



Church Commissioners for England

Land at Chidswell, Dewsbury

Extended Phase 1 Habitat Survey Report

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Executive Summary

Site Description and Scope of Works		
WYG was commissioned to complete an updated extended Phase 1 habitat survey of land proposed for residential and commercial development, situated at Chidswell, Dewsbury.		
Potential Constraints	Yes	No
Bats		
Has the site been assessed for bats?	✓	
Are there any structures or trees on site which have the potential to support roosting bats?	✓	
Breeding Birds (including barn owl)		
Has the site been assessed for breeding birds, including barn owls?	✓	
Will areas of hedgerow, scrub, woodland, trees or other features likely to be used by nesting birds be affected by the proposal?	✓	
Badgers		
Has the site been assessed for badgers?	✓	
Is there any evidence of badgers on or near the application site including setts, foraging or commuting?		✓
Dormice		
Has the site been assessed for dormice?	✓	
Is there suitable habitat for dormice on, or close to the application site?		✓
Great crested newts		
Has the site been assessed for great crested newts?	✓	
Is there suitable habitat for great crested newts on, or close to the application site?		✓
Reptiles		
Has the site been assessed for reptiles?	✓	
Is there suitable habitat on the site for reptiles?	✓	
Other protected species (e.g. otters, water voles, white clawed crayfish)		
Has the site been assessed for water voles?	✓	
Is there suitable habitat on or adjacent to the site for water voles?	✓	
Invasive species		
Has the site been assessed for the presence of invasive species?	✓	
Are there invasive species present on site? (yes: Himalayan balsam, Japanese knotweed).	✓	
Other features of nature conservation interest		
Does the application site support Habitats of Principal Importance or Local Biodiversity Action Plan Priority Habitats? YES – Species rich hedgerows with trees.	✓	
Does the application site support Species of Principal Importance or Local Biodiversity Action Plan Species? YES – Brown hare.	✓	
Have details of biodiversity enhancements been included with the application?	✓	
Recommendations	Yes	No
Are further surveys recommended to inform the ecological impact assessment?	✓	
<ul style="list-style-type: none"> Detailed hedgerow survey to identify 'important' hedgerows in accordance with Hedgerow Regulations 		



1997;

- Breeding bird surveys across the site to take place between March and June (inclusive);
- Barn owl scoping survey to be conducted between November and March;
- Further GCN HSI surveys are recommended on ponds 2, 3, 4, and 5 to help determine the likely presence or absence of GCN within 500m of the site boundary;
- Reptile surveys to understand the presence / likely absence of reptiles on the site;
- A detailed assessment of trees, both onsite and in close proximity to the site, which may be impacted by the proposed works (directly or indirectly) is recommended to search for further evidence of, or features suitable for roosting bats. Further bat emergence / re-entry survey recommendations may be made following completion of the bat roost potential assessment. These surveys can only take place between April and September
- Bat activity survey across the site to determine the use of the site by foraging and commuting bats, to take place between April & September;
- Detailed surveys of the water courses for water vole, take place between March and October;
- Dedicated badger survey. Optimal period is spring and early autumn/winter although all survey methods are possible throughout the year; and
- Detailed invasive species survey of land where ground disturbance is likely and composition of an Invasive Species Management Plan.

Mitigation	Yes	No
Is mitigation (including avoidance/compensation) and enhancement recommended?	✓	

The following mitigation and enhancement measures are recommended:

- The following habitats should be retained/enhanced where possible on site: hedgerows, mature trees and areas of species rich grassland.
- Reducing potential light spill and disturbance effects upon habitats will allow much of their current habitat value to be preserved. Mitigation, compensation and enhancement would ideally focus upon providing habitat connectivity, dark corridors and diversifying the habitat resource present.
- The lighting and landscaping schemes would ideally be designed in consultation with an ecologist and informed by further dedicated species survey information.
- The development should seek to align with the National Planning Policy Framework, Local Planning policies and ODPM Circular 06/2005 in achieving no net loss in biodiversity.
- Further assessments and mitigation may be provided following review of completed survey data and with reference to the proposed scheme design, once plans are available.

This study has not identified any fundamental ecological constraints to the principal of residential development on the site, subject to the incorporation of appropriate design and mitigation measures. These will need to be informed by appropriate baseline surveys to determine the extent and value of nature conservation interests present. The results of such surveys, particularly with reference to species of conservation concern that may be less tolerant of residential effects, should be considered in determining the location and extent of development to be accommodated. Development should be balanced with appropriate green infrastructure, to achieve no net loss in biodiversity and ecological enhancements where possible.



