



**PROPOSED WIND TURBINE, GARFIELD
HOUSE FARM, MIDHOPESTONES,
STOCKSBRIDGE.**

**PHASE I HABITAT AND PROTECTED
FAUNA SURVEY.**

Ref No:- 120722.

Date:- 15th August 2012.

TABLE OF CONTENTS

	Page Number
1. INTRODUCTION	3
2. SURVEY METHODOLOGY	4
3. SURVEY RESULTS	7
4. EVALUATION OF FINDINGS	16
5. RECOMMENDATIONS	18
Appendix I. GREAT CRESTED NEWT INFORMATION	20
Appendix II. GREAT CRESTED NEWT TOOLBOX TALK	22
Appendix III. NESTING BIRD INFORMATION	24
Appendix IV. BAT INFORMATION	25
Appendix V. ANNOTATED MAP OF THE SURVEY AREA	26
Appendix VI. TARGET NOTES	27
Appendix VII. BARNSELY BIOLOGICAL RECORDS CENTRE DATA SEARCH RESULTS	29
Appendix VIII. MAGIC.GOV DESIGNATED SITE SEARCH RESULTS	47
Appendix IX. DEVELOPMENT PLANS	48

1. INTRODUCTION

1.1. Philip S. Ryley and Co. LLP are preparing a planning application for the proposed installation of a 22m wind turbine at Garfield House Farm, Midhopstones, Stocksbridge.

1.2. Whitcher Wildlife Ltd has been commissioned to carry out a Phase I Habitat and Protected Fauna Survey of the site, a bat activity survey and two bird activity surveys to provide information to support the planning application.

1.3. The Phase 1 Habitat survey and first bird activity survey were carried out on 17th July 2012, with a bat emergence and activity survey being undertaken on 13th August and a second bird activity being undertaken on 14th August. This report outlines the findings of the surveys and makes appropriate recommendations.

1.4. Appendices I to IV of this report provide additional information on specific species and are designed to assist the reader to understand the contents of this report.

2. SURVEY METHODOLOGY

2.1. Phase 1 Habitat and Fauna survey

2.1.1. Prior to visiting the site the survey area was cross referenced to maps and aerial photographs to give a general idea of the habitats within the area and to identify potential access and walking routes.

2.1.2. The survey area was walked where access was agreed and public rights of way were used where no access was agreed. All habitats within and immediately around the survey area were documented and the dominant species within that habitat listed in line with the JNCC Handbook for Phase 1 Habitat surveys.

2.1.3. The survey area and immediate surrounding area was thoroughly searched for evidence of badger (*Meles meles*) activity by looking for the following signs in line with Harris S, Cresswell P and Jefferies D (1989). *Surveying Badgers*. Mammal Society:-

- * Badger setts.
- * Badger latrines or dung pits.
- * Badger snuffle holes and evidence of foraging.
- * Badger paths.
- * Badger prints in areas of soft mud.
- * Badger hairs caught on fencing.

2.1.4. All watercourses within the survey area and for approximately 50m in each direction were thoroughly searched for evidence of water vole (*Arvicola terrestris*) activity by looking for the following signs, in line with the guidance in the Water Vole Handbook:-

- * Water vole burrows.
- * Water vole faeces and latrines.
- * Water vole feeding stations.
- * Water vole runs.
- * Water vole prints in areas of soft mud.
- * Water vole lawns.
- * Predator field signs.

2.1.5. All watercourses within the survey area and for approximately 100m in each direction were thoroughly searched for evidence of otter (*Lutra lutra*) activity by looking for the following signs in line with the National Rivers Authority guidelines:-

- * Otter prints in soft mud.
- * Otter spraints.
- * Otter Holts.

2.1.6. All mature trees and derelict buildings were checked for potential bat roosting sites in line with the Bat Conservation Trust, Good Practice Guidelines by looking for the following signs:-

- * Holes, cracks or crevices.
- * Bat Droppings.

2.1.7. The land adjacent to the survey area was assessed for bat roosting and foraging potential including connective routes and flight lines.

2.1.8. The area within 500m of the survey site was cross referenced to maps to highlight all ponds close to the site. Where possible the ponds were accessed using agreed access or public rights of way to assess the potential for great crested newts (*Triturus cristatus*) to be present.

2.1.9. All watercourses and water bodies within the survey area and for approximately 50m in each direction were thoroughly searched for the presence of crayfish where safe to enter the water. The survey was carried out in accordance with the Conserving Natural 2000 Rivers Monitoring Series No 1, Protocol for Monitoring the White Clawed Crayfish.

2.1.10. The survey area was thoroughly searched for the presence of reptiles or suitable reptile habitats.

2.1.11. All surveys were carried out in line with the IEEM survey standards and advice.

2.1.12. This survey was carried out by Michelle Nesbitt. Michelle has recently become a Wildlife Consultant with Whitcher Wildlife but has 2-3 years previous experience as an ecological consultant and of working in conservation. Michelle holds Natural England Survey Licences in respect of great crested newts. She also holds a degree in Zoology (BSc), an MRes in Biodiversity and Conservation and has

successfully completed a number of courses run by IEEM, BCT and FSC in the relevant protected species and carrying out phase I habitat surveys. She is also a graduate member of IEEM.

2.2. Bird surveys

2.2.1. Bird activity surveys were undertaken on the 17th July and 14th August 2012.

2.2.2. The site was visited early in the morning and all bird activity observed was noted.

2.3. Bat surveys

2.3.1. All survey work was carried out in line with the Bat Conservation Trust, Good Practice Guidelines

2.3.2. A single dusk emergence survey was undertaken on 13th August using a Batbox Duet detector.

2.3.3. Bat activity within the survey area was monitored by leaving two Anabat bat detectors recording bat activity from dusk on the 13th August until dawn on the 14th August.

3. SURVEY RESULTS

3.1. Data Search Results

3.1.1 A request for information held by Barnsley Biological Records Centre (BBRC) found there to be only one designated site within 1km of the survey site. This site is Hollin and Spring Wood Natural Heritage Site and will not be affected by the proposed works.

3.1.2. The BBRC held no records of relevant protected species within 1km of the survey area. A full summary of the protected and notable species and designated sites information held by BBRC within 1km of grid reference SE 239 001 can be found in Appendix VII of this report.

3.1.3. Information on bird species recorded within 1km of grid reference SE 239 001 held by the Barnsley Bird Study Group was requested but was yet to be received on completion of this report. This report will be updated with any information received from the Barnsley Bird Study Group in the future.

3.1.4. A search of the Multi Agency Geographic Information for the Countryside (MAGIC) website found the following SSSIs and Local Nature Reserves;

Designation	Name	Distance from survey site
SSSI	SPRING MEADOWS, ALDERMAN'S HEAD & COW CROFT MEADOWS	900m west
SSSI	LITTLE DON STREAM SECTION	1.6km west
SSSI	THE DARK PEAK	1.7km south

3.1.5. These sites will not be affected by the current proposals. A map of the designated sites in relation to the survey area can be found in Appendix VIII of this report.

3.1.6. A search of the National Biodiversity Network (NBN) Gateway website found no relevant protected species records within 2km of the site.

3.2. The Surveyed Area

3.2.1. The surveyed area consists of grazing land to the north of Midhopestones, at approximate central grid reference SE 239 001.

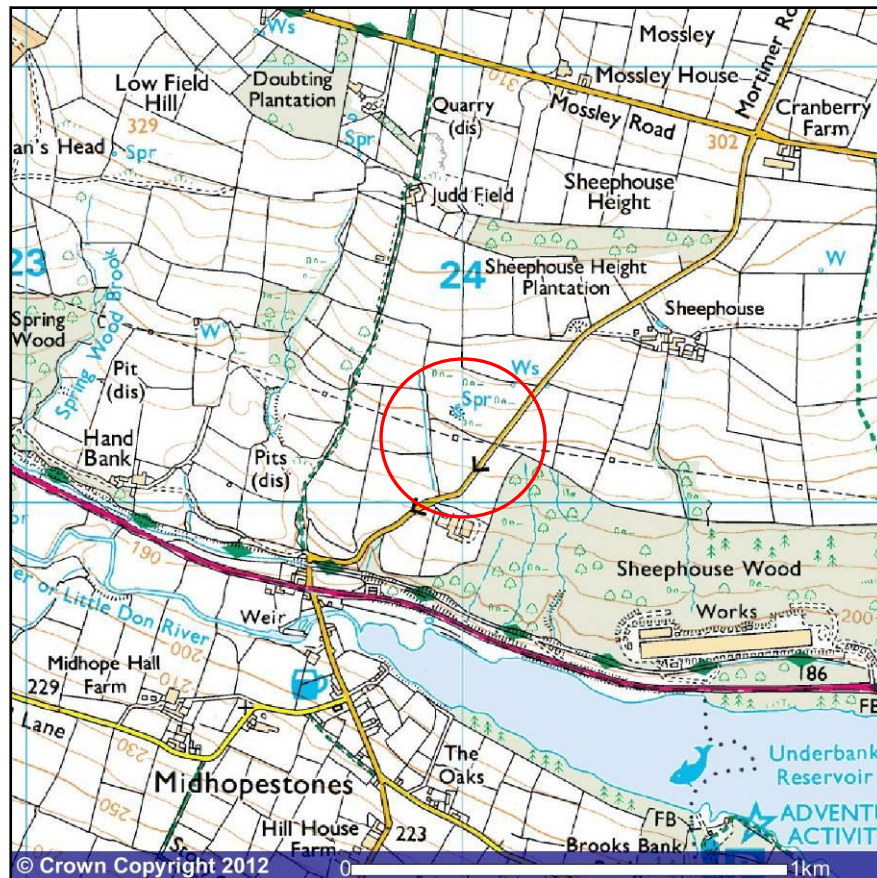


Figure 1. OS map showing Garfield House Farm, Midhopestones site. Image reproduced with permission of Ordnance Survey and Ordnance Survey of Northern Ireland.

3.2.2. A development plan of the site showing the proposed turbine location and dimensions can be found in Appendix IX of this report.

3.3. Phase 1 Habitat Survey Results

3.3.1. Description of Habitats

3.3.1.1. Appendix V of this report contains annotated maps marked up with the varying habitats. The habitats on and adjacent to the site are:-

- Improved grassland
- Semi-improved acid grassland
- Scattered trees
- Standing water - pond

No Japanese Knotweed, Giant Hogweed or other alien invasive plant species listed on Schedule 9 of the Wildlife and Countryside Act 1981 were identified within the survey area.

3.3.1.2. Improved grassland

These fields were grazed by sheep and 80% dominated by perennial ryegrass (*Lolium perenne*) and white clover (*Trifolium repens*). Also present in small amounts were cock's foot (*Dactylis glomerata*), rough meadow grass (*Poa trivialis*), Timothy grass (*Phleum pratense*), tufted hairgrass (*Deschampsia cespitosa*), pineapple weed (*Matricaria discoidea*), creeping buttercup (*Ranunculus repens*), daisy (*Bellis perennis*), ribwort plantain (*Plantago lanceolata*), common chickweed (*Stellaria media*), curled dock (*Rumex crispus*) and sheep's sorrel (*Rumex acetosella*). Common nettle (*Urtica dioica*), thistle (subtaxa *Cardueae*) and foxgloves (*Digitalis purpurea*) were present at the field margins next to dry stone walls.



3.3.1.3. Semi-improved acid grassland

These fields also had perennial ryegrass (*Lolium perenne*) and white clover (*Trifolium repens*) present, however they represented only around 20% of the grassland sward. Instead, these fields were dominated by Timothy grass (*Phleum pratense*), false oat grass (*Arrhenatherum elatius*), Yorkshire fog (*Holcus lanatus*), tufted hairgrass (*Deschampsia cespitosa*) and rough meadow grass (*Poa trivialis*), with cock's foot (*Dactylis glomerata*), curled dock (*Rumex crispus*), sheep's sorrel (*Rumex acetosella*), creeping buttercup (*Ranunculus repens*), and dandelion (*Taraxacum* Spp.) also being present. Again, common nettle (*Urtica dioica*), thistle (subtaxa *Cardueae*) and foxgloves (*Digitalis purpurea*) were present at the field margins next to dry stone walls.



3.3.1.4. Scattered trees

There are several scattered trees within the survey area, mostly being ash (*Fraxinus excelsior*) and hawthorn (*Crataegus monogyna*), with some sycamore (*Acer pseudoplatanus*), holly (*Ilex aquifolium*) and pedunculate oak (*Quercus robur*) also present. One tree with potential to support roosting bats is target noted in Appendix VI.



3.3.1.5. Standing water

A small pond is present to the north of the survey area and is described further in section 3.3.2.5. below. There is no vegetation associated with the pond which differs from the rest of the improved grassland in the surrounding field.



3.3.2. Description of Fauna

3.3.2.1. No badger setts or badger field signs were identified within the survey area.

3.3.2.2. No habitats suitable for water vole, otter or white clawed crayfish are present within the survey area.

3.3.2.3. No structures suitable for use by roosting bats are present within the survey area.

3.3.2.4. One tree on site is suitable for use by roosting bats and is described further in target note 1.

3.3.2.5. There is one pond within 500m of the survey area which lies approximately 70m from the proposed turbine location. A Habitat Suitability Index (HSI) Assessment of the pond was undertaken and the results can be seen in Table 1 below.





Figure 2. Aerial view of the survey site showing one pond within 500m.

Table 1. Habitat Suitability Index (HSI) assessment of pond 1.

HSI		Pond 1
SI1	Location	1
SI2	Pond Area	0.4
SI3	Pond Drying	1.0
SI4	Water Quality	0.01
SI5	Shade	1
SI6	Fowl	1
SI7	Fish	1
SI8	Ponds	0.38
SI9	Terrestrial Habitat	0.67
SI10	Macrophytes	0.7
Total score		0.48
Suitability		poor

3.3.2.6. During the nesting bird season (March to September) much of the vegetation within the survey area could potentially be used as nesting bird habitat. There are also nesting opportunities for ground nesting birds.

3.3.2.7. No habitats suitable for reptiles are present within the survey area.

3.4. Bird survey results

3.4.1. During each bird survey very low levels of bird activity were observed within the survey area.

17th July

- Crow seen perched in trees lining the road on the southern boundary of the site.
- Wood pigeon flew over the survey area from north west to south east.
- Three swallows were observed foraging over the field to the north of the survey area.
- Greenfinch seen in tree to the north of survey area.

14th August

- Wood pigeon flew over the survey area north to south.
- Crow was observed at ground level in the north western end of the survey area and exited the survey area to the west.
- Chaffinch calling in tree to the north of the survey area.

3.4.2. Two female pheasants were also seen within the survey area at the start of the dusk emergence survey and exited the site to the south.

3.5. Bat survey results

3.5.2. The position of the surveyor during the dusk emergence survey and the position of the Anabat bat detectors during the monitoring of bat activity are shown in Fig. 3 below.

