by great pond-sedge which is uncommon in the County, with, in order of abundance, reed sweet-grass, meadowsweet and branched bur-reed. The stand of swamp vegetation merges into a neighbouring wet woodland community that occupies the northern region of the site that finishes south of the Trent and Mersey Canal towpath. Wet woodland is an increasingly uncommon habitat type both in the County and nationally. The wet woodland was surveyed from the neighbouring marshy grassland due to the high water levels. The woodland contains a range of canopy species that are indicative of wet woodland communities; alder is the dominant canopy species with frequent occurrences of crack willow and goat willow. Hawthorn was occasional but the woodland lacked a significant shrub layer. Other than the great pond-sedge assemblage, the ground flora at the time of survey was sparse and appeared to be limited to stands of bramble and common nettle. The present survey was carried out in the middle of October, despite which a significant species assemblage was recorded in the site. Ideally the site requires a spring/summer visit to give a more complete picture of the assemblage of vascular plants that the site supports.

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Lichfield Local Development Framework
Draft Ecological Study



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Staffordshire Wildlife Trust, Wolseley Bridge

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Protected species

English Name	Latin Name	Comments	Year/s	Recommendations
Arctic Tern	<i>Sterna paradisaea</i>	Winter visitor to open water	2005	No specific recommendations
Barn Owl	<i>Tyto alba</i>	Recorded in area over a long period. Species requires substantial areas of rough grassland and other suitable habitat to hunt over	1997-2008	SBI within compartment is probably suitable for hunting barn owls. Protect SBI and provide additional rough grassland.
Bat species	Chiroptera	Associated with housing	2004, 2006	Species not determined in records so no specific recommendations can be made.
Brambling	<i>Fringilla montifringilla</i>	Wintering species	2006	Retain hedges and woodlands, or provide mitigatory habitat.
Bullhead	<i>Cottus gobio</i>	Trentside Meadows	2003	No specific recommendations
Cetti's Warbler	<i>Cettia cetti</i>	Rare visitor	2004-2007	No specific recommendations
Common Frog	<i>Rana temporaria</i>	Probably widespread in area	2002	Protect ponds from development and / or mitigate by creating new ponds.
Common Kingfisher	<i>Alcedo atthis</i>	Found on wetland near to site, and may also use canal and other watercourses	2002-2007	Any watercourses within development site should be retained and enhanced, possibly by incorporation into SUDS
Common Pipistrelle	<i>Pipistrellus pipistrellus sensu stricto</i>	Associated with housing and roosting in some houses; likely to be widespread in the area	1998	New housing should ideally have a range of bat-friendly roof tiles and / or bricks. Natural habitat features for foraging should also be provided such as hedges; these would normally be provided within Green Infrastructure
Common Tern	<i>Sterna hirundo</i>	Species of open water recorded from Handsacre Flash	2007	No specific recommendations
Eurasian Badger	<i>Meles meles</i>	Probably widespread in area.	2000	Mitigation where possible; this will depend on size and location of badger groups affected on any given site.
Eurasian Hobby	<i>Falco subbuteo</i>	Rare, unlikely to nest in compartment.	2004, 2007	No specific recommendations
Eurasian Marsh Harrier	<i>Circus aeruginosus</i>	Rare visitor	2004	No specific recommendations
Eurasian Spoonbill	<i>Platalea leucorodia</i>	Rare visitor	1995	No specific recommendations
European Golden Plover	<i>Pluvialis apricaria</i>	Rare visitor	2002	No specific recommendations
European Otter	<i>Lutra lutra</i>	Recorded from along canal, but probably also uses other watercourses in area	2008	Any watercourses within development site, including canal, should be retained and enhanced, with creation of buffering habitat, and possibly by incorporation into SUDS
European Water Vole	<i>Arvicola terrestris</i>	Records are from Handsacre Flash area, but there is suitable habitat within the compartment	2001	As for otter
Fieldfare	<i>Turdus pilaris</i>	Winter visitor, feeding in a range of habitats	2002-2005	As for Brambling
Freshwater White-clawed Crayfish	<i>Austropotamobius pallipes</i>	Watercourses and ponds within the compartment may also be suitable. Main threat is from	1992-1995	Care should be taken with small streams, ponds and lakes not to introduce plants or animals from infected sources. These areas should not be connected with main rivers.

		crayfish plague. Populations in headwater streams and isolated ponds now most likely to be free from plague		
Garganey	Anas querquedula	Unlikely to nest in area	2006	No specific recommendations
Green Sandpiper	Tringa ochropus	Prefers open water e	2000- 2004	No specific recommendations
Little Egret	Egretta garzetta	Prefers open water	2007	No specific recommendations
Little Plover	Charadrius dubius	Requires shingle or gravel near to water	2002	No specific recommendations
Merlin	Falco columbarius	Rare visitor	2006	No specific recommendations
Osprey	Pandion haliaetus	Rare visitor	2000	No specific recommendations
Peregrine Falcon	Falco peregrinus	Rare visitor	2004, 2007	No specific recommendations
Pipistrelle	Pipistrellus pipistrellus sensu lato	As common pipistrelle	1995	As common pipistrelle
Polecat	Mustela putorius	Prefer woodland. One record only.	2000	No specific recommendations
Red Kite	Milvus milvus	Rare visitor	2006	No specific recommendations
Redwing	Turdus iliacus	Winter visitor, feeding in fields, hedges and orchards	2003	As for brambling
Tundra Swan	Cygnus columbianus	Rare visitor	2004	No specific recommendations
Whooper Swan	Cygnus cygnus	Rare visitor	2003, 2004	No specific recommendations

Biodiversity Action Plan Species

English Name	Latin Name	Comments	Year/s	Recommendations
Brown Hare	Lepus europaeus	Widely distributed in area, usually on arable or grassland	2001-8	If area is developed, suitable habitat is likely to be lost, so mitigatory habitat should be provided.
Cinnabar	Tyria jacobaeae	Feeds on ragwort and related plants, probably widespread in area.	2003	No specific recommendations
Common Bullfinch	Pyrrhula pyrrhula	Found in woodlands and hedgerows	2005	No specific recommendations
Common Cuckoo	Cuculus canorus	Range of habitat, including woods and hedges. Compartment likely to be suitable.	2002, 2007	Retain hedges, woodlands and grassland habitats, or provide mitigatory habitat.
Common Grasshopper Warbler	Locustella naevia	Marshland and scrub. Suitable habitat in and around SBI	2006, 2007	Retain hedges, scrub and grassland habitats, especially marshy grassland within SBI.
Common Linnet	Carduelis cannabina	Wide range of habitat, mainly farmland and grassland	2002- 2006	Retain hedges and grassland habitats, especially marshy grassland within SBI.
Common Snipe	Gallinago gallinago	Require wetland. Mainly confined to key sites.	2001-2007	Retain and buffer marshy grassland within SBI.
Common Starling	Sturnus vulgaris	Found in woodland, reedbeds and gardens	2002, 2003	No specific recommendations
Corn Bunting	Emberiza calandra	Arable and other habitat. One record only for Handsacre	2006	No specific recommendations
Dunnock	Prunella modularis	Wide range of habitats	2002, 2003	No specific recommendations
Eurasian Tree Sparrow	Passer montanus	Open woodland and gardens, compartment likely to be suitable	2001-2007	No specific recommendations
Harvest Mouse	Micromys minutus	Tall vegetation usually near	2003	Retain and buffer

		water. SBI may be suitable		suitable habitat, especially marshy grassland within SBI
House Sparrow	Passer domesticus	Prefers human habitation, probably widespread around area	2006	No specific recommendations
Northern Lapwing	Vanellus vanellus	Prefer wetland and open ground. Suitable habitat within site	2001-2007	Retain and buffer suitable habitat, especially marshy grassland within SBI.
Reed Bunting	Emberiza schoeniclus	Wetland and other habitats	2002-2007	Retain and buffer suitable habitat, especially marshy grassland within SBI.
Sky Lark	Alauda arvensis	Open grassland and other habitats.	2002,2003	If area is developed, suitable habitat is likely to be lost, so mitigatory habitat should be provided
Song Thrush	Turdus philomelos	Woodlands and well-established gardens	2003, 2007	No specific recommendations
Wall	Lasiommata megera	Species now mainly confined to coast. Inland habitats include short grassland and wasteland.	1998	No specific recommendations
West European Hedgehog	Erinaceus europaeus	Probably widespread in area in gardens, etc.	1977	No specific recommendations
Yellowhammer	Emberiza citrinella	Range of habitats, compartment likely to be suitable	2003, 2006	Retain hedges, scrub and grassland habitats

Appendix 4 – Area around Lichfield

Appendix 4a – Summary Site Descriptions and Species Lists for Compartment 4a: Alrewas

Staffordshire Ecological Record BAS Report

11/75/15

Site Name:

Alrewas, River Trent and Mill Stream

Locality Type:

Rivers and streams {B}

Grid Ref.: SK171155

GB Vice-County: Staffordshire

Civil Parish: Alrewas (Lichfield, Staffordshire, England)

Keywords

Keyword	Details	Date
Original Recorder Code	724	no date
Biodiversity Alert Site		no date

Biomes (Habitats)

Code	Habitat	Area
B212	Grassland: neutral, unimproved, lowland	0.12
B52	Grassland: marshy, lowland	0.39
F21	Marginal/inundation: marginal	
G2	Open water: running water	2.38
J222	Boundaries, defunct hedge, species-poor	

Dimensions

Dimension	Value/units
altitude	60m

Lichfield Local Development Framework
Draft Ecological Study



area

3ha

Contacts

Contact information withheld.

Site Description

Source:

Cadman & Henshall, 2003

Summary: The site comprises of a small area of marshy grassland, tall ruderals, a stretch of the River Trent and a small tributary called the Mill Stream. This area is one of the key sites in the Staffordshire Washlands Project. It is very valuable area as the meadows adjacent to the river are allowed to flood; this alleviates the flood pressure off near by towns and villages.

The section of the River Trent is deep and slow flowing, glide and ripple sequences feature throughout this section. The riverbanks are varied, in some places the banks are shallow with lots of marginal vegetation (branched bur-reed, reed sweet-grass and reed canary-grass), others are much steeper and are characterised by low exposed earth cliffs and little vegetation. Crack willow and alder are frequent along the bank tops. The Trent is used for fishing and the northeastern stretch is used for pleasure boating, here there is much less marginal vegetation. River water-crowfoot is frequent within the river channel.

The area of marshy grassland sandwiched between the two water courses has now become quite dry and has become dominated by ruderals, small amounts of reed sweet-grass, meadowsweet and gypsywort still persist.

The Mill Stream is very nice in places, because it is very slow flowing lots of emergent vegetation has established across much of the channel, fool's water-cress, brooklime, reed sweet-grass, and flote grass are abundant.

Source:

Radford, 1995

Summary: The site consists of a stretch of the River Trent, a tributary called the Mill Stream, which was probably originally constructed to provide a water source for a nearby mill, an area of marshy grassland between them and a small area of swamp on the edge of the Trent.

Both the Mill Stream and this stretch of the Trent support a quite diverse band of marginal vegetation, primarily of reed sweet-grass, with additionally species such as sweet flag, lesser pond-sedge and branched bur-reed. Unbranched bur-reed is abundant in the centre of the watercourses, which also support some yellow water lily, both these species being uncommon in Staffordshire. Arrowhead, another uncommon species, is frequent in the Mill Stream.

The marshy grassland is not extensive, and seems to be drying out. It is now dominated by nettles, but still retains some of the wetland flora. Meadow sweet, marsh woundwort, reed canary grass and branched bur-reed all occur frequently, and yellow iris and great hairy willowherb are occasional. There are few additional species, and those present tend to be other tall ruderals such as cow parsley and hemlock, although there is also a little valerian. There are also a few immature shrub seedlings scattered through the area.

This stretch of the Trent is used by pleasure boats, the Trent and Mersey Canal flowing into it, a short distance upstream. The canal towpath continues alongside the Trent, where in a band next to the watercourse, there is a quite species-rich, tall grassland sward consisting mainly of false oat-grass, and in places patches of reed canary grass. Additional species include tansy, which is abundant, together with great hairy willowherb, meadow vetchling, meadow sweet and red clover, all of which are locally frequent. A managed hawthorn hedge, through which white bryony scrambles, bounds the towpath.

On a bank at the edge of the towpath at the northern end of the site, there is a stand of common reed. A few additional species are present, mainly tall ruderals such as nettle, which is locally abundant.

Banded agrion damselflies were present in large numbers along the Trent, and one of the hawk dragonflies. Two additional species of Odonata were seen near the Mill Stream. Several common species of butterfly, such as peacock and small tortoiseshell, were also present, and were most numerous along the towpath. Mallard and domestic ducks were frequenting the Mill Stream.

Bibliography

unknown **Cadman, D. & Henshall, S. (2003)**

Resurvey of Lichfield District; Staffordshire Wildlife Trust, Wolseley Bridge (2)

unknown **Radford, E. & Bryant, M. (1995)**

The SBI Resurvey of Lichfield 1995; Staffordshire Wildlife Trust, Sandon, Staffordshire

Protected species

English Name	Latin Name	Comments	Year/s Recommendations
Adder	Vipera berus	Very old record	1882 No specific recommendations
Arctic Tern	Sterna paradisaea	Species of open water	2001 No specific recommendations
Barn Owl	Tyto alba	Species requires substantial areas of rough grassland and other suitable habitat to hunt over	2006 Grassland habitats within compartment are probably suitable for hunting barn owls. Protect semi-improved grassland or provide mitigation
Barnacle Goose	Branta leucopsis	Open water species	2007 No specific recommendations
Bar-tailed Godwit	Limosa lapponica	Open water species	2001 No specific recommendations
Bat species	Chiroptera	Probably house roost	1999 Species not determined therefore no specific recommendations
Black Redstart	Phoenicurus ochruros	Mainly an urban species in lowland Britain	2004 No specific recommendations
Black Tern	Chlidonias niger	Open water species	2000 No specific recommendations
Black-tailed Godwit	Limosa limosa	Open water species	2005 No specific recommendations
Brambling	Fringilla montifringilla	Wintering species	2004 Retain hedges and woodland
Brown Long-eared Bat	Plecotus auritus	Usually roosting in loft spaces	2008 Of particular concern where building alterations, including barn conversions are proposed.
Common Frog	Rana temporaria	Probably widespread in area	2001 Protect ponds from development and / or mitigate by creating new ponds
Common Goldeneye	Bucephala clangula	Open water species	2003 No specific recommendations
Common Greenshank	Tringa nebularia	Open water species	2003 No specific recommendations
Common Kingfisher	Alcedo atthis	Found on wetland near to site, and may also use canal and river	2003 Any watercourses within site should be retained and enhanced.
Common Pipistrelle	Pipistrellus pipistrellus sensu stricto	Associated with housing and roosting in some houses; likely to be widespread in the area	2008 New housing should ideally have a range of bat-friendly roof tiles and / or bricks. Natural habitat features for foraging should also be provided such as hedges; these would normally be provided within Green Infrastructure
Common Quail	Coturnix coturnix	Species of open land, not common in area	2000 No specific recommendations
Common Scoter	Melanitta nigra	Open water species	2005 No specific recommendations
Common Tern	Sterna hirundo	Open water species	2003 No specific recommendations
Corn Crake	Crex crex	Rare visitor	2001 No specific recommendations
Daubenton's Bat	Myotis daubentonii	Roosts in buildings and bridges. Frequently found near water.	1993 No specific recommendations
Eurasian Badger	Meles meles	Probably widespread in area.	2003 Mitigation where possible; this will depend on size and location of badger groups affected on any given site.
Eurasian Hobby	Falco subbuteo	Unlikely to nest in area	2008 No specific recommendations
European Golden Plover	Pluvialis apricaria	Rare visitor	2001 No specific recommendations
European Otter	Lutra lutra	Probably also uses all watercourses in area	2006 Any watercourses, including canal, should be retained and enhanced, with creation of buffering habitat, and possibly by incorporation into SUDS
Fieldfare	Turdus pilaris	Winter visitor, often seen along hedges	2003 Retain hedges and create new ones, especially with berry-bearing species
Freshwater White-clawed Crayfish	Austropotamobius pallipes	Main threat is from crayfish plague. Populations in headwater streams and isolated ponds now most likely to be free from plague	1996 Care should be taken with small streams, ponds and lakes not to introduce plants or animals from infected sources. These areas should not be connected with main rivers.
Great Egret	Ardea alba	Rare visitor	2003 No specific recommendations
Greater Scaup	Aythya marila	Rare visitor	2007 No specific recommendations
Green Sandpiper	Tringa ochropus	Open water species recorded from NMA	2004 No specific recommendations
Hoopoe	Upupa epops	Rare visitor recorded from Croxall Gravel Pits	2003 No specific recommendations

Little Egret	<i>Egretta garzetta</i>	Rare visitor Alrewas Junction Pit	2007 No specific recommendations
Little Gull	<i>Larus minutus</i>	Rare visitor Alrewas GP	2000 No specific recommendations
Little Plover	<i>Charadrius dubius</i>	Species of gravel pits, river shingle and open water.	2001 No specific recommendations
Mediterranean Gull	<i>Larus melanocephalus</i>	Open water species	2006 No specific recommendations
Merlin	<i>Falco columbarius</i>	Rare visitor recorded from NMA	2004 No specific recommendations
Noctule Bat	<i>Nyctalus noctula</i>	Mainly associated with trees, particularly old trees with holes for roosting.	2005 Retain hedges and trees, including dead trees. Install bat boxes in young woodlands.
Northern Pintail	<i>Anas acuta</i>	Open water species recorded from Croxall	2007 No specific recommendations
Osprey	<i>Pandion haliaetus</i>	Rare visitor on open water	2000 No specific recommendations
Peregrine Falcon	<i>Falco peregrinus</i>	Probably hunting over area. Nests on cliffs and tall buildings	2005 No specific recommendations
Pied Avocet	<i>Recurvirostra avosetta</i>	Rare visitor to open water.	2001 No specific recommendations
Pipistrelle	<i>Pipistrellus pipistrellus sensu lato</i>	As Common Pipistrelle	1994 As Common Pipistrelle
Pipistrelle Bat species	<i>Pipistrellus</i>	Record from NMA only	2003 As Common Pipistrelle
Polecat	<i>Mustela putorius</i>	One record from NMA, usually found in farmland and near habitation. Feed on rabbits and rats.	2002 No specific recommendations
Red Kite	<i>Milvus milvus</i>	Rare species recorded from NMA	2008 No specific recommendations
Redwing	<i>Turdus iliacus</i>	Winter visitor, often seen along hedges	2004 As fieldfare
Ruff	<i>Philomachus pugnax</i>	Visitor to open water	2001 No specific recommendations
Sandwich Tern	<i>Sterna sandvicensis</i>	Mainly an urban species in lowland Britain	2001 No specific recommendations
Short-eared Owl	<i>Asio flammeus</i>	Probably nesting in woodland and feeding over open land	2003 No specific recommendations
Smew	<i>Mergellus albellus</i>	Open water species	2008 No specific recommendations
Tundra Swan	<i>Cygnus columbianus</i>	Rare visitor recorded from NMA	2004 No specific recommendations
Whimbrel	<i>Numenius phaeopus</i>	Mainly an urban species in lowland Britain	2007 No specific recommendations
Whooper Swan	<i>Cygnus cygnus</i>	Mainly an urban species in lowland Britain	2003 No specific recommendations
Wood Sandpiper	<i>Tringa glareola</i>	Wading bird, passage migrant.	2000 No specific recommendations

Biodiversity Action Plan Species

English Name	Latin Name	Comments	Year/s	Recommendations
Brown Hare	<i>Lepus europaeus</i>	Widely distributed in area, usually on arable or grassland. A key area is around the NMA	2000-2007	Development on any land in this area should provide alternative habitat
Centre-barred Sallow	<i>Atethmia centrugo</i>	Moth feeding on ash trees in woodlands and hedges	2006	Retain woodlands and hedges, plant new hedges
Common Bullfinch	<i>Pyrrhula pyrrhula</i>	Most key bird sites in area	2005-2007	See recommendations for area
Common Grasshopper Warbler	<i>Locustella naevia</i>	Scrub	2006	Retain woodlands and hedges
Common Linnet	<i>Carduelis cannabina</i>	Widespread around area, farmland species	2001-2008	Development on any land in this area should provide alternative habitat
Common Snipe	<i>Gallinago gallinago</i>	Species of wet grassland and related habitats.	2000-2008	No wetland within site, so species probably dependant on other areas. No recommendations
Common Starling	<i>Sturnus vulgaris</i>	Found in woodland, reedbeds	2001 -	No specific recommendations

		and gardens	2008	
Common Toad	Bufo bufo	Records are now out of date, but Little Aston area may still have populations of toads as this species returns to its ancestral ponds. More recent records from NMA	1975, 2001	Retain ponds and suitable surrounding habitat. Create additional habitat.
Corn Bunting	Emberiza calandra	Widespread around area, farmland species	2000-2008	Development on any land in this area should provide alternative habitat
Dark-barred Twin-spot Carpet	Xanthorhoe ferrugata	Range of food plants	2006	No specific recommendations
Deep-brown Dart	Aporophyla lutulenta	Feed on grasses and scrub	2006	No specific recommendations
Depressed River Mussel	Pseudanodonta complanata	In Canal – unlikely to be affected by development	1998-1999	No specific recommendations
Dot Moth	Melanchra persicariae	Gardens, verges and waste ground. Range of food plants	2006	No specific recommendations
Dunnock	Prunella modularis	Wide range of habitats	2001-2007	No specific recommendations
Dusky Brocade	Apamea remissa	Wide range of habitats	2006	No specific recommendations
Dusky Thorn	Ennomos fuscantaria	Woodland and suburban habitats. Feeds on ash trees.	2006	No specific recommendations
Eurasian Curlew	Numenius arquata	Species of wet grassland and related habitats.	2003	No wetland within site, so species probably dependant on other areas. No recommendations
Eurasian Tree Sparrow	Passer montanus	Open woodland and garden species.	2001-2008	No specific recommendations
Ghost Moth	Hepialus humuli	Grassy areas, feeding on grasses and other plants.	2006	No specific recommendations
Goat Moth	Cossus cossus	1936 record	1936	No specific recommendations
Greater White-fronted Goose	Anser albifrons	Open water . Winter visitor	2003-4	No specific recommendations
Grey Partridge	Perdix perdix	Ground nesting in arable and other habitats, including rushy pastures. NMA only	2001-2008	No specific recommendations
Harvest Mouse	Micromys minutus	Tall vegetation usually near water.	2002-2007	Retain and buffer suitable habitat, especially marshy grassland
Hawfinch	Coccothraustes coccothraustes	Woodland species, feeding on shoots, seeds and fruits	2001	No specific recommendations
Herring Gull	Larus argentatus	Open water only, winter visitor	2003, 2007	No specific recommendations
House Sparrow	Passer domesticus	Species of gardens and farmland	2003-2007	No specific recommendations
Lesser Spotted Woodpecker	Dendrocopos minor	Woods, parkland and gardens	2002	No specific recommendations
Marsh Tit	Poecile palustris	Mainly found in broad leaved woodland	2005-2007	Retain woodlands
Minor Shoulder-knot	Brachylomia viminalis	Damp woodland and wetlands, feeding on willow.	2006	Retain woodlands
Mottled Rustic	Caradrina morpheus	Range of habitats, including gardens, feeding on herbaceous plants.	2006	No specific recommendations
Mouse Moth	Amphipyra tragopoginis	Range of habitats, feeding on herbaceous plants.	2006	No specific recommendations
Neglected Rustic	Xestia castanea	Heathland species	2006	Area unlikely to be suitable.
Northern Lapwing	Vanellus vanellus	Arable areas, grassland and wetlands. Probably breeding in area and widely recorded	2000-2008	Retain and buffer suitable habitat. Provide compensatory habitat where suitable habitat is lost, including farmland.
Oak Hook-tip	Watsonalla binaria	Oak woodland and parkland, feeds on oak	2006	Retain woodland and hedges.
Reed Bunting	Emberiza schoeniclus	Many wetlands in area, farmland and wetland species	2000-2007	As Northern Lapwing
Sallow	Xanthia icteritia	Range of habitats	2006	No specific recommendations
September Thorn	Ennomos erosaria	Woodland, parkland and gardens. Feeds on trees.	2006	No specific recommendations
Shaded Broad-bar	Scotopteryx chenopodiata	Open habitats, feeding on clover and vetches	2006	Retain and enhance grassland habitats
Shoulder-striped Wainscot	Mythimna comma	Wide range of habitats. Feeds on grasses	2006	No specific recommendations

Sky Lark	<i>Alauda arvensis</i>	Open grassland and other habitats	1985-2008	If area is developed, suitable habitat is likely to be lost, so mitigatory habitat should be provided
Small Heath	<i>Coenonympha pamphilus</i>	Wide range of habitats. Feeds on grasses	2001	Retain and enhance grassland habitats
Small Phoenix	<i>Ecliptopera silaceata</i>	Woodland and open habitats, feeds on willowherbs	2006	No specific recommendations
Small Square-spot	<i>Diarsia rubi</i>	Range of habitats, feeds on a range of plants	2006	No specific recommendations
Song Thrush	<i>Turdus philomelos</i>	Woods, hedges, parks and gardens	2003-2007	No specific recommendations
Spotted Flycatcher	<i>Muscicapa striata</i>	Mature trees, especially in open areas. Croxall NR	2007	Retain woodlands
Tree Pipit	<i>Anthus trivialis</i>	Trees in open areas, probably as passage species mainly in this area	2006	Habitat mainly unsuitable in the compartment.
Tubular Water-dropwort	<i>Oenanthe fistulosa</i>	Water or wetland species Old record from Wychnor Hall (north of)	1979	No specific recommendations
Wall	<i>Lasiommata megera</i>	Becoming rare inland as species now mainly confined to coast. Grassland and wasteland species	2000	Retain and enhance suitable habitat.
West European Hedgehog	<i>Erinaceus europaeus</i>	Probably widespread in area in gardens, etc.	2008	No specific recommendations
White Ermine	<i>Spilosoma lubricipeda</i>	Widespread – feeds on a variety of plants.	2006	No specific recommendations
Willow Tit	<i>Poecile montanus</i>	Willow scrub and similar habitats	2001-2007	Retain woodlands and scrub
Yellow Wagtail	<i>Motacilla flava</i>	Wetland species, recorded from NMA, Croxall	2000-2008	No specific recommendations
Yellowhammer	<i>Emberiza citrinella</i>	Range of habitats, compartment likely to be suitable	2001-2008	Retain hedges, scrub and grassland habitats

***Appendix 4b – Summary Site Descriptions and Species Lists for Compartment 4b:
Fradley Village***

Hay End Lane Hedgerows BAS report

11/53/06

SK150136

Hay End Lane: Species rich intact hedgerow: J211

Length: 873.7 metres

This Hedgerow is situated on Hay End Lane off Sale Lane and leading towards Fradley. The SBI 'King's Bromley Wharf to Fradley Junction, along Coventry Canal' is to the North of Hay End Lane.

Structurally the hedge is valued in particular for its large height and width and A-shape. The hedge had twenty-nine standard trees along its length and two young trees. The hedge also had a grass verge of over two metres on one side and a ditch. With these assets it scored 1 on the HEGS scoring system. The modified HEGS form also yields the SBI score, which in this case was 11 and coupled with the HEGS score this hedge came out as a BAS.

This hedge has species such as Raspberry, Field Maple, Crab Apple and White Bryony. Greater Stitchwort was found in the grass verge. The hedge also had more common species Hawthorn and Bramble frequently along its length. This hedgerow hasn't been recently managed. Suggested management would be cutting it to an A-shape every 3 years ideally between January and February with periodic restoration to prevent formation of gaps. Grass verges of two metres should also be kept and trimmed outside of the bird nesting season ideally in June-July and cuttings should be removed to prevent improvement.