1.0 Introduction

1.1 Background

WYG was commissioned by the Church Commissioners for England in April 2016 to undertake an updated extended Phase 1 habitat survey of Land at Chidswell, Dewsbury (hereby referred to as 'the site'). The initial extended Phase 1 habitat survey was conducted by WYG in June 2011.

This report has been written by Assistant Ecologist Annie Williams and should be read with reference to the Report Conditions which can be found in Appendix A.

1.2 Site Location

The site comprises of approximately 120ha of greenfield land and is located approximately 3km north east of Dewsbury town centre (approximate central Ordinance Survey Grid Reference SE 273 237). The site is located within Kirklees Council's administrative boundaries, though it does abut both Wakefield Council's and Leeds City Council's boundaries. The extent of the site is shown in Figure 1. It primarily comprises a series of arable and pastoral fields, with associated boundary features.

The site is located between the settlement of Chidswell to the west, Gawthorpe to the south, Jack Hill to the east and Beggarington Hill to the north. It is bound by a linear residential development that extends north-south either side of the A653 to the west; Heybeck Lane to the north and agricultural farmland to the south and east of the site.

1.3 Development Proposals

The results of this Extended Phase 1 Habitat Survey will be used to inform the allocation proposal for the following:

- 1,535 residential dwellings; and
- Approximately 35ha to accommodate approximately 122, 500 square metres of commercial employment.

1.4 Survey & Reporting Objectives

The ecological investigations undertaken by WYG included the following objectives:

- A desk study to obtain existing information on statutory and non-statutory sites of nature conservation interest, and records of protected/notable species within the site and its environs;



- An extended Phase 1 habitat survey involving a walkover of the site to record habitat types and dominant vegetation, including any invasive species, and a reconnaissance survey for evidence of protected fauna or habitats capable of supporting such species;
- An investigation of buildings, trees and other structures for their potential to support bats, including a survey of internal and external features where safe access was possible; and
- An assessment of the potential ecological constraints to the proposed works at the site and recommendations for further survey, avoidance, mitigation and enhancement where appropriate.



2.0 Planning Policy & Legislation

2.1 National Planning Policy

Following the publication of the National Planning Policy Framework (NPPF) in March 2012, *Planning Policy Statement 9 (PPS9): Biodiversity and Geological Conservation* (2005) has been withdrawn. However, *ODPM 06/2005: Biodiversity and Geological Conservation – Statutory Obligations and their impact within the Planning System* (the guidance document that accompanied PPS9) is still valid, and where more detailed guidance is required than is given within the NPPF, local planning authorities will continue to rely on ODPM 06/2005.

This guidance requires local planning authorities to take account of the conservation of protected species when determining planning applications and makes the presence of a protected species a material consideration when assessing a development proposal that, if carried out, would be likely to result in harm to the species or its habitat.

In the case of European Protected Species such as bats, planning policy emphasises that strict statutory provisions apply (including the *Conservation of Habitats and Species Regulations 2010 (as amended)*), to which a planning authority must have due regard.

Where developments requiring planning permission are likely to impact upon protected species it is necessary that protected species surveys are undertaken and submitted to meet the requirements of paragraph 98 of ODPM Circular 06/2005 which states that:

'The presence of a protected species is a material consideration when a planning authority is considering a development proposal that, if carried out, would be likely to result in harm to the species or its habitat.'

General guidance of relevance within the body of the NPPF includes the following statements:

"The planning system should contribute to and enhance the natural and local environment by:

- protecting and enhancing valued landscapes, geological conservation interests and soils;*
- recognising the wider benefits of ecosystem services;*
- minimising impacts on biodiversity and providing net gains in biodiversity where possible, contributing to the Government's commitment to halt the overall decline in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures".*



"Local planning authorities should set criteria based policies against which proposals for any development on or affecting protected wildlife or geodiversity sites or landscape areas will be judged."

"When determining planning applications, local planning authorities should aim to conserve and enhance biodiversity by applying the following principles:

- *if significant harm resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused."*

2.2 Local Planning Policy

The Kirklees Council Draft Local Plan Strategy & Policies was published in November 2016. The document sets out the council's plans for development in the areas as well as the strategies proposed to encourage sustainable development.