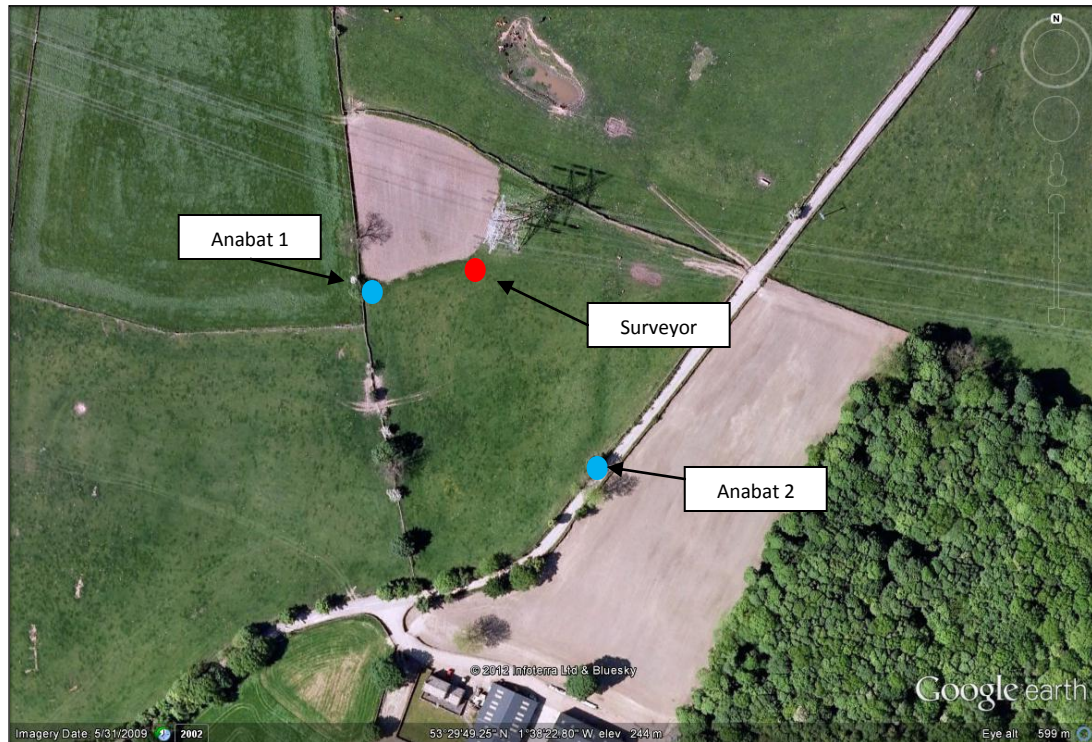


Figure 3. Aerial view of the survey area showing the position of the surveyor and Anabat remote bat detectors.

3.5.2. During the dusk emergence survey of the tree identified as having potential to support roosting bats no bats were seen to emerge from the tree. The first bats observed within the survey area approached the site from the west and foraged around the sparse vegetation at the field boundaries.

3.5.3. Dusk emergence survey results;

Start time: 20.45

Start temperature: 15°C

Precipitation: none

Cloud cover: 90%

21.18 – one common pipistrelle approached from west and foraged around field boundary vegetation

21.20 – one common pipistrelle approached from west, so now two common pipistrelles foraging around field boundary vegetation
21.25 – one common pipistrelle foraging over field at head height
21.26. - one common pipistrelle approached the site from the north, passed underneath overhead cables and foraged in field
21.35 – one common pipistrelle approached from west, foraged at head height in field then travelled south
21.37 – common pipistrelle heard but not seen.
Survey end at 22.00.

3.5.4. The two Anabats monitoring bat activity throughout the night recorded at least four different species of bats using the survey site.

Anabat 1

- 58 common pipistrelle bat recordings
- 3 soprano pipistrelle bat recordings
- 43 Daubenton's bat recordings
- 6 Myotis bat recordings which could not be identified to species level
- 2 Leislars bat recordings

Anabat 2

- 28 common pipistrelle bat recordings
- 8 Daubenton's bat recordings

4. EVALUATION OF FINDINGS

4.1. Phase 1 Habitat Survey

4.1.1. There are no UK BAP habitats within the survey area that will be affected by the proposed works.

4.1.2. No badger setts or badger field signs were identified within the survey area, although badgers may pass through the site from nearby woodland. The proposed works will have no impact on badger populations.

4.1.3. There are no watercourses suitable for water vole, otter or white clawed crayfish within or near the survey area therefore the works will have no impact on any water vole, otter or white clawed crayfish populations.

4.1.4. There is one pond within 500m of the survey area, which lies approximately 70m from the proposed wind turbine site. This pond is assessed as being of poor suitability for great crested newts. Given that there are no records of great crested newt within 2km of the site and the only pond within 500m is of poor suitability for great crested newts it is unlikely that the proposed works will affect any great crested newt populations.

4.1.5. One tree on site is suitable for use by roosting bats. A dusk emergence survey of the tree did not identify the tree as being used as a roost by bats therefore any work to this tree is unlikely to impact upon bats.

4.1.6. During the nesting bird season (March to September) much of the vegetation within the survey area could potentially be used as nesting bird habitat. There are also nesting opportunities for ground nesting birds. Any vegetation clearance undertaken during the nesting bird season has the potential to impact upon nesting birds.

4.1.7. There are no habitats suitable for reptiles present within the survey area. Therefore the works will have no impact on any reptile populations.

4.2. Birds

4.2.1. Low levels of bird activity were observed during the two surveys with only common species being present in low numbers.

4.3. Bats

4.3.1. Reasonably high levels of bat activity were recorded during the overnight monitoring of the survey area, with at least four bat species being recorded. There is therefore the potential for the proposed development to impact on these bats whilst they are foraging within and commuting through the survey area. This is particularly true of the species present on site that tend to fly higher, e.g. Leisler's bat as they are more likely to come into contact with wind turbine blades.

5. RECOMMENDATIONS

5.1. As a precautionary measure in case badgers are foraging or commuting in the area, it is recommended that any deep trenches or holes in the ground left overnight are left either covered or with a ramp in place to allow any animals that may fall into these to escape.

5.2. As a precautionary measure it is recommended that all personnel working on the site are briefed on the identification of great crested newts and in the unlikely event that one is found during the construction works, all works must stop and professional advice must be sought immediately. Appendices I and II of this report will aid in the briefing process.

5.3. As bats can use trees as ephemeral roosts there is a small chance that bats may be present during works to trees, although no bats were observed during the activity surveys. It is therefore recommended that any works to trees follow a method statement for bats as a precautionary measure.

5.4. To mitigate for the potential bat fatalities caused by collision with the proposed wind turbine it is recommended that the field boundaries are planted with native tree species. This should encourage bats to use the field boundaries as flight corridors and discourage flight across the open field where the wind turbine will be located.

5.5. There should be a buffer of at least 50m between any part of this tree planting and existing trees and the blades of the proposed wind turbine.

5.6. It is recommended that all existing trees and hedgerows are maintained and incorporated into the development scheme wherever possible.

5.7. If vegetation clearance does go ahead it is recommended that it be carried out outside of the nesting bird season. It is recommended that if vegetation clearance is to be carried out during the nesting bird season (March to September), the work is immediately preceded by a nesting bird survey undertaken by a suitably qualified ecologist. Any active nests identified must be left undisturbed until the young have fledged and similar areas of nesting habitat must be re-instated upon completion of the works.

5.8. To compensate for the grassland lost at the base of the proposed wind turbine it is recommended that biodiversity enhancements are incorporated into the proposed works. This could include native tree planting at the field boundaries as suggested above, and installation of bird and/or bat boxes within this vegetation. Creation of a pond/ponds or improvement of the existing pond to the north of the site might also be considered as a biodiversity enhancement.

Michelle Nesbitt

Natural England Great Crested Newt Survey Licence Number: - WLM-CL08
Agent under SNH Great Crested Newt Survey Licence Number: - 13830
SNH Bat Survey Licence Number: - 13836

15.08.2012

Appendix I. BACKGROUND GREAT CRESTED NEWT INFORMATION

The great crested newt population has suffered a major decline in Britain over the last century. Numerous ponds have been lost, unmanaged ponds have become silted up and over-shaded, development has destroyed ponds and associated terrestrial habitat and caused fragmentation of populations. The loss of grassland, scrub and woodland has resulted in fewer opportunities for foraging, dispersal and hibernation.

The UK Biodiversity Plan (BAP) contains a great crested newt Species Action Plan (SAP) aimed at maintaining its existing range and population status, as well as increasing the number of populations through re-colonisation.

The great crested newt is listed on Schedule 5 of the Wildlife and Countryside Act 1981, recently modified by the Countryside and Rights of Way Act 2000. The great crested newt is therefore subject to the provisions of Schedule 9, which make it an offence to:

- Intentionally kill, injure or take a great crested newt.
- Possess or control any live or dead specimen or anything derived from a great crested newt.
- Intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection by a great crested newt.
- Intentionally or recklessly disturb a great crested newt while it is occupying a structure or place, which it uses for that purpose.

The great crested newt is also listed on Annex II and Annex IV of The Conservation (Natural Habitats &c) Regulations 1994. Regulation 39 makes it an offence to:

- Deliberately capture or kill a great crested newt
- Deliberately disturb a great crested newt.
- Deliberately take or destroy the eggs of a great crested newt.
- Damage or destroy a breeding site or resting place of a great crested newt.

The legislation applies to all life stages of great crested newts.

The maximum fine on conviction of offences under Section 9 and Regulation 39 currently stands at £5,000. The CroW Act 2000 amendment also allows for a custodial sentence of up to six months instead of, or in addition to, a fine. In addition, items, which may constitute evidence of the commission of an offence, may be seized and detained.

In order to understand the potential effects of development it is essential to understand a little of the great crested newt ecology.

Great crested newts breed in ponds and other water bodies. They can begin to migrate to their breeding ponds as early as the first frost-free days in late January with the

majority reaching their breeding ponds by mid March. Timing will be influenced by a number of factors, mainly evening temperatures above 5C and recent rain.

The peak egg-laying period is from mid-March to mid-May. The newts will lay their eggs individually, mainly on the leaves of submerged plants. The larva hatch after three weeks and then take another 2-3 months to complete larval development. Adult newts generally leave their breeding ponds from late May onwards.

Once the larvae have completed metamorphosis (the transition from aquatic larvae to land-adapted juveniles, called efts), they emerge from the pond. This emergence begins in late August and generally continues until late October. It takes 2-4 years to reach sexual maturity, during which time the newts will be land based.

Adults and immature newts spend the winter in places that afford protection from frost and flooding. This will generally be underground amongst tree roots, in mammal burrows, or under suitable refuges above ground like deadwood or rubble piles. Hibernation may last from October to February.

Whilst on land, outside the hibernation period, great crested newts will forage at night, taking a wide range of invertebrate prey.

From the above, it can be seen that great crested newts spend the majority of their time on land and only visit the ponds for breeding purposes. As a result, surveys need to be timed very carefully. Terrestrial surveys are very inaccurate and the only time that surveys can be truly thorough is in the narrow window of opportunity between March and September.

Great crested newts will travel large distances between ponds and terrestrial refuges. It is recommended that anywhere within 500m of a pond should be treated as potential great crested newt habitat and should be surveyed and evaluated.

An experienced surveyor must carry out the surveys and must be in possession of an appropriate Natural England great crested newt survey licence.

It is essential that great crested newt surveys are planned well in advance of any development and ideally before Planning Consent is sought. Surveys can only be carried out at the appropriate time of year and repeat surveys are essential. The guidelines suggest that between four and six surveys need to be carried out, three of these between mid-March and mid-June.

If great crested newts are to be effected by any development, a thorough assessment of the population is essential followed by the design of a comprehensive mitigation package. Only when this has been done can a licence application be submitted to Natural England for approval. It takes 30 working days for a licence application to be determined and the period of time that mitigation measures take can be measured in months. It is therefore essential to plan well in advance of development commencing.

Appendix II - Toolbox Talk : Great Crested Newts.

The great crested newt population has suffered a major decline in Britain over the last century. Numerous ponds have been lost, unmanaged ponds have become silted up and over-shaded, development has destroyed ponds and associated terrestrial habitat and caused fragmentation of populations. The loss of grassland, scrub and woodland has resulted in fewer opportunities for foraging, dispersal and hibernation.



Identification : Great Crested Newts.

Great crested newts are dark, nearly black in colour with a speckled belly, distinctly orange in colour and with orange stripes across their toes.



Great crested newts can grow up to 15cm in length, juveniles will be smaller.

Where newts are found care should be taken to ensure that smooth newts or palmate newts are not mis-identified as great crested newts.

Identification : Smooth and Palmate Newts.

Smooth newts are predominantly lighter in colour although their colour may vary from sandy coloured to very dark. Smooth newts also have a speckled orange belly but the orange colour fades to pale.



Palmate newts are similar to smooth newts but with a pinker belly and webbed feet.

Habitat.

Great crested newts live predominantly on land but breed in ponds between March and June.

Great crested newts may be found on land almost all year round. They spend the daytime under rocks or logs, in cracks, crevices or holes, or anywhere that is moist and cool and emerge at night to forage. During the winter months great crested newts hibernate deep down away from the frost.

When disturbed in terrestrial habitats newts will usually be very sluggish and will take time to move away.

Legislation.

The great crested newt is listed on Schedule 5 of the Wildlife and Countryside Act 1981, recently modified by the Countryside Rights of Way Act 2000. The great crested newt is therefore subject to the provisions of Schedule 9, which make it an offence to:

- Intentionally kill, injure or take a great crested newt.
- Possess or control any live or dead specimen or anything derived from a great crested newt.
- Intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection by a great crested newt.
- Intentionally or recklessly disturb a great crested newt while it is occupying a structure or place which it uses for that purpose.

The great crested newt is also listed on Annex II and Annex IV of The Conservation (Natural Habitats &C) Regulations 1994. Regulation 39 makes it an offence to:

- Deliberately capture or kill a great crested newt.
- Deliberately disturb a great crested newt.
- Deliberately take or destroy the eggs of a great crested newt.
- Damage or destroy a breeding site or resting place of a great crested newt.

The legislation applies to all life stages of great crested newts.

The maximum fine on conviction of offences under Section 9 and Regulation 39 currently stands at £5,000. The CroW Act 2000 amendment also allows for a custodial sentence of up to six months instead of, or in addition to, a fine. In addition, items, which may constitute evidence of the commission of an offence, may be seized and detained.

DO's.

- ✓ Stop work immediately if you think you've identified a great crested newt.
- ✓ Photograph the newt and contact Whitcher Wildlife Ltd regarding identification.
- ✓ Avoid handling great crested newts where possible.

DON'Ts.

- ✗ DON'T commence work on a site where great crested newts are known to be present unless the work is covered by a Natural England licence.
- ✗ DON'T kill or injure great crested newts.

Further information. Contact Whitcher Wildlife Ltd.
Tel : 01226 753271. Email : info@whitcher-wildlife.co.uk.

Appendix III. NESTING BIRD INFORMATION

It is necessary to understand a little about the legal protection offered to nesting birds in order to evaluate the findings of this report.

Part 1.-(1) Of the Wildlife and Countryside Act 1981 states that:-

If any person intentionally:-

- (a) kills, injures or takes any wild bird;
 - (b) takes, damages or destroys the nest of any wild bird while that nest is in use or being built; or
 - (c) takes or destroys an egg of any wild bird,
- he shall be guilty of an offence.