Protected species

English Name	Latin Name	Comments	Year/s Recommendations
Adder	Vipera berus	Old record from Sutton Park	1882 No specific recommendations
Arctic Tern	Sterna paradisaea	Open water species	2001 No specific recommendations
Barn Owl	Tyto alba	Species requires substantial areas of rough grassland and other suitable habitat to hunt over	2006 Grassland habitats within compartment are probably suitable for hunting barn owls. Protect semi-improved grassland and hedges or provide mitigation.
Bat Species	Chiroptera	Species not determined	1999 No specific recommendations
Black Redstart	Phoenicurus ochruros	Mainly an urban species in lowland Britain	1993 No specific recommendations
Brambling	Fringilla montifringilla	Wintering species, feeding in hedges and woodlands	2004 Retain hedges and woodlands, or provide mitigatory habitat.
Brown Long-eared Bat	Plecotus auritus	Usually roosting in loft spaces	2008 Of particular concern where building alterations, including barn conversions are proposed.
Common Frog	Rana temporaria	Probably widespread in area	2005 Protect ponds from development and / or mitigate by creating new ponds

Common Goldeneye	<i>Bucephala clangula</i>	Open water species	2003 No specific recommendations
Common Kingfisher	<i>Alcedo atthis</i>	Recorded from Fradley Junction. Requires watercourses or open water	2005 Provide buffering habitat along canal and other watercourses
Common Pipistrelle	<i>Pipistrellus pipistrellus sensu stricto</i>	Probably associated with housing and roosting in some houses; likely to be widespread in the area	2008 New housing should ideally have a range of bat-friendly roof tiles and / or bricks. Natural habitat features for foraging should also be provided such as hedges; these would normally be provided within Green Infrastructure
Common Quail	<i>Coturnix coturnix</i>	Species of open land, not common in area	2000 No recommendations
Common Scoter	<i>Melanitta nigra</i>	Open water species	2005 No recommendations
Corn Crane	<i>Crex crex</i>	Rare visitor	2001 No recommendations
Daubenton's Bat	<i>Myotis daubentonii</i>	Roosts in buildings and bridges. Frequently found near water.	1993 Protect open water and suitable built features
Eurasian Badger	<i>Meles meles</i>	Probably widespread in area.	2008 Mitigation where possible; this will depend on size and location of badger groups affected on any given site.
European Golden Plover	<i>Pluvialis apricaria</i>	Rare visitor	2003 No recommendations
European Otter	<i>Lutra lutra</i>	Probably uses all watercourses in area	2006 Any watercourses, including canal, should be retained and enhanced, with creation of buffering habitat, and possibly by incorporation into SUDS
European Water Vole	<i>Arvicola terrestris</i>	Canal and other watercourses may provide suitable habitat	2002 As for otter
Fieldfare	<i>Turdus pilaris</i>	As brambling	2003 Retain woodlands and hedges
Glossy Ibis	<i>Plegadis falcinellus</i>	Visitor to open water	1905 No recommendations
Great Crested Newt	<i>Triturus cristatus</i>	Species breeds in still, open water and uses a range of habitats at other times of year. Recorded from Fradley Business Park	2005 Protect ponds and surrounding habitats
Great Egret	<i>Ardea alba</i>	Visitor to open water	2003 No recommendations
Greater Scaup	<i>Aythya marila</i>	Visitor to open water	2007 No recommendations
Green Sandpiper	<i>Tringa ochropus</i>	Water edge species recorded from Alrewas Pit	2007 No specific recommendations
Little Plover	<i>Charadrius dubius</i>	Water edge species recorded from, e.g. Whitemoor Haye	2001 No specific recommendations
Merlin	<i>Falco columbarius</i>	Rare visitor	2007 No recommendations
Noctule Bat	<i>Nyctalus noctula</i>	Mainly associated with trees, particularly old trees with holes for roosting.	2005 Retain hedges and trees, including dead trees. Install bat boxes in young woodlands.
Peregrine Falcon	<i>Falco peregrinus</i>	Probably hunting over area. Nests on cliffs and tall buildings	2003 No specific recommendations
Pipistrelle	<i>Pipistrellus pipistrellus sensu lato</i>	As Common pipistrelle	1990 As Common Pipistrelle
Red Kite	<i>Milvus milvus</i>	Rare visitor	2008 No recommendations
Redwing	<i>Turdus iliacus</i>	Winter visitor feeding along hedges and in fields Little Aston (west)	2004 Retain hedges and woodlands, or provide mitigatory habitat
Ruff	<i>Philomachus pugnax</i>	Visitor to open water	2001 No recommendations
Short-eared Owl	<i>Asio flammeus</i>	Probably nesting only in upland areas in Staffs. Visitor elsewhere, feeding over open land	2003 No recommendations
Spiky Bog-moss	<i>Sphagnum squarrosum</i>	Pool Wood and Fradley Reservoir	1995 Protect site on which this species found, ensuring hydrology of the site is also protected.

Whiskered Bat	Myotis mystacinus	Summer roosts in trees and buildings. May hibernate in caves or tunnels. Prefers woodlands for feeding, often near water	2001 Retain mature trees and protect suitable built features. Retain woodlands or provide mitigation
Whooper Swan	Cygnus cygnus	Rare visitor to open water	2006 No specific recommendations

Biodiversity Action Plan Species

English Name	Latin Name	Comments	Year/s	Recommendations
August Thorn	Ennomos quercinaria	Woodland and suburban habitats. Feeds on trees		2006 No specific recommendations
Beaded Chestnut	Agrochola lychnidis	Feeds on a range of plants	1994	2006 No specific recommendations
Brindled Beauty	Lycia hirtaria	Woodland and suburban species, feeds on broad leaved trees.		2006 Retain woodlands or provide mitigation
Brown Hare	Lepus europaeus	Widely distributed in area, usually on arable or grassland	1965-2006	If area is developed, suitable habitat is likely to be lost, so mitigatory habitat should be provided
Brown-spot Pinion	Agrochola litura	Woodland, heathland and suburban habitats, feeding on herbaceous plants and trees.		2002 No specific recommendations
Buff Ermine	Spilosoma luteum	Widespread, feeds on a range of plants	199, 1996	As above
Centre-barred Sallow	Atethmia centrargo	Moth feeding on ash trees in woodlands and hedges		2006 As brindled beauty
Cinnabar	Tyria jacobaeae	Probably widespread in area. Feeds on ragwort and similar plants	1992, 2006	No specific recommendations.
Common Linnet	Carduelis cannabina	Farmland species	2001-2008	Development on any land in this area should provide alternative habitat
Common Snipe	Gallinago gallinago	Species of wet grassland and related habitats.		2006 No wetland within site, so species probably dependant on other areas. No recommendations
Common Starling	Sturnus vulgaris	Found in woodland, reedbeds and gardens	2004-2008	No specific recommendations
Common Toad	Bufo bufo	Several locations in area Little Aston, Alrewas and a balancing pond at Fradley Business Park.	1975-2005	Retain ponds and suitable surrounding habitat. Create additional habitat.
Corn Bunting	Emberiza calandra	Widespread around area, farmland species	2001-2008	Development on any land in this area should provide alternative habitat
Dark-barred Twin-spot Carpet	Xanthorhoe ferrugata	Range of food plants	1992-2006	No specific recommendations
Depressed River Mussel	Pseudanodonta complanata	In Canal – unlikely to be affected by development		1998 No specific recommendations
Dot Moth	Melanchra persicariae	Found in a range of suburban habitats, feed on a variety of plants.	1992, 2006	No specific recommendations
Dunnock	Prunella modularis	Wide range of habitats	2003, 2004	No specific recommendations
Dusky Brocade	Apamea remissa	Wide range of habitats		2006 No specific recommendations
Dusky Thorn	Ennomos fuscantaria	Woodland and suburban habitats. Feeds on ash trees	2002, 2006	No specific recommendations
Eurasian Curlew	Numenius arquata	Species of wet grassland and related habitats.		2003 No wetland within site, so species probably dependant on other areas. No recommendations
Eurasian Tree Sparrow	Passer montanus	Open woodland and garden species. Widespread in area	2003-2008	No specific recommendations
Garden Dart	Euxoa nigricans	Range of habitats including gardens and waste ground.	1992, 1994	No specific recommendations
Garden Tiger	Arctia caja	Range of habitats and food plants		1992 No specific recommendations
Ghost Moth	Hepialus humuli	Grassy areas, feeding on grasses and other plants.	1992- 2006	No specific recommendations
Goat Moth	Cossus cossus	Old record		1936 No specific recommendations
Greater White-fronted Goose	Anser albifrons	Rare visitor		2003 No specific recommendations
Green-brindled Crescent	Allophyes oxyacanthae	Woodland, hedgerows and suburban areas, feeding on		1994 Retain woodlands and hedges

		trees.		
Grey Dagger	<i>Acronicta psi</i>	Range of habitats, feeding on trees	2002	No specific recommendations
Grey Partridge	<i>Perdix perdix</i>	Ground nesting in arable and other habitats, including rushy pastures.	2000-2008	Provide compensatory areas where suitable habitat, such as farmland, is lost.
Grizzled Skipper	<i>Pyrgus malvae</i>	Warm places in sparse vegetation on a range of habitats. Feeds on plants of the rose family.	2002	No specific recommendations
House Sparrow	<i>Passer domesticus</i>	Species of gardens and farmland	2003-2007	No specific recommendations
Latticed Heath	<i>Chiasmia clathrata</i>	Open habitats, feeding on clover and similar plants	1992	No specific recommendations
Minor Shoulder-knot	<i>Brachylomia viminalis</i>	Damp woodland and wetlands, feeding on willow.	2006	Habitats within compartment unlikely to be suitable
Mottled Rustic	<i>Caradrina morpheus</i>	Range of habitats, including gardens, feeding on herbaceous plants.	2006	No specific recommendations
Mouse Moth	<i>Amphipyra tragopoginis</i>	Range of habitats, feeding on herbaceous plants.	2002, 2006	No specific recommendations
Neglected Rustic	<i>Xestia castanea</i>	Heathland species	2006	Habitats within compartment unlikely to be suitable
Northern Lapwing	<i>Vanellus vanellus</i>	Wetland and arable species. Suitable habitat is present in area	2002-2008	Retain and buffer suitable habitat. Provide compensatory habitat where suitable habitat is lost, including farmland.
Oak Hook-tip	<i>Watsonalla binaria</i>	Oak woodland and parkland, feeds on oak	2002 – 2006	Retain woodland and hedges.
Reed Bunting	<i>Emberiza schoeniclus</i>	As Northern Lapwing	2002-2007	As Northern Lapwing
Rosy Minor	<i>Mesoligia literosa</i>	Grassland, feeding on grasses	2002	Retain and enhance grassland habitats, or provide mitigation
Rustic	<i>Hoplodrina blanda</i>	Range of habitats, including gardens, feeding on herbaceous plants.	1994	No specific recommendations
Sallow	<i>Xanthia icteritia</i>	Damp woodland and other marshy places, feeding on willow and other plants.	2006	Habitats within compartment unlikely to be suitable
September Thorn	<i>Ennomos erosaria</i>	Woodland, parkland and gardens. Feeds on trees.	2002, 2006	No specific recommendations
Shaded Broad-bar	<i>Scotopteryx chenopodiata</i>	Open habitats, feeding on clover and vetches	1992, 2006	Retain and enhance grassland habitats, or provide mitigation
Shoulder-striped Wainscot	<i>Mythimna comma</i>	Wide range of habitats. Feeds on grasses	1994, 2006	No specific recommendations
Sky Lark	<i>Alauda arvensis</i>	Open grassland and other habitats	1995-2007	If area is developed, suitable habitat is likely to be lost, so mitigatory habitat should be provided
Small Heath	<i>Coenonympha pamphilus</i>	Wide range of habitats. Feeds on grasses	1997	No specific recommendations
Small Phoenix	<i>Ecliptopera silaceata</i>	Woodland and open habitats, feeds on willowherbs	2002, 2006	No specific recommendations
Small Square-spot	<i>Diarsia rubi</i>	Range of habitats, feeds on a range of plants	2006	No specific recommendations
Song Thrush	<i>Turdus philomelos</i>	Woods, hedges, parks and gardens	2005, 2006	No specific recommendations
Wall	<i>Lasiommata megera</i>	Becoming rare inland as species now mainly confined to coast. Grassland and wasteland species.	1996-2004	Retain and enhance suitable habitat
West European Hedgehog	<i>Erinaceus europaeus</i>	Probably widespread in area in gardens, etc.	2008	No specific recommendations
White Ermine	<i>Spilosoma lubricipeda</i>	Widespread – feeds on a variety of plants.	2006	No specific recommendations
White-letter Hairstreak	<i>Satyrrium w-album</i>	East of A38 at Fradley, relies on Elm. Likely to be within compartment if elm is present.	1996-2004	Where woodland and hedges contain elm, protect from development
Willow Tit	<i>Poecile montanus</i>	Willow scrub and similar habitats	2001-2003	Habitats within compartment unlikely to be suitable
Yellow Wagtail	<i>Motacilla flava</i>	Wetland species,	2003-2006	Retain and enhance wetland habitats.
Yellowhammer	<i>Emberiza citrinella</i>	Range of habitats, compartment likely to be	2002-2008	Retain hedges, scrub and grassland habitats

suitable

**Appendix 4c – Summary Site Descriptions and Species Lists for Compartment 4:
Fradley Business Park**

Staffordshire Ecological Record BAS Report

11/33/96

Site Name:

Fradley Wood

Locality Type:

Grid Ref.: SK139136

GB Vice-County: Staffordshire

Civil Parish: Alrewas (Lichfield, Staffordshire, England)

Keywords

Keyword	Details	Date
Original Recorder Code	718	no date
Biodiversity Alert Site		no date

Biotopes (Habitats)

Code	Habitat	Area
A1121	Woodland: broadleaved, plantation, high forest	
A1221	Woodland: coniferous, plantation, high forest	
A2	Scrub	
B112	Grassland: acidic, unimproved, lowland	
B212	Grassland: neutral, unimproved, lowland	
C31	Tall herb and fern: other, tall ruderal	
F21	Marginal/inundation: marginal	
J222	Boundaries, defunct hedge, species-poor	
J262	Boundaries, seasonally wet ditch	

Dimensions

Dimension	Value/units
altitude	60m

Contacts

Contact information withheld.

Site Description

Source: **Radford & Bryant, 1995**

Summary: Fradley Wood formerly occupied an extensive area beside the Coventry and Trent and Mersey canals where they join at Fradley Junction. These canals provide a link to other woodlands in the area. It has since been reduced in extent, with much of the central area felled and currently planted with arable crops or left fallow. Part has been put down to grass and is cattle-grazed. A public footpath runs through the site with a substantial block of woodland directly to its south west and more fragmented, regular-shaped, woodland blocks to the north east. Woodland to the north east of the public footpath.

Most of the woodland blocks to the north east of the footpath are very dense and are dominated by even-aged, rather spindly and quite immature, silver birch. Additional canopy species include occasional oak, sycamore and alder, found especially on the wetter soils near the confluence of drains in the block parallel to the Coventry Canal. A small stand of Italian black poplar has been planted in the north-eastern corner of the area, near Fradley Junction, while narrow strips with mature oak or sycamore have been retained along the woodland edges adjoining or facing the canals.

A range of undershrubs including holly, rowan and hazel, are scattered beneath these trees and there is generally a vigorous and rather species poor ground layer of bramble with frequent fronds of broad buckler-fern. Throughout this area, interspersed amongst the bramble are localised stands of bracken and grassy patches dominated by either Yorkshire fog or wavy hair-grass. Occasionally a little purple moor-grass is present in the community, while climbing corydalis, an uncommon species in the county, occurs in small quantities in one locality.

The two isolated blocks in the centre have been planted with conifers although small stands of

birch are also present. Beneath the dense shade of the conifers the ground supports little vegetation, but on the edges and beneath the birch bramble, nettles or bracken cover the ground. Pheasant feeders have been placed on the edges of these blocks.

In two, small open areas on the woodland edge tall herb communities have developed. That nearest rosebay willowherb and a dense, small patch of bramble scrub dominate the Coventry Canal is located nearby. The other area is on a steep mound of spoil and is primarily of nettles. Pheasant feeders are located here.

Drains run along the edges of these woodland blocks and are often dry or have very little standing water and support few wetland plants. A shaded pond within the woodland block adjoining the Coventry Canal is stagnant but has a little soft rush around its margins. A second very steep-sided pond has recently been dug but as yet remains unvegetated.

Acid grassland now occupies a cleared area on the corner of the most southerly block of woodland. Its is characterised by Yorkshire fog and wavy hair-grass accompanied by a little sheep's sorrel and heath woodrush. Tree seedlings are scattered through this area and foxgloves are conspicuous nearest the edge adjoining the woodland.

A row of young hawthorn have been planted on one edge of this southern block to eventually provide a boundary hedge.

Woodland to the south-west of the public footpath:

This woodland is divided into several blocks, often by wet drains. It mostly consists of conifer plantation, much of which has recently been felled. This site includes Brokendown Wood on the opposite side of the canal. Only two blocks of the original woodland remain and probably account for less than a third of the total area, these are 1 Fradley Gorse, adjacent to the canal and 2: a central oak dominated block.

(1) Fradley Gorse is characterised by a canopy of old hawthorn with locally dominant common oak and silver birch. Sycamore and elder are frequent in the shrub layer with occasional rowan, hazel and guelder rose. Oak and bilberry dominate the canal bank. The ground flora is dominated by bramble with locally abundant nettle, Yorkshire fog, wavy hair-grass, foxglove, wood sage, broad buckler fern and male fern.

(2) The oak dominated block to the south-east of here forms a similar woodland community, though hawthorn only occurs occasionally in the shrub layer, which is dominated by hazel with frequent wych elm and rowan. There has been localised coppicing of hazel and some thinning of the even-aged oak standards. The ground flora is similar to that in Fradley Gorse, though appears more disturbed. Common dog violet is locally abundant here. This wood is joined to Fradley Gorse by the two strips of birch/sycamore woodland. There is a mixture of trees and shrubs present including common oak, common willow, elder, hazel, wych elm, raspberry and broom. Bracken and Yorkshire fog with abundant rosebay willowherb dominate the ground layer. Between these wooded strips is an area of damp ground covered in tall ruderal herbs, soft rush, Yorkshire fog, broad-leaved dock, marsh thistle, spear thistle, sheep's sorrel, creeping buttercup, rosebay willowherb, wavy bittercress and lesser stitchwort being the most prominent species.

To the north-east are two adjacent blocks of pine plantation with localised growth of secondary birch. Dense young birch and rowan dominate the discontinuous shrub layer. Bracken and bramble with frequent foxglove and broad buckler fern make up the ground layer. The block, which abuts Fradley Gorse, has a less pronounced shrub layer. There is a large pheasant pen with outlying feeders towards the northern edge in which the ground flora is suppressed.

The blocks of felled conifers on the eastern and southern sides of the woodland are of little interest. There are remnants of ground flora similar to that in the rest of the wood as well as dotted spindly trees, which were obviously in the previous understorey. Species include rowan, common oak, ash, holly and elder. In the eastern section some of the oaks have blown over. The southern section has been felled most recently and has very little ground flora.

A series of deep wet drains dissect this part of the site and in places support some interesting species. These include carpets of *Polytrichum formosum*, heath and field woodrush, soft rush, common figwort, bog stitchwort and localised dog's mercury and cowslip, which occur mostly on the richest drain between SK135133 and SK137135.

Brokendown Wood:

This is a fairly old pine plantation with many fallen pines and frequent silver birch in the canopy. There is no real shrub layer, although younger dense birch is locally frequent and elder occasional. The ground layer is sparse consisting mostly of localised bracken, bramble, Yorkshire fog, wavy hair-grass and rosebay willowherb, with frequent foxglove, broad buckler fern and birch seedlings. A large pheasant enclosure exists in the centre of the wood. There is a thin remnant of common oak and wavy hair-grass woodland running along the wood's western side, where there is a bordering wet ditch. Localised in this drain is a wetland community of bulrush, field horsetail, soft rush, bittersweet and creeping buttercup. Just inside the wood parallel with the canal runs a wettish, Yorkshire fog dominated ride with patches of soft rush.

Bordering the canal is another woodland remnant dominated by birch and sycamore, but with frequent oak and occasional coppiced hazel. Brambles and ruderal herbs with much red campion and greater stitchwort dominate the ground layer. Male fern and the rare soft shield-fern grow in

this bank. In front of this and immediately adjacent to the canal is the towpath community which contains a mix of remnant neutral grassland and wetland species including pignut, ribwort plantain, bird's-foot trefoil, red fescue, giant fescue, cuckooflower, oval sedge, soft rush, angelica and water figwort.

Bibliography

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The SBI Resurvey of Lichfield 1995; Staffordshire Wildlife Trust, Sandon, Staffordshire

Staffordshire Ecological Record SBI Report

Staffordshire
Ecological
Record

11/23/84

Site Name:

**Trent and Mersey Canal and Coventry Canal,
King's Bromley Wharf to Fradley Junction and,
Fradley Junction to Fradley Bridge**

Locality Type:

Canals

Grid Ref.:

SK128134

GB Vice-County: Staffordshire

Civil Parish: Alrewas (Lichfield, Staffordshire, England)

Civil Parish: King's Bromley (Lichfield, Staffordshire, England)

Keywords

Keyword

Details

Date

Original Recorder Code

715

no date

Biotopes (Habitats)

Code	Habitat	Area
A1111	Woodland: broadleaved, semi-natural, high forest	1.25ha
B212	Grassland: neutral, unimproved, lowland	1.49ha
B52	Grassland: marshy, lowland	0.3ha
F21	Marginal/inundation: marginal	
G1	Open water: standing water	3.4km

Dimensions

Dimension	Value/units
altitude	70m
length	3.4km

Contacts

Contact information withheld.

Site Description

Source:

Cadman & Henshall, 2003

Summary: This site encompasses a section of the Trent and Mersey Canal and the Coventry Canal. The marginal and bankside vegetation throughout the site is varied, if not a little over managed in places.

The northern section of the site passes past the Ravenshaw Wood, Black Slough and the Slaish woodland complex. A small woodland compartment is located adjacent to the canal. Rice's Gorse is predominantly pedunculate oak woodland. Larch is also frequent amongst the canopy species. A sub-canopy consists of hazel, ash, hawthorn and silver birch. The woodland was surveyed from the canal towpath, as ownership was unknown. The field layer is dominated by bramble throughout, but remote sedge, honeysuckle and male fern are also frequent.

The stretch of canal from the Old Milk Factory to Fradley Junction has, in places, a wide towpath, much of which is bordered by a hawthorn hedge. The marginal vegetation along this section consists of a selection of common and uncommon macrophytic species. Extensive areas are comprised of meadowsweet, skullcap, hemp agrimony, flowering rush, false fox sedge, water

figwort and water dock. The towpath grassland contains knapweed, pignut, marsh thistle, common sorrel, red clover and meadow vetchling.

The section of canal on the Coventry canal between Fradley Junction and Fradley Bridge is equally diverse and comprises a wide lush marginal component. Lesser pond sedge, greater tussock sedge, water dock, skullcap and marsh woundwort are all present in varying amounts.

Source:

Radford, Dr Elaine, 1995

Summary: Both these stretches of the Trent and Mersey Canal and the Coventry Canal which meet at Fradley Junction, are well-used by boaters and the edges are often lined with metal shutters or with concrete. An angling club uses the Coventry Canal.

Generally both canals support a similar range of emergent species, although the amount of marginal vegetation differs from place to place. It is usually comprised of reed-sweet grass, branched bur-reed and sweet-flag. Additional species occur at various localities, including some such as flowering rush, arrowhead and greater tussock-sedge which are rare or uncommon in the county. The bank-side vegetation is quite varied, and the canal is described in sections to reflect the changes in character, often occasioned by management practices.

Fauna

The species- rich communities on the canal banks are attractive for invertebrates. A range of species were noted, particularly butterflies such as meadow brown, gatekeeper and brimstone. Several types of dragonfly and damselfly were also seen including the blue-tailed damselfly and two species of hawk. These may breed, especially in the stretches of canal with good amounts of marginal vegetation. A frog was found on the canal bank and common waterbirds such as, moorhen coot and mallard, the latter with chicks, seen. Fish also frequent the canal.

Bibliography

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unknown **Radford, E. & Bryant, M. (1995)**

The SBI Resurvey of Lichfield 1995; Staffordshire Wildlife Trust, Sandon, Staffordshire

Staffordshire Ecological Record BAS Report

11/33/12

Site Name:

Woodend Lock (south-east of)

Locality Type:

**Broadleaved, mixed and yew
woodland {B}**

Grid Ref.: SK131132

GB Vice-County: Staffordshire

Civil Parish: Alrewas (Lichfield, Staffordshire, England)

Civil Parish: King's Bromley (Lichfield, Staffordshire, England)

Keywords

Keyword

Details

Date

Original Recorder Code

5766

no date

Biodiversity Alert Site

2003

Biotopes (Habitats)

Code	Habitat	Area
A111	Woodland: broadleaved, semi-natural	
F21	Marginal/inundation: marginal	
G1	Open water: standing water	
G2	Open water: running water	

Dimensions

Dimension	Value/units
altitude	69m
area	1ha

Contacts

Contact information withheld.

Site Description

Source:

Radford, 1995

Summary: The site comprises a small area of deciduous woodland lying between the road and a steep embankment rising up to the Trent and Mersey canal. The Curborough Brook flows along the western edge of the woodland before being culverted beneath the canal embankment. A narrow tributary of the brook runs along the bottom edge of the canal bank and enters a shallow, quite extensive, and partially shaded pond here. Steep banks lead down to the pond on its southern and eastern edges too. A rather fragmentary, managed hawthorn hedge bounds the wood on its eastern edge. It is open to the road on the southern boundary. The woodland is generally surrounded by arable fields but lies in close proximity to Big Lyntus (Site No 11 32 19) and is linked to other woodlands in the area by the canal. The woodland canopy is of mature common oak with alders abundant near the pond and on the brook margins. A well-developed shrub layer, which includes hawthorn, hazel and guelder rose, is present beneath the canopy with a ground layer especially on the southern edge of bracken and elsewhere of Yorkshire fog and bluebells. Associated species include a number of herbs indicative of ancient woodland such as yellow archangel, dog's mercury and ramsons which is particularly prevalent on the stream banks. In a wet area associated with the stream tributary large bittercress and marsh-marigold are conspicuous. A narrow, but incomplete, band of emergent vegetation with some common reedmace, great hairy willowherb, much water mint and wavy bittercress surround the pond. The water quality seems to be poor with a dense algal growth. The site has suffered from quite extensive tipping both on the edges and down the embankment to the pond. Nettles and ground ivy abound in these areas. A range of birds were sighted in the woodland including summer visitors such as blackcap and chiffchaff, as well as common residents like robin and wren.

Source:

Hayes & Marsden, 1979

Summary: A small area of woodland adjacent to the canal and with Curborough Brook flowing through. There is a small pool containing *Lemna* sp. and some *Typha latifolia*. A damp area contains *Phalaris arundinacea*, *Festuca gigantea*, *Carex acutiformis*, *Circaea lutetiana*, *Rosa* spp., *Salix* spp., *Ribes rubrum* and *Arctium minus*.

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- field note **SWT (1989-93 checking) (1993)**
Re-checking of SBI conditions; Staffordshire Wildlife Trust, Sandon, Stafford
- described **SNCT (County Survey) (1984)**
The Phase 1 Survey of Staffordshire - 1978-1984; Staffordshire Nature Conservation Trust, Sandon, Staffs.

Protected species

English Name	Latin Name	Comments	Year/s Recommendations
Adder	<i>Vipera berus</i>	Very old record.	1882 No specific recommendations
Barn Owl	<i>Tyto alba</i>	Species requires substantial areas of rough grassland and other suitable habitat to hunt over	2002 Grassland habitats within compartment are probably suitable for hunting barn owls. Protect semi-improved grassland
Bat species	Chiroptera	Species not determined exactly	1992 No specific recommendations possible
Black Redstart	<i>Phoenicurus ochruros</i>	Mainly an urban species in lowland Britain	1993 No specific recommendations
Blunt-leaved Bog-moss	<i>Sphagnum palustre</i>	Ravenshaw Wood, Black Slough & Slaish	1995 Protect site on which this species found, ensuring hydrology of the site is also protected.
Brambling	<i>Fringilla montifringilla</i>	Wintering species	2004 Retain hedges and woodlands, or provide mitigatory habitat.
Brown Long-eared Bat	<i>Plecotus auritus</i>	Usually roosting in loft spaces	2008 Roosts in buildings and bridges. Frequently found near water.
Common Frog	<i>Rana temporaria</i>	Balancing pond, Fradley Business Park; Probably widespread in area.	2005 Protect ponds from development and / or mitigate by creating new ponds.
Common Kingfisher	<i>Alcedo atthis</i>	Requires watercourses or open water – recorded from Fradley Junction	2005 Provide buffering habitat along canal and other watercourses
Common Pipistrelle	<i>Pipistrellus pipistrellus sensu stricto</i>	Probably associated with housing and roosting in some houses; likely to be widespread in the area	2008 New housing should ideally have a range of bat-friendly roof tiles and / or bricks. Natural habitat features for foraging should also be provided such as hedges; these would normally be provided within Green Infrastructure
Eurasian Badger	<i>Meles meles</i>	Probably widespread in area	2006 Mitigation where possible; this will depend on size and location of badger groups affected on any given site.
Eurasian Hobby	<i>Falco subbuteo</i>	Tree nesting species, in a range of habitats.	2007 No specific recommendations
European Golden Plover	<i>Pluvialis apricaria</i>	Rare visitor	2006 No recommendations
European Otter	<i>Lutra lutra</i>	Requires substantial cover near water, often in tree roots, trees or scrub. Feeds mainly on fish.	2006 Any watercourses within development site, including canal, should be retained and enhanced, with creation of buffering habitat, and possibly by incorporation into SUDS
European Water Vole	<i>Arvicola terrestris</i>	Require well-vegetated water edge habitat, where not occupied by their main predator, mink.	2002 As for otter
Feathery Bog-moss	<i>Sphagnum cuspidatum</i>	Ravenshaw Wood, Black Slough & Slaish	1995 Protect site on which this species found, ensuring hydrology of the site is also protected.