In summary the draft Local Plan contains:

- a vision and strategic objectives for the development of Kirklees up to 2031;
- a spatial strategy setting out how development will be accommodated across the district reflecting the distinctiveness of different parts of the district;
- objectively assessed development needs particularly for housing and employment - specifying the number of new homes and jobs to be provided during the plan period;
- clear policies to guide decisions on planning applications;
- site allocations showing land to be developed for housing, employment, retail, minerals and waste and other uses, identified on a policies map;
- designations showing land to be protected from development and land subject to other policies in the plan; infrastructure provision – to support the delivery of the proposed development;
- an indication of how the policies will be delivered and implemented;
- and a monitoring framework – setting out the performance measures that will show how successfully the plan's objectives and proposals are being delivered over time.

The plan aims to contribute to protecting and enhancing our natural, built and historic environment; and, as part of this, helps to improve biodiversity, to use natural resources prudently, to minimise waste and pollution, and to mitigate and adapt to climate change including moving to a low carbon economy.



Policy PLP 30: Biodiversity & Geodiversity states:

"The council will seek to protect and enhance the biodiversity and geodiversity value of the range of international, national and locally designated wildlife and geological sites, the Wildlife Habitat Network, Habitats and Species of Principal Importance in Kirklees.

South Pennine Moors

Proposals which may directly or indirectly compromise achieving the conservation objectives of a designated or candidate European protected site will not be permitted unless the proposal meets the

Statutory Designated Sites

Statutory designated sites, including the South Pennine Moors Special Protection Area (SPA) and Special Area for Conservation (SAC) and Sites of Special Scientific Interest, are already highly protected through existing laws and legislation. In accordance with legislation, the Council will seek to ensure that harmful impacts to these areas as a result of development proposals are avoided. Development proposed within or outside a designated Site of Special Scientific Interest, likely to have an adverse effect on the site's special nature conservation features, will not normally be permitted. Exceptionally development will be allowed where the benefits of the development clearly outweigh the impacts on the site's special conservation features and measures are provided to mitigate harmful impacts.

The Dark Peak Nature Improvement Area

Proposals that contribute to the aims and objectives of the Dark Peak Nature Improvement Area will in principle be supported, subject to other policies in this plan. Development likely to have an adverse impact on the aims and objectives of the NIA will not be permitted.

Local Designated Sites & Important Local Ecological Features

Proposals having a direct or indirect adverse effect on a Local Wildlife Site or Local Geological Site, Ancient Woodland, Veteran Tree or other important tree, will not be permitted unless the development can be shown to be of an overriding public interest and there is no alternative means to deliver the proposal. In all cases, full compensatory measures would be required and secured in the long term.



Habitats and Species of Principal Importance

Proposals will be required to protect Habitats and Species of Principal Importance unless the benefits of the development clearly outweigh the importance of the biodiversity interest, in which case long term compensatory measures will need to be secured.

Biodiversity and Development

Development proposals will be required to:-

- (i) avoid significant loss or harm to biodiversity in Kirklees through protection, mitigation and compensatory measures secured through the establishment of a legally binding agreement;*
- (ii) minimise impact on biodiversity and provide net biodiversity gains through good design by incorporating biodiversity enhancements and habitat creation where opportunities exist;*
- (iii) safeguard and enhance the function and connectivity of the Kirklees Wildlife Habitat Network at a local and wider landscape-scale unless the loss of the site and its functional role within the network can be fully maintained or compensated for in the long term;*
- (iv) establish additional ecological links to the Kirklees Wildlife Habitat Network where opportunities exist; and*
- (iv) incorporate biodiversity enhancement measures to reflect the priority habitats and species identified for the relevant Kirklees Biodiversity Opportunity Zone."*

2.3 Legislation

The UK has ratified a number of conventions and implemented legislation pertaining to the protection of biodiversity and habitats, either independently or as member state of the European Union.

Legislation surrounding some of the UK's priority species and habitats, which is governed in-part by the individual Statutory Nature Conservation Organisations (SNCO) of England, Scotland, Wales and Northern Ireland. Those relevant to the site are defined and summarised below and a full list is provided in Appendix B:

- The Conservation of Habitats and Species Regulations (2010, as amended);



- The Wildlife and Countryside Act (1981, as amended);
- The Natural Environment and Rural Communities (NERC) Act (2006);
- The Countryside and Rights of Way (CRoW) Act (2000);
- Wild Mammals (Protection) Act (1996); and
- The Protection of Badgers Act (1992).