Part 1.-(5) of the Act states that:-

If any person intentionally:-

- (a) disturbs any wild bird included in Schedule 1 while it is building a nest or is in, on, or near a nest containing eggs or young; or
- (b) disturbs dependant young of such a bird,

he shall be guilty of an offence and liable to a special penalty.

The Countryside and Rights of Way Act 2000 amends the above by inserting after “intentionally” the words “or recklessly”.

The nesting season will vary according to the weather each year but generally commences in March, peaks during May and June and continues until September.

It is also worth remembering that some birds nest in trees and scrub but others are ground nesting.

The best way to avoid this issue is to plan for vegetation clearance to be carried out outside the bird-nesting season.

Appendix IV. BAT INFORMATION

It is necessary to understand a little about bats, their basic nature, ecology and legal protection in order to evaluate the findings of this report.

Over 15 species of bat have been recorded in Britain. These fall into two families, the horseshoe bats and the 'ordinary bats'. They are extremely difficult to identify in the hand and even more so in flight.

All appear to be diminishing in numbers, probably due to shortage of food, caused by pesticides, as insects are their sole diet, and habitat change.

As their diet consists solely of insects, bats hibernate during the winter when their food source is at its most scarce. They will spend the winter in hollow trees, caves, mines and the roofs of buildings.

Certain species, particularly the pipistrelle (the commonest and most widespread British bat) can quickly adapt to man made structures and will readily use these to roost and to rear their young.

Bats are protected under the Wildlife and Countryside Act 1981, The Habitats Regulations 1994 and the Countryside & Rights of Way Act 2000.

It is an offence to intentionally or recklessly kill, injure or capture or disturb bats or to damage, destroy or obstruct access to any place used by bats for shelter or protection.

A breeding or resting site of any bat is known as a bat roost. A bat roost is therefore any structure a bat uses for shelter or protection. Because bats tend to use the same roosts each year, legal opinion is that the roost site is protected whether or not the bats are present at that time.

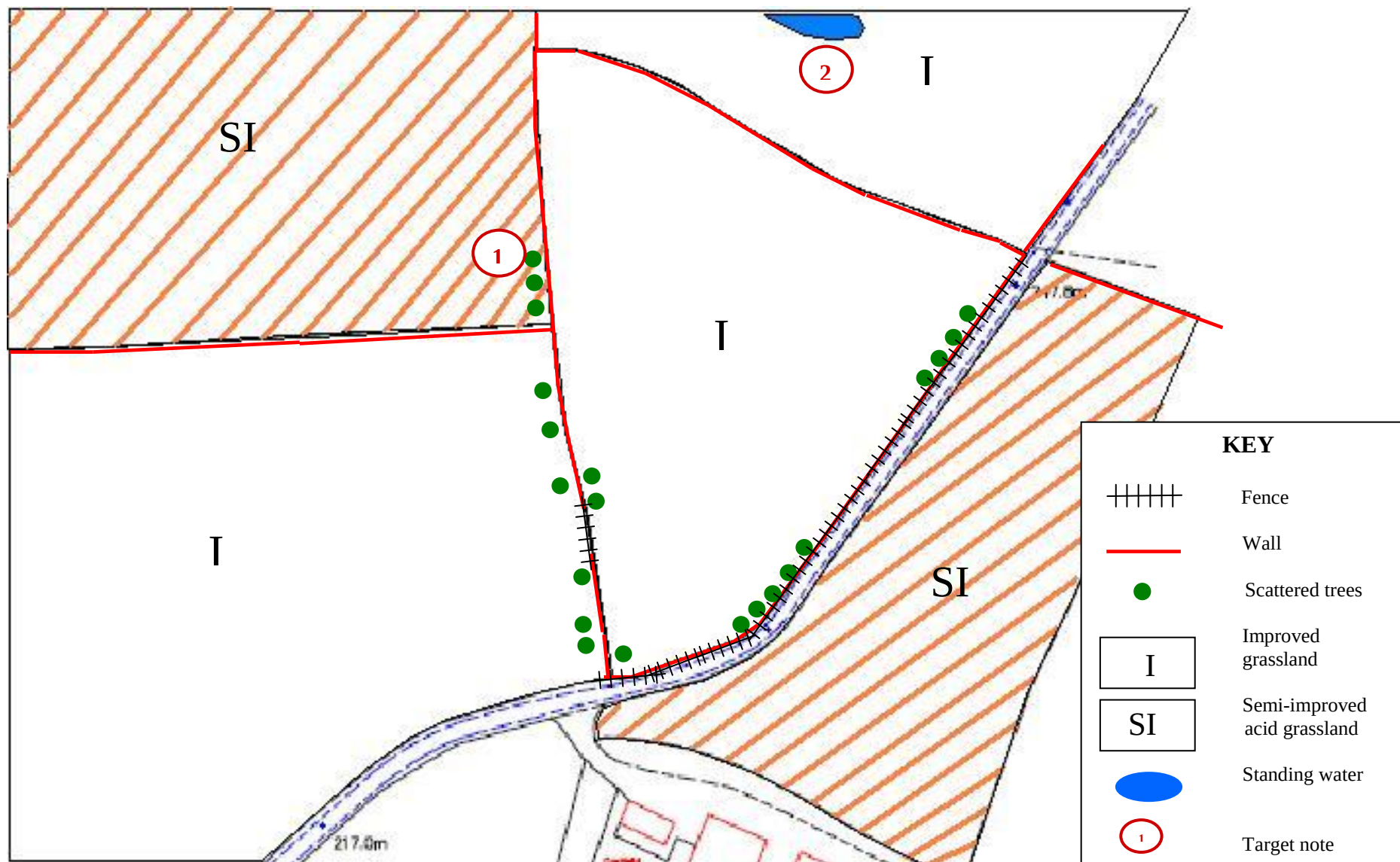
Bat roosts can be identified by looking for:-

- Suitable holes, cracks and crevices.
- Bat droppings.
- Prey remains.
- By carrying out night observations using a bat detector.

Where development proposals are likely to affect a bat roost site, a licence is required from Natural England.

The person applying for that licence has to be suitably qualified and experienced in bat matters. That person is then responsible for ensuring that the measures contained in the licence are carried out.

Appendix V. ANNOTATED MAP OF THE SURVEY AREA



Appendix VI. TARGET NOTES

1. **Ash tree** – This mature ash tree has the potential to be used by roosting bats. There is a large hole into the main trunk and areas of loose bark, cracks and crevices where a limb has previously broken off.



Loose bark, cracks and crevices

Hole in trunk



2. Pond - There is one pond within 500m of the survey area which lies approximately 70m from the proposed turbine location. There is no vegetation associated with the pond which differs from the rest of the improved grassland in the surrounding field.



Appendix VII. BARNSELY BIOLOGICAL RECORDS CENTRE DATA SEARCH RESULTS

Common Name	Scientific Name	Group	Grid Ref	Date	Location Name	Location
Goshawk	Accipiter gentilis	bird	SK2499	26/04/2009	SK29P-1	'BARNSELY MBC'
Common Sandpiper	Actitis hypoleucos	bird	SK2499	25/04/2010	SK29P-2	'BARNSELY MBC'
Common Sandpiper	Actitis hypoleucos	bird	SK2499	05/06/2010	SK29P-2	'BARNSELY MBC'
Long-Tailed Tit	Aegithalos caudatus	bird	SK2499	11/09/2007		Woodland on north bank of Underbank Reservoir
Long-Tailed Tit	Aegithalos caudatus	bird	SE2300	14/04/2009	SE20F-3	'BARNSELY MBC'
Long-Tailed Tit	Aegithalos caudatus	bird	SK232996	09/02/2010	Underbank Reservoir	Underbank Reservoir, valley of River Little Don, SMDC side
Long-Tailed Tit	Aegithalos caudatus	bird	SK2499	25/04/2010	SK29P-2	'BARNSELY MBC'
Skylark	Alauda arvensis	bird	SK247999	07/05/1998		Little Don Valley Langsett-Midhopestones, BMBC
Skylark	Alauda arvensis	bird	SK247999	07/05/1998		Valley of River Little Don between Midhopestones & Stocksbridge, SMDC side
Skylark	Alauda arvensis	bird	SE2400	06/07/2008	SE20K-1	'BARNSELY MBC'
Skylark	Alauda arvensis	bird	SE2300	14/04/2009	SE20F-3	'BARNSELY MBC'
Kingfisher	Alcedo atthis	bird	SK2499	11/09/2007		Underbank Reservoir
Mallard	Anas platyrhynchos	bird	SK243996	03/12/1993		Underbank Reservoir
Mallard	Anas platyrhynchos	bird	SK243996	03/12/1993		Underbank Reservoir, valley of River Little Don, SMDC side
Mallard	Anas platyrhynchos	bird	SK239996	03/02/2010	Underbank Reservoir	Underbank Reservoir, valley of River Little Don, SMDC side
Mallard	Anas platyrhynchos	bird	SK2499	25/04/2010	SK29P-2	'BARNSELY MBC'
Ducks, geese, swans	Anatidae	bird	SK238995	06/02/1993		Midhopestones
Meadow Pipit	Anthus pratensis	bird	SE2400	06/07/2008	SE20K-1	'BARNSELY MBC'
Grey Heron	Ardea cinerea	bird	SK244995	31/01/1997		Underbank Reservoir, valley of River Little Don, SMDC side
Grey Heron	Ardea cinerea	bird	SK244995	31/01/1997		Underbank Reservoir
Grey Heron	Ardea cinerea	bird	SK2499	20/05/2006	SK29P-1	'BARNSELY MBC'
Pochard	Aythya ferina	bird	SK243996	03/12/1993		Underbank Reservoir, valley of River Little Don, SMDC side
Pochard	Aythya ferina	bird	SK243996	03/12/1993		Underbank Reservoir
Pochard	Aythya ferina	bird	SK244995	28/01/1997		Underbank Reservoir
Pochard	Aythya ferina	bird	SK244995	28/01/1997		Underbank Reservoir, valley of River Little Don, SMDC side

Pochard	Aythya ferina	bird	SK244995	31/01/1997		Underbank Reservoir, valley of River Little Don, SMDC side
Pochard	Aythya ferina	bird	SK244995	31/01/1997		Underbank Reservoir
Pochard	Aythya ferina	bird	SK243995	08/02/1997		Underbank Reservoir
Pochard	Aythya ferina	bird	SK243995	08/02/1997		Underbank Reservoir, valley of River Little Don, SMDC side
Pochard	Aythya ferina	bird	SK239996	03/02/2010	Underbank Reservoir	Underbank Reservoir, valley of River Little Don, SMDC side
Pochard	Aythya ferina	bird	SK239996	09/02/2010	Underbank Reservoir	Underbank Reservoir, valley of River Little Don, SMDC side
Pochard	Aythya ferina	bird	SK238996	01/03/2010	Underbank Reservoir	Underbank Reservoir, valley of River Little Don, SMDC side
Tufted Duck	Aythya fuligula	bird	SK243996	03/12/1993		Underbank Reservoir, valley of River Little Don, SMDC side
Tufted Duck	Aythya fuligula	bird	SK243996	03/12/1993		Underbank Reservoir
Tufted Duck	Aythya fuligula	bird	SK238997	01/03/2009		Underbank Reservoir, valley of River Little Don, SMDC side
Tufted Duck	Aythya fuligula	bird	SK239996	29/01/2010	Underbank Reservoir	Underbank Reservoir, valley of River Little Don, SMDC side
Tufted Duck	Aythya fuligula	bird	SK239996	03/02/2010	Underbank Reservoir	Underbank Reservoir, valley of River Little Don, SMDC side
Scaup	Aythya marila	bird	SK244995	28/01/1997		Underbank Reservoir, valley of River Little Don, SMDC side
Scaup	Aythya marila	bird	SK244995	28/01/1997		Underbank Reservoir
Scaup	Aythya marila	bird	SK244995	31/01/1997		Underbank Reservoir
Scaup	Aythya marila	bird	SK244995	31/01/1997		Underbank Reservoir, valley of River Little Don, SMDC side
Canada Goose	Branta canadensis	bird	SK2499	01/08/1994		Underbank Reservoir
Canada Goose	Branta canadensis	bird	SK245993	20/10/2010	Underbank Reservoir	Underbank Reservoir, valley of River Little Don, SMDC side
Buzzard	Buteo buteo	bird	SK2399	24/01/2010	Midhopestones	
Linnet	Carduelis cannabina	bird	SE2300	14/04/2009	SE20F-3	'BARNSELEY MBC'
Linnet	Carduelis cannabina	bird	SE2300	14/04/2009	SE20F-3	'BARNSELEY MBC'
Linnet	Carduelis cannabina	bird	SE2300	30/05/2009	SE20F-3	'BARNSELEY MBC'
Goldfinch	Carduelis carduelis	bird	SE2400	18/05/2008	SE20K-1	'BARNSELEY MBC'
Goldfinch	Carduelis carduelis	bird	SE2400	06/07/2008	SE20K-1	'BARNSELEY MBC'
Goldfinch	Carduelis carduelis	bird	SE2300	14/04/2009	SE20F-3	'BARNSELEY MBC'
Greenfinch	Carduelis chloris	bird	SE2300	14/04/2009	SE20F-3	'BARNSELEY MBC'
Greenfinch	Carduelis chloris	bird	SE2300	14/04/2009	SE20F-3	'BARNSELEY MBC'
Greenfinch	Carduelis chloris	bird	SK2499	25/04/2010	SK29P-2	'BARNSELEY MBC'
Greenfinch	Carduelis chloris	bird	SK236997	08/05/2010		Valley of River Little Don between Langsett &