Fieldfare	<i>Turdus pilaris</i>	Winter visitor, often seen along hedges	2003 As Brambling
Glossy Ibis	<i>Plegadis falcinellus</i>	Rare visitor, old record	1905 No recommendations
Great Crested Newt	<i>Triturus cristatus</i>	Species breeds in still, open water and uses a range of habitats at other times of year. Recorded from Fradley Business Park, Alrewas CP	2005 Protect ponds and surrounding habitats
Noctule Bat	<i>Nyctalus noctula</i>	Mainly associated with trees, particularly old trees with holes for roosting.	2005 Retain hedges and trees, including dead trees. Install bat boxes in young woodlands.
Peregrine Falcon	<i>Falco peregrinus</i>	Probably hunting over area. Nests on cliffs and tall buildings	2003 No specific recommendations
Pipistrelle	<i>Pipistrellus pipistrellus sensu lato</i>	As Common Pipistrelle	1990 As Common Pipistrelle
Polecat	<i>Mustela putorius</i>	Farmland and gardens. eat rabbits and rats.	2007 No specific recommendations
Red Kite	<i>Milvus milvus</i>	Rare visitor	2008 No specific recommendations
Redwing	<i>Turdus iliacus</i>	Winter visitor, feeding in fields, hedges and orchards	2004 Retain hedges and woodlands, or provide mitigatory habitat.
Spiky Bog-moss	<i>Sphagnum squarrosum</i>	Pool Wood and Fradley Reservoir	1995 Protect site on which this species found, ensuring hydrology of the site is also protected.
Whiskered Bat	<i>Myotis mystacinus</i>	Summer roosts in trees and buildings. May hibernate in caves or tunnels. Prefers woodlands for feeding, often near water	2001 Retain woodlands, or provide mitigatory habitat. Protect features such as tunnels and suitable buildings.

Biodiversity Action Plan Species

English Name	Latin Name	Comments	Year/s	Recommendations
August Thorn	<i>Ennomos quercinaria</i>	Woodland and suburban habitats. Feeds on trees	2006	Retain hedges and woodlands, or provide mitigatory habitat.
Beaded Chestnut	<i>Agrochola lychnidis</i>	Feeds on a range of plants	1994-2006	No specific recommendations
Brindled Beauty	<i>Lycia hirtaria</i>	Woodland and suburban species, feeds on broad leaved trees.	2006	As August Thorn
Brown Hare	<i>Lepus europaeus</i>	Widely distributed in area, usually on arable or grassland	1965-2005	If area is developed, suitable habitat is likely to be lost, so mitigatory habitat should be provided
Brown-spot Pinion	<i>Agrochola litura</i>	Woodland, heathland and suburban habitats, feeding on herbaceous plants and trees.	2002	No specific recommendations
Buff Ermine	<i>Spilosoma luteum</i>	Widespread, feeds on a range of plants	1994-2006	No specific recommendations
Centre-barred Sallow	<i>Atethmia centrargo</i>	Moth feeding on ash trees in woodlands and hedges	2006	As August Thorn
Cinnabar	<i>Tyria jacobaeae</i>	Probably widespread in area. Feeds on ragwort and similar plants	1992-2006	No specific recommendations
Common Linnet	<i>Carduelis cannabina</i>	Wide range of habitat, mainly farmland and grassland	2001-2005	Retain hedges and grassland habitats, especially marshy grassland
Common Starling	<i>Sturnus vulgaris</i>	Found in woodland, reedbeds and gardens	2004-2005	No specific recommendations
Common Toad	<i>Bufo bufo</i>	Records are now out of date, but Little Aston area may still have populations of toads as this species returns to its ancestral ponds. More recent records for Alrewas and Fradley Business Park	1975-2005	Retain ponds and suitable surrounding habitat. Create additional habitat.
Corn Bunting	<i>Emberiza calandra</i>	Widespread around area, farmland species	2006	Retain and buffer suitable habitat. Provide compensatory habitat where suitable habitat is lost, including farmland.
Dark-barred Twin-spot Carpet	<i>Xanthorhoe ferrugata</i>	Range of food plants	1992-2006	No specific recommendations
Deep-brown Dart	<i>Aporophyla lutulenta</i>	Range of open habitats, feeding on grasses etc	2006	No specific recommendations
Dot Moth	<i>Melanchra</i>	Found in a range of suburban habitats,	1992-	No specific recommendations

	<i>persicariae</i>	feed on a variety of plants.	2006
Dunnoch	<i>Prunella modularis</i>	Wide range of habitats	2004 No specific recommendations
Dusky Brocade	<i>Apamea remissa</i>	Wide range of habitats	2006 No specific recommendations
Dusky Thorn	<i>Ennomos fuscantaria</i>	Woodland and suburban habitats. Feeds on ash trees.	2002, Retain hedges and woodlands, or 2006 provide mitigatory habitat.
Eurasian Tree Sparrow	<i>Passer montanus</i>	Open woodland and garden species.	2003- No specific recommendations 2005
Garden Dart	<i>Euxoa nigricans</i>	Range of habitats including gardens and waste ground.	1992- No specific recommendations 1994
Garden Tiger	<i>Arctia caja</i>	Range of habitats and food plants	1992 No specific recommendations
Ghost Moth	<i>Hepialus humuli</i>	Grassy areas, feeding on grasses and other plants.	1992- No specific recommendations 2006
Goat Moth	<i>Cossus cossus</i>	Old record.	1936 No specific recommendations
Green-brindled Crescent	<i>Allophyes oxyacanthae</i>	Woodland, hedgerows and suburban areas, feeding on trees.	1994 Retain hedges and woodlands, or provide mitigatory habitat.
Grey Dagger	<i>Acronicta psi</i>	Range of habitats, feeding on trees	2002 No specific recommendations
Grey Partridge	<i>Perdix perdix</i>	Ground nesting in arable and other habitats, including rushy pastures.	2001, Retain and buffer suitable habitat. 2003 Provide compensatory habitat where suitable habitat is lost, including farmland.
Grizzled Skipper	<i>Pyrgus malvae</i>	Warm places in sparse vegetation in a range of habitats. Feeds on plants of the rose family.	1998- No specific recommendations 2002
House Sparrow	<i>Passer domesticus</i>	Species of gardens and farmland	2003- No specific recommendations 2005
Latticed Heath	<i>Chiasmia clathrata</i>	Open habitats, feeding on clover and similar plants	1992 No specific recommendations
Minor Shoulder-knot	<i>Brachylomia viminalis</i>	Damp woodland and wetlands, feeding on willow.	2006 Fradley Wood area may be suitable.
Mottled Rustic	<i>Caradrina morpheus</i>	Range of habitats, including gardens, feeding on herbaceous plants.	2006 No specific recommendations
Mouse Moth	<i>Amphipyra tragopoginis</i>	Range of habitats, feeding on herbaceous plants.	2002- No specific recommendations 2006
Neglected Rustic	<i>Xestia castanea</i>	Heathland species	2006 Habitats in area unlikely to be suitable
Northern Lapwing	<i>Vanellus vanellus</i>	Wetland and arable species	2002- Retain and buffer suitable habitat. 2008 Provide compensatory habitat where suitable habitat is lost, including farmland.
Oak Hook-tip	<i>Watsonalla binaria</i>	Oak woodland and parkland, feeds on oak	2002- Retain woodland and hedges. 2006
Reed Bunting	<i>Emberiza schoeniclus</i>	As Northern Lapwing	2002, As Northern Lapwing 2003
Rosy Minor	<i>Mesoligia literosa</i>	Grassland, feeding on grasses	2002 No specific recommendations
Rustic	<i>Hoplodrina blanda</i>	Range of habitats, including gardens, feeding on herbaceous plants.	1994 No specific recommendations
Sallow	<i>Xanthia icteritia</i>	Damp woodland and other marshy places, feeding on willow and other plants.	2006 Fradley Wood may be suitable
September Thorn	<i>Ennomos erosaria</i>	Woodland, parkland and gardens. Feeds on trees.	2002, No specific recommendations 2006
Shaded Broad-bar	<i>Scotopteryx chenopodiata</i>	Open habitats, feeding on clover and vetches	1992, Retain and enhance grassland 2006 habitats
Shoulder-striped Wainscot	<i>Mythimna comma</i>	Wide range of habitats. Feeds on grasses	1994, No specific recommendations 2006
Sky Lark	<i>Alauda arvensis</i>	Open grassland and other habitats	1995 If area is developed, suitable habitat is likely to be lost, so mitigatory habitat should be provided
Small Heath	<i>Coenonympha pamphilus</i>	Wide range of habitats. Feeds on grasses	1997, No specific recommendations 1998
Small Phoenix	<i>Ecliptopera silaceata</i>	Woodland and open habitats, feeds on willowherbs	2002 No specific recommendations
Small Square-spot	<i>Diarsia rubi</i>	Range of habitats, feeds on a range of plants	2006 No specific recommendations
Song Thrush	<i>Turdus philomelos</i>	Woods, hedges, parks and gardens	2005 No specific recommendations
Wall	<i>Lasiommata</i>	Species now mainly confined to coast.	1998- No specific recommendations

	megea	Inland habitats include short grassland and wasteland.	2004
White Ermine	Spilosoma lubricipeda	Widespread – feeds on a variety of plants.	2006 No specific recommendations
White-letter Hairstreak	Satyrus w-album	east of A38 at Fradley. Relies on Elm. Likely to be within compartment if elm is present	1996- Retain hedges and woodlands, or 2004 provide mitigatory habitat with elm.
Willow Tit	Poecile montanus	Willow scrub and similar habitats	2001- Retain hedges and woodlands, or 2003 provide mitigatory habitat.
Yellowhammer	Emberiza citrinella	Range of habitats, compartment likely to be suitable	2002- Retain hedges, scrub and 2005 grassland habitats

***Appendix 4d – Summary Site Descriptions and Species Lists for Compartment 4d:
Streethay and Curborough***

Curborough House Hedgerows SBI Report

11/32/34

SK133125

Hedgerow 1

Curborough House Hedgerows: Species rich intact hedgerow: J211

Length: 521.7 metres

Site Description - SBI

This Hedgerow is situated on the Eastern boundary of Netherstowe Lane just off Wood End Lane Near Curborough village.

Structurally the hedge is valued in particular for its high number of hedge canopy species, which was 13. The hedge had three standard trees along its length. The hedge also had a small ditch, a small bank and a two-metre grass verge on one side. With these assets it scored -1 on the HEGS scoring system. The modified HEGS form also yields the SBI score, which in this case was 12 and coupled with the HEGS score this hedge came out as a SBI.

This hedge has the rare Common Dogwood in it as well as other interesting species such as Wych elm, Black bryony and White Bryony. Dog's Mercury and frequent Meadowsweet were found in the grass verge. The hedge also had more common species Hawthorn, Sycamore and Bramble frequently along its length. This hedgerow has been cut this year. Suggested management would be cutting it to an A-shape every 3 years ideally between January and February with periodic restoration to prevent formation of gaps. Grass verges of two metres should also be kept and trimmed outside of the bird nesting season ideally in June-July and cuttings should be removed to prevent improvement.

Hedgerow 4

Curborough House: Species rich intact hedgerow: J211

Length: 488.6 metres

Site Description - SBI

This Hedgerow is situated on the Western boundary of Netherstowe Lane just off Wood End Lane Near Curborough village.

Structurally the hedge is valued in particular for its high number of hedge canopy species, which was 13. The hedge had ten standard trees along its length. The hedge

also had a small ditch and a two-metre grass verge on one side. With these assets it scored 2+ on the HEGS scoring system. The modified HEGS form also yields the SBI score, which in this case was 13 and coupled with the HEGS score this hedge came out as a SBI.

This hedge has the rare Common dogwood in it as well as other interesting species such as Crab Apple, Black Bryony and White Bryony. Dog's Mercury, Greater Stitchwort and Bluebell were found in the grass verge. The hedge also had the more common species Hawthorn, Sycamore and Bramble frequently along its length. This hedgerow has been cut this year. Suggested management would be cutting it to an A-shape every 3 years ideally between January and February with periodic restoration to prevent formation of gaps. Grass verges of two metres should also be kept and trimmed outside of the bird nesting season ideally in June-July and cuttings should be removed to prevent improvement.

Staffordshire Ecological Record BAS Report

11/32/19

Site Name:

Big Lyntus

Locality Type:

**Broadleaved, mixed and yew
woodland {B}**

Grid Ref.:

SK131129

GB Vice-County: Staffordshire

Civil Parish: Alrewas (Lichfield, Staffordshire, England)

Keywords

Keyword

Details

Date

Original Recorder Code

716

no date

Biodiversity Alert Site

previously grade 2 in 1979

2003

Biotopes (Habitats)

Code	Habitat	Area
A11	Woodland: broadleaved	
A1121	Woodland: broadleaved, plantation, high forest	2.05
A1221	Woodland: coniferous, plantation, high forest	4.55

Dimensions

Dimension

Value/units

altitude

65m

area

6.7ha

Contacts

Contact information withheld.

Site Description

Source:

Cadman & Henshall, 2003

Summary: The woodland is mainly comprised of mixed plantation trees with a small area of broadleaved woodland. Much of the ground flora is dominated by bracken. The northern end of the site, nearest the road, has a relatively diverse ground flora consisting of bluebells, woodsage, greater stichwort and yellow archangel

Source:

Radford, Dr Elaine, 1995

Summary: The site is situated directly to the south of a small area of woodland adjoining the Trent and Mersey canal (11/33/13). The canal provides a link between these areas of woodland and the Fradley Wood complex to the east and Ravenshaw Wood and the Slaish to the west. The northern part of the wood is now dominated by conifers below which there are frequent immature beech. The ground layer is mainly dominated by bracken with some Yorkshire fog and wavy hair-grass. In the north-western corner bluebells are frequent. A band in the centre has previously been cleared of standards, possibly during the second world war, to provide a clear approach to the runway at the nearby now disused aerodrome. More recently young birch have also been removed with the brash left lying on the ground and oak whips have been planted amongst the retained under-shrubs which include mature holly, rowan, crab apple, hawthorn and coppiced hazel. Yorkshire fog with abundant bluebells covers the ground with patches of bracken. Woodland herbs such as wood anemone and yellow archangel also still persist here. The southern part of the site is occupied by mature oak/ash woodland with a well-developed understorey which includes wild cherry and red currant. The ground flora has abundant wood anemone and bluebells, frequent dog's mercury and yellow archangel and, in the south-western corner, ramsons. A small steep-sided pool is located here. It is too shaded to support any aquatic vegetation.

Pheasants have probably been reared in the wood in previous years.

Source:

Marsden & Hayes, 1979

Summary: Woodland with some large oaks and partly a plantation of larch plus rowan and birch. *Pteridium aquilinum* constitutes the ground flora, along with hazel, elderberry and hawthorn. There are some white poplars along the edge of the wood. The oaks were being felled when the wood was visited.

Source:

Comment

Summary: A mixture of mixed semi-natural broadleaved that was clear felled during the second world war and a number of adjoining compartments including planted broadleaves and planted conifers. The groundflora is quite diverse and includes several species like bluebells, wood anemone and yellow archangel, which suggest that the wood has been long established, although it is not recorded as being ancient.

Bibliography

described **Cadman, D. & Henshall, S. (2003)**

Resurvey of Lichfield District; Staffordshire Wildlife Trust, Wolseley Bridge (2)

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The SBI Resurvey of Lichfield 1995; Staffordshire Wildlife Trust, Sandon, Staffordshire

described **SNCT (County Survey) (1984)**

The Phase 1 Survey of Staffordshire - 1978-1984; Staffordshire Nature Conservation Trust, Sandon, Staffs.

Curborough Hall Farm Hedgerows BAS Report

11/22/55

SK125126

Hedgerow 1

Curborough Hall Farm: Species rich intact hedgerow: J211

Length: 1144 metres

Site Description - BAS

This Hedgerow is situated on the Eastern boundary of Watery Lane off Wood End Lane Adjacent to the Sewage works.

Structurally the hedge is valued in particular for its high number of hedge canopy species, which was 15. The hedge had sixteen standard trees along its length and three young trees, which are important for the regeneration of the hedge. The hedge also had a small ditch and a small bank. With these assets it scored 2 on the HEGS scoring system. The modified HEGS form also yields the SBI score, which in this case was 14 and coupled with the HEGS score this hedge came out as a BAS.

This hedge has species such as the rare Common Dogwood, both English Elm and Wych Elm which have become scarce due to Dutch elm disease and also both Black and White bryony. Dog's Mercury and Greater Stitchwort were found in the grass verge. The hedge also had more common species Hawthorn and Bramble frequently along its length. It also had Garden Privet occasionally. This hedgerow has been cut this year. Suggested management would be cutting it to an A-shape every 3 years ideally between January and February with periodic restoration to prevent formation of gaps. Grass verges of two metres should also be kept and trimmed outside of the bird nesting season ideally in June-July and cuttings should be removed to prevent improvement.

Hedgerow 2

Curborough Hall Farm: Species rich intact hedgerow: J211

Length: 268 metres

Site Description - BAS

This Hedgerow is situated on the Western boundary of Watery Lane off Wood End Lane opposite the Sewage Works.

Structurally the hedge is valued in particular for its high number of hedge canopy species, which was 13. The hedge had ten standard trees along its length and four young trees, which are important for the regeneration of the hedge. The hedge also had a small bank. With these assets it scored 1 on the HEGS scoring system. The

modified HEGS form also yields the SBI score, which in this case was 10 and coupled with the HEGS score this hedge came out as a BAS.

This hedge has species such as the rare Common Dogwood, Wych Elm which have become scarce due to Dutch elm disease and also Rowan. Dog's Mercury and Greater Stitchwort were found in the grass verge. The hedge also had more common species Blackthorn and Bramble frequently along its length. This hedgerow has been cut this year. Suggested management would be cutting it to an A-shape every 3 years ideally between January and February with periodic restoration to prevent formation of gaps. Grass verges of two metres should also be kept and trimmed outside of the bird nesting season ideally in June-July and cuttings should be removed to prevent improvement.

Hedgerow 6

Curborough Hall Farm: Species rich intact hedgerow: J211

Length: 220.7 metres

Site Description - BAS

This Hedgerow is situated on the Eastern boundary of Watery Lane off Wood End Lane near to Curborough Hall Farm.

Structurally the hedge is valued in particular for its high number of hedge canopy species, which was 13. The hedge had six standard trees along its length and five young trees, which are important for the regeneration of the hedge. The hedge also had a small ditch and a grass verge of over two metres on one side. With these assets it scored 1 on the HEGS scoring system. The modified HEGS form also yields the SBI score, which in this case was 10 and coupled with the HEGS score this hedge came out as a BAS.

This hedge has species such as Wild Cherry, Rowan, and a large amount of Wych Elm (which has become scarce due to Dutch elm disease) and also both Black and White bryony. Dog's Mercury and Common Knapweed were found in the grass verge. The hedge also had more common species Hazel and Field Maple frequently along its length. This hedgerow has been cut this year. Suggested management would be cutting it to an A-shape every 3 years ideally between January and February with periodic restoration to prevent formation of gaps. Grass verges of two metres should also be kept and trimmed outside of the bird nesting season ideally in June-July and cuttings should be removed to prevent improvement.

Curborough House (south) Hedgerows BAS Report

11/21/95

SK129113

Hedgerow 5

Curborough House (south) Hedgerows: Species rich intact hedgerow: J211

Length: 714.5 metres

Site Description - BAS

This Hedgerow is situated on the Eastern boundary of Netherstowe Lane just off Wood End Lane right alongside Curborough House.

Structurally the hedge is valued in particular for its high number of hedge canopy species, which was 13. The hedge had four standard trees along its length. The hedge also had a small ditch. With these assets it scored 2+ on the HEGS scoring system. The modified HEGS form also yields the SBI score, which in this case was 13 and coupled with the HEGS score this hedge came out as a BAS.

This hedge has the rare Dogwood in it as well as other interesting species such as Wych Elm, Black Bryony and White bryony. Dog's Mercury, Greater Stitchwort and Yellow archangel were found in the grass verge. The hedge also had more common species Hawthorn, Blackthorn and Bramble frequently along its length. This hedgerow has been cut this year. Suggested management would be cutting it to an A-shape every 3 years ideally between January and February with periodic restoration to prevent formation of gaps. Grass verges of two metres should also be kept and trimmed outside of the bird nesting season ideally in June-July and cuttings should be removed to prevent improvement.

Hedgerow 7

Curborough House (south): Species rich intact hedgerow: J211

Length: 948.9 metres

Site Description - BAS

This Hedgerow is situated on the Western boundary of Netherstowe Lane off Wood End Lane near to Brownsfields Farm.

Structurally the hedge is valued in particular for its high number of hedge canopy species, which was 12. The hedge had four standard trees along its length and ten young trees, which are important for the regeneration of the hedge. The hedge also had a small ditch. With these assets it scored 2+ on the HEGS scoring system. The modified HEGS form also yields the SBI score, which in this case was 10 and coupled with the HEGS score this hedge came out as a BAS.

This hedge has species such as Wych Elm, Wild Cherry and White Bryony. Dog's Mercury and Greater Stitchwort were found in the grass verge. The hedge also had more common species Hawthorn, Blackthorn and Bramble frequently along its length. This hedgerow has been cut this year. Suggested management would be cutting it to an A-shape every 3 years ideally between January and February with periodic restoration to prevent formation of gaps. Grass verges of two metres should also be kept and trimmed outside of the bird nesting season ideally in June-July and cuttings should be removed to prevent improvement.

Fullbrook Farm Hedgerows BAS Report

11/22/13

SK121123

Fullbrook Farm: Species rich intact hedgerow: J211

Length: 865.4 metres

Site Description - BAS

This Hedgerow is situated on land belonging to Fullbrook Farm along the eastern boundary of several fields east of the railway line.

Structurally the hedge is valued in particular for its large height and width and good shape. The hedge had eleven standard trees along its length and one young tree. The hedge also had a grass verge of over two metres on one side. With these assets it scored 2+ on the HEGS scoring system. The modified HEGS form also yields the SBI score, which in this case was 10 and coupled with the HEGS score this hedge came out as a BAS.

This hedge has species such as the rare Common Dogwood, Black Bryony, Field Maple, and White Bryony. Fool's Water Cress, Oxlip and a sedge species were found in the grass verge. The hedge also had more common species Hawthorn, Blackthorn and Bramble frequently along its length. This hedgerow hasn't been recently managed. Suggested management would be cutting it to an A-shape every 3 years ideally between January and February with periodic restoration to prevent formation of gaps. Grass verges of two metres should also be kept and trimmed outside of the bird nesting season ideally in June-July and cuttings should be removed to prevent improvement.

English Name	Latin Name	Comments	Year/s Recommendations
Adder	Vipera berus	Old record	1882 No specific recommendations
Barn Owl	Tyto alba	Species requires substantial areas of rough grassland and other suitable habitat to hunt	2002 Grassland habitats within compartment are probably suitable for hunting barn owls. Protect semi-improved grassland

		over	
Bat species	Chiroptera	Species not determined	1992 No specific recommendations
Blunt-leaved Bog-moss	Sphagnum palustre	Found in - Ravenshaw Wood, Black Slough & Slaish	1995 Protect site on which this species found, ensuring hydrology of the site is also protected.
Brambling	Fringilla montifringilla	Wintering species	2004 Retain hedges and woodlands, or provide mitigatory habitat.
Brandt's Bat	Myotis brandtii	Summer roosts in trees and buildings. May hibernate in caves or tunnels. Prefers woodlands for feeding, often near water	1997 Retain woodlands.
Brown Long-eared Bat	Plecotus auritus	Usually roosting in roof spaces	2008 Of particular concern where building alterations, including barn conversions are proposed.
Common Frog	Rana temporaria	Probably widespread in area	1984 Protect ponds from development and / or mitigate by creating new ponds.
Common Pipistrelle	Pipistrellus pipistrellus sensu stricto	Probably associated with housing and roosting in some houses; likely to be widespread in the area	2004 New housing should ideally have a range of bat-friendly roof tiles and / or bricks. Natural habitat features for foraging should also be provided such as hedges; these would normally be provided within Green Infrastructure
Eurasian Badger	Meles meles	Probably widespread in area	2001 Protect where possible; mitigation will depend on size and location of badger groups affected on any given site.
Eurasian Hobby	Falco subbuteo	Tree nesting species, in a range of habitats.	2007 No specific recommendations
European Golden Plover	Pluvialis apricaria	Rare visitor	2006 No specific recommendations
European Otter	Lutra lutra	Recorded from Coventry Canal, likely to be using ponds and other watercourses in area, including small one within site	2004 Any development likely to affect canal or other watercourse in area should provide cover for otters, possibly in the form of artificial otter holts, or waterside shrub planting
Feathery Bog-moss	Sphagnum cuspidatum	Found in - Ravenshaw Wood, Black Slough & Slaish	1995 Protect site on which this species found, ensuring hydrology of the site is also protected.
Fieldfare	Turdus pilaris	Wintering species	2003 As brambling
Freshwater White-clawed Crayfish	Austropotamobius pallipes	Main threat is from crayfish plague. Populations in headwater streams and isolated ponds now most likely to be free from plague. Stowe Pool SSSI is notified for its crayfish population	2002 Care should be taken with small streams, ponds and lakes not to introduce plants or animals from infected sources. These areas should not be connected with main rivers.
Great Crested Newt	Triturus cristatus	Species breeds in still, open water and uses a range of habitats at other times of year. Location of record not clear	2004 Protect ponds and surrounding habitats
Myotis Bat species	Myotis	Species not determined accurately	2008 No specific recommendations
Noctule Bat	Nyctalus noctula	Mainly associated with trees, particularly old trees with holes for roosting.	2005 Retain hedges and trees, including dead trees. Install bat boxes in young woodlands.
Northern Goshawk	Accipiter gentilis	Woodland species, sometimes hunting over open land. Rare in Staffordshire	2005 No recommendations
Peregrine Falcon	Falco peregrinus	Probably hunting over area. Nests on cliffs and tall buildings	2008 No specific recommendations
Pipistrelle	Pipistrellus pipistrellus sensu lato	As Common Pipistrelle	2008 As Common Pipistrelle
Polecat	Mustela putorius	Farmland and gardens. eat rabbits and rats.	2006 No specific recommendations
Redwing	Turdus iliacus	Winter visitor, feeding in fields, hedges and orchards	2004 Retain hedges and woodlands, or provide mitigatory habitat.
English Name	Latin Name	Comments	Year/s Recommendations
August Thorn	Ennomos	Woodland and suburban habitats.	2006 Retain woodlands, or provide

	quercinaria	Feeds on trees	mitigatory habitat.
Beaded Chestnut	Agrochola lychnidis	Feeds on a range of plants	2006 No specific recommendations
Brindled Beauty	Lycia hirtaria	Woodland and suburban species, feeds on broad leaved trees.	2006 As august thorn
Brown Hare	Lepus europaeus	Rather old record	1965 If area is developed, surveys should be carried out to see whether species is still present, if so mitigatory habitat should be provided
Buff Ermine	Spilosoma luteum	Widespread, feeds on a range of plants	2006 No specific recommendations
Centre-barred Sallow	Atethmia centrargo	Moth feeding on ash trees in woodlands and hedges	2006 Retain hedges and woodlands, or provide mitigatory habitat.
Cinnabar	Tyria jacobaeae	Probably widespread in area. Feeds on ragwort and similar plants	2003, No specific recommendations 2006
Common Linnet	Carduelis cannabina	Wide range of habitat, mainly farmland and grassland	2001-2005 Retain hedges and grassland habitats, especially marshy grassland
Common Starling	Sturnus vulgaris	Found in woodland, reedbeds and gardens	2004, 2005 No specific recommendations
Common Toad	Bufo bufo	Records are now out of date, but Little Aston area may still have populations of toads as this species returns to its ancestral ponds. More recent records for Fradley Business Park	1975, Retain ponds and suitable surrounding habitat. Create additional habitat.
Dark-barred Twin-spot Carpet	Xanthorhoe ferrugata	Range of food plants	2006 No specific recommendations
Deep-brown Dart	Aporophyla luteola	Range of open habitats, feeding on grasses etc	2006 No specific recommendations
Dot Moth	Melanchra persicariae	Found in a range of suburban habitats, feed on a variety of plants.	2006 No specific recommendations
Dunnock	Prunella modularis	Wide range of habitats	2004 No specific recommendations
Dusky Brocade	Apamea remissa	Wide range of habitats	2006 No specific recommendations
Dusky Thorn	Ennomos fuscantaria	Woodland and suburban habitats. Feeds on ash trees.	2006 No specific recommendations
Eurasian Tree Sparrow	Passer montanus	Open woodland and garden species.	2003-2005 No specific recommendations
Ghost Moth	Hepialus humuli	Grassy areas, feeding on grasses and other plants.	2006 No specific recommendations
Goat Moth	Cossus cossus	Very old record	1936 No recommendations
Grey Dagger	Acronicta psi	Range of habitats, feeding on trees	2002 No specific recommendations
Grey Partridge	Perdix perdix	Ground nesting in arable and other habitats, including rushy pastures.	2001 Retain and buffer suitable habitat. Provide compensatory habitat where suitable habitat is lost, including farmland.
Grizzled Skipper	Pyrgus malvae	Warm places in sparse vegetation in a range of habitats. Feeds on plants of the rose family.	1998, No specific recommendations 2001
House Sparrow	Passer domesticus	Species of gardens and farmland	2003-2005 No specific recommendations
Minor Shoulder-knot	Brachylomia viminalis	Damp woodland and wetlands, feeding on willow.	2006 If possible, retain woodland to north of site which may be suitable.
Mottled Rustic	Caradrina morpheus	Range of habitats, including gardens, feeding on herbaceous plants.	2006 No specific recommendations
Mouse Moth	Amphipyra tragopoginis	Range of habitats, feeding on herbaceous plants.	2006 No specific recommendations
Neglected Rustic	Xestia castanea	Heathland species	2006 Area unlikely to be suitable
Northern Lapwing	Vanellus vanellus	Wetland or open farmland with wetland nearby	2002-2007 Retain and buffer suitable habitat. Provide compensatory habitat where suitable habitat is lost, including farmland.
Oak Hook-tip	Watsonalla binaria	Oak woodland and parkland, feeds on oak	2006 Retain woodland and hedges.
Reed Bunting	Emberiza schoeniclus	As Northern Lapwing	2002, 2003 As Northern Lapwing
Sallow	Xanthia ictoria	Damp woodland and other marshy places, feeding on willow and other plants.	2006 As minor shoulder-knot