2.3.1 Habitats and Species of Principal Importance in England

Section 41 (S41) of the Natural Environment and Rural Communities Act (2006) requires the Secretary of State to publish a list (in consultation with Natural England) of habitats and species which are of principal importance for the conservation of biodiversity in England. The S41 list is used to guide decision-makers such as public bodies including local and regional authorities, in implementing their duty under Section 40 of the Act, to have regard to the conservation of biodiversity in England, when carrying out their normal (e.g. planning) functions. The S41 list includes 65 habitats of principal importance and 1,150 species of principal importance.

2.4 Kirklees Local Biodiversity Action Plan (LBAP)

Given that the planning system should contribute to and enhance the natural and local environment by minimising impacts on biodiversity and providing net gains in biodiversity where possible (as stated above) most local authorities have their own biodiversity action plan which list local priority habitats and species.

The Kirklees Biodiversity Action Plan lists a number of priority habitats and species that are afforded action plans (Appendix D) to prevent or revert their decline and increase biodiversity across the area.



3.0 Methodology

3.1 Desk Study

3.1.1 Local Records Centre and Online Resources

Information was gathered from West Yorkshire Ecology Services (WYE), regarding the presence of nature conservation designations and protected and notable species within 2km of the proposed development site. In addition, a search for designations was made of Natural England's interactive, web-based MAGIC database. This included a search for internationally designated sites that lie within 20km of the site boundary or downstream of the becks on site.

The data search covers:

- Statutory nature conservation designations, such as National Nature Reserves and sites of Special Scientific Interest;
- Non-statutory nature conservation designations, such as Wildlife sites;
- Protected species, such as badgers, great crested newts and bats; and
- Notable species, such as those listed in the local Biodiversity Action Plan.

3.2 Field Surveys

This report acts as an update report to the original Extended Phase 1 Habitat Survey conducted by WYG in 2011 (WYG, 2011). Findings of the 2011 report are presented below with each relevant species.

3.2.1 Habitats

An extended Phase 1 habitat survey was conducted within the predicted zone of influence¹ on 20th July 2016. All areas of the site were investigated, including those parts that are not expected to be affected directly by the works but may be indirectly impacted upon. Areas adjacent to the site, up to 50m, were also assessed for their potential to support/evidence of badger, where access was possible.

¹ **Zone of influence:** the area that may be affected by the biophysical changes caused by the activities associated with the development.



The vegetation and habitat types within the site were noted during the walkover survey with reference to the Phase 1 Habitat Survey classifications (Joint Nature Conservation Committee, 2010).

3.2.2 Protected and Notable Species

The site was inspected for evidence of, and its potential to support, protected or notable species, especially those listed under the *Conservation of Habitats and Species (Amendment) Regulations 2012*, the *Wildlife & Countryside Act 1981* (as amended), and those given extra protection under the *Natural Environment and Rural Communities (NERC) Act 2006* and *Countryside & Rights of Way (CROW) Act 2000*, and listed on the local Biodiversity Action Plan.

The following species were considered:

Great Crested Newts

The site was appraised for its suitability to support great-crested newts. The assessment was based on guidance outlined in the Joint Nature Conservation Committees' published *Herpetofauna Workers' Manual* (Gent & Gibson, 2003) and the *Great Crested Newt Conservation Handbook* (Langton, Beckett & Foster, 2001).

As recommended by Natural England, the Habitat Suitability Index (HSI) (Oldham *et al.* 2000) was applied to ponds on site and to those within 500m of the site, where access permitted; these were identified using Ordnance Survey maps and aerial images.

Reptiles

The site was appraised for its suitability to support reptiles. The assessment was based on guidance outlined in the Joint Nature Conservation Committees' published *Herpetofauna Workers' Manual* (Joint Nature Conservation Committee, 2003).

Bats

The buildings within the boundary were appraised for their suitability to support breeding, roosting and hibernating bats, where possible, using survey methods based on those outlined in the Bat Conservation Trust's *Bat Surveys for Professional Ecologists – Good Practice Guidelines* (2016) and English Nature's *Bat Mitigation Guidelines* (2004).



Badgers

The site was surveyed for evidence of badger setts or other badger activity including: paths, latrines and signs of foraging. Methodologies used and any setts recorded were classified according to published criteria (Harris, Cresswell & Jefferies, 1989). Where possible, habitats adjacent to the site were assessed for evidence of badger.

Otters

Water courses on site were assessed for their suitability to support otters. This assessment was based on guidance outlined in Chanin, P. (2003) *Monitoring the otter*.