						Midhopestones, SMDC side
Siskin	Carduelis spinus	bird	SK2499	25/04/2010	SK29P-2	'BARNSELEY MBC'
Siskin	Carduelis spinus	bird	SK2499	05/06/2010	SK29P-2	'BARNSELEY MBC'
Treecreeper	Certhia familiaris	bird	SE231001	21/01/1996		Little Don Valley Langsett-Midhopestones, BMBC
Treecreeper	Certhia familiaris	bird	SE231001	21/01/1996		Valley of River Little Don between Langsett & Midhopestones, SMDC side
Treecreeper	Certhia familiaris	bird	SK2499	11/09/2007		Woodland on north bank of Underbank Reservoir
Treecreeper	Certhia familiaris	bird	SK2499	05/06/2010	SK29P-2	'BARNSELEY MBC'
Woodpigeon	Columba palumbus	bird	SE2400	18/05/2008	SE20K-1	'BARNSELEY MBC'
Woodpigeon	Columba palumbus	bird	SE2300	14/04/2009	SE20F-3	'BARNSELEY MBC'
Woodpigeon	Columba palumbus	bird	SE2300	14/04/2009	SE20F-3	'BARNSELEY MBC'
Woodpigeon	Columba palumbus	bird	SE2300	30/05/2009	SE20F-3	'BARNSELEY MBC'
Woodpigeon	Columba palumbus	bird	SK2499	25/04/2010	SK29P-2	'BARNSELEY MBC'
Carrion Crow	Corvus corone subsp. corone	bird	SE2400	18/05/2008	SE20K-1	'BARNSELEY MBC'
Carrion Crow	Corvus corone subsp. corone	bird	SE2300	14/04/2009	SE20F-3	'BARNSELEY MBC'
Carrion Crow	Corvus corone subsp. corone	bird	SE2300	14/04/2009	SE20F-3	'BARNSELEY MBC'
Carrion Crow	Corvus corone subsp. corone	bird	SK2499	25/04/2010	SK29P-2	'BARNSELEY MBC'
Jackdaw	Corvus monedula	bird	SE2300	14/04/2009	SE20F-3	'BARNSELEY MBC'
Jackdaw	Corvus monedula	bird	SE2300	30/05/2009	SE20F-3	'BARNSELEY MBC'
Jackdaw	Corvus monedula	bird	SK236997	08/05/2010		Valley of River Little Don between Langsett & Midhopestones, SMDC side
Great Spotted Woodpecker	Dendrocopos major	bird	SK2499	11/09/2007		Woodland on north bank of Underbank Reservoir
Great Spotted Woodpecker	Dendrocopos major	bird	SK2499	05/06/2010	SK29P-2	'BARNSELEY MBC'
Yellowhammer	Emberiza citrinella	bird	SE2300	14/04/2009	SE20F-3	'BARNSELEY MBC'
Yellowhammer	Emberiza citrinella	bird	SE2300	14/04/2009	SE20F-3	'BARNSELEY MBC'
Reed Bunting	Emberiza schoeniclus	bird	SE2300	14/04/2009	SE20F-3	'BARNSELEY MBC'
Reed Bunting	Emberiza schoeniclus	bird	SE2300	14/04/2009	SE20F-3	'BARNSELEY MBC'
Robin	Erithacus rubecula	bird	SE2300	14/04/2009	SE20F-3	'BARNSELEY MBC'
Robin	Erithacus rubecula	bird	SE2300	30/05/2009	SE20F-3	'BARNSELEY MBC'
Robin	Erithacus rubecula	bird	SK2499	25/04/2010	SK29P-2	'BARNSELEY MBC'
Robin	Erithacus rubecula	bird	SK2499	05/06/2010	SK29P-2	'BARNSELEY MBC'
Chaffinch	Fringilla coelebs	bird	SE2400	18/05/2008	SE20K-1	'BARNSELEY MBC'
Chaffinch	Fringilla coelebs	bird	SE2400	06/07/2008	SE20K-1	'BARNSELEY MBC'

Chaffinch	Fringilla coelebs	bird	SE2300	14/04/2009	SE20F-3	'BARNSELY MBC'
Chaffinch	Fringilla coelebs	bird	SE2300	14/04/2009	SE20F-3	'BARNSELY MBC'
Chaffinch	Fringilla coelebs	bird	SE2300	30/05/2009	SE20F-3	'BARNSELY MBC'
Chaffinch	Fringilla coelebs	bird	SK2499	25/04/2010	SK29P-2	'BARNSELY MBC'
Chaffinch	Fringilla coelebs	bird	SK236997	08/05/2010		Valley of River Little Don between Langsett & Midhopestones, SMDC side
Chaffinch	Fringilla coelebs	bird	SK2499	05/06/2010	SK29P-2	'BARNSELY MBC'
Common Coot	Fulica atra	bird	SK232997	19/03/2009		Underbank Reservoir, valley of River Little Don, SMDC side
Coot	Fulica atra	bird	SK2499	25/04/2010	SK29P-2	'BARNSELY MBC'
Common Moorhen	Gallinula chloropus	bird	SK232997	19/03/2009		Underbank Reservoir, valley of River Little Don, SMDC side
Moorhen	Gallinula chloropus	bird	SK2499	25/04/2010	SK29P-2	'BARNSELY MBC'
Common Moorhen	Gallinula chloropus	bird	SK236997	08/05/2010		Valley of River Little Don between Langsett & Midhopestones, SMDC side
Jay	Garrulus glandarius	bird	SE2300	14/04/2009	SE20F-3	'BARNSELY MBC'
Jay	Garrulus glandarius	bird	SK238996	01/03/2010	Underbank Reservoir	Underbank Reservoir, valley of River Little Don, SMDC side
Swallow	Hirundo rustica	bird	SE2400	18/05/2008	SE20K-1	'BARNSELY MBC'
Swallow	Hirundo rustica	bird	SE2400	06/07/2008	SE20K-1	'BARNSELY MBC'
Swallow	Hirundo rustica	bird	SE2300	14/04/2009	SE20F-3	'BARNSELY MBC'
Goosander	Mergus merganser	bird	SK244995	28/01/1997		Underbank Reservoir
Goosander	Mergus merganser	bird	SK244995	28/01/1997		Underbank Reservoir, valley of River Little Don, SMDC side
Pied Wagtail	Motacilla alba subsp. yarrellii	bird	SE2300	14/04/2009	SE20F-3	'BARNSELY MBC'
Yellow Wagtail	Motacilla flava	bird	SK2499	01/03/1999		Underbank Reservoir, valley of River Little Don, SMDC side
Curlew	Numenius arquata	bird	SE2300	14/04/2009	SE20F-3	'BARNSELY MBC'
Coal Tit	Parus ater	bird	SE231001	21/01/1996		Valley of River Little Don between Langsett & Midhopestones, SMDC side
Coal Tit	Parus ater	bird	SE231001	21/01/1996		Little Don Valley Langsett-Midhopestones, BMBC
Coal Tit	Parus ater	bird	SE231001	24/02/2002		Langsett Valley
Coal Tit	Parus ater	bird	SK232996	09/02/2010	Underbank Reservoir	Underbank Reservoir, valley of River Little Don, SMDC side
Coal Tit	Parus ater	bird	SK2499	25/04/2010	SK29P-2	'BARNSELY MBC'
Coal Tit	Parus ater	bird	SK2499	05/06/2010	SK29P-2	'BARNSELY MBC'
Blue Tit	Parus caeruleus	bird	SE2400	18/05/2008	SE20K-1	'BARNSELY MBC'
Blue Tit	Parus caeruleus	bird	SE2300	14/04/2009	SE20F-3	'BARNSELY MBC'

Blue Tit	Parus caeruleus	bird	SE2300	30/05/2009	SE20F-3	'BARNSLEY MBC'
Blue Tit	Parus caeruleus	bird	SK232996	09/02/2010	Underbank Reservoir	Underbank Reservoir, valley of River Little Don, SMDC side
Blue Tit	Parus caeruleus	bird	SK2499	25/04/2010	SK29P-2	'BARNSLEY MBC'
Great Tit	Parus major	bird	SE2400	18/05/2008	SE20K-1	'BARNSLEY MBC'
Great Tit	Parus major	bird	SK232996	09/02/2010	Underbank Reservoir	Underbank Reservoir, valley of River Little Don, SMDC side
Great Tit	Parus major	bird	SK2499	25/04/2010	SK29P-2	'BARNSLEY MBC'
Willow Tit	Parus montanus	bird	SK2499	11/09/2007		Woodland on north bank of Underbank Reservoir
Grey Partridge	Perdix perdix	bird	SK2399	01/03/1998		Midhopestones
Grey Partridge	Perdix perdix	bird	SK2399	01/03/1999		Midhopestones
Cormorant	Phalacrocorax carbo	bird	SK2499	24/10/2003		Underbank Reservoir
Cormorant	Phalacrocorax carbo	bird	SK2499	24/01/2010		Underbank Reservoir
Great Cormorant	Phalacrocorax carbo	bird	SK239996	29/01/2010	Underbank Reservoir	Underbank Reservoir, valley of River Little Don, SMDC side
Pheasant	Phasianus colchicus	bird	SE2400	18/05/2008	SE20K-1	'BARNSLEY MBC'
Pheasant	Phasianus colchicus	bird	SE2400	06/07/2008	SE20K-1	'BARNSLEY MBC'
Pheasant	Phasianus colchicus	bird	SE2300	14/04/2009	SE20F-3	'BARNSLEY MBC'
Pheasant	Phasianus colchicus	bird	SE2300	30/05/2009	SE20F-3	'BARNSLEY MBC'
Pheasant	Phasianus colchicus	bird	SK2499	25/04/2010	SK29P-2	'BARNSLEY MBC'
Chiffchaff	Phylloscopus collybita	bird	SK2499	14/06/1997		Sheephouse Wood
Willow Warbler	Phylloscopus trochilus	bird	SE2300	14/04/2009	SE20F-3	'BARNSLEY MBC'
Willow Warbler	Phylloscopus trochilus	bird	SE2300	30/05/2009	SE20F-3	'BARNSLEY MBC'
Willow Warbler	Phylloscopus trochilus	bird	SK2499	25/04/2010	SK29P-2	'BARNSLEY MBC'
Willow Warbler	Phylloscopus trochilus	bird	SK236997	08/05/2010		Valley of River Little Don between Langsett & Midhopestones, SMDC side
Magpie	Pica pica	bird	SE2400	18/05/2008	SE20K-1	'BARNSLEY MBC'
Magpie	Pica pica	bird	SE2300	14/04/2009	SE20F-3	'BARNSLEY MBC'
Green Woodpecker	Picus viridis	bird	SE2300	14/04/2009	SE20F-3	'BARNSLEY MBC'
Great Crested Grebe	Podiceps cristatus	bird	SK246995	01/03/1996		Underbank Reservoir, valley of River Little Don, SMDC side
Great Crested Grebe	Podiceps cristatus	bird	SK246995	01/03/1996		Underbank Reservoir
Great Crested Grebe	Podiceps cristatus	bird	SK238997	01/03/2009		Underbank Reservoir, valley of River Little Don, SMDC side
Great Crested Grebe	Podiceps cristatus	bird	SK2499	24/01/2010		Underbank Reservoir
Great Crested Grebe	Podiceps cristatus	bird	SK241995	01/03/2010	Underbank Reservoir	Underbank Reservoir, valley of River Little Don, SMDC side

Great Crested Grebe	Podiceps cristatus	bird	SK236997	08/05/2010		Valley of River Little Don between Langsett & Midhopestones, SMDC side
Dunnock	Prunella modularis	bird	SK2499	25/04/2010	SK29P-2	'BARNSELEY MBC'
Common Bullfinch	Pyrrhula pyrrhula	bird	SK232996	09/02/2010	Underbank Reservoir	Underbank Reservoir, valley of River Little Don, SMDC side
Goldcrest	Regulus regulus	bird	SK2499	25/04/2010	SK29P-2	'BARNSELEY MBC'
Goldcrest	Regulus regulus	bird	SK2499	05/06/2010	SK29P-2	'BARNSELEY MBC'
Nuthatch	Sitta europaea	bird	SE2300	14/04/2009	SE20F-3	'BARNSELEY MBC'
Nuthatch	Sitta europaea	bird	SE2300	30/05/2009	SE20F-3	'BARNSELEY MBC'
Nuthatch	Sitta europaea	bird	SK2499	25/04/2010	SK29P-2	'BARNSELEY MBC'
Tawny Owl	Strix aluco	bird	SK2499	15/04/2009	SK29P-1	'BARNSELEY MBC'
Tawny Owl	Strix aluco	bird	SK2499	05/06/2010	SK29P-2	'BARNSELEY MBC'
Starling	Sturnus vulgaris	bird	SK236997	08/05/2010		Valley of River Little Don between Langsett & Midhopestones, SMDC side
Blackcap	Sylvia atricapilla	bird	SK2499	25/04/2010	SK29P-2	'BARNSELEY MBC'
Garden Warbler	Sylvia borin	bird	SK2499	05/06/2010	SK29P-2	'BARNSELEY MBC'
Common Whitethroat	Sylvia communis	bird	SE2300	30/05/2009	SE20F-3	'BARNSELEY MBC'
Lesser Whitethroat	Sylvia curruca	bird	SK2499	01/03/1998		Sheephouse Wood
Wren	Troglodytes troglodytes	bird	SE2400	18/05/2008	SE20K-1	'BARNSELEY MBC'
Wren	Troglodytes troglodytes	bird	SE2300	14/04/2009	SE20F-3	'BARNSELEY MBC'
Wren	Troglodytes troglodytes	bird	SE2300	30/05/2009	SE20F-3	'BARNSELEY MBC'
Wren	Troglodytes troglodytes	bird	SK2499	25/04/2010	SK29P-2	'BARNSELEY MBC'
Redwing	Turdus iliacus	bird	SE231001	21/01/1996		Little Don Valley Langsett-Midhopestones, BMBC
Redwing	Turdus iliacus	bird	SE231001	21/01/1996		Valley of River Little Don between Langsett & Midhopestones, SMDC side
Common Blackbird	Turdus merula	bird	SK2499	06/01/2005	Sheffield-Underbank Reservoir	Underbank Reservoir, valley of River Little Don, SMDC side
Blackbird	Turdus merula	bird	SE2400	06/07/2008	SE20K-1	'BARNSELEY MBC'
Blackbird	Turdus merula	bird	SE2300	14/04/2009	SE20F-3	'BARNSELEY MBC'
Blackbird	Turdus merula	bird	SE230003	10/01/2012	Spring Wood	Hollin and Spring Woods LWS
Song Thrush	Turdus philomelos	bird	SE2300	14/04/2009	SE20F-3	'BARNSELEY MBC'
Fieldfare	Turdus pilaris	bird	SK238995	29/01/2010	Underbank Reservoir	Underbank Reservoir, valley of River Little Don, SMDC side
Mistle Thrush	Turdus viscivorus	bird	SE2400	06/07/2008	SE20K-1	'BARNSELEY MBC'
Mistle Thrush	Turdus viscivorus	bird	SK2499	25/04/2010	SK29P-2	'BARNSELEY MBC'
Mistle Thrush	Turdus viscivorus	bird	SK236997	08/05/2010		Valley of River Little Don between Langsett & Midhopestones, SMDC side