September Thorn	Ennomos erosaria	Woodland, parkland and gardens. Feeds on trees.	2006 No specific recommendations
Shaded Broad- bar	Scotopteryx chenopodiata	Open habitats, feeding on clover and vetches	2006 Retain and enhance grassland habitats
Shoulder-striped Wainscot	Mythimna comma	Wide range of habitats. Feeds on grasses	2006 No specific recommendations
Sky Lark	Alauda arvensis	Open grassland and other habitats	1995- If area is developed, suitable habitat 2005, is likely to be lost, so mitigatory habitat should be provided
Small Heath	Coenonympha pamphilus	Wide range of habitats. Feeds on grasses	1998 No specific recommendations
Small Phoenix	Ecliptopera silacea	Woodland and open habitats, feeds on willowherbs	2006 No specific recommendations
Small Square- spot	Diarsia rubi	Range of habitats, feeds on a range of plants	2006 No specific recommendations
Song Thrush	Turdus philomelos	Woods, hedges, parks and gardens	2005 No specific recommendations
Wall	Lasiommata megea	Becoming rare inland as species now mainly confined to coast. Grassland and wasteland species.	1994 - No specific recommendations 2001
West European Hedgehog	Erinaceus europaeus	Probably widespread in area in gardens, etc.	1983- No specific recommendations 2006
White Ermine	Spilosoma lubricipeda	Widespread – feeds on a variety of plants.	2006 No specific recommendations
White-letter Hairstreak	Satyrus w- album	Relies on Elm. Likely to be within compartment if elm is present	1999, Retain hedges and woodlands, or 2001 provide mitigatory habitat with elm.
Willow Tit	Poecile montanus	Willow scrub and similar habitats	2001- As minor shoulder-knot 2003
Yellowhammer	Emberiza citrinella	Range of habitats, compartment likely to be suitable	2002- Retain hedges, scrub and grassland 2005 habitats

Appendix 4e – Summary Site Descriptions and Species Lists for Compartment 4e: Lichfield Centre

Site of Special Scientific Interest:

STOWE POOL AND WALK MILLCLAY PIT

Status: Site of Special Scientific Interest (SSSI) notified under Section 28 of the Wildlife and Countryside Act 1981 (as amended)

Local Planning Authority: STAFFORDSHIRE COUNTY COUNCIL, Lichfield District Council, South Staffordshire District Council

National Grid Reference: SK 120100, SJ 974082 Area: 8.38 (ha.) 20.7 (ac.)

Ordnance Survey Sheets 1:50,000: 128, 127 1:10,000: SK 11 SW,

SK 10 NW, SJ 90 NE

Date Notified (Under 1981 Act): 10 November 1998 Date of Last Revision: Ø

Other Information:

New site.

Description and Reasons for Notification:

Stowe Pool and Walk Mill Clay Pit are two water bodies which support large and healthy populations of native white-clawed crayfish *Austropotamobius pallipes*. Stowe Pool lies in the centre of Lichfield in an area of public open space. Formerly a water supply reservoir, it receives water from the Leamonsley Brook, via Minster Pool. The level of the pool is maintained below that of the outflow due to water being lost to ground water or through evaporation. Walk Mill Clay Pit is a flooded, disused clay pit in Cheslyn Hay. It receives no significant surface water inflows and there is no definite outfall. Both water bodies are isolated from any downstream river systems.

The native crayfish population has declined in both Britain and elsewhere in Europe in recent years. Crayfish, particularly those in river systems, have been killed off by a fungal disease to which they have no immunity. This disease is thought to be carried and spread by an American species, the Signal crayfish *Pacifastacus leniusculus*, which has escaped from commercial crayfish farms in Britain. Isolated water bodies, such as lakes and flooded quarries, act as refuges for the native species. Large, isolated populations such as those at Stowe Pool and Walk Mill Clay Pit are, therefore, particularly important in both regional and national contexts.

Stowe Pool has limited marginal vegetation, but its water plants include amphibious bistort *Polygonum amphibium* and spiked water-milfoil *Myriophyllum spicatum*. The shallow margins of the pool are dominated by extensive low-growing blankets of the water plant *Chara aspera* var. *curta* a nationally scarce stonewort (Charophyte).

The marginal vegetation at Walk Mill Clay Pit is dominated by stands of common clubrush *Schoenoplectus lacustris* with smaller amounts of branched bur-reed *Sparganium erectum* and great bulrush *Typha latifolia*. Water plants include yellow water-lily *Nuphar lutea*, spiked water-milfoil, broad-leaved pondweed *Potamogeton natans* and shining pondweed *P. lucens*. The Pit is surrounded by areas of scrub and grassland

Protected Species

English Name	Latin Name	Comments	Year/s Recommendations
Adder	Vipera berus	Mainly confined to heathland in Staffs. Old record	1882 No recommendations
Barn Owl	Tyto alba	Species requires areas of rough grassland and other suitable habitat. Recorded from rough grassland near disused railway	2002 Protect semi-improved grassland, particularly near disused railway.
Barnacle Goose	Branta leucopsis	Open water species	2001 No recommendations
Bat species	Chiroptera	Species not determined	2004 No specific recommendation
Brambling	Fringilla montifringilla	Wintering species	2004 Retain hedges and woodlands, or provide mitigatory habitat.
Brandt's Bat	Myotis brandtii	Summer roosts in trees and buildings. May hibernate in caves or	1997 Retain woodlands. Protect suitable structures, such as tunnels. Also as common pipistrelle

		tunnels. Prefers woodlands for feeding, often near water	
Brown Long-eared Bat	Plecotus auritus	Usually roosting in loft spaces, often in older buildings. Feed in open woodland and parkland.	1988 Of particular concern where building alterations, including barn conversions are proposed.
Common Frog	Rana temporaria	Old record from Leomansley Pool, Probably widespread in area	1988 Protect ponds from development and / or mitigate by creating new ponds.
Common Pipistrelle	Pipistrellus pipistrellus sensu stricto	Probably associated with housing and roosting in some houses; likely to be widespread in the area	2004 New housing should ideally have a range of bat-friendly roof tiles and / or bricks. Natural habitat features for foraging should also be provided such as hedges; these would normally be provided within Green Infrastructure
Daubenton's Bat	Myotis daubentonii	Roosts in buildings and bridges. Frequently found near water.	2002 Protect waterside habitats. Also as common pipistrelle
Eurasian Badger	Meles meles	Probably widespread in area	2002 Protect where possible; mitigation will depend on size and location of badger groups affected on any given site.
Eurasian Eagle Owl	Bubo bubo	Rare visitor	2005 No recommendations
European Water Vole	Arvicola terrestris	Require well-vegetated water edge habitat, where not occupied by their main predator, mink	2000 Any development likely to affect watercourses in area should protect the watercourse and provide a wide buffer strip of vegetation along the banks
Fieldfare	Turdus pilaris	Wintering species	2003 As brambling
Freshwater White-clawed Crayfish	Austropotamobius pallipes	Main threat is from crayfish plague. Populations in headwater streams and isolated ponds now most likely to be free from plague.	2002 Care should be taken with small streams, ponds and lakes not to introduce plants or animals from infected sources. These areas should not be connected with main rivers.
Great Crested Newt	Triturus cristatus	Stowe Pool SSSI Species breeds in still, open water and uses a range of habitats at other times of year. Recorded from Leomansley Pool,	1987 Protect ponds and surrounding habitats
Myotis Bat species	Myotis	Species not determined exactly	2001 No specific recommendations possible
Noctule Bat	Nyctalus noctula	Mainly associated with trees, particularly old trees with holes for roosting.	2005 Retain hedges and trees, including dead trees. Install bat boxes in young woodlands.
Northern Goshawk	Accipiter gentilis	Woodland species, sometimes hunting over open land. Rare in Staffordshire	2005 No recommendations
Peregrine Falcon	Falco peregrinus	Probably hunting over area. Nests on cliffs and tall buildings	2008 No specific recommendations
Pipistrelle	Pipistrellus pipistrellus sensu lato	As Common Pipistrelle	2002 As Common Pipistrelle
Pipistrelle Bat species	Pipistrellus	As above	2001 As above
Polecat	Mustela putorius	Farmland and gardens. eat rabbits and rats.	1997 No specific recommendations
Red Kite	Milvus milvus	rare visitor	2006 No recommendations
Redwing	Turdus iliacus	Winter visitor, feeding in fields, hedges and orchards	2004 As brambling.
Snowdrop	Galanthus nivalis	Recorded from St.Michael's Church, probably planted in this location	2000 No specific recommendations
Soprano Pipistrelle	Pipistrellus pygmaeus	As Common Pipistrelle	2008 As common pipistrelle
Whiskered/Brandt's	Myotis	Summer roosts in trees	1994 As Brandt's bat

Bat	mystacinus/brandtii	and buildings. May hibernate in caves or tunnels. Prefers woodlands for feeding, often near water
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Biodiversity Action Plan Species

English Name	Latin Name	Comments	Year/s	Recommendations
August Thorn	Ennomos quercinaria	Woodland and suburban habitats. Feeds on trees	2006	Retain hedges and woodlands, or provide mitigatory habitat.
Beaded Chestnut	Agrochola lychnidis	Feeds on a range of plants	2006	No specific recommendations
Brindled Beauty	Lycia hirtaria	Woodland and suburban species, feeds on broad leaved trees.	2006	As august thorn
Brown Hare	Lepus europaeus	Probably still present in area, usually on arable or grassland	2003	If area is developed, suitable habitat is likely to be lost, so mitigatory habitat should be provided
Brown-spot Pinion	Agrochola litura	Woodland, heathland and suburban habitats, feeding on herbaceous plants and trees.	1998	No specific recommendations
Buff Ermine	Spilosoma luteum	Widespread, feeds on a range of plants	2006	No specific recommendations
Centre-barred Sallow	Atethmia centrargo	Moth feeding on ash trees in woodlands and hedges	2006	Retain hedges and woodlands, or provide mitigatory habitat.
Cinnabar	Tyria jacobaeae	Probably widespread in area. Feeds on ragwort and similar plants	1995-2006	No specific recommendations
Common Bullfinch	Pyrrhula pyrrhula	Found in woodlands and hedgerows	2006	Retain hedges and woodlands, or provide mitigatory habitat.
Common Linnet	Carduelis cannabina	Wide range of habitat, mainly farmland and grassland	2001-2005	Retain hedges and grassland habitats, especially marshy grassland
Common Snipe	Gallinago gallinago	Species of wet grassland and related habitats.	2002-2007	Probably confined to Pipe Green Common area. Protect Pipe Green Common and retain and buffer marshy grassland elsewhere.
Common Starling	Sturnus vulgaris	Found in woodland, reedbeds and gardens	2004, 2005	No specific recommendations
Common Toad	Bufo bufo	Records are now out of date, but area may still have populations of toads as this species returns to its ancestral ponds. Recorded from Little Aston and Leomansley Pool	1975-1988	Retain ponds and suitable surrounding habitat. Create additional habitat.
Crescent	Celaena leucostigma	Species of damp, marshy woodland and moorland	2002	Area unlikely to be suitable
Dark-barred Twin-spot Carpet	Xanthorhoe ferrugata	Range of food plants	2002, 2006	No specific recommendations
Deep-brown Dart	Aporophyla lutulenta	Range of open habitats, feeding on grasses etc	2006	No specific recommendations
Dot Moth	Melanchra persicariae	Found in a range of suburban habitats, feed on a variety of plants.	1995, 2006	No specific recommendations
Dunnock	Prunella modularis	Wide range of habitats	2004	No specific recommendations
Dusky Brocade	Apamea remissa	Wide range of habitats	2006	No specific recommendations
Dusky Thorn	Ennomos fuscantaria	Woodland and suburban habitats. Feeds on ash trees.	2006, 2007	Retain hedges and woodlands, or provide mitigatory habitat.
Ear Moth	Amphipoea oclea	Damp habitats, feeds on grasses and other plants.	2002	Area unlikely to be suitable
Eurasian Tree Sparrow	Passer montanus	Throughout area, often in urban and suburban areas	2002-2007	No specific recommendations
Ghost Moth	Hepialus humuli	Grassy areas, feeding on grasses and other plants.	2006	No specific recommendations
Goat Moth	Cossus cossus	Very old record; species rare in Staffs, and there are no recent records for this part of the County.	1936	No specific recommendations
Hawfinch	Coccothraustes coccothraustes	Woodland species, feeding on shoots, seeds and fruits	2002, 2003	Retain hedges and woodlands, or provide mitigatory habitat.
House Sparrow	Passer domesticus	Species of gardens and farmland	2003-2007	No specific recommendations
Latticed Heath	Chiasmia clathrata	Open habitats, feeding on clover and similar plants	2007	No specific recommendations
Lesser Spotted	Dendrocopos	Woods, parkland and gardens	2002-	No specific recommendations

Woodpecker	minor		2005
Minor Shoulder-knot	Brachylomia viminalis	Damp woodland and wetlands, feeding on willow.	2006 Area unlikely to be suitable
Mottled Rustic	Caradrina morpheus	Range of habitats, including gardens, feeding on herbaceous plants.	2006 No specific recommendations
Mouse Moth	Amphipyra tragopoginis	Range of habitats, feeding on herbaceous plants.	2002, No specific recommendations 2006
Neglected Rustic	Xestia castanea	Heathland species	2006 Area unlikely to be suitable
Northern Lapwing	Vanellus vanellus	Wetland and arable species	2002 - Retain and buffer suitable habitat. 2006 Provide compensatory habitat where suitable habitat is lost, including farmland.
Oak Hook-tip	Watsonalla binaria	Oak woodland and parkland, feeds on oak	2002, Retain hedges and woodlands, or 2006 provide mitigatory habitat.
Reed Bunting	Emberiza schoeniclus	Wetland and arable species	2002- As Northern Lapwing 2007
Rosy Minor	Mesoligia literosa	Grassland, feeding on grasses	2002 Area unlikely to be suitable
Rosy Rustic	Hydraecia micacea	Waste ground and marshy places, feeding mainly on docks	2007 Area unlikely to be suitable
Rustic	Hoplodrina blanda	Range of habitats, including gardens, feeding on herbaceous plants.	2007 No specific recommendations
Sallow	Xanthia icteritia	Damp woodland and other marshy places, feeding on willow and other plants.	2006 Area unlikely to be suitable
September Thorn	Ennomos erosaria	Woodland, parkland and gardens. Feeds on trees.	2006 No specific recommendations
Shaded Broad-bar	Scotopteryx chenopodiata	Open habitats, feeding on clover and vetches	2006 Retain and enhance grassland habitats
Shoulder-striped Wainscot	Mythimna comma	Wide range of habitats. Feeds on grasses	2006 No specific recommendations
Sky Lark	Alauda arvensis	Open grassland and other habitats	2001- If area is developed, suitable habitat 2006 is likely to be lost, so mitigatory habitat should be provided
Small Heath	Coenonympha pamphilus	Wide range of habitats. Feeds on grasses	1992, No specific recommendations 1995
Small Phoenix	Ecliptopera silaceata	Woodland and open habitats, feeds on willowherbs	2002, No specific recommendations 2006
Small Square-spot	Diarsia rubi	Range of habitats, feeds on a range of plants	2002, No specific recommendations 2006
Song Thrush	Turdus philomelos	Woods, hedges, parks and gardens	2003, No specific recommendations 2005
Spotted Flycatcher	Muscicapa striata	Mature trees, especially in open areas.	2003- Area unlikely to be suitable 2007
Wall	Lasiommata megera	Becoming rare inland as species now mainly confined to coast. Grassland and wasteland species.	1989, No specific recommendations 1998
West European Hedgehog	Erinaceus europaeus	Widespread, including parks and gardens	1983- No specific recommendations 2007
White Ermine	Spilosoma lubricipeda	Widespread – feeds on a variety of plants.	2006 No specific recommendations
Willow Tit	Poecile montanus	Willow scrub and similar habitats	2001- Retain scrub and woodlands, or 2003 provide mitigatory habitat.
Wood Warbler	Phylloscopus sibilatrix	Woodland without shrub layer.	2001 Area unlikely to be suitable
Yellowhammer	Emberiza citrinella	Range of habitats, compartment likely to be suitable	2002- Retain hedges, scrub and grassland 2007 habitats

Appendix 4f – Summary Site Descriptions and Species Lists for Compartment 4f: Lichfield South

There are no designated sites for this compartment

Protected species

English Name	Latin Name	Comments	Year/s Recommendations
Adder	Vipera berus	Very old record for this area	1882 No recommendations
Barn Owl	Tyto alba	Species requires areas of rough grassland and other suitable habitat. Recorded from rough grassland near disused railway	2002 Protect semi-improved grassland, particularly near disused railway.
Barnacle Goose	Branta leucopsis	Open water species	2001 No recommendations
Bat species	Chiroptera	Species not determined exactly	2004 Specific recommendation not possible
Brambling	Fringilla montifringilla	Wintering species	2004 Retain hedges and woodlands, or provide mitigatory habitat.
Brown Long-eared Bat	Plecotus auritus	Usually roosting in loft spaces	1988 Of particular concern where building alterations, including barn conversions are proposed.
Common Frog	Rana temporaria	Probably widespread in area	1980 Protect ponds from development and / or mitigate by creating new ponds.
Common Kingfisher	Alcedo atthis	The pools and weirs, Freeford Manor and Swinfen Park	1995 Retain and buffer open water habitats
Common Pipistrelle	Pipistrellus pipistrellus sensu stricto	Probably associated with housing and roosting in some houses; likely to be widespread in the area	2004 New housing should ideally have a range of bat-friendly roof tiles and / or bricks. Natural habitat features for foraging should also be provided such as hedges; these would normally be provided within Green Infrastructure
Daubenton's Bat	Myotis daubentonii	Roosts in buildings and bridges. Frequently found near water.	1994 Area unlikely to be suitable for feeding. Otherwise as common pipistrelle
Eurasian Badger	Meles meles	Probably widespread in area	2001 Protect where possible; mitigation will depend on size and location of badger groups affected on any given site.
Eurasian Eagle Owl	Bubo bubo	Rare visitor.	2005 No specific recommendations
European Water Vole	Arvicola terrestris	Require well-vegetated water edge habitat, where not occupied by their main predator, mink.	2000 Any development likely to affect watercourses in area should protect the watercourse and and provide a wide buffer strip of vegetation along the banks
Fieldfare	Turdus pilaris	Wintering species	2006 As brambling
Freshwater White-clawed Crayfish	Austropotamobius pallipes	Main threat is from crayfish plague. Populations in headwater streams and isolated ponds now most likely to be free from plague. Stowe Pool SSSI	2002 Care should be taken with small streams, ponds and lakes not to introduce plants or animals from infected sources. These areas should not be connected with main rivers.
Great Crested Newt	Triturus cristatus	Species breeds in still, open water and uses a range of habitats at other times of year. Recorded from Johnson Close,	2003 Protect ponds and surrounding habitats
Myotis Bat species	Myotis	Species not determined accurately	2001 Specific recommendations not possible
Noctule Bat	Nyctalus noctula	Mainly associated with trees, particularly old trees with holes for roosting.	2005 Retain hedges and trees, including dead trees. Install bat boxes in young woodlands.
Peregrine Falcon	Falco peregrinus	Probably hunting over area. Nests on cliffs and	2008 No specific recommendations

		tall buildings	
Pipistrelle	Pipistrellus pipistrellus sensu lato	As Common Pipistrelle	2001 As Common Pipistrelle
Pipistrelle Bat species	Pipistrellus	As Common Pipistrelle	2001 As Common Pipistrelle
Polecat	Mustela putorius	Farmland and gardens. eat rabbits and rats.	1997 No specific recommendations
Red Kite	Milvus milvus	Rare visitor	2006 No specific recommendations
Redwing	Turdus iliacus	Wintering species	2004 As Brambling
Snowdrop	Galanthus nivalis	St. Michael's Church – probably planted in this location	2000 No recommendations
Soprano Pipistrelle	Pipistrellus pygmaeus	As Common Pipistrelle	2008 As Common Pipistrelle
Whiskered/Brandt's Bat	Myotis mystacinus/brandtii	Summer roosts in trees and buildings. May hibernate in caves or tunnels. Prefers woodlands for feeding, often near water	1994 As Daubenton's bat

Biodiversity Action Plan Species

English Name	Latin Name	Comments	Year/s	Recommendations
August Thorn	Ennomos quercinaria	Woodland and suburban habitats. Feeds on trees	2006	Retain woodlands or provide mitigation
Beaded Chestnut	Agrochola lychnidis	Feeds on a range of plants	2006	No specific recommendations
Brindled Beauty	Lycia hirtaria	Woodland and suburban species, feeds on broad leaved trees.	2006	Retain woodlands or provide mitigation
Brown-spot Pinion	Agrochola litura	Woodland, heathland and suburban habitats, feeding on herbaceous plants and trees.	1998	No specific recommendations
Buff Ermine	Spilosoma luteum	Widespread, feeds on a range of plants	2006	No specific recommendations
Centre-barred Sallow	Atethmia centrargo	Moth feeding on ash trees in woodlands and hedges	2006	Retain woodlands and hedges or provide mitigation
Cinnabar	Tyria jacobaeae	Probably widespread in area. Feeds on ragwort and similar plants	1995, 2006	No specific recommendations
Common Linnet	Carduelis cannabina	Wide range of habitat, mainly farmland and grassland	2001-2005	Retain hedges and grassland habitats, especially marshy grassland
Common Starling	Sturnus vulgaris	Found in woodland, reedbeds and gardens	2004, 2005	No specific recommendations
Common Toad	Bufo bufo	Records are now out of date, but Little Aston area may still have populations of toads as this species returns to its ancestral ponds.	1975	Retain ponds and suitable surrounding habitat. Create additional habitat.
Corn Bunting	Emberiza calandra	Widespread around area, farmland species	2007	Retain and buffer suitable habitat. Provide compensatory habitat where suitable habitat is lost, including farmland.
Dark-barred Twin-spot Carpet	Xanthorhoe ferrugata	Range of food plants	2006	No specific recommendations
Deep-brown Dart	Aporophyla lutulenta	Range of open habitats, feeding on grasses etc	2006	No specific recommendations
Dot Moth	Melanchra persicariae	Found in a range of suburban habitats, feed on a variety of plants.	1995, 2006	No specific recommendations
Dunnock	Prunella modularis	Wide range of habitats	2004	No specific recommendations
Dusky Brocade	Apamea remissa	Wide range of habitats	2006	No specific recommendations
Dusky Thorn	Ennomos fuscantaria	Woodland and suburban habitats. Feeds on ash trees.	2006, 2007	Retain woodlands or provide mitigation
Eurasian Tree Sparrow	Passer montanus	Open woodland and garden species, probably widespread.	2002	No specific recommendations
Ghost Moth	Hepialus humuli	Grassy areas, feeding on grasses and other plants.	2006	No specific recommendations

Goat Moth	Cossus cossus	Old record	1936	No specific recommendations
House Sparrow	Passer domesticus	Species of gardens and farmland	2003-2005	No specific recommendations
Latticed Heath	Chiasmia clathrata	Open habitats, feeding on clover and similar plants	2007	No specific recommendations
Lesser Spotted Woodpecker	Dendrocopos minor	Woods, parkland and gardens	2002-2005	No specific recommendations
Minor Shoulder-knot	Brachylomia viminalis	Damp woodland and wetlands, feeding on willow.	2006	Area unlikely to be suitable
Mottled Rustic	Caradrina morpheus	Range of habitats, including gardens, feeding on herbaceous plants.	2006	No specific recommendations
Mouse Moth	Amphipyra tragopoginis	Range of habitats, feeding on herbaceous plants.	2006	No specific recommendations
Neglected Rustic	Xestia castanea	Heathland species	2006	Area unlikely to be suitable
Northern Lapwing	Vanellus vanellus	Wetland and farmland	2002, 2003	Retain and buffer suitable habitat. Provide compensatory habitat where suitable habitat is lost, including farmland.
Oak Hook-tip	Watsonalla binaria	Oak woodland and parkland, feeds on oak	2006	Retain woodland and hedges.
Reed Bunting	Emberiza schoeniclus	Wetland, but also farmland and gardens	2002, 2003	As for Lapwing
Rosy Rustic	Hydraecia micacea	Waste ground and marshy places, feeding mainly on docks	2007	No specific recommendations
Rustic	Hoplodrina blanda	Range of habitats, including gardens, feeding on herbaceous plants.	2007	No specific recommendations
Sallow	Xanthia icteritia	Damp woodland and other marshy places, feeding on willow and other plants.	2006	Area unlikely to be suitable
September Thorn	Ennomos erosaria	Woodland, parkland and gardens. Feeds on trees.	2006	Retain woodlands or provide mitigation
Shaded Broad-bar	Scotopteryx chenopodiata	Open habitats, feeding on clover and vetches	2006	Retain and enhance grassland habitats
Shoulder-striped Wainscot	Mythimna comma	Wide range of habitats. Feeds on grasses	2006	No specific recommendations
Sky Lark	Alauda arvensis	Open grassland and other habitats	2001-2005	If area is developed, suitable habitat is likely to be lost, so mitigatory habitat should be provided
Small Heath	Coenonympha pamphilus	Wide range of habitats. Feeds on grasses	1992	No specific recommendations
Small Phoenix	Ecliptopera silaceata	Woodland and open habitats, feeds on willowherbs	2006	No specific recommendations
Small Square-spot	Diarsia rubi	Range of habitats, feeds on a range of plants	2006	No specific recommendations
Song Thrush	Turdus philomelos	Woods, hedges, parks and gardens	2005	No specific recommendations
Spotted Flycatcher	Muscicapa striata	Mature trees, especially in open areas.	2006	Retain mature trees where possible
Wall	Lasiommata megera	Becoming rare inland as species now mainly confined to coast. Grassland and wasteland species.	1989	No specific recommendations
West European Hedgehog	Erinaceus europaeus	Widespread in area, particularly in parks and gardens.	1977-2007	No specific recommendations
White Ermine	Spilosoma lubricipeda	Widespread – feeds on a variety of plants.	2006	No specific recommendations
Willow Tit	Poecile montanus	Willow scrub and similar habitats	2001-2003	Retain scrub and woodlands or provide mitigation
Wood Warbler	Phylloscopus sibilatrix	Woodland without shrub layer.	2001	Area unlikely to be suitable
Yellowhammer	Emberiza citrinella	Range of habitats, compartment likely to be suitable	2002-2005	Retain hedges, scrub and grassland habitats

*Appendix 4g – Summary Site Descriptions and Species Lists for Compartment 4g:
Pipe Green and Leomansley*

Staffordshire Ecological Record SBI Report

10/09/18

Site Name:

Pipe Green Common

Locality Type:

Neutral grassland {B}

Grid Ref.:

SK101098

GB Vice-County: Staffordshire

Civil Parish: Lichfield (Lichfield, Staffordshire, England)

Keywords

Keyword

Details

Date

Original Recorder Code

30031

no date

Conservation Status

Status

Details

Date

Higher Level Environmental Stewardship

Application put together by Wildlife Sites on 16/09/05

2006

Biotopes (Habitats)

Code

Habitat

Area

B21 Grassland: neutral, unimproved

14.81

B5 Grassland: marsh/marshy grassland

1.31

F21 Marginal/inundation: marginal

0.6

G2 Open water: running water

0.3

J212 Boundaries, intact hedge, species-poor

Dimensions

Dimension

Value/units

altitude

84-91m

area

9.3ha

Contacts

Contact information withheld.