Water Voles

Following methods set out in the *Water Vole Conservation Handbook* (Dean, Strachan, Gow & Andrews, 2016), an assessment of water bodies within and adjacent to the site was undertaken to determine their suitability to support water voles.

Other Species

The site was also appraised for its suitability to support other protected or notable fauna including mammals, birds and invertebrates with reference to the Chartered Institute for Ecology and Environmental Management's *Guidelines for Preliminary Ecological Appraisal* (2013). Evidence of any current or historical presence of such species was recorded.

Invasive Species

The site was searched for evidence of invasive plant species, such as Japanese knotweed (*Fallopia japonica*), Himalayan balsam (*Impatiens glandulifera*), giant hogweed (*Heracleum mantegazzianum*), New Zealand pygmyweed (*Crassula helmsii*), horizontal cotoneaster (*Cotoneaster horizontalis*), rhododendron (*Rhododendron ponticum*) and floating pennywort (*Hydrocotyle ranunculoides*).

3.3 Limitations

The comprehensiveness of any ecological assessment will be limited by the season in which surveys are undertaken. This survey was completed during the optimum time period for phase 1 surveys.

To determine likely presence or absence of protected species usually requires multiple visits at suitable times of the year. As a result, this survey focuses on assessing the *potential* of the site to support species of note, which are considered to be of principal importance for the conservation of



biodiversity with reference to the *National Planning Policy Framework* (NPPF, 2012), especially those given protection under UK or European wildlife legislation.

This report cannot therefore be considered a comprehensive assessment of the ecological interest of the site. However, it does provide an assessment of the ecological interest present on the day of the visit and highlights areas where further survey work may be recommended.

The details of this report will remain valid for a period of two years for the date of survey (July 2018). Beyond this period, if works have not yet been undertaken, it is recommended that a new review of the ecological conditions is undertaken.

Access to Ponds 2-9 (Figure 3) was not possible on the day of survey. Therefore, these habitats have not yet been surveyed for their potential to support a breeding GCN population. Further surveys have been recommended.



4.0 Baseline Conditions

4.1 Designated Sites

No internationally designated sites, such as Special Protection Areas (SPA's) or Special Areas of Conservation (SAC's) were identified within 20km of the site boundary or downstream of the becks present onsite.

The data search from WYE returned no records of statutory designated sites within the search area.

Seven Local Wildlife Sites (LWS) were identified within the 2km search area. Details of the LWSs are located within Table 1.

Table 1: Local Wildlife Sites

Local Wildlife Site	Location	Reason for Designation
Dogloitch Wood	Borders the eastern site boundary	Woodland with high bluebell density cover
Dunn Wood	Borders the eastern site boundary	Woodland with high bluebell density cover
Haigh Hall Spring Wood North	880m east of the site boundary	Woodland with high bluebell density cover
Haigh Hall Spring Wood South	880m east of the site boundary	Woodland with high bluebell density cover
Haigh Wood	850m north east of the site boundary	Woodland with high bluebell density cover
Scargill Wood	70m north of the site boundary	Ancient and semi-natural woodland
Soothill Wood	230m north west of the site boundary	Ancient and semi-natural woodland

A number of sites are also protected under local designations:



Four Leeds Nature Areas (LNA) were identified within the search area. These sites have been designated for their importance for the enjoyment or study of wildlife, geological features and landforms. These sites are:

- Ardsley Reservoir;
- Haigh Hall Spring Wood;
- Haighs Wood; and
- Judes Pond.

Haigh Wood located 850m north east of the site boundary is the closest LNA to the site.

Four Sites of Wildlife Significance were identified within the search area. These sites have been designated for their district wide importance for the enjoyment, study or conservation of wildlife, geological features and landforms. These sites are:

- Dogloitch Wood;
- Dunn Wood;
- Scargill Wood;
- Soothill Brick Works.

Dogloitch Wood and Dunn Wood both border sections of the eastern site boundary.

Caulms Wood Quarry Local Geological Site is situated 1.8km south west of the site and designated for its steep face of carboniferous sandstone with large, shallow caves due to weathering of the iron-rich sandstone. The site is considered important for its educational value.

4.2 Habitats

An Extended Phase 1 Habitat Plan showing the location of key ecological features is presented in Figure 2.

4.2.1 Arable

Arable fields are the dominant habitat across the site (Photograph 1). Arable crops onsite at the time of the survey included: wheat (*Triticum spp.*), barley (*Hordeum spp.*) and rapeseed (*Brassica napus*).