Lapwing	Vanellus vanellus	bird	SE2300	14/04/2009	SE20F-3	'BARNSELEY MBC'
Larch	Larix	conifer	SK2499	11/09/2007		Woodland on north bank of Underbank Reservoir
Norway Spruce	Picea abies	conifer	SK2499	15/05/2004		Sheephouse Wood
Norway Spruce	Picea abies	conifer	SK2499	11/09/2007		Woodland on north bank of Underbank Reservoir
Scots Pine	Pinus sylvestris	conifer	SK2499	08/05/2004		woodland on S bank of Underbank reservoir
Scots Pine	Pinus sylvestris	conifer	SK2499	15/05/2004		Sheephouse Wood
Scots Pine	Pinus sylvestris	conifer	SK2499	11/09/2007		Woodland on north bank of Underbank Reservoir
Lady Fern	Athyrium filix-femina	fern	SE230002	01/07/2010	TN11 Spring Wood stream	Hollin and Spring Woods LWS
Hard Fern	Blechnum spicant	fern	SK2499	15/05/2004		Sheephouse Wood
Hard Fern	Blechnum spicant	fern	SE230002	01/07/2010	TN11 Spring Wood stream	Hollin and Spring Woods LWS
Broad Buckler-Fern	Dryopteris dilatata	fern	SE231004	01/07/2010	TN17 Spring Wood	Hollin and Spring Woods LWS
Broad Buckler-Fern	Dryopteris dilatata	fern	SE230002	01/07/2010	TN11 Spring Wood stream	Hollin and Spring Woods LWS
Common Male Fern	Dryopteris filix-mas	fern	SE231004	01/07/2010	TN17 Spring Wood	Hollin and Spring Woods LWS
Male Fern	Dryopteris filix-mas agg.	fern	SK2499	15/05/2004		Sheephouse Wood
Male Fern	Dryopteris filix-mas agg.	fern	SE231005	01/07/2010	TN15 marshy grassland to N of Spring Wood	Hollin and Spring Woods LWS
Male Fern	Dryopteris filix-mas agg.	fern	SE230002	01/07/2010	TN11 Spring Wood stream	Hollin and Spring Woods LWS
Bracken	Pteridium aquilinum	fern	SK2499	15/05/2004		Sheephouse Wood
Bracken	Pteridium aquilinum	fern	SK2499	11/09/2007		Woodland on north bank of Underbank Reservoir
Bracken	Pteridium aquilinum	fern	SE230002	01/07/2010	TN11 Spring Wood stream	Hollin and Spring Woods LWS
Bracken	Pteridium aquilinum	fern	SE231004	01/07/2010	TN17 Spring Wood	Hollin and Spring Woods LWS
Bracken	Pteridium aquilinum	fern	SE231004	01/07/2010	TN12 clearing Spring Wood	Hollin and Spring Woods LWS
Bracken	Pteridium aquilinum	fern	SE231004	01/07/2010	Spring Wood	Hollin and Spring Woods LWS
Sycamore	Acer pseudoplatanus	flowering plant	SK2499	08/05/2004		woodland on S bank of Underbank reservoir
Sycamore	Acer pseudoplatanus	flowering plant	SK2499	15/05/2004		Sheephouse Wood
Sycamore	Acer pseudoplatanus	flowering plant	SE231004	01/07/2010	TN12 clearing Spring Wood	Hollin and Spring Woods LWS
Sycamore	Acer pseudoplatanus	flowering plant	SE230002	01/07/2010	TN11 Spring Wood stream	Hollin and Spring Woods LWS
Sycamore	Acer pseudoplatanus	flowering plant	SE231004	01/07/2010	TN17 Spring Wood	Hollin and Spring Woods LWS
Sneezewort	Achillea ptarmica	flowering plant	SK2499	03/09/2007		Underbank Reservoir
Sneezewort	Achillea ptarmica	flowering plant	SK2499	11/09/2007		Woodland on north bank of Underbank Reservoir
Sneezewort	Achillea ptarmica	flowering plant	SK2499	11/09/2007		Underbank Reservoir
Creeping Bent	Agrostis stolonifera	flowering plant	SE231005	01/07/2010	TN13 grassland N of Spring Wood	Hollin and Spring Woods LWS

Garlic Mustard	Alliaria petiolata	flowering plant	SK2499	08/05/2004		woodland on S bank of Underbank reservoir
Alder	Alnus glutinosa	flowering plant	SK2499	11/09/2007		Woodland on north bank of Underbank Reservoir
Alder	Alnus glutinosa	flowering plant	SE230002	01/07/2010	TN11 Spring Wood stream	Hollin and Spring Woods LWS
Wood Anemone	Anemone nemorosa	flowering plant	SK2499	15/05/2004		Sheephouse Wood
Wild Angelica	Angelica sylvestris	flowering plant	SK2499	15/05/2004		Sheephouse Wood
Wild Angelica	Angelica sylvestris	flowering plant	SE231005	01/07/2010	TN13 grassland N of Spring Wood	Hollin and Spring Woods LWS
Wild Angelica	Angelica sylvestris	flowering plant	SE231005	01/07/2010	TN15 marshy grassland to N of Spring Wood	Hollin and Spring Woods LWS
Sweet Vernal Grass	Anthoxanthum odoratum	flowering plant	SK2499	15/05/2004		Sheephouse Wood
Sweet Vernal Grass	Anthoxanthum odoratum	flowering plant	SE231005	01/07/2010	TN13 grassland N of Spring Wood	Hollin and Spring Woods LWS
Cow Parsley	Anthriscus sylvestris	flowering plant	SK2499	15/05/2004		Sheephouse Wood
Daisy	Bellis perennis	flowering plant	SK2499	08/05/2004		woodland on S bank of Underbank reservoir
Daisy	Bellis perennis	flowering plant	SK2499	15/05/2004		Sheephouse Wood
Silver Birch	Betula pendula	flowering plant	SK2499	15/05/2004		Sheephouse Wood
Silver Birch	Betula pendula	flowering plant	SE230002	01/07/2010	TN11 Spring Wood stream	Hollin and Spring Woods LWS
Silver Birch	Betula pendula	flowering plant	SE231004	01/07/2010	TN17 Spring Wood	Hollin and Spring Woods LWS
Silver Birch	Betula pendula	flowering plant	SE231004	01/07/2010	Spring Wood	Hollin and Spring Woods LWS
Silver Birch	Betula pendula	flowering plant	SE231004	01/07/2010	TN12 clearing Spring Wood	Hollin and Spring Woods LWS
Downy Birch	Betula pubescens	flowering plant	SE231004	01/07/2010	TN17 Spring Wood	Hollin and Spring Woods LWS
Hairy Brome	Bromopsis ramosa	flowering plant	SK2499	15/05/2004		Sheephouse Wood
Heather	Calluna vulgaris	flowering plant	SE231005	01/07/2010	TN13 grassland N of Spring Wood	Hollin and Spring Woods LWS
Wavy Bitter-Cress	Cardamine flexuosa	flowering plant	SE231005	01/07/2010	TN15 marshy grassland to N of Spring Wood	Hollin and Spring Woods LWS
Hairy Bitter-Cress	Cardamine hirsuta	flowering plant	SE230002	01/07/2010	TN11 Spring Wood stream	Hollin and Spring Woods LWS
Cuckooflower	Cardamine pratensis	flowering plant	SK2499	15/05/2004		Sheephouse Wood
Slender Tufted-Sedge	Carex acuta	flowering plant	SE231005	01/07/2010	TN15 marshy grassland to N of Spring Wood	Hollin and Spring Woods LWS
Glaucous Sedge	Carex flacca	flowering plant	SE231005	01/07/2010	TN13 grassland N of Spring Wood	Hollin and Spring Woods LWS
Common Sedge	Carex nigra	flowering plant	SE231005	01/07/2010	TN13 grassland N of Spring Wood	Hollin and Spring Woods LWS
Sweet Chestnut	Castanea sativa	flowering plant	SK2499	15/05/2004		Sheephouse Wood
Common Knapweed	Centaurea nigra	flowering plant	SE231005	01/07/2010	TN13 grassland N of Spring Wood	Hollin and Spring Woods LWS
Common Mouse-Ear	Cerastium fontanum	flowering plant	SK2499	15/05/2004		Sheephouse Wood
Common Mouse-Ear	Cerastium fontanum	flowering plant	SE231005	01/07/2010	TN13 grassland N of Spring Wood	Hollin and Spring Woods LWS
Climbing Corydalis	Ceratocapnos claviculata	flowering plant	SK232999	01/07/2010	TN19 wood to SE of Spring Wood	'BARNSELY MBC'
Rosebay Willowherb	Chamerion angustifolium	flowering plant	SK2499	15/05/2004		Sheephouse Wood
Rosebay Willowherb	Chamerion angustifolium	flowering plant	SE231005	01/07/2010	TN15 marshy grassland to N of Spring Wood	Hollin and Spring Woods LWS

Rosebay Willowherb	Chamerion angustifolium	flowering plant	SE231005	01/07/2010	TN13 grassland N of Spring Wood	Hollin and Spring Woods LWS
Opposite-Leaved Golden-Saxifrage	Chrysosplenium oppositifolium	flowering plant	SK2499	08/05/2004		woodland on S bank of Underbank reservoir
Opposite-Leaved Golden-Saxifrage	Chrysosplenium oppositifolium	flowering plant	SE230002	01/07/2010	TN11 Spring Wood stream	Hollin and Spring Woods LWS
Enchanter's-Nightshade	Circaea lutetiana	flowering plant	SK2499	15/05/2004		Sheephouse Wood
Enchanter's-Nightshade	Circaea lutetiana	flowering plant	SE230002	01/07/2010	TN11 Spring Wood stream	Hollin and Spring Woods LWS
Enchanter's-Nightshade	Circaea lutetiana	flowering plant	SK232999	01/07/2010	TN19 wood to SE of Spring Wood	'BARNSELEY MBC'
Creeping Thistle	Cirsium arvense	flowering plant	SK2499	08/05/2004		woodland on S bank of Underbank reservoir
Marsh Thistle	Cirsium palustre	flowering plant	SE231005	01/07/2010	TN13 grassland N of Spring Wood	Hollin and Spring Woods LWS
Marsh Thistle	Cirsium palustre	flowering plant	SE231005	01/07/2010	TN15 marshy grassland to N of Spring Wood	Hollin and Spring Woods LWS
Hazel	Corylus avellana	flowering plant	SK2499	08/05/2004		woodland on S bank of Underbank reservoir
Hazel	Corylus avellana	flowering plant	SK2499	11/09/2007		Woodland on north bank of Underbank Reservoir
Hazel	Corylus avellana	flowering plant	SE231004	01/07/2010	TN17 Spring Wood	Hollin and Spring Woods LWS
Hazel	Corylus avellana	flowering plant	SE230002	01/07/2010	TN11 Spring Wood stream	Hollin and Spring Woods LWS
Hawthorn	Crataegus monogyna	flowering plant	SK2499	15/05/2004		Sheephouse Wood
Hawthorn	Crataegus monogyna	flowering plant	SK2499	11/09/2007		Woodland on north bank of Underbank Reservoir
Hawthorn	Crataegus monogyna	flowering plant	SE231004	01/07/2010	TN17 Spring Wood	Hollin and Spring Woods LWS
Hawthorn	Crataegus monogyna	flowering plant	SE231005	01/07/2010	TN13 grassland N of Spring Wood	Hollin and Spring Woods LWS
Cock's-Foot	Dactylis glomerata	flowering plant	SK2499	08/05/2004		woodland on S bank of Underbank reservoir
Cock's-Foot	Dactylis glomerata	flowering plant	SK2499	15/05/2004		Sheephouse Wood
Cock's-Foot	Dactylis glomerata	flowering plant	SE231005	01/07/2010	TN13 grassland N of Spring Wood	Hollin and Spring Woods LWS
Tufted Hair-Grass	Deschampsia caespitosa	flowering plant	SK2499	08/05/2004		woodland on S bank of Underbank reservoir
Tufted Hair-Grass	Deschampsia caespitosa	flowering plant	SK2499	15/05/2004		Sheephouse Wood
Tufted Hair-Grass	Deschampsia caespitosa	flowering plant	SE231005	01/07/2010	TN15 marshy grassland to N of Spring Wood	Hollin and Spring Woods LWS
Tufted Hair-Grass	Deschampsia caespitosa	flowering plant	SE231005	01/07/2010	TN13 grassland N of Spring Wood	Hollin and Spring Woods LWS
Wavy Hair-Grass	Deschampsia flexuosa	flowering plant	SK2499	15/05/2004		Sheephouse Wood
Wavy Hair-Grass	Deschampsia flexuosa	flowering plant	SE231004	01/07/2010	Spring Wood	Hollin and Spring Woods LWS
Wavy Hair-Grass	Deschampsia flexuosa	flowering plant	SE231005	01/07/2010	TN13 grassland N of Spring Wood	Hollin and Spring Woods LWS
Foxglove	Digitalis purpurea	flowering plant	SK2499	08/05/2004		woodland on S bank of Underbank reservoir
Foxglove	Digitalis purpurea	flowering plant	SE230002	01/07/2010	TN11 Spring Wood stream	Hollin and Spring Woods LWS
Foxglove	Digitalis purpurea	flowering plant	SE231004	01/07/2010	TN17 Spring Wood	Hollin and Spring Woods LWS
Marsh Willowherb	Epilobium palustre	flowering plant	SE231005	01/07/2010	TN15 marshy grassland to N of Spring Wood	Hollin and Spring Woods LWS
Beech	Fagus sylvatica	flowering plant	SK2499	15/05/2004		Sheephouse Wood

Beech	Fagus sylvatica	flowering plant	SK2499	11/09/2007		Woodland on north bank of Underbank Reservoir
Beech	Fagus sylvatica	flowering plant	SE230002	01/07/2010	TN11 Spring Wood stream	Hollin and Spring Woods LWS
Beech	Fagus sylvatica	flowering plant	SE231004	01/07/2010	Spring Wood	Hollin and Spring Woods LWS
Beech	Fagus sylvatica	flowering plant	SE230003	10/01/2012		Hollin and Spring Woods LWS
Giant Fescue	Festuca gigantea	flowering plant	SE230002	01/07/2010	TN11 Spring Wood stream	Hollin and Spring Woods LWS
Giant Fescue	Festuca gigantea	flowering plant	SK232999	01/07/2010	TN19 wood to SE of Spring Wood	'BARNSELEY MBC'
Sheep's Fescue agg.	Festuca ovina agg.	flowering plant	SE231005	01/07/2010	TN13 grassland N of Spring Wood	Hollin and Spring Woods LWS
Meadowsweet	Filipendula ulmaria	flowering plant	SK2499	15/05/2004		Sheephouse Wood
Wild Strawberry	Fragaria vesca	flowering plant	SK2499	15/05/2004		Sheephouse Wood
Ash	Fraxinus excelsior	flowering plant	SK2499	08/05/2004		woodland on S bank of Underbank reservoir
Ash	Fraxinus excelsior	flowering plant	SE230002	01/07/2010	TN11 Spring Wood stream	Hollin and Spring Woods LWS
Ash	Fraxinus excelsior	flowering plant	SE231005	01/07/2010	TN15 marshy grassland to N of Spring Wood	Hollin and Spring Woods LWS
Common Hemp-Nettle agg.	Galeopsis tetrahit agg.	flowering plant	SE230002	01/07/2010	TN11 Spring Wood stream	Hollin and Spring Woods LWS
Cleavers	Galium aparine	flowering plant	SK2499	08/05/2004		woodland on S bank of Underbank reservoir
Cleavers	Galium aparine	flowering plant	SE231005	01/07/2010	TN13 grassland N of Spring Wood	Hollin and Spring Woods LWS
Woodruff	Galium odoratum	flowering plant	SK2499	15/05/2004		Sheephouse Wood
Common Marsh-Bedstraw	Galium palustre	flowering plant	SE231005	01/07/2010	TN15 marshy grassland to N of Spring Wood	Hollin and Spring Woods LWS
Common Marsh-Bedstraw	Galium palustre	flowering plant	SE231005	01/07/2010	TN13 grassland N of Spring Wood	Hollin and Spring Woods LWS
Heath Bedstraw	Galium saxatile	flowering plant	SK2499	11/09/2007		Woodland on north bank of Underbank Reservoir
Heath Bedstraw	Galium saxatile	flowering plant	SE231005	01/07/2010	TN13 grassland N of Spring Wood	Hollin and Spring Woods LWS
Herb-Robert	Geranium robertianum	flowering plant	SK2499	15/05/2004		Sheephouse Wood
Herb-Robert	Geranium robertianum	flowering plant	SE230002	01/07/2010	TN11 Spring Wood stream	Hollin and Spring Woods LWS
Herb Bennet	Geum urbanum	flowering plant	SK2499	15/05/2004		Sheephouse Wood
Herb Bennet	Geum urbanum	flowering plant	SE230002	01/07/2010	TN11 Spring Wood stream	Hollin and Spring Woods LWS
Ivy	Hedera helix	flowering plant	SK2499	15/05/2004		Sheephouse Wood
Hogweed	Heracleum sphondylium	flowering plant	SK2499	08/05/2004		woodland on S bank of Underbank reservoir
Hogweed	Heracleum sphondylium	flowering plant	SK2499	15/05/2004		Sheephouse Wood
Hogweed	Heracleum sphondylium	flowering plant	SE230002	01/07/2010	TN11 Spring Wood stream	Hollin and Spring Woods LWS
Yorkshire-Fog	Holcus lanatus	flowering plant	SE231004	01/07/2010	TN17 Spring Wood	Hollin and Spring Woods LWS
Yorkshire-Fog	Holcus lanatus	flowering plant	SE231004	01/07/2010	TN12 clearing Spring Wood	Hollin and Spring Woods LWS
Yorkshire-Fog	Holcus lanatus	flowering plant	SE231005	01/07/2010	TN15 marshy grassland to N of Spring Wood	Hollin and Spring Woods LWS
Yorkshire-Fog	Holcus lanatus	flowering plant	SE231005	01/07/2010	TN13 grassland N of Spring Wood	Hollin and Spring Woods LWS
Creeping Soft-Grass	Holcus mollis	flowering plant	SK2499	15/05/2004		Sheephouse Wood