Site Description

Source:

Cadman & Henshall, 2003

Summary: Pipe Green Common is a very diverse site and is of great ecological importance, it appears in a similar condition as in 1995 and is managed appropriately by the Pipe Green Trust. The majority of the meadows are well drained and support a short grassland sward with a diverse range of grasses and broadleaved herbs. There are small patches of acidic grassland. The most interesting sections are the northern section, that was found to support bee orchid, adder's-tongue fern and common spotted orchid. The central section, next to the Leamons Brook, supports a wide range of wetland plants including soft, hard, sharp flowered and jointed rush. Marsh pennywort, ragged robin, marsh ragwort, marsh vallarian and meadowsweet were also present. The site looks ideal for a range of amphibians and possibly grass snake. Snipe have been recorded on the site in the past. Two green woodpeckers, cinnabar, meadow brown and common field grasshopper were observed during the survey.

Source:

Radford & Bryant, 1995

Summary: Pipe Green Common Meadows are situated to the north west of the City of Lichfield, on the edge of the urban area. They are mainly surrounded by agricultural land, some of which has not been highly improved. A small block of mixed woodland adjoins part of the site and playing fields lie to the east. The Leamonsley Brook flows across the meadows near their southern boundary. The meadows are owned and managed by the Pipe Green Trust and have a well documented history. A series of public footpaths cross the site and these are used frequently by local residents.

Currently the site is grazed, at a low intensity, by bullocks.

Over most of the meadows, the soils are well-drained and support a rather short grassland sward composed mainly of common bent and sweet vernal grass. Additional species include frequent lesser stitchwort, bird's-foot trefoil, common cat's-ear and ribwort plantain and less commonly, pignut, mouse-ear hawkweed and harebell. In localised patches, where the soils are particularly nutrient-poor, sheep's sorrel and tormentil are abundant and mat grass and heath bedstraw occasional. Hairy sedge, often found in hollows or channels where water accumulates, is locally abundant.

On the lower lying ground near the stream, where the soils are wetter, there is a richer community with a number of plants typical of marshy grassland such as soft rush, greater bird's-foot trefoil and marsh bedstraw which are plentiful and ragged robin, jointed rush, sharp-flowered rush, marsh thistle and carnation sedge which occur occasionally.

The stream supports a varied wetland flora which includes frequent branched bur-reed, brooklime and water-cress. Pink water speedwell and lesser water parsnip, both rare in Staffordshire, grow in one locality. In places the brook banks have abundant meadow sweet and water figwort while elsewhere bittersweet is dominant. Associated species include greater tussock sedge, tufted hair-grass, soft rush and marsh ragwort. Alders occur at intervals along their length, particularly at the eastern end.

Hedges surround most of the common, with a tall fence where it abuts Lady Muriel's Belt and Fitzherbert Firs Plantation. Small stands of bramble scrub grow beside this fence in places.

Fauna at the Site

Numerous butterflies were present at the site including meadow brown and small tortoiseshell which were encountered most frequently and smaller numbers of species such as painted lady, small heath and red admiral. Cinnabar moth caterpillars were noted on ragwort, their larval food plant and burnet moths seen in flight. Other insects were also observed in small numbers, such as a bumble bee species (*Bombus* spp.), a member of the Syrphidae (hoverflies) and grasshoppers / crickets were heard. One of the darter dragonflies (*Libellula depressa*) was conspicuous, resting on a patch of bramble.

There was evidence of abundant rabbit activity in the western part of the site , and a common frog was found in the wetter grassland near the stream.

Semi-improved fields to the east and south of Pipe Green Common.

A field between Pipe Green Common and the football ground and two fields to the south of the ground support semi-improved neutral grassland. They are dominated by Yorkshire fog with locally abundant common bent. In the field immediately to the east of Pipe Green Common knapweed is conspicuous while in the other fields creeping thistle and meadow buttercup are frequent.

Bibliography

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Protected Species

English Name	Latin Name	Comments	Year/s Recommendations
Adder	<i>Vipera berus</i>	Very old record	1882 No recommendations
Barn Owl	<i>Tyto alba</i>	Species requires areas of rough grassland and other suitable habitat. Recorded from rough grassland near disused	2002 Protect semi-improved grassland, particularly near disused railway.
Barnacle Goose	<i>Branta leucopsis</i>	Open water species. Rare visitor.	2001 No specific recommendations
Bat species	Chiroptera	Species not determined	2003 No specific recommendations
Brambling	<i>Fringilla montifringilla</i>	Wintering species	2004 Retain hedges and woodlands, or provide mitigatory habitat.
Brown Long-eared Bat	<i>Plecotus auritus</i>	Usually roosting in loft spaces, often in older buildings. Feed in open woodland and parkland.	1988 Of particular concern where building alterations, including barn conversions are proposed.
Common Frog	<i>Rana temporaria</i>	Old record from Leomansley Pool, Probably widespread in area	1988 Protect ponds from development and / or mitigate by creating new ponds.
Common Pipistrelle	<i>Pipistrellus pipistrellus</i> sensu	Probably associated with housing and roosting in	2002 New housing should ideally have a range of bat-friendly roof tiles and / or

	stricto	some houses; likely to be widespread in the area	bricks. Natural habitat features for foraging should also be provided such as hedges; these would normally be provided within Green Infrastructure
Daubenton's Bat	Myotis daubentonii	Roosts in buildings and bridges. Frequently found near water.	2002 Protect open water habitats, also as common pipistrelle
Eurasian Badger	Meles meles	Probably widespread in area	2002 Protect where possible; mitigation will depend on size and location of badger groups affected on any given site.
Eurasian Eagle Owl	Bubo bubo	Rare visitor	2005 No specific recommendations
European Water Vole	Arvicola terrestris	Require well-vegetated water edge habitat, where not occupied by their main predator, mink.	2000 Any development likely to affect watercourses in area should protect the watercourse and provide a wide buffer strip of vegetation along the banks
Fieldfare	Turdus pilaris	Wintering species	2003 As brambling
Freshwater White-clawed Crayfish	Austropotamobius pallipes	Main threat is from crayfish plague. Populations in headwater streams and isolated ponds now most likely to be free from plague. Stowe Pool SSSI	2002 Care should be taken with small streams, ponds and lakes not to introduce plants or animals from infected sources. These areas should not be connected with main rivers.
Great Crested Newt	Triturus cristatus	Species breeds in still, open water and uses a range of habitats at other times of year. Recorded from Leomansley Pool,	1987 Protect ponds and surrounding habitats
Marsh Frog	Pelophylax ridibundus	Introduced species, usually found in drainage ditches.	2008 Conservation action should aim to prevent its spread.
Myotis Bat species	Myotis	Exact species not determined	2008 No action recommended
Noctule Bat	Nyctalus noctula	Mainly associated with trees, particularly old trees with holes for roosting.	2005 Retain hedges and trees, including dead trees. Install bat boxes in young woodlands.
Peregrine Falcon	Falco peregrinus	Probably hunting over area. Nests on cliffs and tall buildings	2008 No specific recommendations
Pipistrelle	Pipistrellus pipistrellus sensu lato	As Common Pipistrelle	2002 As Common Pipistrelle
Polecat	Mustela putorius	Farmland and gardens. eat rabbits and rats.	1997 No specific recommendations
Red Kite	Milvus milvus	Rare visitor	2006 No specific recommendations
Redwing	Turdus iliacus	Wintering species	2004 As brambling.
Soprano Pipistrelle	Pipistrellus pygmaeus	As Common Pipistrelle	2008 As Common Pipistrelle
Whiskered/Brandt's Bat	Myotis mystacinus/brandtii	Summer roosts in trees and buildings. May hibernate in caves or tunnels. Prefers woodlands for feeding, often near water	1994 Retain woodlands or provide mitigation. Also as common pipistrelle

Biodiversity Action Plan Species

English Name	Latin Name	Comments	Year/s Recommendations
August Thorn	Ennomos quercinaria	Woodland and suburban habitats. Feeds on trees	2006 Retain woodlands or provide mitigation
Beaded Chestnut	Agrochola lychnidis	Feeds on a range of plants	2006 No specific recommendations
Brindled Beauty	Lycia hirtaria	Woodland and suburban species, feeds on broad leaved trees.	2006 Retain woodlands or provide mitigation
Brown Hare	Lepus europaeus	Widely distributed in area, usually on arable or grassland	2003 If area is developed, surveys should be carried out to see whether species is still present, if so mitigatory habitat should be provided
Brown-spot	Agrochola litura	Woodland, heathland and suburban	1998 No specific recommendations

Pinion		habitats, feeding on herbaceous plants and trees.		
Buff Ermine	Spilosoma luteum	Widespread, feeds on a range of plants	2006	No specific recommendations
Centre-barred Sallow	Atethmia centrigo	Moth feeding on ash trees in woodlands and hedges	2006	Retain woodlands and hedges or provide mitigation
Cinnabar	Tyria jacobaeae	Probably widespread in area. Feeds on ragwort and similar plants	1995-2006	No specific recommendations
Common Bullfinch	Pyrrhula pyrrhula	Found in woodlands and hedgerows	2002-2006	Retain woodlands and hedges or provide mitigation
Common Linnet	Carduelis cannabina	Widespread on farmland, especially to southwest of Lichfield.	2001-2005	Retain hedges and grassland habitats, especially marshy grassland
Common Snipe	Gallinago gallinago	Species of wet grassland and related habitats. Pipe Green	2002-2007	Probably confined to Pipe Green Common area. Protect Pipe Green Common and retain and buffer marshy grassland elsewhere.
Common Starling	Sturnus vulgaris	Found in woodland, reedbeds and gardens	2004, 2005	No specific recommendations
Common Toad	Bufo bufo	Some records are now out of date, but Little Aston and Leomansley Pool areas may still have populations of toads as this species returns to its ancestral ponds. More recent records for Pipe Grange	1975-2008	Retain ponds and suitable surrounding habitat. Create additional habitat.
Corn Bunting	Emberiza calandra	Widespread around area, farmland species	2004, 2007	Retain and buffer suitable habitat. Provide compensatory habitat where suitable habitat is lost, including farmland.
Crescent	Celaena leucostigma	Species of damp, marshy woodland and moorland	2002	Suitable habitat may be found around the Pipe Green area.
Dark-barred Twin-spot Carpet	Xanthorhoe ferrugata	Range of food plants	2002, 2006	No specific recommendations
Deep-brown Dart	Aporophyla lutulenta	Range of open habitats, feeding on grasses etc	2006	No specific recommendations
Dot Moth	Melanchra persicariae	Found in a range of suburban habitats, feed on a variety of plants.	1995, 2006	No specific recommendations
Dunnock	Prunella modularis	Wide range of habitats	2004	No specific recommendations
Dusky Brocade	Apamea remissa	Wide range of habitats	2006	No specific recommendations
Dusky Thorn	Ennomos fuscantaria	Woodland and suburban habitats. Feeds on ash trees.	2006, 2007	Retain woodlands or provide mitigation
Ear Moth	Amphipoea oclea	Damp habitats, feeds on grasses and other plants.	2002	Suitable habitat may be found around the Pipe Green area.
Eurasian Tree Sparrow	Passer montanus	Widespread in area, especially on farmland	2002-2007	No specific recommendations
Ghost Moth	Hepialus humuli	Grassy areas, feeding on grasses and other plants.	2006	No specific recommendations
Goat Moth	Cossus cossus	Old record	1936	No specific recommendations
Hawfinch	Coccothraustes coccothraustes	Woodland species, feeding on shoots, seeds and fruits	2002, 2003	Retain woodlands or provide mitigation
House Sparrow	Passer domesticus	Species of gardens and farmland	2003-2005	Retain and buffer suitable habitat. Provide compensatory habitat where suitable habitat is lost, including farmland.
Latticed Heath	Chiasmia clathrata	Open habitats, feeding on clover and similar plants	2007	No specific recommendations
Lesser Spotted Woodpecker	Dendrocopos minor	Woods, parkland and gardens	2002-2005	Retain woodlands or provide mitigation
Marsh Tit	Poecile palustris	Mainly found in broad leaved woodland	2003	Retain woodlands or provide mitigation
Minor Shoulder-knot	Brachylomia viminalis	Damp woodland and wetlands, feeding on willow.	2006	Retain woodlands or provide mitigation
Mottled Rustic	Caradrina morpheus	Range of habitats, including gardens, feeding on herbaceous plants.	2006	No specific recommendations
Mouse Moth	Amphipyra tragopoginis	Range of habitats, feeding on herbaceous plants.	2002, 2006	No specific recommendations
Neglected Rustic	Xestia castanea	Heathland species	2006	Suitable habitat may be found around the Pipe Green area.
Northern Lapwing	Vanellus vanellus	Widespread in area, especially on farmland	2002-2006	Retain and buffer suitable habitat. Provide compensatory habitat

Oak Hook-tip	Watsonalla binaria	Oak woodland and parkland, feeds on oak	2002, Retain woodland and hedges. 2006	where suitable habitat is lost, including farmland.
Reed Bunting	Emberiza schoeniclus	Wetlands and farmland	2002-2007	As Lapwing
Rosy Minor	Mesoligia literosa	Grassland, feeding on grasses	2002	Suitable habitat may be found around the Pipe Green area.
Rosy Rustic	Hydraecia micacea	Waste ground and marshy places, feeding mainly on docks	2007	Suitable habitat may be found around the Pipe Green area.
Rustic	Hoplodrina blanda	Range of habitats, including gardens, feeding on herbaceous plants.	2007	No specific recommendations
Sallow	Xanthia icteritia	Damp woodland and other marshy places, feeding on willow and other plants.	2006	Suitable habitat may be found around the Pipe Green area.
September Thorn	Ennomos erosaria	Woodland, parkland and gardens. Feeds on trees.	2006	Retain woodlands or provide mitigation
Shaded Broad-bar	Scotopteryx chenopodiata	Open habitats, feeding on clover and vetches	2006	Retain and enhance grassland habitats
Shoulder-striped Wainscot	Mythimna comma	Wide range of habitats. Feeds on grasses	2006	No specific recommendations
Sky Lark	Alauda arvensis	Open grassland and other habitats	2001-2006	If any of area is developed, suitable habitat is likely to be lost, so mitigatory habitat should be provided
Small Heath	Coenonympha pamphilus	Wide range of habitats. Feeds on grasses	1992, 1995	No specific recommendations
Small Phoenix	Ecliptopera silaceata	Woodland and open habitats, feeds on willowherbs	2002, 2006	No specific recommendations
Small Square-spot	Diarsia rubi	Range of habitats, feeds on a range of plants	2002, 2006	No specific recommendations
Song Thrush	Turdus philomelos	Woods, hedges, parks and gardens	2003, 2005	No specific recommendations
Spotted Flycatcher	Muscicapa striata	Mature trees, especially in open areas.	2003-2007	Suitable habitat is present in the Pipe Green area
Wall	Lasiommata megera	Becoming rare inland as species now mainly confined to coast. Grassland and wasteland species	1989	As above
West European Hedgehog	Erinaceus europaeus	Probably widespread in area in gardens, etc.	1977-2007	No specific recommendations
White Ermine	Spilosoma lubricipeda	Widespread – feeds on a variety of plants.	2006	No specific recommendations
Willow Tit	Poecile montanus	Willow scrub and similar habitats	2001-5	Retain scrub and woodlands or provide mitigation
Wood Warbler	Phylloscopus sibilatrix	Woodland without shrub layer.	2001	Retain woodlands or provide mitigation
Yellowhammer	Emberiza citrinella	Range of habitats, compartment likely to be suitable	2002-2007	Retain hedges, scrub and grassland habitats

Appendix 5 Areas around Burntwood

Appendix 5a – Summary Site Descriptions and Species Lists for Compartment 5a: Area Around Burntwood

Cresswell Green Hedgerows BAS Report

01/70/11

SK071101

Cresswell Green: Species rich intact hedgerow: J211
Length: 320.2 metres

Site Description - BAS

This Hedgerow is situated on the north boundary of Nether Lane running between the village of Cresswell Green and the farmhouse 'Nether Lane Farm'.

Structurally this hedge is valued in particular for its height of over four metres and its high diversity of hedge canopy species (13). It also had a small ditch running parallel to the hedge and a bank of between 0.5 to 1 metres in height. With these assets it scored 2+ on the HEGS scoring system. The modified HEGS form also yields the SBI score, which in this case was 10 and coupled with the HEGS score this hedge came out as a BAS.

The hedge only had a three trees along its length, which is less than one tree per 100 metres, however two of these trees were the rare species Black Poplar. Other species of interest in the hedge were Bluebell, Crab Apple and Greater Stitchwort. The hedge also had Hawthorn frequently along its length. Suggested management would be cutting it to an A-shape every 3 years ideally between January and February with periodic restoration to prevent formation of gaps. Grass verges of two metres should also be kept and trimmed outside of the bird nesting season ideally in June-July and cuttings should be removed to prevent improvement.

Woodhouses Hedgerows BAS Report

00/78/49

SK074089

Hedgerow 6

Woodhouses: Species rich intact hedgerow: J211
Length: 540.5 metres

Site Description - BAS

This Hedgerow is situated Northern boundary of Woodhouses Lane, a track which runs between Farewell Lane and Jones Lane near to Burntwood Green.

Structurally the hedge is valued in particular for its species rich canopy with 12 species. The hedge had four standard trees along its length and one young tree. It also had a small 0.5 – 1 metre bank and a grass verge of over 2 metres across along one side. With these assets it scored 2 on the HEGS scoring system. The modified HEGS form also yields the SBI score, which in this case was 14 and coupled with the HEGS score this hedge came out as a BAS.

Species of interest in the hedge were White bryony, Cowslip, Devil's-bit Scabious and Bluebell. The hedge also had more common species Hawthorn and Hazel frequently along its length. The hedge had a few garden species; Butterfly Bush and Garden Privet. Suggested management would be cutting it to an A-shape every 3 years ideally between January and February with periodic restoration to prevent formation of gaps. Grass verges of two metres should also be kept and trimmed outside of the bird nesting season ideally in June-July and cuttings should be removed to prevent improvement.

Protected Species

English Name	Latin Name	Comments	Year/s	Recommendations
Arctic Tern	<i>Sterna paradisaea</i>	Rare visitor	1954-2008	No recommendations
Barn Owl	<i>Tyto alba</i>	Recorded in area over a long period. Species requires substantial areas of rough grassland and other suitable habitat to hunt over	1954-2008	Grassland habitats within compartment are probably suitable for hunting barn owls. Protect semi-improved grassland
Barnacle Goose	<i>Branta leucopsis</i>	Open water species; rare visitor.	1954-2003	No recommendations. Area not suitable
Bar-tailed Godwit	<i>Limosa lapponica</i>	Open water species; rare visitor.	1954-2008	No recommendations. Area not suitable
Bat species	<i>Chiroptera</i>	Species not determined exactly.	1994, 2001	No recommendations possible.
Bearded Tit	<i>Panurus biarmicus</i>	Rare visitor	1979, 1997	No recommendations
Black Redstart	<i>Phoenicurus ochruros</i>	Mainly an urban species in lowland Britain	1978-2008	No specific recommendations
Black Tern	<i>Chlidonias niger</i>	Passage migrant species of open water.	1954-2008	No recommendations. Area not suitable
Black-necked Grebe	<i>Podiceps nigricollis</i>	Open water species.	2000-2008	No recommendations. Area not suitable
Black-tailed Godwit	<i>Limosa limosa</i>	Open water species; visitor	1954-2008	No recommendations. Area not suitable
Black-throated Diver	<i>Gavia arctica</i>	Open water species; rare visitor	1982-2000	No recommendations. Area not suitable
Brambling	<i>Fringilla montifringilla</i>	Wintering species	1954-2008	Retain hedges and woodlands, or provide mitigatory habitat.
Brown Long-eared Bat	<i>Plecotus auritus</i>	Usually roosting in loft spaces	1991, 1992	Of particular concern where building alterations, including barn conversions are proposed.
Brown Long-eared Bat	<i>Plecotus auritus</i>	Usually roosting in loft spaces	2002	Of particular concern where building alterations, including barn conversions are proposed.
Caspian Tern	<i>Hydroprogne caspia</i>	Rare visitor	1973	No recommendations
Common Crossbill	<i>Loxia curvirostra</i>	Feeds in conifer plantations.	2005-2008	Protect woodlands, or provide mitigation.
Common Frog	<i>Rana temporaria</i>	Widespread in ponds and lakes in area	1975-2006	Protect ponds from development and / or mitigate by creating new ponds.
Common Goldeneye	<i>Bucephala clangula</i>	Open water species	1998-2009	No recommendations. Area not suitable
Common Greenshank	<i>Tringa nebularia</i>	Open water species	1954-2008	No recommendations. Area not suitable
Common Kingfisher	<i>Alcedo atthis</i>	Chasewater and Jeffreys Swag, requires watercourses or open water	1954-2008	Retain and buffer open water and watercourses

Common Lizard	<i>Zootoca vivipara</i>	Prefers warm, open habitats, with rubble etc., for shelter.	1970	Protect habitats of this type; new areas of habitat could include features suitable for reptiles.
Common Pipistrelle	<i>Pipistrellus pipistrellus sensu stricto</i>	Probably associated with housing and roosting in some houses; likely to be widespread in the area	1999-2007	New housing should ideally have a range of bat-friendly roof tiles and / or bricks. Natural habitat features for foraging should also be provided such as hedges; these would normally be provided within Green Infrastructure.
Common Scoter	<i>Melanitta nigra</i>	Open water species	1954-2008	No recommendations
Common Tern	<i>Sterna hirundo</i>	Open water species recorded from e.g. Chasewater	1954-2008	No specific recommendations. Area not suitable
Cormorant	<i>Phalacrocorax carbo</i> subsp. <i>sinensis</i>	As above	2004	No specific recommendations. Area not suitable
Cory's Shearwater	<i>Calonectris diomedea</i>	As above. Old record.	1971	No specific recommendations. Area not suitable
Cow-horn Bog-moss	<i>Sphagnum denticulatum</i>	Chasewater Heaths SSSI	1993	Protect site on which this species found, ensuring hydrology of the site is also protected.
Eurasian Badger	<i>Meles meles</i>	Probably widespread in area	1998-2006	Protect where possible; mitigation will depend on size and location of badger groups affected on any given site.
Eurasian Dotterel	<i>Charadrius morinellus</i>	Passage migrant.	1950, 1971	No recommendations
Eurasian Hobby	<i>Falco subbuteo</i>	Tree nesting species, in a range of habitats.	2000-2008	No specific recommendations
Eurasian Marsh Harrier	<i>Circus aeruginosus</i>	Rare visitor	1997-2000	No recommendations. Area not suitable
European Golden Plover	<i>Pluvialis apricaria</i>	Rare visitor	1954-2008	No recommendations
European Honey-buzzard	<i>Pernis apivorus</i>	Extremely rare species	2004, 2008	No recommendations
European Nightjar	<i>Caprimulgus europaeus</i>	Species of heathland and young plantation.	1954, 2005	Area unlikely to be suitable
European Storm-petrel	<i>Hydrobates pelagicus</i>	Rare visitor	1989	No recommendations
European Water Vole	<i>Arvicola terrestris</i>	Require well-vegetated water edge habitat, where not occupied by their main predator, mink.	1972-2004	Any development likely to affect watercourses in area should protect the watercourse and provide a wide buffer strip of vegetation along the banks
Ferruginous Duck	<i>Aythya nyroca</i>	Rare visitor	1977-2006	No specific recommendations
Fieldfare	<i>Turdus pilaris</i>	Wintering species	1954-2008	As brambling
Firecrest	<i>Regulus ignicapilla</i>	Occasional records – species is a rare visitor, often feeding in conifer plantations.	1984, 1998	No recommendations
Floating Water-plantain	<i>Luronium natans</i>	Plant species of clean, open water	1986	Protect site on which this species found, ensuring hydrology of the site is also protected.
Freshwater White-clawed Crayfish	<i>Austropotamobius pallipes</i>	Main threat is from crayfish plague. Populations in headwater streams and isolated ponds now most likely to be free from plague. Recorded from Chasewater, Anglesey Branch Canal, Jeffreys' Swag	1975-1995	Care should be taken with small streams, ponds and lakes not to introduce plants or animals from infected sources. These areas should not be connected with main rivers.
Fringed Bog-moss	<i>Sphagnum fimbriatum</i>	Species of wet, acidic habitat, found in the bog below Chasewater dam.	1975	Protect site on which this species found, ensuring hydrology of the site is also protected.
Garganey	<i>Anas querquedula</i>	Shallow wetlands with aquatic vegetation	1954-2008	No recommendations. Area not suitable
Grass Snake	<i>Natrix natrix</i>	Found in rough land and pasture, often near water. Feeds on frogs etc.	2002	Area may be suitable. Protect rough grassland habitats, or provide mitigation.
Great Bittern	<i>Botaurus stellaris</i>	Rare visitor Chasewater	1954-1997	No specific recommendations
Great Northern Diver	<i>Gavia immer</i>	Rare visitor Chasewater	1954-2008	No specific recommendations

Greater Scaup	Aythya marila	Wintering species only.	1954-2008	No specific recommendations
Green Sandpiper	Tringa ochropus	Water edge species recorded from Chasewater	1954-2008	No specific recommendations
Hen Harrier	Circus cyaneus	Rare visitor Chasewater Reservoir	1995	No specific recommendations
Horned Lark	Eremophila alpestris	Chasewater Reservoir	1990-2002	No specific recommendations
Kentish Plover	Charadrius alexandrinus	Rare visitor Chasewater Reservoir	1976	No specific recommendations
Lapland Longspur	Calcarius lapponicus	Rare visitor Chasewater Reservoir	1948-1987	No specific recommendations
Leach's Storm-petrel	Oceanodroma leucorhoa	Rare visitor Chasewater Reservoir	1985-1989	No specific recommendations
Little Egret	Egretta garzetta	Rare visitor Chasewater Reservoir	1999-2008	No specific recommendations
Little Gull	Larus minutus	Water edge species recorded from Chasewater	2000-2008	No specific recommendations
Little Plover	Charadrius dubius	Water edge species recorded from Chasewater	1954-2008	No specific recommendations
Little Tern	Sternula albifrons	Open water species	1954-2008	No recommendations
Long-tailed Duck	Clangula hyemalis	Rare visitor Chasewater Reservoir	1987, 2000	No recommendations
Mediterranean Gull	Larus melanocephalus	Open water species	1973-2008	No recommendations
Merlin	Falco columbarius	Rare Visitor Chasewater Reservoir	1954-2008	No specific recommendations
Moss species	Sphagnum recurvum	Species of wet, acidic habitat, found in the bog below Chasewater dam	1975-1993	Protect site on which this species found, ensuring hydrology of the site is also protected.
Moss species	Sphagnum subnitens var. subnitens	As above	1975	As above
Moss species	Sphagnum recurvum	As above	2006	As above
Noctule Bat	Nyctalus noctula	Mainly associated with trees, particularly old trees with holes for roosting.	1995-2002	Retain hedges and trees, including dead trees. Install bat boxes in young woodlands.
Northern Pintail	Anas acuta	Water edge species recorded from Chasewater	1954-2008	No specific recommendations
Osprey	Pandion haliaetus	Rare visitor Chasewater Reservoir	2000-2008	No recommendations
Papillose Bog-moss	Sphagnum papillosum	Species of wet, acidic habitat, found on Gentshaw Common	2003	Protect site on which this species found, ensuring hydrology of the site is also protected.
Peregrine Falcon	Falco peregrinus	Probably hunting over area. Nests on cliffs and tall buildings	2000-2008	No specific recommendations
Pied Avocet	Recurvirostra avosetta	Rare visitor Chasewater Reservoir	1989	No specific recommendations
Pipistrelle	Pipistrellus pipistrellus sensu lato	As Common Pipistrelle	1989-2002	As Common Pipistrelle
Pipistrelle Bat species	Pipistrellus	As Common Pipistrelle	2007	As Common Pipistrelle
Purple Sandpiper	Calidris maritima	Open water species; rare visitor	1954, 1982	No recommendations
Red Bog-moss	Sphagnum capillifolium subsp. rubellum	Very old record from Chasewater	1600	No specific recommendations
Red Kite	Milvus milvus	Rare visitor Chasewater Reservoir	1961-2008	No recommendations
Red-footed Falcon	Falco vespertinus	Rare visitor Chasewater Reservoir	1973	No recommendations
Red-necked Phalarope	Phalaropus lobatus	Rare visitor Chasewater Reservoir	1974, 1985	No recommendations
Red-throated Diver	Gavia stellata	Open water species recorded from Chasewater	1954-1996	No specific recommendations
Redwing	Turdus iliacus	Wintering species	1954-2008	As brambling.
Ruff	Philomachus pugnax	Open water species; rare visitor	1954-2008	No recommendations