The field boundary margins range in width from <1m to 4m and comprise tall grasses including false oat-grass (*Arrhenatherum elatius*), cock's-foot (*Dactylis glomerata*), Yorkshire fog (*Holcus lanatus*), brome sp. (*Bromus sp.*), meadow fox tail (*Alopecurus pratensis*) and tall ruderal vegetation including: cleavers (*Galium aparine*), common nettle (*Urtica dioica*), hogweed (*Heracleum*



sphondylium), ragwort (*Senecio jacobaea*), clover (*Trifolium sp.*), speedwell (*Veronica sp.*), meadow buttercup (*Ranunculus acris*) and creeping thistle (*Cirsium arvense*).

4.2.2 Improved Grassland

Improved grassland habitat is abundant in the south west of the site (Photograph 2). The improved grassland fields are dominated by perennial rye grass (*Lolium perenne*), and at time of survey were cattle grazed.

4.2.3 Species-Poor Semi-Improved Grassland

There are three fields within the site and some small patches of land along hedgerows which support species-poor semi-improved grassland (Photograph 3). The grassland supported a range of grasses including cock's-foot, timothy grass (*Phleum pratense*) and perennial rye grass as well as a range of herbs which included: mouse ear (*Cerastium fontanum*), ribwort plantain (*Plantago lanceolata*), common sorrel (*Rumex actosa*), pineapple weed (*Matricaria discoidea*), creeping buttercup (*Ranunculus repens*) and scented mayweed (*Matricaria chamomilla*).

4.2.4 Semi-Improved Neutral Grassland

There is an enclosed patch of semi-improved neutral grassland within the centre of the site. The grassland is set on a slight elevation sloping down towards a tributary of the Hey Beck that runs through the site. Plant species present include perennial rye grass, annual meadow grass, Yorkshire fog, common bent (*Agrostis stolonifera*), tufted hair grass (*Deschampsia cespitosa*), bracken and rosebay willowherb. At the time of the update survey, a small section of this area was utilised as a temporary storage for manure. This pile was approximately 15m in length, 6m in width and up to 3m in height.

4.2.5 Broadleaved Woodland

Broadleaved woodland forms a number of internal and external boundary features on and immediately adjacent to the site (Photograph 4). Internally, a 490m band of woodland split into two sections forms a partition between the large arable field compartment in the south of the site and the smaller arable fields to the north. A 90m stretch of broadleaved woodland forms a partition in the northwest of the site between parcels of arable land. Internally in the southwest of the site, a 323m length of woodland comprising 1.3ha of broadleaved woodland forms a boundary feature between the site and residential properties to the west. Dunn Wood (6.2ha) and Dogloitch Wood (6.2ha) both border the site on the eastern site boundary.



Photograph 1: Arable Crops



Photograph 2: Improved Grassland



Photograph 3: Semi-improved grassland



Photograph 4: Broad-leaved woodland

4.2.6 Hedgerows

Hedgerows are present across the site marking many of the field and site boundaries.

The hedgerows onsite are predominantly intact species-poor hedgerows and defunct hedgerows i.e. there are gaps present which make them no longer stock proof. Plant species present comprise hedgerows are primarily hawthorn (*Crataegus monogyna*) elder (*Sambucus nigra*) and sycamore (*Acer pseudoplatanus*) with ground flora including Yorkshire fog, bramble, false oat grass, cleavers, spear thistle, common nettle and bittersweet nightshade (*Solanum dulcamara*).



4.2.7 Watercourses

There are three notable water bodies onsite which run west to east through the site which feed into Hey Beck on the eastern boundary of the site.

The northern water body (Photograph 5) is a tributary of Hey Beck which at time of survey was not flowing and comprised of wet and dry areas. The tributary was lined with, and heavily shaded by mature trees including ash, oak, hawthorn, crack willow (*Salix fragilis*), sycamore and silver birch; and choked with dense scrub and tall ruderal vegetation comprising bramble, rosebay willow herb, greater willow herb, common nettle, false oat grass and Himalayan balsam.

The central water body is a drainage ditch which exits a culvert alongside the south of Dogloitch Wood and runs along the full extent of the southern side of this woodland. The ditch appears to collect surface runoff from the surrounding arable land; at the time of survey, the ditch was wet and shaded in places by scattered semi-mature crack willow *Salix sp.*, oak (*Quercus robur*), hawthorn and Himalayan balsam.