Creeping Soft-Grass	Holcus mollis	flowering plant	SE230002	01/07/2010	TN11 Spring Wood stream	Hollin and Spring Woods LWS
Creeping Soft-Grass	Holcus mollis	flowering plant	SE231004	01/07/2010	TN12 clearing Spring Wood	Hollin and Spring Woods LWS
Creeping Soft-Grass	Holcus mollis	flowering plant	SE231005	01/07/2010	TN15 marshy grassland to N of Spring Wood	Hollin and Spring Woods LWS
Creeping Soft-Grass	Holcus mollis	flowering plant	SE231004	01/07/2010	TN17 Spring Wood	Hollin and Spring Woods LWS
Creeping Soft-Grass	Holcus mollis	flowering plant	SE231005	01/07/2010	TN13 grassland N of Spring Wood	Hollin and Spring Woods LWS
Bluebell	Hyacinthoides non-scripta	flowering plant	SK2499	15/05/2004		Sheephouse Wood
Bluebell	Hyacinthoides non-scripta	flowering plant	SK2499	11/09/2007		Woodland on north bank of Underbank Reservoir
Bluebell	Hyacinthoides non-scripta	flowering plant	SE231004	01/07/2010	TN17 Spring Wood	Hollin and Spring Woods LWS
Bluebell	Hyacinthoides non-scripta	flowering plant	SE231004	01/07/2010	TN12 clearing Spring Wood	Hollin and Spring Woods LWS
Bluebell	Hyacinthoides non-scripta	flowering plant	SE230002	01/07/2010	TN11 Spring Wood stream	Hollin and Spring Woods LWS
Bluebell	Hyacinthoides non-scripta	flowering plant	SE230003	10/01/2012	Spring Wood	Hollin and Spring Woods LWS
Marsh Pennywort	Hydrocotyle vulgaris	flowering plant	SK2499	03/09/2007		Underbank Reservoir
Holly	Ilex aquifolium	flowering plant	SK2499	15/05/2004		Sheephouse Wood
Holly	Ilex aquifolium	flowering plant	SE231004	01/07/2010	TN17 Spring Wood	Hollin and Spring Woods LWS
Holly	Ilex aquifolium	flowering plant	SE230002	01/07/2010	TN11 Spring Wood stream	Hollin and Spring Woods LWS
Holly	Ilex aquifolium	flowering plant	SE230002	10/01/2012	Spring Wood	Hollin and Spring Woods LWS
Yellow Iris	Iris pseudacorus	flowering plant	SK2499	03/09/2007		Underbank Reservoir
Sharp-Flowered Rush	Juncus acutiflorus	flowering plant	SE231005	01/07/2010	TN13 grassland N of Spring Wood	Hollin and Spring Woods LWS
Sharp-Flowered Rush	Juncus acutiflorus	flowering plant	SE231005	01/07/2010	TN15 marshy grassland to N of Spring Wood	Hollin and Spring Woods LWS
Compact Rush	Juncus conglomeratus	flowering plant	SE231005	01/07/2010	TN13 grassland N of Spring Wood	Hollin and Spring Woods LWS
Compact Rush	Juncus conglomeratus	flowering plant	SE231005	01/07/2010	TN15 marshy grassland to N of Spring Wood	Hollin and Spring Woods LWS
Soft Rush	Juncus effusus	flowering plant	SK2499	15/05/2004		Sheephouse Wood
Soft Rush	Juncus effusus	flowering plant	SE231005	01/07/2010	TN13 grassland N of Spring Wood	Hollin and Spring Woods LWS
Soft Rush	Juncus effusus	flowering plant	SE231005	01/07/2010	TN15 marshy grassland to N of Spring Wood	Hollin and Spring Woods LWS
Soft Rush	Juncus effusus	flowering plant	SE230002	01/07/2010	TN11 Spring Wood stream	Hollin and Spring Woods LWS
Yellow Archangel	Lamium galeobdolon	flowering plant	SK2499	15/05/2004		Sheephouse Wood
Yellow Archangel	Lamium galeobdolon	flowering plant	SE230002	01/07/2010	TN11 Spring Wood stream	Hollin and Spring Woods LWS
Bitter-Vetch	Lathyrus linifolius	flowering plant	SE231005	01/07/2010	TN13 grassland N of Spring Wood	Hollin and Spring Woods LWS
Honeysuckle	Lonicera periclymenum	flowering plant	SK2499	08/05/2004		woodland on S bank of Underbank reservoir
Honeysuckle	Lonicera periclymenum	flowering plant	SK2499	15/05/2004		Sheephouse Wood
Honeysuckle	Lonicera periclymenum	flowering plant	SK2499	11/09/2007		Woodland on north bank of Underbank Reservoir
Honeysuckle	Lonicera periclymenum	flowering plant	SE231004	01/07/2010	TN17 Spring Wood	Hollin and Spring Woods LWS
Honeysuckle	Lonicera periclymenum	flowering plant	SE230002	01/07/2010	TN11 Spring Wood stream	Hollin and Spring Woods LWS

Large Bird's-Foot-Trefoil	Lotus pedunculatus	flowering plant	SE231005	01/07/2010	TN15 marshy grassland to N of Spring Wood	Hollin and Spring Woods LWS
Large Bird's-Foot-Trefoil	Lotus pedunculatus	flowering plant	SE231005	01/07/2010	TN13 grassland N of Spring Wood	Hollin and Spring Woods LWS
Field Wood-Rush	Luzula campestris	flowering plant	SE231004	01/07/2010	TN12 clearing Spring Wood	Hollin and Spring Woods LWS
Hairy Wood-Rush	Luzula pilosa	flowering plant	SK2499	11/09/2007		Woodland on north bank of Underbank Reservoir
Great Wood-Rush	Luzula sylvatica	flowering plant	SK2499	15/05/2004		Sheephouse Wood
Yellow Pimpernel	Lysimachia nemorum	flowering plant	SK2499	15/05/2004		Sheephouse Wood
Yellow Pimpernel	Lysimachia nemorum	flowering plant	SE230002	01/07/2010	TN11 Spring Wood stream	Hollin and Spring Woods LWS
Crab Apple	Malus sylvestris	flowering plant	SE231004	01/07/2010	TN17 Spring Wood	Hollin and Spring Woods LWS
Common Cow-Wheat	Melampyrum pratense	flowering plant	SK2499	11/09/2007		Woodland on north bank of Underbank Reservoir
Common Cow-Wheat	Melampyrum pratense	flowering plant	SK232999	01/07/2010	TN19 wood to SE of Spring Wood	'BARNSELEY MBC'
Water Mint	Mentha aquatica	flowering plant	SK2499	03/09/2007		Underbank Reservoir
Wood Millet	Milium effusum	flowering plant	SK2499	15/05/2004		Sheephouse Wood
Wood Millet	Milium effusum	flowering plant	SK232999	01/07/2010	TN19 wood to SE of Spring Wood	'BARNSELEY MBC'
Three-Nerved Sandwort	Moehringia trinervia	flowering plant	SK232999	01/07/2010	TN19 wood to SE of Spring Wood	'BARNSELEY MBC'
Mat-Grass	Nardus stricta	flowering plant	SE231005	01/07/2010	TN13 grassland N of Spring Wood	Hollin and Spring Woods LWS
Wood-Sorrel	Oxalis acetosella	flowering plant	SK2499	08/05/2004		woodland on S bank of Underbank reservoir
Wood-Sorrel	Oxalis acetosella	flowering plant	SK2499	15/05/2004		Sheephouse Wood
Wood-Sorrel	Oxalis acetosella	flowering plant	SK2499	11/09/2007		Woodland on north bank of Underbank Reservoir
Wood-Sorrel	Oxalis acetosella	flowering plant	SE230002	01/07/2010	TN11 Spring Wood stream	Hollin and Spring Woods LWS
Wood-Sorrel	Oxalis acetosella	flowering plant	SE231004	01/07/2010	TN17 Spring Wood	Hollin and Spring Woods LWS
Amphibious Bistort	Persicaria amphibia	flowering plant	SK2499	03/09/2007		Underbank Reservoir
Amphibious Bistort	Persicaria amphibia	flowering plant	SK2499	11/09/2007		Underbank Reservoir
Reed Canary-Grass	Phalaris arundinacea	flowering plant	SK2499	08/05/2004		woodland on S bank of Underbank reservoir
Reed Canary-Grass	Phalaris arundinacea	flowering plant	SK2499	03/09/2007		Underbank Reservoir
Reed Canary-Grass	Phalaris arundinacea	flowering plant	SE230002	01/07/2010	TN11 Spring Wood stream	Hollin and Spring Woods LWS
Ribwort Plantain	Plantago lanceolata	flowering plant	SK2499	15/05/2004		Sheephouse Wood
Annual Meadow-Grass	Poa annua	flowering plant	SK2499	15/05/2004		Sheephouse Wood
Smooth Meadow-Grass	Poa pratensis	flowering plant	SE231005	01/07/2010	TN13 grassland N of Spring Wood	Hollin and Spring Woods LWS
Rough Meadow-Grass	Poa trivialis	flowering plant	SE231005	01/07/2010	TN15 marshy grassland to N of Spring Wood	Hollin and Spring Woods LWS
Rough Meadow-Grass	Poa trivialis	flowering plant	SE231004	01/07/2010	TN17 Spring Wood	Hollin and Spring Woods LWS
Tormentil	Potentilla erecta	flowering plant	SK2499	11/09/2007		Woodland on north bank of Underbank Reservoir
Tormentil	Potentilla erecta	flowering plant	SE231005	01/07/2010	TN13 grassland N of Spring Wood	Hollin and Spring Woods LWS

Bird Cherry	Prunus padus	flowering plant	SK2499	15/05/2004		Sheephouse Wood
Bird Cherry	Prunus padus	flowering plant	SE230002	01/07/2010	TN11 Spring Wood stream	Hollin and Spring Woods LWS
Blackthorn	Prunus spinosa	flowering plant	SK2499	15/05/2004		Sheephouse Wood
Blackthorn	Prunus spinosa	flowering plant	SE231004	01/07/2010	TN17 Spring Wood	Hollin and Spring Woods LWS
Oak	Quercus	flowering plant	SK2499	11/09/2007		Woodland on north bank of Underbank Reservoir
Sessile Oak	Quercus petraea	flowering plant	SK2499	15/05/2004		Sheephouse Wood
Sessile Oak	Quercus petraea	flowering plant	SE230002	01/07/2010	TN11 Spring Wood stream	Hollin and Spring Woods LWS
Pedunculate Oak	Quercus robur	flowering plant	SE231004	01/07/2010	TN12 clearing Spring Wood	Hollin and Spring Woods LWS
Pedunculate Oak	Quercus robur	flowering plant	SE230002	01/07/2010	TN11 Spring Wood stream	Hollin and Spring Woods LWS
Pedunculate Oak	Quercus robur	flowering plant	SE231004	01/07/2010	Spring Wood	Hollin and Spring Woods LWS
Pedunculate Oak	Quercus robur	flowering plant	SE231004	01/07/2010	TN17 Spring Wood	Hollin and Spring Woods LWS
Meadow Buttercup	Ranunculus acris	flowering plant	SK2499	15/05/2004		Sheephouse Wood
Meadow Buttercup	Ranunculus acris	flowering plant	SE231004	01/07/2010	TN17 Spring Wood	Hollin and Spring Woods LWS
Lesser Celandine	Ranunculus ficaria	flowering plant	SK2499	08/05/2004		woodland on S bank of Underbank reservoir
Lesser Celandine	Ranunculus ficaria	flowering plant	SK2499	15/05/2004		Sheephouse Wood
Creeping Buttercup	Ranunculus repens	flowering plant	SK2499	08/05/2004		woodland on S bank of Underbank reservoir
Creeping Buttercup	Ranunculus repens	flowering plant	SE231005	01/07/2010	TN15 marshy grassland to N of Spring Wood	Hollin and Spring Woods LWS
Field Rose	Rosa arvensis	flowering plant	SE231005	01/07/2010	TN13 grassland N of Spring Wood	Hollin and Spring Woods LWS
Field Rose	Rosa arvensis	flowering plant	SE231004	01/07/2010	TN17 Spring Wood	Hollin and Spring Woods LWS
Bramble	Rubus fruticosus agg.	flowering plant	SK2499	08/05/2004		woodland on S bank of Underbank reservoir
Bramble	Rubus fruticosus agg.	flowering plant	SK2499	15/05/2004		Sheephouse Wood
Bramble	Rubus fruticosus agg.	flowering plant	SE230002	01/07/2010	TN11 Spring Wood stream	Hollin and Spring Woods LWS
Bramble	Rubus fruticosus agg.	flowering plant	SE231004	01/07/2010	TN12 clearing Spring Wood	Hollin and Spring Woods LWS
Bramble	Rubus fruticosus agg.	flowering plant	SE231005	01/07/2010	TN13 grassland N of Spring Wood	Hollin and Spring Woods LWS
Bramble	Rubus fruticosus agg.	flowering plant	SE231005	01/07/2010	TN15 marshy grassland to N of Spring Wood	Hollin and Spring Woods LWS
Bramble	Rubus fruticosus agg.	flowering plant	SE231004	01/07/2010	TN17 Spring Wood	Hollin and Spring Woods LWS
Raspberry	Rubus idaeus	flowering plant	SK2499	15/05/2004		Sheephouse Wood
Common Sorrel	Rumex acetosa	flowering plant	SE231005	01/07/2010	TN13 grassland N of Spring Wood	Hollin and Spring Woods LWS
Common Sorrel	Rumex acetosa	flowering plant	SE231005	01/07/2010	TN15 marshy grassland to N of Spring Wood	Hollin and Spring Woods LWS
Sheep's Sorrel agg.	Rumex acetosella	flowering plant	SK2499	08/05/2004		woodland on S bank of Underbank reservoir
Broad-Leaved Dock	Rumex obtusifolius	flowering plant	SK2499	08/05/2004		woodland on S bank of Underbank reservoir
Broad-Leaved Dock	Rumex obtusifolius	flowering plant	SK2499	15/05/2004		Sheephouse Wood
Goat Willow	Salix caprea	flowering plant	SK2499	15/05/2004		Sheephouse Wood