Sandwich Tern	<i>Sterna sandvicensis</i>	Open water species; rare visitor	1954-2006	No recommendations
Short-eared Owl	<i>Asio flammeus</i>	Probably nesting only in upland areas in Staffs. Visitor elsewhere, feeding over open land	1954-2008	No recommendations
Slavonian Grebe	<i>Podiceps auritus</i>	Rare visitor	Chasewater Reservoir 1983-2008	No recommendations
Slender Cow-horn Bog-moss	<i>Sphagnum subsecundum</i>	Species of wet, acidic habitat, found in the bog below Chasewater dam	1975	Protect site on which this species found, ensuring hydrology of the site is also protected.
Smew	<i>Mergellus albellus</i>	Chasewater Reservoir	2003-2007	No recommendations
Snow Bunting	<i>Plectrophenax nivalis</i>	Chasewater Reservoir	1984-2007	No recommendations
Soprano Pipistrelle	<i>Pipistrellus pygmaeus</i>	As Common Pipistrelle	2007	As Common Pipistrelle
Spiky Bog-moss	<i>Sphagnum squarrosum</i>	Species of wet, acidic habitat, found in the bog below Chasewater dam	1975	Protect site on which this species found, ensuring hydrology of the site is also protected.
Temminck's Stint	<i>Calidris temminckii</i>	Rare visitor	1980	No specific recommendations
Tundra Swan	<i>Cygnus columbianus</i>	Rare visitor	1954, 2004	No specific recommendations
Velvet Scoter	<i>Melanitta fusca</i>	Open water species recorded at Chasewater	1979-2004	No specific recommendations
Whimbrel	<i>Numenius phaeopus</i>	Rare visitor	2000-2008	No specific recommendations
White Stork	<i>Ciconia ciconia</i>	Rare visitor	2002	No specific recommendations
Whooper Swan	<i>Cygnus cygnus</i>	Rare visitor	1954-2009	No specific recommendations
Wood Lark	<i>Lullula arborea</i>	Mainly a heathland species, rarely breeding in Staffs.	1954-1984	No specific recommendations
Wood Sandpiper	<i>Tringa glareola</i>	Passage migrant species	1954	No recommendations

Biodiversity Action Plan Species

English Name	Latin Name	Comments	Year/s	Recommendations
August Thorn	<i>Ennomos quercinaria</i>	Woodland and suburban habitats. Feeds on trees	2006	Retain woodlands, or provide mitigatory habitat
Beaded Chestnut	<i>Agrochola lychnidis</i>	Feeds on a range of plants	2006	No specific recommendations
Brindled Beauty	<i>Lycia hirtaria</i>	Woodland and suburban species, feeds on broad leaved trees.	2006	As august thorn
Brown Hare	<i>Lepus europaeus</i>	Widely distributed in area, usually on arable or grassland. Records from area around NMA	2000-2007	If area is developed, suitable habitat is likely to be lost, so mitigatory habitat should be provided
Buff Ermine	<i>Spilosoma luteum</i>	Widespread, feeds on a range of plants	2006	No specific recommendations
Centre-barred Sallow	<i>Atethmia centrargo</i>	Moth feeding on ash trees in woodlands and hedges	2006	Retain hedges and woodlands, or provide mitigatory habitat
Cinnabar	<i>Tyria jacobaeae</i>	Probably widespread in area. Feeds on ragwort and similar plants	2001, 2006	No specific recommendations
Common Bullfinch	<i>Pyrrhula pyrrhula</i>	Found in woodlands and hedgerows	2005-2007	Retain hedges and woodlands, or provide mitigatory habitat
Common Cuckoo	<i>Cuculus canorus</i>	Range of habitat, including woods and hedges. Recorded from NMA	2001, 2004	Retain hedges, woodlands and grassland habitats, or provide mitigatory habitat, especially near to NMA
Common Grasshopper Warbler	<i>Locustella naevia</i>	Nests in scrub	2006	No specific recommendations
Common Linnet	<i>Carduelis cannabina</i>	Widespread around area. Wide range of habitat, mainly farmland and grassland	2001-2008	Retain hedges and grassland habitats, especially marshy grassland
Common Snipe	<i>Gallinago gallinago</i>	Species of wet grassland and related habitats. Recorded from key wetland sites in area	2000-2008	Probably confined to key wetland sites. Protect key sites and retain and buffer marshy grassland elsewhere.

Common Starling	<i>Sturnus vulgaris</i>	Found in woodland, reedbeds and gardens Widespread around area	2001-2008	No specific recommendations
Common Toad	<i>Bufo bufo</i>	Records are now out of date, but Little Aston area may still have populations of toads as this species returns to its ancestral ponds. More recent records for NMA	1975, 2001	Retain ponds and suitable surrounding habitat. Create additional habitat.
Corn Bunting	<i>Emberiza calandra</i>	Widespread around area, farmland species	2000-2008	If area is developed, suitable habitat is likely to be lost, so mitigatory habitat should be provided
Dark-barred Twin-spot Carpet	<i>Xanthorhoe ferrugata</i>	Range of food plants	2006	No specific recommendations
Deep-brown Dart	<i>Aporophyla lutulenta</i>	Range of open habitats, feeding on grasses etc	2006	No specific recommendations
Depressed River Mussel	<i>Pseudanodonta complanata</i>	Recorded from Canal – requires clean water and silty substrate. Unlikely to be affected by development	1998, 1999	No recommendations
Dot Moth	<i>Melanchra persicariae</i>	Found in a range of suburban habitats, feed on a variety of plants.	2006	No specific recommendations
Dunnock	<i>Prunella modularis</i>	Wide range of habitats	2001-2007	No specific recommendations
Dusky Brocade	<i>Apamea remissa</i>	Wide range of habitats	2006	No specific recommendations
Dusky Thorn	<i>Ennomos fuscantaria</i>	Woodland and suburban habitats. Feeds on ash trees.	2006	Retain hedges and woodlands, or provide mitigatory habitat
Eurasian Curlew	<i>Numenius arquata</i>	Species of wet grassland and related habitats.	2003	Area unlikely to be suitable
Eurasian Tree Sparrow	<i>Passer montanus</i>	Open woodland and garden species.	2001-2008	No specific recommendations
Ghost Moth	<i>Hepialus humuli</i>	Grassy areas, feeding on grasses and other plants.	2006	No specific recommendations
Goat Moth	<i>Cossus cossus</i>	Old record	1936	No specific recommendations
Greater White-fronted Goose	<i>Anser albifrons</i>	Open water species, not resident	2003, 2004	No specific recommendations
Grey Partridge	<i>Perdix perdix</i>	Ground nesting in arable and other habitats, including rushy pastures.	2001-2008	If area is developed, suitable habitat is likely to be lost, so mitigatory habitat should be provided
Harvest Mouse	<i>Micromys minutus</i>	Tall vegetation usually near water.	2002-2007	Retain and buffer suitable habitat, especially marshy grassland
Hawfinch	<i>Coccothraustes coccothraustes</i>	Woodland species, feeding on shoots, seeds and fruits	2001	Retain woodlands, or provide mitigatory habitat
Herring Gull	<i>Larus argentatus</i>	Open water only, winter visitor	2003, 2007	No specific recommendations Area not suitable
House Sparrow	<i>Passer domesticus</i>	Species of gardens and farmland	2003-2007	No specific recommendations
Lesser Spotted Woodpecker	<i>Dendrocopos minor</i>	Woods, parkland and gardens	2002	No specific recommendations
Marsh Tit	<i>Poecile palustris</i>	Mainly found in broad leaved woodland	2005-2007	Retain woodlands, or provide mitigatory habitat
Minor Shoulder-knot	<i>Brachylomia viminalis</i>	Damp woodland and wetlands, feeding on willow.	2006	Area unlikely to be suitable
Mottled Rustic	<i>Caradrina morpheus</i>	Range of habitats, including gardens, feeding on herbaceous plants.	2006	No specific recommendations
Mouse Moth	<i>Amphipyra tragopoginis</i>	Range of habitats, feeding on herbaceous plants.	2006	No specific recommendations
Neglected Rustic	<i>Xestia castanea</i>	Heathland species	2006	Area unlikely to be suitable
Northern Lapwing	<i>Vanellus vanellus</i>	Recorded from a number of sites in area, mainly wetlands.	2000-2008	Retain and buffer suitable habitat. Provide compensatory habitat where suitable habitat is lost, including farmland.
Oak Hook-tip	<i>Watsonalla binaria</i>	Oak woodland and parkland, feeds on oak	2006	Retain woodland and hedges.
Reed Bunting	<i>Emberiza schoeniclus</i>	As Lapwing	2000-2007	As Lapwing
Sallow	<i>Xanthia icteritia</i>	Damp woodland and other marshy places, feeding on willow and other	2006	Area unlikely to be suitable

		plants.		
September Thorn	Ennomos erosaria	Woodland, parkland and gardens. Feeds on trees.	2006	Retain woodlands, or provide mitigatory habitat
Shaded Broad-bar	Scotopteryx chenopodiata	Open habitats, feeding on clover and vetches	2006	Retain and enhance grassland habitats
Shoulder-striped Wainscot	Mythimna comma	Wide range of habitats. Feeds on grasses	2006	No specific recommendations
Sky Lark	Alauda arvensis	Open grassland and other habitats	1985-2008	If area is developed, suitable habitat is likely to be lost, so mitigatory habitat should be provided
Small Heath	Coenonympha pamphilus	Wide range of habitats. Feeds on grasses	2001	No specific recommendations
Small Phoenix	Ecliptopera silaceata	Woodland and open habitats, feeds on willowherbs	2006	No specific recommendations
Small Square-spot	Diarsia rubi	Range of habitats, feeds on a range of plants	2006	No specific recommendations
Song Thrush	Turdus philomelos	Woods, hedges, parks and gardens	2003-2007	No specific recommendations
Spotted Flycatcher	Muscicapa striata	Mature trees, especially in open areas.	2007	Retain mature trees and woodlands, or provide mitigatory habitat
Tree Pipit	Anthus trivialis	Trees in open areas,	2006	as above
Tubular Water-dropwort	Oenanthe fistulosa	Water or wetland species	1979	Area unlikely to be suitable
Wall	Lasiommata megera	Becoming rare inland as species now mainly confined to coast. Grassland and wasteland species	2000	No specific recommendations
West European Hedgehog	Erinaceus europaeus	Probably widespread in area in gardens, etc.	2008	No specific recommendations
White Ermine	Spilosoma lubricipeda	Widespread – feeds on a variety of plants.	2006	No specific recommendations
Willow Tit	Poecile montanus	Willow scrub and similar habitats	2001-2007	Area unlikely to be suitable
Yellow Wagtail	Motacilla flava	Wetland species, NMA etc.	2000-2008	No specific recommendations
Yellowhammer	Emberiza citrinella	Range of habitats, compartment likely to be suitable	2001-2008	Retain hedges, scrub and grassland habitats

*Appendix 5b – Summary Site Descriptions and Species Lists for Compartment 5b :
Area to north of Chasewater*

Staffordshire Ecological Record SBI Report

00/38/27

Site Name:

Chasewater and Norton Bog (Master)

Locality Type:

Grid Ref.:

SK032087

GB Vice-County: Staffordshire

Civil Parish: Burntwood (Lichfield, Staffordshire, England)

Keywords

Keyword

Details

Date

Original Recorder Code

407

no date

Retained SBI (ex-Grade 1 SBI)

1995

Contacts

Contact information withheld.

Site Description

Source:

Description

Summary: Master site for a large SBI that includes Norton Bog and Chasewater that encloses the Chasewater Heaths SSSI within a protective buffer zone. The SBI comprises seven distinct sub-sites, all former Grade 1 SBIs.

The whole site, but especially Chasewater and its banks is notable for its ornithological interest, with many resident breeding species and large wintering flocks of many species and as an annual site for many passage migrants.

Bibliography

described **Radford, E. & Bryant, M. (1995)**

The SBI Resurvey of Lichfield 1995; Staffordshire Wildlife Trust, Sandon, Staffordshire

Staffordshire Ecological Record SBI Report

00/38/77

Site Name:

**Chasewater Disused Railway and Reclaimed Land,
Chasewater and Norton Bog**

Locality Type:

**Broadleaved, mixed and yew
woodland {B}
Improved grassland {B}**

Grid Ref.: SK037087

GB Vice-County: Staffordshire

Civil Parish: Burntwood (Lichfield, Staffordshire, England)

Keywords

Keyword

Details

Date

Original Recorder Code

641/4

no date

Biotopes (Habitats)

Code

Habitat

Area

A1121 Woodland: broadleaved, plantation, high forest

B42 Grassland: improved/reseeded, lowland

G102 Open water: standing, ponds etc <0.5ha

I22 Rock & waste: artificial exposure, spoil heap

Contacts

Contact information withheld.

Site Description

Source:

Description

Summary: This sub-site comprises a mosaic of habitats including seeded grassland, sports fields, deciduous plantation, reclaimed spoil mounds and a disused railway line with a ditch running beside it. The railway line and ditch support several uncommon and rare species including common spotted orchid, marsh arrowgrass an annual wall rocket. Near to Chasetown there is a scrubby area with two sports fields and a small pond that supports breeding populations of several species of dragonflies.

Staffordshire Ecological Record SBI Report

00/39/25

Site Name:

Norton Bog, Chasewater

Locality Type:

Grid Ref.: SK032095

GB Vice-County: Staffordshire

Civil Parish: Burntwood (Lichfield, Staffordshire, England)

Keywords

Keyword

Details

Date

Original Recorder Code

5555

no date

Lichfield Local Development Framework
Draft Ecological Study



Historical BAS (ex-Grade 2 SBI)

no date

Biotopes (Habitats)

Code	Habitat	Area
A21	Scrub: dense/continuous	
A22	Scrub: scattered	
C12	Tall herb and fern: Bracken, scattered	
D5	Heathland: dry heath/acid grassland mosaic	
I22	Rock & waste: artificial exposure, spoil heap	

Site Description

Source:

Description

Summary: Area of birch and \$Salix\$ scrub which has grown up over old mine-workings, merging into open area (to the north-west of the recent spoil-heap), which is a mixture of mixed moorland and bracken.

Staffordshire Ecological Record SBI Report

00/39/42

Site Name:

Norton Bog and Tip Site, Chasewater and Norton Bog

Locality Type:

Broadleaved, mixed and yew woodland {B}

Grid Ref.: SK034092

GB Vice-County: Staffordshire

Civil Parish: Burntwood (Lichfield, Staffordshire, England)

Keywords

Keyword

Details

Date

Original Recorder Code

641/5

no date

Biotopes (Habitats)

Code	Habitat	Area
A1311	Woodland: mixed, semi-natural, high forest	
D52	Heathland: dry heath/acid grassland mosaic, lowland	
F21	Marginal/inundation: marginal	
G103	Open water: standing, lakes 0.5-5ha	
I22	Rock & waste: artificial exposure, spoil heap	

Contacts

Contact information withheld.

Site Description

Source:

Description

Summary: This sub-site comprises an area of derelict land and colliery spoil tips that lies between the A5 to the north and the old mineral railway line to the south. The site supports a mosaic of mainly scrub with secondary woodland, grassy glades, wet areas with remnants of the original wet heathland flora and some lag pools and extensive typha beds. Heathland plants appear throughout the grassed areas.

Staffordshire Ecological Record

Ecological Site Report

Produced in GeoConservation © SER, HWEHT 2003

Administrative Areas based on the National Biodiversity Network Dictionary © NBN, 1999-2002

Site Key: **00/48/12**

Site Name: **Church Street**

Grid Ref: **SK041082 (centred on)**

Site Type:

Contacts

record compiler 24/7/06 Cadman, David
field surveyor 7/6/06 Weightman, Judith
field surveyor 7/6/06 Cadman, David
landowner 2006 Lichfield District Council

Dimensions

Dimension Value/units

size 3.43ha

Site Description

Source: *Cadman & Weightman, 2006*

Summary: The site is located at the western end of Church Street, directly to the north of the Chasetown Football Club sports ground, in the Chasetown area of Lichfield District. The site is situated

Biotopes (Habitats)

Lichfield Local Development Framework
Draft Ecological Study



Code Habitat Area (ha)

A111 Woodland: broadleaved, semi-natural 1.46
A21 Scrub: dense/continuous 0.62
A22 Scrub: scattered
B11 Grassland: acid, unimproved 1.04
B22 Grassland: neutral, semi-improved 0.01
B5 Grassland: marsh/marshy grassland 0.21
C31 Tall herb and fern: other, tall ruderal 0.03
E21 Mire: Flush/spring, acid/neutral 0.01
F21 Marginal/inundation: marginal 0.01
G1 Open water: standing water 0.04
G2 Open water: running water
Civil Parish Burntwood, Lichfield, Staffordshire, England

Acid grassland {B}

Keywords

Keyword Details Date

Local Site Status

Potential SBI 7/6/06

Site of Biological

Importance

15/8/06

Site Designation Criteria

General 15/8/06 Chair of Designation: Cadman, Mr David
Designation Cmttee: AG, AL, JS, MP, CS, DC, JW, JS, AC
22 August 2006 © Staffordshire Ecological Record, 2006

Staffordshire Ecological Record

Ecological Site Report

Produced in GeoConservation © SER, HWEHT 2003

Administrative Areas based on the National Biodiversity Network Dictionary © NBN, 1999-2002

Site Key: **00/48/04**

Site Name: **Chasewater Disused Tip**

Grid Ref: SK040084 (centred on)

Site Type:

Contacts

record compiler 28/8/09 Brooks, Victoria R.
field surveyor (staff) 7/8/09 Cadman, David
field surveyor (staff) 22/7/09 Maxwell, Anna L.
field surveyor (staff) 22/7/09 Brooks, Victoria R.

Dimensions

Dimension Value/units

altitude 158 m

area 9.54 ha

Site Description

Source: *V. Brooks & A. Maxwell 2009*

Summary: The site is located to the south of Chase Terrace, to the west of Chasetown and to the east of the Chasewater and Norton Bog Site of Biological Importance (Site Code: 00/38/27). The site is situated immediately to the west of an industrial and housing estate, to the north of Chasetown Sports Ground and to the south of an industrial estate. The A5195 borders the western perimeter of the site, the A5190 lies adjacent to the northern edge and Church Street SBI (Site Code: 00/48/12) immediately borders the southern perimeter. Amenity grassland adjoins the northeastern edge with housing, bare ground and tall ruderal areas bordering the central eastern perimeter of the site.

Biotopes (Habitats)

Code Habitat Area (ha)

A111 Woodland: broadleaved, semi-natural 2.07 ha
A21 Scrub: dense/continuous 1.22 ha
B22 Grassland: neutral, semi-improved 4.25 ha
B5 Grassland: marsh/marshy grassland 0.60 ha
B6 Grassland: poor semi-improved 0.02 ha
C31 Tall herb and fern: other, tall ruderal 0.28 ha
D6 Heathland: wet heath/acid grassland mosaic 0.10 ha
F1 Swamp 0.15 ha
G1 Open water: standing water 0.09 ha
J4 Bare ground 0.76 ha

Civil Parish Burntwood, Lichfield, Staffordshire, England

**Open mosaic habitats on
previously developed land
{P}**

Keywords

Keyword Details Date

18 September 2009 © Staffordshire Ecological Record, 2009 Page 1 of 3

The Wolseley Centre, Wolseley Bridge, Stafford. ST17 0WT

Protected species

English Name	Latin Name	Comments	Year/s	Recommendations
Adder	Vipera berus	Mainly confined to heathland in Staffs.		Protect heathland and similar habitats
Arctic Tern	Sterna paradisaea	Rare visitor Chasewater Reservoir		No specific recommendations
Barnacle Goose	Branta leucopsis	Rare visitor Chasewater Reservoir		No specific recommendations
Bar-tailed Godwit	Limosa lapponica	Rare visitor Chasewater Reservoir		No specific recommendations
Black Redstart	Phoenicurus ochruros	Mainly an urban species in lowland Britain	1978	No specific recommendations
Black Tern	Chlidonias niger	Open water species		No specific recommendations
Black-necked Grebe	Podiceps nigricollis	Open water species		No specific recommendations
Black-tailed Godwit	Limosa limosa	Open water species		No specific recommendations
Black-throated Diver	Gavia arctica	Open water species		No specific recommendations
Blunt-leaved Bog-moss	Sphagnum palustre	Species of wet, acidic habitat, found in Norton Bog	2007	Protect site on which this species found, ensuring hydrology of the site is also protected.
Brambling	Fringilla montifringilla	Wintering species		Retain hedges and woodlands, or provide mitigatory habitat.
Caspian Tern	Hydroprogne caspia	Open water species		No specific recommendations
Common Frog	Rana temporaria	Several records from area		Protect ponds from development and / or mitigate by creating new ponds.
Common Goldeneye	Bucephala clangula	Open water species	, 2009	No specific recommendations
Common Greenshank	Tringa nebularia	Open water species		No specific recommendations
Common Kingfisher	Alcedo atthis	Requires watercourses or open water; recorded from Chasewater		Retain and buffer open water habitats
Common Lizard	Zootoca vivipara	Prefers warm, open habitats, with rubble etc., for shelter.	2003	Protect habitats of this type; new areas of habitat could include features suitable for reptiles.
Common Pipistrelle	Pipistrellus pipistrellus sensu stricto	Associated with housing, probably widespread in area	1997, 2007	New housing should ideally have a range of bat-friendly roof tiles and / or bricks. Natural habitat features for foraging should also be provided such as hedges; these would normally be provided within Green Infrastructure
Common Scoter	Melanitta nigra	Open water species		Retain open water habitats
Common Tern	Sterna hirundo	Open water species		As above
Cory's Shearwater	Calonectris diomedea	Open water species		No specific recommendations
Cow-horn Bog-moss	Sphagnum denticulatum	Species of wet, acidic habitat, found in Norton Bog	1993, 2007	Protect site on which this species found, ensuring hydrology of the site is also protected.
Daubenton's	Myotis daubentonii	Roosts in buildings and	1991	Protect open water habitats. Also as

Bat		bridges. Frequently found near water.		common pipistrelle.
Eurasian Badger	Meles meles	Widespread and likely to be affected by development	1899-2004	Protect where possible; mitigation will depend on size and location of badger groups affected on any given site.
Eurasian Dotterel	Charadrius morinellus	Passage migrant.		No specific recommendations
Eurasian Hobby	Falco subbuteo	Tree nesting species, in a range of habitats.		No specific recommendations
European Golden Plover	Pluvialis apricaria	Rare visitor Chasewater Reservoir		No specific recommendations
European Water Vole	Arvicola terrestris	Require well-vegetated water edge habitat, where not occupied by their main predator, mink	1997	Any development likely to affect watercourses in area should protect the watercourse and provide a wide buffer strip of vegetation along the banks
Ferruginous Duck	Aythya nyroca	Rare visitor Chasewater Reservoir		No specific recommendations
Fieldfare	Turdus pilaris	Wintering species	1899-2009	As brambling
Five-ranked Bog-moss	Sphagnum quinquefarium	Species of wet, acidic habitat, found in Norton Bog	2007	Protect site on which this species found, ensuring hydrology of the site is also protected.
Floating Water-plantain	Luronium natans	Plant species of clean, open water found on the north shore, Chasewater	1986	Protect site on which this species found, ensuring hydrology and water quality of the site is also protected.
Fringed Bog-moss	Sphagnum fimbriatum	Species of wet, acidic habitat, found in No Man's Bank	1985-2007	Protect site on which this species found, ensuring hydrology of the site is also protected.
Garganey	Anas querquedula	Rare visitor Chasewater Reservoir		No specific recommendations
Great Bittern	Botaurus stellaris	Rare visitor Chasewater Reservoir		No specific recommendations
Great Crested Newt	Triturus cristatus	Species breeds in still, open water and uses a range of habitats at other times of year. Recorded from Cuckoo Bank and No Man's Bank	1899-2004	Protect ponds and surrounding habitats
Great Northern Diver	Gavia immer	Rare visitor Chasewater Reservoir	1899	No specific recommendations
Greater Scaup	Aythya marila	Rare visitor Chasewater Reservoir	1899-2000	No specific recommendations
Green Sandpiper	Tringa ochropus	Water edge species recorded from Chasewater		If similar habitat lost then some compensatory habitat should be provided
Hoopoe	Upupa epops	Rare visitor Chasewater Reservoir		No specific recommendations
Kentish Plover	Charadrius alexandrinus	Rare visitor Chasewater Reservoir		No specific recommendations
Lapland Longspur	Calcarius lapponicus	Rare visitor Chasewater Reservoir		No specific recommendations
Lesser Kestrel	Falco naumanni	Rare visitor Chasewater Reservoir		No specific recommendations
Little Gull	Larus minutus	Rare visitor Chasewater Reservoir		No specific recommendations
Little Plover	Charadrius dubius	Water edge species recorded from Chasewater	1899-2001	As Green Sandpiper
Little Tern	Sternula albifrons	Open water species		No specific recommendations
Long-tailed Duck	Clangula hyemalis	Rare visitor Chasewater Reservoir		No specific recommendations
Mediterranean Gull	Larus melanocephalus	Rare visitor Chasewater Reservoir		No specific recommendations
Merlin	Falco columbarius	Rare visitor Chasewater Reservoir		No specific recommendations
Moss species	Sphagnum denticulatum sensu lato	Species of wet, acidic habitat, found in Biddulph's Pool	1985, 2007	Protect site on which this species found, ensuring hydrology of the site is also protected.
Moss species	Sphagnum recurvum	Species of wet, acidic habitat, found in No Man's Bank	1985-2006	As above
Moss species	Sphagnum subnitens var. subnitens	Species of wet, acidic habitat, found in No Man's Bank	1985	As above

Moss species	Sphagnum imbricatum sensu lato	Species of wet, acidic habitat, found in No Man's Bank	1986	As above
Noctule Bat	Nyctalus noctula	Mainly associated with trees, particularly old trees with holes for roosting.	1991-2002	Retain hedges and trees, including dead trees. Install bat boxes in young woodlands.
Northern Pintail	Anas acuta	Open water species Chasewater	1899	No specific recommendations
Pipistrelle	Pipistrellus pipistrellus sensu lato	Recorded from in houses in roosts and feeding on habitat around the area.	1991-2002	As Common Pipistrelle
Pipistrelle Bat species	Pipistrellus	As Common Pipistrelle	2007	As Common Pipistrelle
Purple Sandpiper	Calidris maritima	Rare visitor Chasewater Reservoir		No specific recommendations
Red Bog-moss	Sphagnum capillifolium	Species of wet, acidic habitat, found in Chasewater Heaths SSSI	1993	Protect site on which this species found, ensuring hydrology of the site is also protected.
Red Kite	Milvus milvus	Rare visitor Chasewater Reservoir		No specific recommendations
Red-footed Falcon	Falco vespertinus	Rare visitor Chasewater Reservoir		No specific recommendations
Red-necked Phalarope	Phalaropus lobatus	Rare visitor Chasewater Reservoir		No specific recommendations
Red-throated Diver	Gavia stellata	Rare visitor Chasewater Reservoir		No specific recommendations
Redwing	Turdus iliacus	Wintering species		As brambling.
Ruff	Philomachus pugnax	Rare visitor Chasewater Reservoir		No specific recommendations
Sandwich Tern	Sterna sandvicensis	Rare visitor Chasewater Reservoir		No specific recommendations
Short-eared Owl	Asio flammeus	Rare visitor Chasewater Reservoir		No specific recommendations
Slavonian Grebe	Podiceps auritus	Rare visitor Chasewater Reservoir		No specific recommendations
Slender Cow-horn Bog-moss	Sphagnum subsecundum	Species of wet, acidic habitat, found in No Man's Bank	1985, 1986	Protect site on which this species found, ensuring hydrology of the site is also protected.
Smew	Mergellus albellus	Open water species Chasewater		No specific recommendations
Snow Bunting	Plectrophenax nivalis	Rare visitor Chasewater Reservoir		No specific recommendations
Soprano Pipistrelle	Pipistrellus pygmaeus	As Common Pipistrelle	2007	As Common Pipistrelle
Spiky Bog-moss	Sphagnum squarrosum	Species of wet, acidic habitat, found in No Man's Bank	1985-2007	Protect site on which this species found, ensuring hydrology of the site is also protected.
Temminck's Stint	Calidris temminckii	Open water species recorded from Chasewater		No specific recommendations
Tundra Swan	Cygnus columbianus	Open water species recorded from Chasewater		No specific recommendations
Velvet Scoter	Melanitta fusca	Open water species recorded from Chasewater		No specific recommendations
Whimbrel	Numenius phaeopus	Open water species recorded from Chasewater		No specific recommendations
Whooper Swan	Cygnus cygnus	Open water species recorded from Chasewater	1899, 2009	No specific recommendations
Wood Lark	Lullula arborea	Mainly a heathland species, rarely breeding in Staffs.		Protect heathland habitats
Wood Sandpiper	Tringa glareola	Open water only, passage migrant		No specific recommendations

Biodiversity Action Plan Species

English Name	Latin Name	Comments	Year/s	Recommendations
Arctic Skua	Stercorarius parasiticus	Rare visitor to open water	1899	No specific recommendations
Blue Mason Bee	Osmia (Chalcosmia) caerulea	Cavity nesting bee, feeding on plants with tube-shaped flowers.	2007	Protect bare ground habitats, including heathland and open mosaic habitat on previously developed land.