The southern tributary forms the southern boundary to the site. At the time of survey, this ditch was partially dry with no visible areas of open water. The ditch is dominated by false oat grass, thistle, dandelion, mayweed (*Tripleurospermum sp.*) and Himalayan balsam. As the watercourse runs further east, the banks becomes increasingly vegetated.

4.2.8 Open Water

There is no open water on the site however, there is a pond within the Chidswell Farm building, measuring approximately 150m², located just outside the site boundary. Partially shaded by a willow tree (*Salix sp.*) on an island in the centre, the pond is populated by a large number of large fish with some small areas of ornamental water lilies (*Nymphaeaceae sp.*).



Photograph 5: Hey Beck Tributary (heavily vegetated)



Photograph 6: Pond 1

4.2.9 Scattered Broadleaved Trees

Scattered broadleaved trees are present across the site. Often associated with field boundaries, they are predominantly Oak and Ash. There is a line of small mature oak trees in the east of the site adjacent to Dogloitch Wood. Other species found individually on site include silver birch (*Betula pendula*) and large hawthorns.

4.2.10 Buildings and Hardstanding

Chidswell Farm is located in the south western corner of the site and is made up of multiple farm buildings and associated hard standing as well as a number of residential dwellings. There is a pub to the south of Chidswell Farm with a small area of car park. Both the pub and the farm are serviced by Chidswell Lane which runs north to south along the western site boundary.

There is a small World War 2 building in the south western corner of the site to the east of the farm. This is now used as storage but originally housed generators. It is a red brick structure, approx. 3m tall with a flat roof (Photograph 7).



Photograph 7: Onsite World War 2 building

4.3 Protected & Notable Species

4.3.1 Invertebrates

Desk Study

There were no records for invertebrates returned from the desk study.

Field Survey

White-clawed crayfish (*Austropotamobius pallipes*) are typically found in watercourses of 0.75m to 1.25m deep. They prefer alkaline water with limited sediment and pollution, and live in habitats such as streams with plenty of shelter provided by rocks and/or plants. The three water bodies onsite are small, shallow, appear to dry regularly and lack vegetation/rocks to form shelter for white-clawed crayfish. Therefore, the site would be unable to support the species.

In terms of terrestrial, and other aquatic invertebrates, the majority of the site consists of arable farmland with some smaller areas of improved and semi-improved grassland, all of which provide limited habitat for protected and notable invertebrate species. Broadleaved woodland and becks present onsite provide more suitable habitat for protected or notable invertebrate species. However, due to the site location in West Yorkshire and the lack of species data returned from the desk study, it is considered unlikely that any protected or notable invertebrate species are present on site, and it is considered more likely to support common and widespread species.



4.3.2 Great Crested Newts

Desk Study

There were no records for great crested newt returned from the desk study.

Two records for common toad (*Bufo bufo*) were returned from 1999 and 1994 located 1km from the site and six records for common frog (*Rana temporaria*) from 1994 to 2002 were returned, the closest of which being approximately 1km from the site.

In 2011, Ponds 2-5 (inclusive) were subject to a HSI survey and were all rated as having poor suitability to support GCN. The other ponds were not accessible in 2011 (WYG, 2011).

Field Survey

There are no ponds present within the site boundary; however, nine ponds are present within 500m of the site boundary. A Habitat Suitability Index (HSI), developed by Oldham et al. (2000) was used to measure the suitability of these ponds, where possible, on and within 500m of the site to support GCN (where accessible and safe to do so). This assessment method allows habitat variables to be collected and used together to predict the likely presence of GCN. The outcome of the HSI Assessment is a rating for each pond; the ratings are: Poor, Below Average, Average, Good or Excellent. The results of the GCN HSI scoping survey are summarized in Table 2 below. Any ponds surveyed as 'Below Average or above' would be considered to provide potentially suitable habitat to support GCN. However, the pond surveyed was 'Poor' and considered to be unsuitable to support GCN.

At the time survey, access was only possible to one pond (P1) within 500m of the site boundary. This was located within the Chidswell Farm complex 75m from the site boundary. No access was possible to the other eight ponds during the survey and therefore a HSI assessment could not be conducted during the Phase 1 survey. Results of the survey are detailed in Table 2. A map of all ponds within 500m of the site boundary is detailed in Figure 3.

Table 2: Habitat Suitability Index (HSI) Survey Results

Pond	Grid Ref.	HSI Score	HSI Assessment	Description
P1	E26745 23005	0.18	Poor	Man made with artificial lining; island in the centre supporting a <i>Salix sp.</i> ; heavily fish stocked



4.3.3 Reptiles

Desk Study

There were no reptile records returned from the desk study.