Grey Willow	Salix cinerea	flowering plant	SE231004	01/07/2010	TN17 Spring Wood	Hollin and Spring Woods LWS
Grey Willow	Salix cinerea	flowering plant	SE230002	01/07/2010	TN11 Spring Wood stream	Hollin and Spring Woods LWS
Crack Willow	Salix fragilis	flowering plant	SK2499	11/09/2007		Woodland on north bank of Underbank Reservoir
Crack Willow	Salix fragilis	flowering plant	SE230002	01/07/2010	TN11 Spring Wood stream	Hollin and Spring Woods LWS
Elder	Sambucus nigra	flowering plant	SK2499	08/05/2004		woodland on S bank of Underbank reservoir
Elder	Sambucus nigra	flowering plant	SK2499	15/05/2004		Sheephouse Wood
Elder	Sambucus nigra	flowering plant	SE230002	01/07/2010	TN11 Spring Wood stream	Hollin and Spring Woods LWS
Red Campion	Silene dioica	flowering plant	SE230002	01/07/2010	TN11 Spring Wood stream	Hollin and Spring Woods LWS
Goldenrod	Solidago virgaurea	flowering plant	SK2499	11/09/2007		Woodland on north bank of Underbank Reservoir
Rowan	Sorbus aucuparia	flowering plant	SK2499	15/05/2004		Sheephouse Wood
Rowan	Sorbus aucuparia	flowering plant	SK2499	11/09/2007		Woodland on north bank of Underbank Reservoir
Rowan	Sorbus aucuparia	flowering plant	SE231004	01/07/2010	TN12 clearing Spring Wood	Hollin and Spring Woods LWS
Betony	Stachys officinalis	flowering plant	SK2499	11/09/2007		Woodland on north bank of Underbank Reservoir
Greater Stitchwort	Stellaria holostea	flowering plant	SK2499	08/05/2004		woodland on S bank of Underbank reservoir
Greater Stitchwort	Stellaria holostea	flowering plant	SK232999	01/07/2010	TN19 wood to SE of Spring Wood	'BARNSELY MBC'
Greater Stitchwort	Stellaria holostea	flowering plant	SE231004	01/07/2010	TN17 Spring Wood	Hollin and Spring Woods LWS
Greater Stitchwort	Stellaria holostea	flowering plant	SE230002	01/07/2010	TN11 Spring Wood stream	Hollin and Spring Woods LWS
Common Chickweed	Stellaria media	flowering plant	SE230002	01/07/2010	TN11 Spring Wood stream	Hollin and Spring Woods LWS
Devil's-Bit Scabious	Succisa pratensis	flowering plant	SK2499	11/09/2007		Woodland on north bank of Underbank Reservoir
Devil's-Bit Scabious	Succisa pratensis	flowering plant	SE231005	01/07/2010	TN13 grassland N of Spring Wood	Hollin and Spring Woods LWS
Dandelion	Taraxacum officinale agg.	flowering plant	SK2499	08/05/2004		woodland on S bank of Underbank reservoir
Dandelion	Taraxacum officinale agg.	flowering plant	SK2499	15/05/2004		Sheephouse Wood
Wood Sage	Teucrium scorodonia	flowering plant	SK2499	11/09/2007		Woodland on north bank of Underbank Reservoir
Wood Sage	Teucrium scorodonia	flowering plant	SE231005	01/07/2010	TN13 grassland N of Spring Wood	Hollin and Spring Woods LWS
White Clover	Trifolium repens	flowering plant	SK2499	15/05/2004		Sheephouse Wood
Wych Elm	Ulmus glabra	flowering plant	SE230002	01/07/2010	TN11 Spring Wood stream	Hollin and Spring Woods LWS
Common Nettle	Urtica dioica	flowering plant	SK2499	08/05/2004		woodland on S bank of Underbank reservoir
Common Nettle	Urtica dioica	flowering plant	SK2499	15/05/2004		Sheephouse Wood
Bilberry	Vaccinium myrtillus	flowering plant	SE231005	01/07/2010	TN13 grassland N of Spring Wood	Hollin and Spring Woods LWS
Germander Speedwell	Veronica chamaedrys	flowering plant	SE230002	01/07/2010	TN11 Spring Wood stream	Hollin and Spring Woods LWS
Wood Speedwell	Veronica montana	flowering plant	SE230002	01/07/2010	TN11 Spring Wood stream	Hollin and Spring Woods LWS

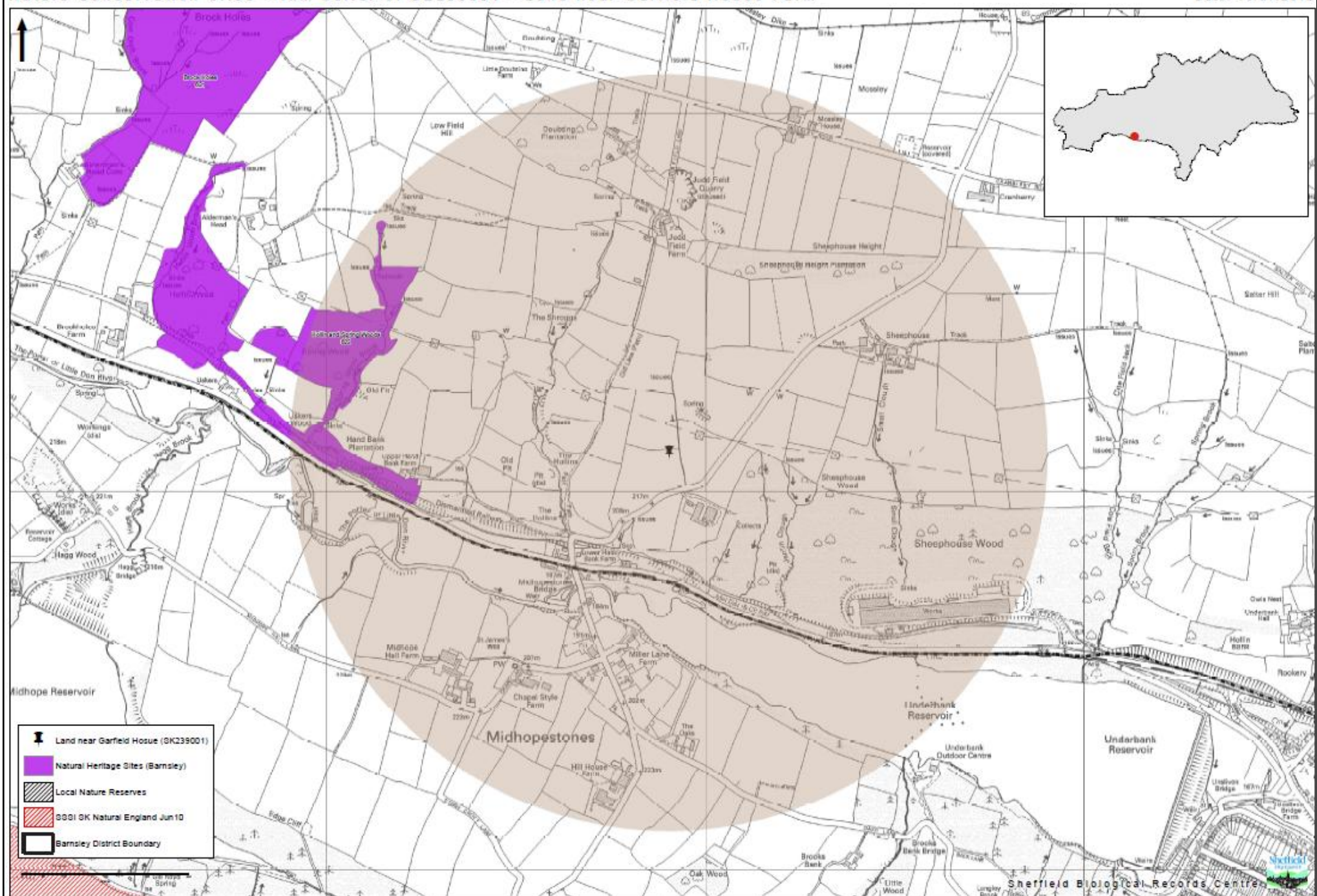
Thyme-Leaved Speedwell	Veronica serpyllifolia	flowering plant	SK2499	15/05/2004		Sheephouse Wood
Bush Vetch	Vicia sepium	flowering plant	SK2499	08/05/2004		woodland on S bank of Underbank reservoir
Violet	Viola	flowering plant	SK2499	11/09/2007		Woodland on north bank of Underbank Reservoir
Common Dog-Violet	Viola riviniana	flowering plant	SK232999	01/07/2010	TN19 wood to SE of Spring Wood	'BARNESLEY MBC'
Field Horsetail	Equisetum arvense	horsetail	SE231005	01/07/2010	TN13 grassland N of Spring Wood	Hollin and Spring Woods LWS
Painted Lady	Cynthia cardui	insect - butterfly	SK2499	11/09/2007		Woodland on north bank of Underbank Reservoir
Gastrodues grossipes	Gastrodues grossipes	insect - true bug (Hemiptera)	SK2398995 1	15/11/2007	south side	Underbank Reservoir
Stenodema holsatum	Stenodema holsatum	insect - true bug (Hemiptera)	SK247998	22/05/2004		Sheephouse Wood
Lophocolea bidentata	Lophocolea bidentata	liverwort	SK2499	07/12/1999		Underbank Reservoir
Pellia	Pellia	liverwort	SE230002	01/07/2010	TN11 Spring Wood stream	Hollin and Spring Woods LWS
Pellia epiphylla	Pellia epiphylla	liverwort	SK2499	07/12/1999		Underbank Reservoir
Scapania undulata	Scapania undulata	liverwort	SK2499	07/12/1999		Underbank Reservoir
Amblystegium serpens	Amblystegium serpens	moss	SK2499	07/12/1999		Underbank Reservoir
Amblystegium serpens	Amblystegium serpens	moss	SK2399	31/08/2001		Bradfield Dale
Common Smoothcap	Atrichum undulatum	moss	SK2499	07/12/1999		Underbank Reservoir
Bud-headed Groove-moss	Aulacomnium androgynum	moss	SK2399	31/08/2001		Bradfield Dale
Bud-headed Groove-moss	Aulacomnium androgynum	moss	SK2499	31/08/2001		Underbank Reservoir
Barbula cylindrica	Barbula cylindrica	moss	SK2399	31/08/2001		Midhopestones
Bird's-claw Beard-moss	Barbula unguiculata	moss	SK2499	07/12/1999		Underbank Reservoir
Brachythecium rutabulum	Brachythecium rutabulum	moss	SK2499	07/12/1999		Underbank Reservoir
Brachythecium rutabulum	Brachythecium rutabulum	moss	SK2399	31/08/2001		Midhopestones
Brachythecium rutabulum	Brachythecium rutabulum	moss	SE231004	01/07/2010	Spring Wood	Hollin and Spring Woods LWS
Silver-moss	Bryum argenteum	moss	SK2499	07/12/1999		Underbank Reservoir
Bryum bicolor	Bryum bicolor	moss	SK2499	27/07/2001		Underbank Reservoir
Capillary Thread-moss	Bryum capillare	moss	SK2399	31/08/2001		Bradfield Dale
Bryum pseudotriquetrum	Bryum pseudotriquetrum	moss	SK2499	07/12/1999		Underbank Reservoir
Calliergon cuspidatum	Calliergon cuspidatum	moss	SK2499	07/12/1999		Underbank Reservoir
Heath Star Moss	Campylopus introflexus	moss	SK2499	31/08/2001		Underbank Reservoir
Heath Star Moss	Campylopus introflexus	moss	SE2400	19/04/2007		Cranberry Farm area
Dwarf Swan-neck Moss	Campylopus pyriformis	moss	SK2499	28/01/2000		Underbank Reservoir
Cryphaea heteromalla	Cryphaea heteromalla	moss	SK2399	31/08/2001		Bradfield Dale
Transparent Fork-moss	Dichodontium pellucidum	moss	SK2499	07/12/1999		Underbank Reservoir

Silky Forklet-moss	Dicranella heteromalla	moss	SK2499	07/12/1999		Underbank Reservoir
Dicranella staphylina	Dicranella staphylina	moss	SK2399	23/09/2002		Bradfield Dale
Common Pincushion	Dicranoweisia cirrata	moss	SK2499	07/12/1999		Underbank Reservoir
Common Pincushion	Dicranoweisia cirrata	moss	SK2399	31/08/2001		Bradfield Dale
Common Pincushion	Dicranoweisia cirrata	moss	SE2400	19/04/2007		Cranberry Farm area
Ephemerum serratum var. serratum	Ephemerum serratum var. serratum	moss	SK2499	07/12/1999		Underbank Reservoir
Eurhynchium praelongum	Eurhynchium praelongum	moss	SK2499	07/12/1999		Underbank Reservoir
Eurhynchium praelongum	Eurhynchium praelongum	moss	SK2399	31/08/2001		Midhopestones
Lesser Pocket-moss	Fissidens bryoides	moss	SK2499	07/12/1999		Underbank Reservoir
Common Pocket-moss	Fissidens taxifolius	moss	SK2499	07/12/1999		Underbank Reservoir
Greater Water-moss	Fontinalis antipyretica	moss	SK2399	31/08/2001		Bradfield Dale
Grey-cushioned Grimmia	Grimmia pulvinata	moss	SK2399	31/08/2001		Midhopestones
Cypress-leaved Plait-moss	Hypnum cupressiforme var. cupressiforme	moss	SK2499	07/12/1999		Underbank Reservoir
Cypress-leaved Plait-moss	Hypnum cupressiforme var. cupressiforme	moss	SK2399	31/08/2001		Midhopestones
Isopterygium elegans	Isopterygium elegans	moss	SK2499	07/12/1999		Underbank Reservoir
Swan's-neck Thyme-moss	Mnium hornum	moss	SK2499	07/12/1999		Underbank Reservoir
Cape Thread-moss	Orthodontium lineare	moss	SK2499	28/01/2000		Underbank Reservoir
Wood Bristle-moss	Orthotrichum affine	moss	SK2399	31/08/2001		Bradfield Dale
Orthotrichum lyellii	Orthotrichum lyellii	moss	SK2499	31/08/2001		Underbank Reservoir
Plagiothecium undulatum	Plagiothecium undulatum	moss	SE230002	01/07/2010	TN11 Spring Wood stream	Hollin and Spring Woods LWS
Aloe Haircap	Pogonatum aloides	moss	SK2499	07/12/1999		Underbank Reservoir
Pohlia camptotrachela	Pohlia camptotrachela	moss	SK2399	23/09/2002		Bradfield Dale
Pohlia carnea	Pohlia carnea	moss	SK2399	23/09/2002		Bradfield Dale
Pohlia drummondii	Pohlia drummondii	moss	SK2399	23/09/2002		Bradfield Dale
Pseudephemerum nitidum	Pseudephemerum nitidum	moss	SK2399	31/08/2001		Bradfield Dale
Yellow Fringe-moss	Racomitrium aciculare	moss	SK2499	07/12/1999		Underbank Reservoir
Rhizomnium punctatum	Rhizomnium punctatum	moss	SK2499	07/12/1999		Underbank Reservoir
Rhizomnium punctatum	Rhizomnium punctatum	moss	SE230002	01/07/2010	TN11 Spring Wood stream	Hollin and Spring Woods LWS
Rhynchostegium riparioides	Rhynchostegium riparioides	moss	SK2499	07/12/1999		Underbank Reservoir
Schistidium apocarpum	Schistidium apocarpum	moss	SE2400	19/04/2007		Cranberry Farm area
Pellucid Four-tooth Moss	Tetraphis pellucida	moss	SK2499	07/12/1999		Underbank Reservoir
Wall Screw-moss	Tortula muralis	moss	SK2399	31/08/2001		Midhopestones