Broom Moth	Melanchra pisi	Species of open woodland and heathland, feeding on broom, bracken and other plants.	1998	Protect heathland and woodland habitats
Brown Hare	Lepus europaeus	Widely distributed in area, usually on arable or grassland		If area is developed, suitable habitat is likely to be lost, so mitigatory habitat should be provided.
Cinnabar	Tyria jacobaeae	Feeds on ragwort and similar plants in a range of habitats	1899-2007	No specific recommendations
Common Bullfinch	Pyrrhula pyrrhula	Found in woodlands and hedgerows	1899-2009	Retain hedges and woodlands, or provide mitigatory habitat
Common Cuckoo	Cuculus canorus	Range of habitat, including woods and hedges.		Retain hedges, woodlands and grassland habitats, or provide mitigatory habitat
Common Linnet	Carduelis cannabina	Wide range of habitat, mainly farmland and grassland		Retain hedges and grassland habitats, especially marshy grassland
Common Snipe	Gallinago gallinago	Species of wet grassland and related habitats. Chasewater	1899-1986	No specific recommendations
Common Starling	Sturnus vulgaris	Found in woodland, reedbeds and gardens	1899, 2009	No specific recommendations
Common Toad	Bufo bufo	Records are now out of date, but Cuckoo Bank and No Man's Bank areas may still have populations of toads as this species returns to its ancestral ponds.	1899-1986	Retain ponds and suitable surrounding habitat. Create additional habitat.
Corn Bunting	Emberiza calandra	Widespread around area, farmland species		No specific recommendations
Dingy Skipper	Erynnis tages	Area is an important stronghold for this species, which appears to prefer grasslands or previously developed land, feeding on vetches.	1899-2007	Protect open habitats, including grassland and open mosaic habitat on previously developed land.
Dot Moth	Melanchra persicariae	Found in a range of suburban habitats, feed on a variety of plants.	1998-2003	No specific recommendations
Dunnock	Prunella modularis	Wide range of habitats	1899-2005	No specific recommendations
Early Mining Bee	Andrena (Trachandrena) haemorrhoa	Species uses a range of habitats and food plants.	1999	No specific recommendations
Eurasian Curlew	Numenius arquata	Species of wet grassland and related habitats.		Protect wetland habitat, or provide suitable mitigation.
Eurasian Tree Sparrow	Passer montanus	Open woodland and garden species.		No specific recommendations
European Turtle Dove	Streptopelia turtur	Species of woodland edges, hedges and open land.		No specific recommendations
Greater White-fronted Goose	Anser albifrons	Winter visitor to open water areas.		No specific recommendations
Grey Partridge	Perdix perdix	Ground nesting in arable and other habitats, including rushy pastures.	1899, 2001	Retain farmland habitats, or provide compensatory habitat.
Grizzled Skipper	Pyrgus malvae	Warm places in sparse vegetation in a range of habitats. Feeds on plants of the rose family.	1998	Protect heathland, grassland and open mosaic habitat on previously developed land.
Heath Rustic	Xestia agathina	Heathland species, feeding on heather.	1999	Protect heathland habitats
Herring Gull	Larus argentatus	Open water only, winter visitor		No specific recommendations
House Sparrow	Passer domesticus	Species of gardens and farmland	1899-2005	No specific recommendations
insect - hymenopteran	Andrena clarkella	Found in bare and patchy ground, feeding on a range of species, including willow scrub and on species in the daisy family.	1999	Protect bare ground habitats, including heathland and open mosaic habitat on previously developed land
insect - hymenopteran	Monosapyga clavicornis	Cleptoparasite on Osmias (solitary bees).	2007	As above
insect - hymenopteran	Trichrysis cyanea	Parasite on solitary wasps. Principally nest in plant stems, but may also nest in rough rubble or soil with little gaps in it where they can construct a nest. Appears to prefer hot, dry rubble-laden brownfield sites	2007	As above
insect - hymenopteran	Hylaeus (Prosopis) signatus	Frequent on brownfield sites, feeding on weed. Nationally scarce but increasing in range	2007	As above

insect - hymenopteran	Coelioxys (Coelioxys) rufescens	Parasite on leaf-cutter bees (megachile species). Often found on brownfields as these sites are preferred by leafcutters	2007 As above
insect - hymenopteran	Colletes (Colletes) daviesanus	Common on brownfield sites; seldom found in other habitats in the West Midlands. Often feeding on mayweeds	2007 As above
insect - hymenopteran	Osmia (Chalcosmia) leaiana	Frequent on brownfields with ruderal species or bramble. Nests in wood, often in pithy stems (cut bramble stems, cow parsley etc). Parasitised by <i>Monosapyga</i> (solitary wasp) species	2007 As above
insect - hymenopteran	Lasioglossum (Lasioglossum) laevigatum	Relatively common on a range of of sites. Feeds on species of the daisy family	2007 No specific recommendations
insect - hymenopteran	Nomada leucophthalma	Found on sites with <i>Andrena</i> species (solitary bees); a cleptoparasite of certain common <i>Andrena</i> species	2007 Protect bare ground habitats, including heathland and open mosaic habitat on previously developed land
insect - hymenopteran	Lasioglossum (Lasioglossum) leucozonium	Fairly common on brownfields. Feeds on species of the daisy family	2007 As above
insect - hymenopteran	Ammophila sabulosa	Typical of sandy heathlands, it feeds on smooth (non-hairy) caterpillars. Needs sand deposits to nest into	2007 As above
insect - hymenopteran	Nomada panzeri	Heathland species, which is also often found on brownfield sites.	2007 As above
insect - hymenopteran	Sapyga	Cleptoparasite on Osmias (see	2007 As above
insect - hymenopteran	quinquepunctata	O. leaiana). Nationally Scarce	
Knot Grass	Acronicta rumicis	Widespread, feeding on a range of plants	2003 No specific recommendations
Latticed Heath	Chiasmia clathrata	Open habitats, feeding on clover and similar plants	2003, No specific recommendations 2006
Lesser Redpoll	Carduelis cabaret	Woodland species, feeds on tree seeds.	Retain woodlands, or provide mitigatory habitat.
Lesser Spotted Woodpecker	Dendrocopos minor	Woods, parkland and gardens	Retain woodlands, or provide mitigatory habitat.
Mouse Moth	Amphipyra tragopoginis	Range of habitats, feeding on herbaceous plants.	1998, No specific recommendations 2003
Neglected Rustic	Xestia castanea	Heathland species	1998 Protect heathland habitats
Northern Lapwing	Vanellus vanellus	Recorded from a number of sites, including heathland.	1899- Retain and buffer suitable 2008 habitat. Provide compensatory habitat where suitable habitat is lost, including farmland.
Red Mason Bee	Osmia (Osmia) rufa	Solitary, hole nesting bee found in a range of habitats.	2007 No specific recommendations
Reed Bunting	Emberiza schoeniclus	Recorded from Chasewater, but probably found elsewhere in area on wetlands and farmland	1899- As Lapwing 2002
Ring Ouzel	Turdus torquatus	Probably only seen on passage in area.	2008 No specific recommendations
Rosy Minor	Mesoligia literosa	Grassland, feeding on grasses	1998 Retain grassland habitats
Rustic	Hoplodrina blanda	Range of habitats, including gardens, feeding on herbaceous plants.	2003 No specific recommendations
Sallow	Xanthia icteritia	Damp woodland and other marshy places, feeding on willow and other plants.	1899, Retain suitable habitats. 1998
Shaded Broad- bar	Scotopteryx chenopodiata	Open habitats, feeding on clover and vetches	1998, Retain and enhance grassland 2003 habitats
Sky Lark	Alauda arvensis	Open grassland and other habitats	1899- If area is developed, suitable 2008 habitat is likely to be lost, so mitigatory habitat should be provided
Small Heath	Coenonympha pamphilus	Wide range of habitats. Feeds on grasses	1899- No specific recommendations 2007
Small Square- spot	Diarsia rubi	Range of habitats, feeds on a range of plants	1998 No specific recommendations
Song Thrush	Turdus philomelos	Woods, hedges, parks and gardens	No specific recommendations
Spinach	Eulithis mellinata	Moth of woodland and suburban habitats, feeding on currant species.	1998 No specific recommendations

Spiny Mason Wasp	Odynerus (Odynerus) spinipes	Feeds on beetle larvae	2007	No specific recommendations
Spotted Flycatcher	Muscicapa striata	Woodland edges, parks and gardens		No specific recommendations
Tree Pipit	Anthus trivialis	Found in young conifers or heathland.		Protect heathland habitats
Twite	Carduelis flavirostris	Probably only seen on passage in area.		No specific recommendations
Wall	Lasiommata megera	Becoming rare inland as species now mainly confined to coast. Grassland and wasteland species	1899-1998	No specific recommendations
West European Hedgehog	Erinaceus europaeus	Probably widespread in area in gardens, etc.		No specific recommendations
Willow Tit	Poecile montanus	Willow scrub and similar habitats	2005	Retain woodlands, or provide mitigatory habitat.
Yellow Wagtail	Motacilla flava	Wetland species, Chasewater		Retain suitable habitats
Yellowhammer	Emberiza citrinella	Range of habitats, compartment likely to be suitable	1899, 1986	Retain hedges, scrub and grassland habitats

Appendix 6 – Summary Site Descriptions and Species Lists for Compartment 6: Area Around Whittington

Staffordshire Ecological Record SBI Report

10/59/72

Site Name:

Coventry Canal (Huddlesford to Whittington)

Locality Type:

Canals

Grid Ref.:

SK157092

GB Vice-County: Staffordshire

Civil Parish: Whittington (Lichfield, Staffordshire, England)

Keywords

Keyword

Details

Date

Original Recorder Code

705

no date

Biotopes (Habitats)

Code	Habitat	Area
A11	Woodland: broadleaved	0.3ha
B212	Grassland: neutral, unimproved, lowland	
F21	Marginal/inundation: marginal	
G113	Open water: standing, eutrophic, lakes 0.5-5ha	1.2km
J211	Boundaries, intact hedge, species-rich	1.2km

Dimensions

Dimension	Value/units
area	2.8ha
length	1.2km

Contacts

Contact information withheld.

Site Description

Source:

Cadman & Henshall, 2003

Summary: A botanically diverse stretch of canal, flowing 1.2 km from Huddlesford Junction to Swan Bridge in Whittington. The northern bank is mainly un-piled, this a fairly uncommon feature on many of Staffordshire's canals. The southern bank is piled along much of the stretch. Marginal vegetation is present along the majority of this section of canal, branched bur-reed, reed sweet-grass, flag iris were abundant. Several rushes, sedges, meadow sweet, water dock, water, mint and gypsywort were also present. Cyprus sedge, which is rare in the county, was found in several places, the largest stand of this species was at SK 157 092. There is an area of wet woodland along the very northern stretch adjacent to Swan Bridge. Large numbers of banded demoiselles were noted foraging amongst the marginal vegetation.

Source:

Bryant & Radford, 1995

Summary: This stretch of canal with a towpath on the northern edge runs through a fairly improved landscape with much rye grass being grazed by dairy cows. A managed hawthorn hedge with occasional standards runs much of the length of the northern side and is contiguous with a small wooded stream valley at the western end. There is no hedge on the opposite bank, the improved fields, poached in places, extend to the water's edge with scattered trees/shrubs on the banks. These species are mostly hawthorn, elder and elder with locally abundant rose bushes and occasional immature oaks and sycamores. A group of weeping willows grow near the school at Whittington. The most important floristic feature of this canal section is its narrow bands of emergent vegetation, though this is most well developed on the edge opposite the towpath. There is a good mix of species here with reed sweet-grass, sweet flag, branched burreed, reed canary-grass, lesser bulrush and yellow iris. Large tussocks of the uncommon greater tussock sedge are found dotted at intervals amongst the emergent vegetation.

The rare spiked water milfoil is localised within the channel. Diverse marginal vegetation includes great hairy willowherb, water mint, gipsywort, water figwort, large bitter cress, cuckoo flower, common valerian, marsh woundwort, water dock and meadowsweet with hard and soft rush and a good range of sedges. On the towpath side next to the boundary hedge is a narrow verge of neutral grassland. Coarse grasses, e.g. meadow foxtail, and tall ruderal herbs, e.g. cow parsley, accompanying a good range of finer grasses and herbs such as red fescue, pignut, meadow vetchling, black medick, vetches, cleavers, germander speedwell and yarrow. The towpath itself is surfaced and supports a population of greater plantain. Grassland and marginal vegetation immediately adjacent to the towpath has been mown. The hawthorn hedge on the towpath side supports honeysuckle, white bryony, black bryony, with frequent ivy and bramble, plus greater stitchwort and three-vened sandwort in its base. Hedge standards are mostly pedunculate oak and ash with less frequent holly and rowan. This hedge is not continuous and although managed along its length, varies considerably in height (8-3ft) and density. Continuous hawthorn is broken by a stretch of snowberry towards the eastern end and by a barbed wire fence towards the western end. A small section of hedge has been burnt in the vicinity of this fence. A central section has been laid previously. The wooded stream valley on either side of the canal (though most extensively on the north) at the western end is dominated by alder with occasional ash, sycamore and crack willow. The ground layer is dominated by nettle with creeping buttercup and rough meadow-grass, though a range of wetland and shade-loving plants are present, e.g. yellow iris, cuckoo flower, bugle, giant fescue and red campion. The stream is culverted beneath the canal. Adjacent to and west of this woodland the canal banks are shuttered and surfaced paths now as both sides make up most of the land corridor. On the southern bank near Huddlesford Junction is a house, garden and cruising club buildings. The wide towpath on the northern side up to the junction supports an ephemeral/short perennial weed flora, including the rare garlic penny-cress.

Source:

, no date

Summary:

Bibliography

described **Cadman, D. & Henshall, S. (2003)**

Resurvey of Lichfield District; Staffordshire Wildlife Trust, Wolseley Bridge (2)

described **Radford, E. & Bryant, M. (1995)**

The SBI Resurvey of Lichfield 1995; Staffordshire Wildlife Trust, Sandon, Staffordshire

Protected species

English Name	Latin Name	Comments	Year/s	Recommendations
Bullhead	<i>Cottus gobio</i>	Species requires clean water and a stony substrate. Recorded from Fisherwick Wood area.	2006	Site unlikely to be suitable
Freshwater White-clawed Crayfish	<i>Austropotamobius pallipes</i>	Main threat is from crayfish plague. May be present in canal	2000, 2005	Care should be taken with canal not to introduce plants or animals from infected sources.
Common Pipistrelle	<i>Pipistrellus pipistrellus sensu stricto</i>	Probably associated with housing and roosting in some houses; likely to be widespread in the area	2007	New housing should ideally have a range of bat-friendly roof tiles and / or bricks. Natural habitat features for foraging should also be provided such as hedges; these would normally be provided within Green Infrastructure. Links to canal through GI would also be helpful.
Daubenton's Bat	<i>Myotis daubentonii</i>	Roosts in buildings and bridges. Frequently found near water.	2001	Protect canal corridor. Also as for common pipistrelle.
Eurasian Badger	<i>Meles meles</i>	Widespread species in Staffordshire. Creates burrows (setts) in dry, usually sandy areas. Feeds on a wide range of insects, fruit etc.	2000-2005	Protect where possible; mitigation will depend on size and location of badger groups affected on any given site.
European Otter	<i>Lutra lutra</i>	Species now present on many watercourses in Staffs. Requires substantial	2006	Any development likely to affect canal should provide cover for otters, possibly in the form of artificial otter holts, or waterside

		cover near water, often found in large exposed tree roots, trees or scrub. Feeds mainly on fish.	shrub planting
Myotis Bat species	Myotis	Species not determined exactly	2007 Specific recommendation not possible.
Noctule Bat	Nyctalus noctula	Mainly associated with trees, particularly old trees with holes for roosting.	2001, Retain hedges and trees, including dead 2007 trees. Install bat boxes in young woodlands.
Pipistrelle	Pipistrellus pipistrellus sensu lato	Whittington. Probably roosting in some houses; likely to be widespread in the area. Also seen foraging along canal	1992- As Common Pipistrelle. 2001
Snowdrop	Galanthus nivalis	Species probably planted in this location	2004 No recommendations

Biodiversity Action Plan Species

English Name	Latin Name	Comments	Year/s	Recommendations
Small Heath	Coenonympha pamphilus	Wide range of habitats. Feeds on grasses	1995	No specific recommendations
Eurasian Tree Sparrow	Passer montanus	Open woodland and garden species.	2003, 2008	No specific recommendations
Northern Lapwing	Vanellus vanellus	Farmland or wetland species	2003	If area is developed, suitable habitat is likely to be lost, so mitigatory habitat should be provided.
Sky Lark	Alauda arvensis	Open grassland and other habitats	2002	As northern lapwing
West European Hedgehog	Erinaceus europaeus	Probably widespread in area	1998- 1999	No specific recommendations
Brown Hare	Lepus europaeus	Widely distributed in area, usually on arable or grassland	2002	If area is developed, suitable habitat is likely to be lost, so mitigatory habitat should be provided.

Appendix 7 – Summary Site Descriptions and Species Lists for Compartment 7: North of Tamworth

There are no designated sites in this area

Protected species

English Name	Latin Name	Comments	Year/s	Recommendations
a bat	Chiroptera	Species not determined exactly	1990	Specific recommendation not possible
a bat	Chiroptera	Species not determined exactly	2006	Specific recommendation not possible
Barn Owl	Tyto alba	Species requires substantial areas of rough grassland and other suitable habitat to hunt over	2001	Protect semi-improved grassland
Brown Long-eared Bat	Plecotus auritus	Usually roosting in loft spaces	1989 - 2008	Of particular concern where building alterations, including barn conversions are proposed.
Common Frog	Rana temporaria	Syerscote, Wiggington. Most records now old, but probably still widespread in area	1950-2006	Protect ponds from development and / or mitigate by creating new ponds.
Common Kingfisher	Alcedo atthis	Probably on watercourses or open water, recorded from a number of sites in area.	2006, 2007	Site is unlikely to be suitable.
Pipistrelle	Pipistrellus pipistrellus sensu stricto	Associated with housing and roosting in some houses; widespread in the area	2001-2008	New housing should ideally have a range of bat-friendly roof tiles and / or bricks. Natural habitat features for foraging should also be provided such as hedges; these would normally be provided within Green Infrastructure.
Pipistrelle	Pipistrellus pipistrellus sensu lato	As above	1990-2008	As above
Pipistrelle Bat species	Pipistrellus	As above	2004	As above
Eurasian Badger	Meles meles	Widespread species in Staffordshire. Creates burrows (setts) in dry, usually sandy areas. Feeds on a wide range of insects, fruit etc.	1964-2007	Protect where possible; mitigation will depend on size and location of badger groups affected on any given site.
Eurasian Hobby	Falco subbuteo	Tree nesting species, in a range of habitats.	2003	No specific recommendations
Eurasian Red Squirrel	Sciurus vulgaris	Old record and species now considered extinct in Staffordshire	1976	No specific recommendations
European Otter	Lutra lutra	Recorded from various watercourses in the area, including recent records. Requires substantial cover near water, often in tree roots, trees or scrub. Feeds mainly on fish.	1972-2007	Site is unlikely to be suitable
Grass Snake	Natrix natrix	Recorded from several locations in area recently, indicating that there may be important populations in the area. Found in rough land and pasture, often near water. Feeds on frogs etc.	2006, 2007	Site is unlikely to be suitable
Great Crested Newt	Triturus cristatus	Species breeds in still, open water and uses a range of habitats at other times of year. Recorded from near Dunstall Farm	2006	Protect ponds and surrounding habitats
Myotis Bat species	Myotis	Species not determined exactly	2008	Specific recommendation not possible
Soprano Pipistrelle	Pipistrellus pygmaeus	As Common Pipistrelle	2007	As Common Pipistrelle

Biodiversity Action Plan Species

English Name	Latin Name	Comments	Year/s	Recommendations
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Buff Ermine	Spilosoma luteum	Widespread, feeds on a range of plants	1970 No specific recommendations
Cinnabar	Tyria jacobaeae	Probably widespread in area. Feeds on ragwort and similar plants	1970 No specific recommendations
Common Grasshopper Warbler	Locustella naevia	Nests in scrub	1998 No specific recommendations
Common Snipe	Gallinago gallinago	Species of wet grassland and related habitats.	2006 Site is unlikely to be suitable
Common Toad	Bufo bufo	Many records for Syerscote are now out of date, but area may still have populations of toads as this species returns to its ancestral ponds.	1950-1966, 2003 Retain ponds and suitable surrounding habitat. Create additional habitat.
Dark-barred Twin-spot Carpet	Xanthorhoe ferrugata	Range of food plants	1970, 1973 No specific recommendations
Feathered Gothic	Tholera decimalis	Rough grassland, feeding on grasses	1970 Retain rough grassland habitat where possible, or provide compensatory habitat.
Figure of Eight	Diloba caeruleocephala	Moth feeding on shrub species, including apple and hawthorn.	1970 Retain hedges where possible, or provide compensatory habitat.
Garden Tiger	Arctia caja	Range of habitats and food plants	1970 No specific recommendations
Ghost Moth	Hepialus humuli	Grassy areas, feeding on grasses and other plants.	1970 Retain rough grassland habitat where possible, or provide compensatory habitat
House Sparrow	Passer domesticus	Species of gardens and farmland	2006 No specific recommendations
Latticed Heath	Chiasmia clathrata	Open habitats, feeding on clover and similar plants	1970 No specific recommendations
Oblique Carpet	Orthonama vittata	Marshy habitats, feeding on bedstraw species	1970 Site unlikely to be suitable
Pale Eggar	Trichiura crataegi	Preferred habitats are heathland and the edges of woodland. The larvae feed on a range of plants and trees including blackthorn, hawthorn bilberry and heather.	1973 Site is unlikely to be suitable
Rosy Rustic	Hydraecia micacea	Waste ground and marshy places, feeding mainly on docks	1970 Site unlikely to be suitable
Rustic	Hoplodrina blanda	Range of habitats, including gardens, feeding on herbaceous plants.	1955 No specific recommendations
Sallow	Xanthia icteritia	Damp woodland and other marshy places, feeding on willow and other plants.	1970 Site unlikely to be suitable
Sky Lark	Alauda arvensis	Open grassland and other habitats	2006 If area is developed, suitable habitat is likely to be lost, so mitigatory habitat should be provided
Small Phoenix	Ecliptopera silaceata	Woodland and open habitats, feeds on willowherbs	1973 No specific recommendations
Small Square-spot	Diarsia rubi	Range of habitats, feeds on a range of plants	1970 No specific recommendations
Song Thrush	Turdus philomelos	Woods, hedges, parks and gardens	2003 No specific recommendations
West European Hedgehog	Erinaceus europaeus	Probably widespread in area in gardens, etc.	1979-1999 No specific recommendations
White Ermine	Spilosoma lubricipeda	Widespread – feeds on a variety of plants.	1970 No specific recommendations

Appendix 8 – Summary Site Descriptions and Species Lists for Compartment 8: West of Shenstone

Staffordshire Ecological Record BAS Report

10/04/47

Site Name: **Malkin's Coppice**

Locality Type: **Broadleaved, mixed and yew
woodland {B}**

Grid Ref.: SK104047
GB Vice-County: Staffordshire
Civil Parish: Shenstone (Lichfield, Staffordshire, England)

Keywords

Keyword	Details	Date
Original Recorder Code	30036	no date
Biodiversity Alert Site	previously grade 2 in 1995 and in 1984 (as 10/04/58)	2003

Biotores (Habitats)

Code	Habitat	Area
A1113	Woodland: broadleaved, semi-natural, coppice with standards	2.00
C11	Tall herb and fern: Bracken, continuous	0.04

Dimensions

Dimension	Value/units
altitude	99m
area	2ha

Contacts

Contact information withheld.

Site Description

Source: **Cadman & Henshall, 2003**

Summary: The site is in a similar condition as in 1995. A small pocket of woodland (listed on the ancient woodland inventory) surrounded by arable fields and buildings. The canopy is dominated by oak and birch. Bracken dominates the ground layer; bluebells are frequent along the woodland edges. The scrub layer is sparse, with occasional rowan, holly and honeysuckle. Hazel has been planted in places, and is deadwood is a frequent feature in the woodland. There is a network of newly created paths through the woodland.

Source: **Bryant & Radford, 1995**

Summary: A small acidic woodland surrounded by arable fields and buildings, which is largely inaccessible and was surveyed from the south and eastern edges. The canopy is dominated by silver birch with frequent rowan and pedunculate oak. The shrub layer is not very pronounced and is made up of occasional holly, elder, hawthorn, ash, hazel and dogwood. Though most of these species are largely confined to the woodland edge, along with a single horse-chestnut and domestic apple on the eastern side. The ground layer is dominated by bracken over alternating zones of creeping soft-grass and wavy hair-grass, with abundant bramble. Other coarse grasses and ruderal herbs are mostly found at the woodland field interface. In the centre of the wood are open areas of continuous bracken which have recently been planted with broad-leaved tree species. A managed hawthorn hedge containing wild privet and white bryony marks the wood's eastern boundary. A track runs along this hedge and to the east of this and to the north of the pumping station is a small wooded block dominated by dense hairy birch with occasional goat willow. The ground flora is dominated by ivy and creeping soft-grass with ruderal species such as nettle, cleavers and hogweed.

The field immediately to the south of the coppice has been planted with a cover mix to feed bees hived on the southern edge of the wood (the hives are owned by the caretaker, F.Saxton (01534) 481281). The field to the east of this consists of rankish semi-improved neutral grassland apparently of little interest. However, it does contain several plants of wild onion which is very rare in Staffordshire.

Source:

Martin & Parton, 1984

Summary: An area of acidic, birch dominated woodland with scattered rowan and oak, plus a few hollies in the shrub layer. The ground layer is dominated by bracken, with much bluebell and *Deschampsia flexuosa*. A few other trees and shrubs are found, mostly around the edges, as are some of the other plants. The trees are quite mature, with much dead wood. There is some regeneration. The wood is a little disturbed, with tipping of rubbish.

Bibliography

- described **Cadman, D. & Henshall, S. (2003)**
Resurvey of Lichfield District; Staffordshire Wildlife Trust, Wolseley Bridge (2)
- described **Radford, E. & Bryant, M. (1995)**
The SBI Resurvey of Lichfield 1995; Staffordshire Wildlife Trust, Sandon, Staffordshire
- described **SNCT (County Survey) (1984)**
The Phase 1 Survey of Staffordshire - 1978-1984; Staffordshire Nature Conservation Trust, Sandon, Staffs.

Protected Species

English Name	Latin Name	Comments	Year/s Recommendations
Common Kingfisher	<i>Alcedo atthis</i>	Requires watercourses or open water. Recorded from Fotherley Rough	1979 Any development likely to affect watercourse should protect the watercourse and its banks.
Eurasian Badger	<i>Meles meles</i>	Probably widespread and likely to be affected by development	2003, Protect where possible; mitigation will depend on size and location of badger groups affected on any given site.
European Water Vole	<i>Arvicola terrestris</i>	Recent record nearby	2008 Any development likely to affect watercourse should protect the watercourse and provide a wide buffer strip of vegetation along the banks
Whiskered/Brandt's Bat	<i>Myotis mystacinus/brandtii</i>	Summer roosts in trees and buildings. May hibernate in caves or tunnels. Prefers woodlands for feeding, often near water	1988 Retain woodland on site, or mitigate. New housing should ideally have a range of bat-friendly roof tiles and / or bricks. Natural habitat features for foraging should also be provided such as hedges; these would normally be provided within Green Infrastructure

Biodiversity Action Plan Species

English Name	Latin Name	Comments	Year/s Recommendations
Cinnabar	<i>Tyria jacobaeae</i>	Probably widespread in area in a range of habitats. Depends on ragwort and similar plants.	2003 No specific recommendations
Sky Lark	<i>Alauda arvensis</i>		2003 If area is developed, suitable habitat is likely to be lost, so mitigatory habitat should be provided.
Eurasian Tree Sparrow	<i>Passer montanus</i>	Open woodland and garden species.	1979, No specific recommendations
Brown Hare	<i>Lepus europaeus</i>	Widely distributed in area, usually on arable or grassland	2007 2001 As sky lark
West European Hedgehog	<i>Erinaceus europaeus</i>	Probably widespread in area in gardens, etc.	1965 No specific recommendations
Small Heath	<i>Coenonympha pamphilus</i>	Wide range of habitats. Feeds on grasses	1997 No specific recommendations
Common Cuckoo	<i>Cuculus canorus</i>	Range of habitat, including woods and hedges.	2003 No specific recommendations

Staffordshire Ecological Record BAS Report

10/05/70

Site Name:

The Little Holmes, Shenstone

Locality Type:

Neutral grassland {B}

Grid Ref.:

SK107050

GB Vice-County: Staffordshire

Civil Parish: Shenstone (Lichfield, Staffordshire, England)

Keywords

Keyword	Details	Date
Original Recorder Code	334	no date
Biodiversity Alert Site	previously grade 2 in 1995	2003

Biotopes (Habitats)

Code	Habitat	Area
A102	Woodland: plantation	0.21
A111	Woodland: broadleaved, semi-natural	0.11
A22	Scrub: scattered	
B222	Grassland: neutral, semi-improved, lowland	6.01
C31	Tall herb and fern: other, tall ruderal	0.05
F21	Marginal/inundation: marginal	
G2	Open water: running water	0.86

Dimensions

Dimension	Value/units
area	7.5ha

Contacts

Contact information withheld.

Site Description

Source:

Cadman & Henshall, 2003

Summary: 7.5ha of land to the north of Shenstone village. This site is bounded by houses on its southern and eastern edges and is mainly used as an amenity area for dog walkers. A well-used footpath runs along side the Crane Brook. The Crane Brook flows along the northern boundary of the site, the brook is slow flowing and shallow and is generally poor in terms of physical structure. The northern river bank is lined with alder, crack willow and poplars. A dense band of ruderals including Himalayan balsam, willow herb and nettles runs along much of the southern bank. The brook lacks in-channel vegetation, and only small amounts of water crow-foot and water starwort are present. Emergent vegetation such as brooklime, fool's watercress and branched bur-reed are frequent. The brook appears suitable (in places) for water voles, however the disturbance from dogs may be unfavourable. The majority of the site comprises of semi-improved grassland, a lack of appropriate management has resulted in vigorous grasses taking hold and many of the broad leaved herbs that were recorded in 1995 have been dramatically reduced or lost.

Source:

Radford, Dr Elaine, 1995

Summary: The site covers an extensive area to the north of Shenstone. It is bounded by housing on its southern and eastern edges, and in part by a main-line railway which crosses the site from north to south. The Crane Brook flows along the northern boundary. Mainly arable fields lie to the north of the brook.

Most of the site is occupied by semi-improved grassland. This is vigorous in places and consists principally of false oat-grass or where the soil drainage is impeded of tufted hair-grass. A shorter sward is interspersed amongst these vigorous areas, especially in the field directly to the east of the railway. (Field boundaries are now defunct but still discernible) Common bent or red fescue is prevalent in these shorter areas.

There is a wide range of associated broad-leaved herbs in the sward, though it is not truly diverse. These include taller more competitive species such as thistles, nettle, mugwort and hogweed, which are locally abundant together with less vigorous species such as sheep's sorrel, tormentil, common cat's, and pignut which are particularly conspicuous amongst the shorter grasses, though often in small amounts.

Shrubs and immature trees, such as broom, gorse, hazel, sycamore and hawthorn are scattered throughout the site and there are patches of bramble scrub which are too small to map individually. Small stands of alder or crack willow occur on the banks of the brook in two localities, with individual specimens at irregular intervals along its length. A few rowan and cherry trees have been planted, especially near the electricity sub-station. Silver birch with a little holly occur on the railway embankment.

The brook has a gravelly/sandy substrate and a good flow of clear water which seems to be free from pollution. East of the railway small stands of branched bur-reed grow along its length with some fool's water-cress and meadowsweet. A water-crowfoot occurs in the centre of the channel. The quite steep banks are dominated by a mix of nettles and goosegrass with occasionally a little Himalayan balsam. A small stand of Japanese knotweed is located on the top edge of the bank towards the centre of this stretch.

West of the railway the brook margins are shallower and support a more diverse assemblage of wetland plants, including yellow iris, brooklime, water-cress and flote-grass.

Several butterflies and moths were noted in the area, with meadow browns and small skippers particularly abundant. Common resident birds such as great tit and blackbird were also present. The whole site is well-used by local people as evidenced by the network of footpaths, one of which is a public footpath, for informal recreation such as dog walking. There are few deleterious consequences of these activities evident other than several small fires sites and a more extensive burn to the west of the railway.

Bibliography

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Resurvey of Lichfield District; Staffordshire Wildlife Trust, Wolseley Bridge (2)

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Appendix 9 – Summary Site Descriptions and Species Lists for Compartment 9: South of Shenstone

There are no designated sites in the Compartment

Protected species

English Name	Latin Name	Comments	Year/s	Recommendations
Common Kingfisher	Alcedo atthis	Requires watercourses or open water. Recorded from Fotherley Rough	1979	Any development likely to affect watercourses in area should protect the watercourse and its banks
Eurasian Badger	Meles meles	Widespread and likely to be affected by development. Creates burrows (setts) in dry, usually sandy areas. Feeds on a wide range of insects, fruit etc.	2003	Protect where possible; mitigation will depend on size and location of badger groups affected on any given site.
Whiskered/Brandt's Bat	Myotis mystacinus/brandtii	Summer roosts in trees and buildings. May hibernate in caves or tunnels. Prefers woodlands for feeding, often near water	1988	Protect woodlands, or provide compensatory habitat. New housing should ideally have a range of bat-friendly roof tiles and / or bricks. Natural habitat features for foraging should also be provided such as hedges; these would normally be provided within Green Infrastructure

Biodiversity Action Plan Species

English Name	Latin Name	Comments	Year/s	Recommendations
Cinnabar	Tyria jacobaeae	Widespread	2003	No specific recommendations
Common Cuckoo	Cuculus canorus	Range of habitat, including woods and hedges.	2003	No specific recommendations
Eurasian Tree Sparrow	Passer montanus	Open woodland and garden species. Fotherley Rough	1979, 2007	No specific recommendations
Wall	Lasiommata megera	Species now mainly confined to coast. Inland habitats include short grassland and wasteland.	1995	No specific recommendations

Appendix 10 – Summary Site Descriptions and Species Lists for Compartment 6: Area Around Whittington

Staffordshire Ecological Record SBI Report

10/92/75

Site Name:

Bonehill Bridge (South of)

Locality Type:

Neutral grassland {B}

Grid Ref.:

SK197025

Civil Parish: Fazeley (Lichfield, Staffordshire, England)

GB Vice-County: Staffordshire

Biotopes (Habitats)

Code	Habitat	Area
A111	Woodland: broadleaved, semi-natural	0.072
A21	Scrub: dense/continuous	0.017
A22	Scrub: scattered	0.017
B22	Grassland: neutral, semi-improved	1.01
F1	Swamp	0.285
F21	Marginal/inundation: marginal	0.239

Dimensions

Dimension	Value/units
altitude	65 m
area	1.64ha

Contacts

Contact information withheld.

Site Description

Source:

Cantrell, et al, 2006

Summary: The site is located to the south of the A5 running through Tamworth near to the intersection with the A51 north of Fazeley. Access to the site may be gained through a nearby housing estate off the A4091, via a public footpath which crosses the Birmingham and Fazeley Canal. The site consists of two semi-improved neutral fields adjacent to the canal south of Bonehill Bridge, together with a large field drain and area of swamp. The surrounding area is mainly arable, with improved horse grazed grassland to the south and residential development to the east of the canal.

The grassland has a high proportion of herbs together with a mixture of both coarse and finer grasses, whilst the drain and swamp areas have a large amount of diverse marginal vegetation. An area of broadleaved woodland exists at the north of the site but is of limited botanical diversity, being comprised of crack willow with abundant common nettle. A small amount of scrub can be found in the grassland area together with a large mature pendunculate oak tree next to the canal; a dense thicket of bramble scrub is found next to the main drain in the western corner of the site.

Grassland
A small barbed wire fence separates the fields running southwest from the canal to the main drain that borders the site. The field to the north contained a greater proportion of herbs to grass than the field to the south and appeared to hold greater diversity, however, both fields are considered as a single entity for the purposes of this report. Grasses consist mainly of coarse species such as meadow foxtail together with cock's-foot and false oat-grass, however reasonable quantities of finer grasses such as crested dog's-tail, sweet vernal-grass and yellow oat-grass are also present. Patches of tufted hair-grass are found in damper areas of the fields.

Large stands of common knapweed are present across the site, which in places are becoming quite dense, possibly to the detriment of other species. A number of other species persist within the sward with creeping cinquefoil, meadow vetchling, ribwort plantain and greater bird's-foot-trefoil occurring at high frequencies. More occasionally there are well established populations of agrimony, common sorrel, common bird's-foot-trefoil, lady's bedstraw, pignut and germander speedwell. In some of the lower lying areas there are extensive patches of lesser pond sedge, a single stem of Southern Marsh Orchid (rare in the county) was also found towards the margins of

the area of swamp.

Swamp

The area of swamp extends out from around the drain running roughly north-east to south-west across the site and along the main drain that forms the eastern boundary of the site. The eastern drain contains large amounts of standing water and supports a dense vegetation of mainly aquatic macrophytes. The vegetation is dominated by great willowherb together with common reedmace, reed sweet-grass, branched bur-reed, yellow iris, marsh thistle and marsh woundwort. A similar habitat, which was seen to be underwater earlier in the survey season, is found between the eastern edge of the woodland and the canal. The rest of the area is to some extent drier although still wet enough to support aquatic macrophytes. Within the taller vegetation gipsywort, lesser water parsnip, water mint, soft rush, ragged-robin, water figwort, water horsetail, wild angelica and water dock are all frequent. Common marsh bedstraw, skullcap, square-stalked St. John's-wort, false fox-sedge and cuckooflower occur more occasionally. Approximately 30 flower spikes of southern marsh orchid were found in the swamp area towards the eastern end of the woodland. A single specimen of hemlock water-dropwort (which is uncommon in the County) was found growing next to the canal near to the entrance to the site from the canal bridge.

The site appears to be remnant farmland, neglected possibly as a result of surrounding development, and will probably require the implementation of a suitable management regime in order to maintain favourable status.

Bibliography

described

Cantrell, A. and Squire, J. (2006)

Tame Valley Habitat Survey; Staffordshire Wildlife Trust, Stafford

Protected species

English Name	Latin Name	Comments	Year/s	Recommendations
Barn Owl	Tyto alba	Species requires substantial areas of rough grassland and other suitable habitat to hunt over. Recorded from Lakeside Estate, Tamworth Borough	2002	Protect semi-improved grassland, particularly near Lakeside Estate.
Common Frog	Rana temporaria	Widespread in area	1970-2006	Protect ponds from development and / or mitigate by creating new ponds.
Common Kingfisher	Alcedo atthis	Widespread in area	1995-2006	Any development in area should protect watercourses and open water
Common Pipistrelle	Pipistrellus pipistrellus sensu stricto	Probably associated with housing and roosting in some houses; likely to be widespread in the area	2002, 2003	New housing should ideally have a range of bat-friendly roof tiles and / or bricks. Natural habitat features for foraging should also be provided such as hedges; these would normally be provided within Green Infrastructure.
Common Tern	Sterna hirundo	Open water species Mainly at Tameside nature reserve	2001-2008	No specific recommendations
Daubenton's Bat	Myotis daubentonii	Roosts in buildings and bridges. Frequently found near water.	2001, 2002	As common kingfisher and as common pipistrelle
Eurasian Badger	Meles meles	Widespread and likely to be affected by development Creates burrows (setts) in dry, usually sandy areas. Feeds on a wide range of insects, fruit etc.	2003	Protect where possible; mitigation will depend on size and location of badger groups affected on any given site.
European Golden Plover	Pluvialis apricaria		2002	
European Otter	Lutra lutra	Probably moves along River Tame and connected watercourses. Requires substantial cover near water, often in tree roots, trees or scrub. Feeds mainly on fish.	2006-2007	Any watercourses within development site, including canal, should be retained and enhanced, with creation of buffering habitat, and possibly by incorporation into SUDS
European Water Vole	Arvicola terrestris		1979-2007	Any watercourses in area should be protected and a wide buffer strip of vegetation along the banks should be provided
Grass Snake	Natrix natrix	Several records for area, including relatively recent ones. Found in rough land and pasture, often near water. Feeds on frogs etc.	1998-2003	Any watercourses and ponds in area should be protected.

Great Egret	Ardea alba	Broadmeadow - Tamworth	2007 No specific recommendations
Green Sandpiper	Tringa ochropus	Water edge species recorded from Tameside Nature Reserve	2006 No specific recommendations
Little Egret	Egretta garzetta	Fazeley	2006 No specific recommendations
Myotis Bat species	Myotis	Species not determined exactly	2001 Specific recommendation not possible
Pipistrelle	Pipistrellus pipistrellus sensu lato	Widespread in area, mainly in houses. Also foraging around Castle, Drayton Manor and along River Tame.	1970 As Common Pipistrelle
Pipistrelle Bat species	Pipistrellus	In house roosts. As Common Pipistrelle	2000-3 As Common Pipistrelle
Soprano Pipistrelle	Pipistrellus pygmaeus	As Common Pipistrelle	2000-2004 As Common Pipistrelle

Biodiversity Action Plan Species

Latin Name	English Name	Comments	Year/s	Recommendations
Beaded Chestnut	Agrochola lychnidis	Feeds on a range of plants	2006	No specific recommendations
Brindled Beauty	Lycia hirtaria	Woodland and suburban species, feeds on broad leaved trees.	1970	Retain woodland habitat
Broom Moth	Melanchra pisi	Species of open woodland and heathland, feeding on broom, bracken and other plants.	1970, 1974	Semi-improved grassland to east of compartment may be suitable.
Brown Hare	Lepus europaeus	Widely distributed in area, usually on arable or grassland	2000	If area is developed, suitable habitat is likely to be lost, so mitigatory habitat should be provided.
Buff Ermine	Spilosoma luteum	Widespread, feeds on a range of plants	1970, 2006	No specific recommendations
Cinnabar	Tyria jacobaeae	Widespread and requiring ragwort or similar plants	1970, 2006	No specific recommendations
Common Snipe	Gallinago gallinago	Species of wet grassland and related habitats. Recorded from Broad Meadow and Tameside	2002-2007	Probably confined to specific sites. Protect Sites.
Common Starling	Sturnus vulgaris	Found in woodland, reedbeds and gardens	2005	Retain woodland and swamp habitats.
Common Toad	Bufo bufo	Records are now out of date, but Drayton Manor Park area may still have populations of toads as this species returns to its ancestral ponds.	1973	Retain ponds and suitable surrounding habitat. Create additional habitat.
Dark Brocade	Blepharita adusta	The species inhabits heathland and similar habitats. The caterpillars feed on a wide range of herbaceous plants and trees, as well as grasses.	2005-2006	Semi-improved grassland to east of compartment may be suitable.
Dark-barred Twin-spot Carpet	Xanthorhoe ferrugata	Range of food plants	1970 - 2006	No specific recommendations
Dot Moth	Melanchra persicariae	Found in a range of suburban habitats, feed on a variety of plants.	1970 - 2006	No specific recommendations
Dunnock	Prunella modularis	Wide range of habitats	2005	No specific recommendations
Ear Moth	Amphipoea oculatea	Damp habitats, feeds on grasses and other plants.	1970	Retain swamp and other wet habitats.
Eurasian Curlew	Numenius arquata	Species of wet grassland and related habitats.	2004	As above
Eurasian Tree Sparrow	Passer montanus	Open woodland and garden species.	2004	No specific recommendations
Garden Tiger	Arctia caja	Range of habitats and food plants	1970, 1974	No specific recommendations
Ghost Moth	Hepialus humuli	Grassy areas, feeding on grasses and other plants.	1970 - 2006	Retain grassland habitats, or provide mitigation.
Harvest Mouse	Micromys minutus	Tall vegetation usually near water.	2002-2006	Retain and buffer suitable habitat, especially marshy grassland
Herring Gull	Larus argentatus	Open water species	2006-7	No specific recommendations
House Sparrow	Passer domesticus	Species of gardens and farmland	2005	No specific recommendations
Latticed Heath	Chiasmia	Open habitats, feeding on clover and similar	1970 -	No specific

	clathrata	plants	2005	recommendations
Mottled Rustic	Caradrina morpheus	Range of habitats, including gardens, feeding on herbaceous plants.	1970	No specific recommendations
Mouse Moth	Amphipyra tragopoginis	Range of habitats, feeding on herbaceous plants.	1970, 1974	No specific recommendations
Northern Lapwing	Vanellus vanellus	Wetlands and farmland	2001-2008	Retain and buffer suitable habitat. Provide compensatory habitat where suitable habitat is lost, including farmland.
Oak Hook-tip	Watsonalla binaria	Oak woodland and parkland, feeds on oak	2005-6	Retain woodland and hedges.
Reed Bunting	Emberiza schoeniclus	As Lapwing	2001-2007	As Lapwing
Rosy Rustic	Hydraecia micacea	Waste ground and marshy places, feeding mainly on docks	1970, 2006	Retain swamp habitat.
Rustic	Hoplodrina blanda	Range of habitats, including gardens, feeding on herbaceous plants.	2005-2006	No specific recommendations
Sallow	Xanthia icteritia	Damp woodland and other marshy places, feeding on willow and other plants. Old records. May still not be present	1970, 1974	No specific recommendations
Shaded Broad-bar	Scotopteryx chenopodiata	Open habitats, feeding on clover and vetches	2005	Retain and enhance grassland habitats
Sky Lark	Alauda arvensis	Open grassland and other habitats	1979, 2001	If area is developed, suitable habitat is likely to be lost, so mitigatory habitat should be provided
Small Heath	Coenonympha pamphilus	Wide range of habitats. Feeds on grasses	1974, 2006	No specific recommendations
Small Phoenix	Ecliptopera silaceata	Woodland and open habitats, feeds on willowherbs	1970, 2005	No specific recommendations
Small Square-spot	Diarsia rubi	Range of habitats, feeds on a range of plants	1970	No specific recommendations
Wall	Lasiommata megera	Species now mainly confined to coast. Inland habitats include short grassland and wasteland.	1974	No specific recommendations
West European Hedgehog	Erinaceus europaeus	Probably widespread in area in gardens, etc.	1971-2003	No specific recommendations
White Ermine	Spilosoma lubricipeda	Widespread – feeds on a variety of plants.	1970	No specific recommendations
Yellowhammer	Emberiza citrinella	Range of habitats, compartment likely to be suitable	2007	Retain hedges, scrub and grassland habitats

Appendix 11 – Summary Site Descriptions and Species Lists for Compartment 12: Little Aston

There are no designated sites in the Compartment

Protected species

English Name	Latin Name	Comments	Year/s	Recommendations
Brambling	<i>Fringilla montifringilla</i>	Wintering species	2001-2007	Retain hedges and woodlands, or provide mitigatory habitat.
Common Frog	<i>Rana temporaria</i>	Probably widespread in area	2003	Protect ponds from development and / or mitigate by creating new ponds.
Fieldfare	<i>Turdus pilaris</i>	Wintering species	2003	As brambling
Noctule Bat	<i>Nyctalus noctula</i>	Mainly associated with trees, particularly old trees with holes for roosting.	2005	Retain hedges and trees, including dead trees. Install bat boxes in young woodlands.
Peregrine Falcon	<i>Falco peregrinus</i>	Probably hunting over area. Nests on cliffs and tall buildings	2003	No specific recommendations
Redwing	<i>Turdus iliacus</i>	Winter visitor, feeding in fields, hedges and orchards	2002-2004	Retain hedges and woodlands, or provide mitigatory habitat.

Biodiversity Action Plan Species

English Name	Latin Name	Comments	Year/s	Recommendations
Common Linnet	<i>Carduelis cannabina</i>	Wide range of habitat, mainly farmland and grassland	2001-2005	Retain hedges and grassland habitats.
Common Starling	<i>Sturnus vulgaris</i>	Found in woodland, reedbeds and gardens	2004, 2005	No specific recommendations
Common Toad	<i>Bufo bufo</i>	Records are now out of date, but area may still have populations of toads as this species returns to its ancestral ponds. Little Aston,	1975	Retain ponds and suitable surrounding habitat. Create additional habitat.
Dunnock	<i>Prunella modularis</i>	Wide range of habitats	2004	No specific recommendations
Eurasian Tree Sparrow	<i>Passer montanus</i>	Open woodland and garden species.	2003-2005	Retain hedges and woodlands, or provide mitigatory habitat.
House Sparrow	<i>Passer domesticus</i>	Species of gardens and farmland	2003-2005	No specific recommendations
Northern Lapwing	<i>Vanellus vanellus</i>	Wetland and farmland	2002, 2003	Retain and buffer suitable habitat. Provide compensatory habitat where suitable habitat is lost, including farmland.
Reed Bunting	<i>Emberiza schoeniclus</i>	Wetland and farmland	2002, 2003	As Lapwing
Sky Lark	<i>Alauda arvensis</i>	Open grassland and other habitats	2001-2005	If area is developed, suitable habitat is likely to be lost, so mitigatory habitat should be provided
Song Thrush	<i>Turdus philomelos</i>	Woods, hedges, parks and gardens	2005	No specific recommendations
Willow Tit	<i>Poecile montanus</i>	Willow scrub and similar habitats	2001-2003	Retain hedges and woodlands, or provide mitigatory habitat.
Yellowhammer	<i>Emberiza citrinella</i>	Range of habitats, compartment likely to be suitable	2002-2005	Retain hedges, scrub and grassland habitats

Appendix 12 – Summary Site Descriptions and Species Lists for Compartment 12: South of Little Aston

There are no designated sites in the Compartment

Protected species

English Name	Latin Name	Comments	Year/s	Recommendations
Adder	Vipera berus	Mainly species of heathland or heathy habitats in Staffordshire. Recorded from Streetly and Sutton Park area; mainly historic records. Most recent is 1990	1990	Compartment may be suitable, as it is close to Sutton Park. Retain woodland and scrub habitat.
Brambling	Fringilla montifringilla	Wintering species	2001-2007	Retain hedges and woodlands, or provide mitigatory habitat.
Eurasian Badger	Meles meles	Widespread and likely to be affected by development. Creates burrows (setts) in dry, usually sandy areas. Feeds on a wide range of insects, fruit etc.	2005	Protect where possible; mitigation will depend on size and location of badger groups affected on any given site.
Fieldfare	Turdus pilaris	Wintering species	2003	As brambling
Noctule Bat	Nyctalus noctula	Mainly associated with trees, particularly old trees with holes for roosting.	2005	Retain hedges and trees, including dead trees. Install bat boxes in young woodlands.
Peregrine Falcon	Falco peregrinus	Probably hunting over area. Nests on cliffs and tall buildings	2003	No specific recommendations
Redwing	Turdus iliacus	Winter visitor, feeding in fields, hedges and orchards	2002, 2004	Retain hedges and woodlands, or provide mitigatory habitat.

Biodiversity Action Plan Species

English Name	Latin Name	Comments	Year/s	Recommendations
August Thorn	Ennomos quercinaria	Woodland and suburban habitats. Feeds on trees	2006	Retain hedges and woodlands, or provide mitigatory habitat.
Beaded Chestnut	Agrochola lychnidis	Feeds on a range of plants	2006	No specific recommendations
Brindled Beauty	Lycia hirtaria	Woodland and suburban species, feeds on broad leaved trees.	2006	Retain hedges and woodlands, or provide mitigatory habitat.
Buff Ermine	Spilosoma luteum	Widespread, feeds on a range of plants	2006	No specific recommendations
Centre-barred Sallow	Atethmia centrargo	Moth feeding on ash trees in woodlands and hedges	2006	Retain hedges and woodlands, or provide mitigatory habitat.
Cinnabar	Tyria jacobaeae	Probably widespread in area. Feeds on ragwort and similar plants	2006	No specific recommendations
Common Linnet	Carduelis cannabina	Wide range of habitat, mainly farmland and grassland	2001-2005	Retain hedges and grassland habitats, especially marshy grassland
Common Starling	Sturnus vulgaris	Found in woodland, reedbeds and gardens	2004, 2005	No specific recommendations
Common Toad	Bufo bufo	Records are now out of date, but area may still have populations of toads as this species returns to its ancestral ponds.	1975	Retain ponds and suitable surrounding habitat. Create additional habitat.
Dark-barred Twin-spot Carpet	Xanthorhoe ferrugata	Range of food plants	2006	No specific recommendations
Deep-brown Dart	Aporophyla luteola	Range of open habitats, feeding on grasses etc.	2006	No specific recommendations
Dot Moth	Melanchra persicariae	Found in a range of suburban habitats, feed on a variety of plants.	2006	No specific recommendations
Dunnock	Prunella modularis	Wide range of habitats	2004	No specific recommendations
Dusky Brocade	Apamea remissa	Wide range of habitats	2006	No specific recommendations
Dusky Thorn	Ennomos fuscantaria	Woodland and suburban habitats. Feeds on ash trees.	2006	Retain hedges and woodlands, or provide mitigatory habitat.
Eurasian Tree Sparrow	Passer montanus	Open woodland and garden species.	2003-2005	No specific recommendations
Ghost Moth	Hepialus humuli	Grassy areas, feeding on grasses and other plants.	2006	No specific recommendations

Goat Moth	Cossus cossus	Old record	1936	No specific recommendations
House Sparrow	Passer domesticus	Species of gardens and farmland	2003-2005	No specific recommendations
Minor Shoulder-knot	Brachylomia viminalis	Damp woodland and wetlands, feeding on willow.	2006	Site unlikely to be suitable, no recommendations
Mottled Rustic	Caradrina morpheus	Range of habitats, including gardens, feeding on herbaceous plants.	2006	No specific recommendations
Mouse Moth	Amphipyra tragopoginis	Range of habitats, feeding on herbaceous plants.	2006	No specific recommendations
Neglected Rustic	Xestia castanea	Heathland species	2006	Compartment may be suitable, as it is close to Sutton Park. Retain woodland and scrub habitat.
Northern Lapwing	Vanellus vanellus	Wetland and farmland	2002, 2003	Retain and buffer suitable habitat. Provide compensatory habitat where suitable habitat is lost, including farmland.
Oak Hook-tip	Watsonalla binaria	Oak woodland and parkland, feeds on oak	2006	Retain woodland and hedges.
Reed Bunting	Emberiza schoeniclus	Wetland and farmland	2002, 2003	As Lapwing
Sallow	Xanthia icteritia	Damp woodland and other marshy places, feeding on willow and other plants.	2006	Site unlikely to be suitable, no recommendations
September Thorn	Ennomos erosaria	Woodland, parkland and gardens. Feeds on trees.	2006	No specific recommendations
Shaded Broad-bar	Scotopteryx chenopodiata	Open habitats, feeding on clover and vetches	2006	Retain and enhance grassland habitats
Shoulder-striped Wainscot	Mythimna comma	Wide range of habitats. Feeds on grasses	2006	No specific recommendations
Sky Lark	Alauda arvensis	Open grassland and other habitats	2001-2005	If area is developed, suitable habitat is likely to be lost, so mitigatory habitat should be provided
Small Phoenix	Ecliptopera silaceata	Woodland and open habitats, feeds on willowherbs	2006	No specific recommendations
Small Square-spot	Diarsia rubi	Range of habitats, feeds on a range of plants	2006	No specific recommendations
Song Thrush	Turdus philomelos	Woods, hedges, parks and gardens	2005	No specific recommendations
White Ermine	Spilosoma lubricipeda	Widespread – feeds on a variety of plants.	2006	No specific recommendations
Willow Tit	Poecile montanus	Willow scrub and similar habitats	2001-2003	Retain hedges and woodlands, or provide mitigatory habitat.
Yellowhammer	Emberiza citrinella	Range of habitats, compartment likely to be suitable	2002-2005	Retain hedges, scrub and grassland habitats