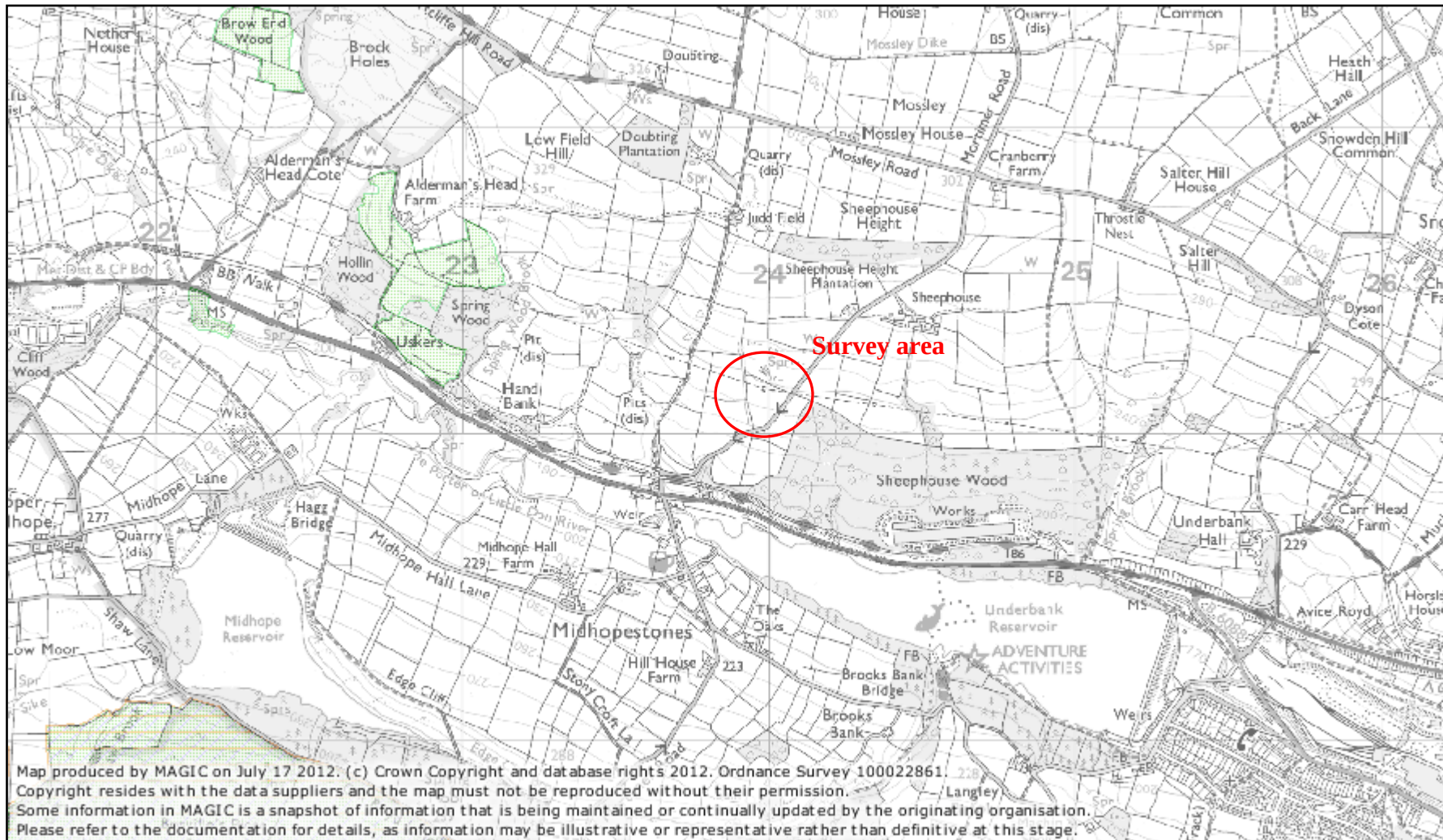
Ulotia crispa var. norvegica	Ulotia crispa var. norvegica	moss	SK2399	31/08/2001		Bradfield Dale
Frizzled Pincushion	Ulotia phyllantha	moss	SK2499	31/08/2001		Underbank Reservoir
Grey Squirrel	Sciurus carolinensis	terrestrial mammal	SK2499	14/06/1997		Sheephouse Wood
Grey Squirrel	Sciurus carolinensis	terrestrial mammal	SE230002	10/01/2012		Hollin and Spring Woods LWS

Nature Conservation Sites - 1km buffer of SE239001 - Land near Garfield House Farm	Date: 13/07/2012
--	------------------

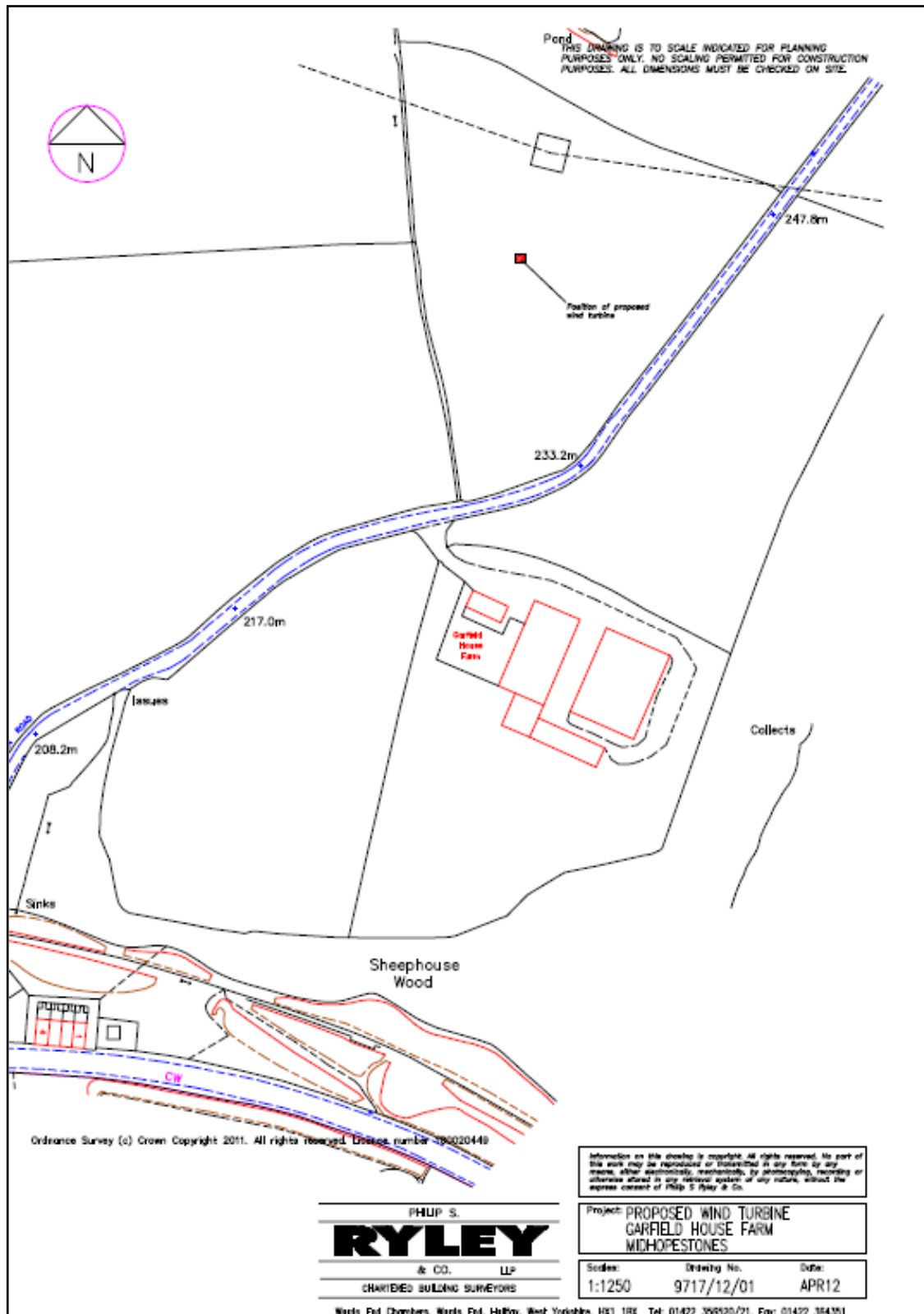
Date: 13/07/2012



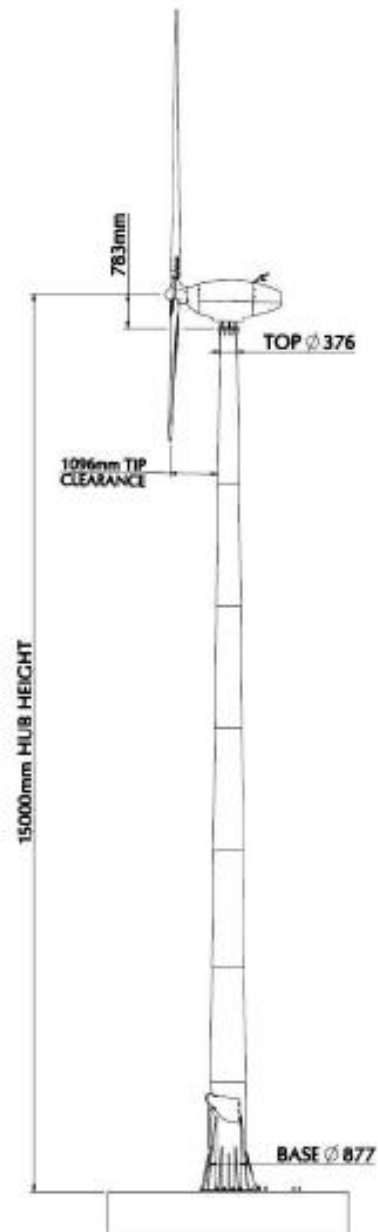
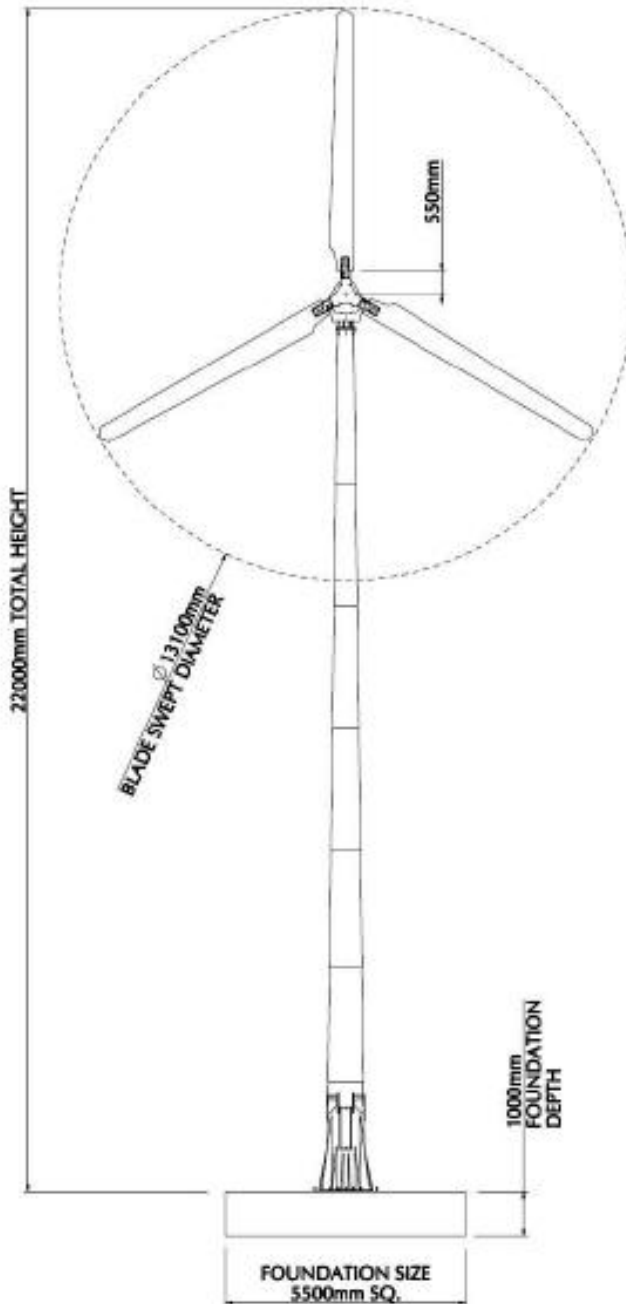
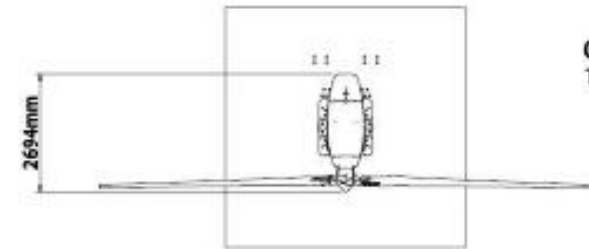
Appendix VIII. MAGIC.GOV DESIGNATED SITE SEARCH RESULTS



Appendix IX. DEVELOPMENT PLANS



**OVERALL DIMENSIONS FOR CF15e TURBINE:
15kW GENERATOR / 15m MAST / 6m BLADES**



C&F Green-Energy		CF15E	
DESCRIPTION: OVERALLS / PLANNING		All Dimensions in mm	
MATERIAL: Main: S275 Galv	QTY: 1	Scale: 1:100	Drawn: AS
DESIGN: C-0746	Rev: 1	Checked: AS	Drawn: AS
CHECKED: 17-Feb-11	DATE: 17-Feb-11	SHEET: 1 OF 1	