Similarly, no reptiles were identified during the 2011 phase 1 survey (WYG, 2011)

Field Survey

No reptiles were observed during the ecology walkover survey.

The majority of the site is arable farmland and improved grassland habitat which is subject to heavy disturbance from farmland practices and grazing animals thus reducing the potential for reptiles in these areas. Hedgerow, scrub/tall ruderal, semi-improved grassland and woodland habitat across the site may be considered potentially suitable habitat for reptiles. Scrub and rough grassland interfaces are generally known and identified as potentially good reptile habitat, particularly dry, species-rich, undisturbed open habitat with a mix of sparse and dense vegetation (JNCC, 2003). Additionally, grass snake is known to have an affinity for water due to their diet (Froglife, 2001) therefore the presence of water courses i.e. Hey Beck running along the eastern boundary of the site may increase the potential for reptiles to be present on site. However, given the intense farming practices used on the site as a whole there is not considered to be enough suitable habitat to sustain a large population of reptile.

4.3.4 Birds

Desk Study

A number of Red and Amber list birds of conservation concern (BoCC) (Eaton *et al.*, 2015) bird species were also identified within the 2km search area and included: yellowhammer (*Emberiza citrinella*) 1.7km from the site, willow warbler (*Phylloscopus trochilus*) and song thrush (*Turdus philomelos*); both 1.5km from the site.

It was noted during the 2011 phase 1 survey that the site provides potentially suitable roosting and foraging habitat for barn owl *Tyto alba*.

Field Survey

The arable fields, grassland, hedgerow, mature trees and scrub all provide potential breeding bird habitat.



During the initial Phase 1 Survey (WYG, June 2011), numerous bird species were recorded including: Blackbird (*Turdus merula*), chiffchaff (*Phylloscopus collybita*), chaffinch (*Fringilla coelebs*), dunnoek (*Prunella modularis*), house sparrow (*Passer domesticus*), goldfinch (*Carduelis carduelis*), carrion crow (*Corvus corone*), wren (*Troglodytes troglodytes*), willow warbler (*Phylloscopus trochilus*), blackcap (*Sylvia atricapilla*), great-spotted woodpecker (*Dendrocopos major*) and skylark (*Alauda arvensis*).

4.3.5 Bats

Desk Study

A total of 33 records of bat species were returned from the desk study. Species included common pipistrelle (*Pipistrellus pipistrellus*), noctule (*Nyctalus noctula*) and other unknown bat species. The closest roost record was for a pipistrelle sp. (*Pipistrellus sp.*) roost located approximately 650m north of the site.

During the 2011 phase 1 survey (WYG, 2011), the World War 2 engine house was also assessed as having negligible potential to support roosting bats. Some mature trees on site, particularly along Dogloitch and Dunn Wood and Hey Beck, were noted to be potentially suitable for roosting bats.

Field Surveys

The buildings on site were surveyed provisionally for their potential to support roosting bats. The habitat on site was also surveyed for its potential to support foraging and commuting bats.

Built Structures

There is one building on site; a World War 2 engine house located in the south west of the site. This building provides no potential for supporting roosting bats due to the tight structure of the brickwork forming no gaps or crevices.

Trees

During the walkover, a number of trees were identified as having suitable features to support roosting bats, including cracks in tree trunks and lifted bark.

Habitat

The hedgerow, scrub and trees provide potentially good foraging habitat for bats within the immediate vicinity of the site. The arable field and short improved/semi-improved grassland is the



dominant habitat across the site and is considered to be of intrinsically low habitat value for foraging bats. The habitat linkage for commuting bats to suitable habitat within and beyond this site is however considered to be good. The site is connected to the wider landscape by hedgerows and watercourses and small areas of broad-leaved woodland which is intrinsically good foraging and commuting habitats for bat species. Overall, the site is considered to be of **high** value to commuting and foraging bats.

4.3.6 Badgers

Desk Study

Two confidential field records of badger within 2km of the site were returned from 2011 and 1990, the closest of which being approximately 1.8km from the site.

No field signs of badger were identified during the 2011 phase 1 survey (WYG, 2011).

Field Surveys

No evidence of badger (*Meles meles*) was recorded on or within accessible adjacent land during the site walkover. The site does however contain habitat of potential value for sett construction and the areas of open arable crop and hedgerows provide potential foraging habitat for this species. The adjacent Dunn Wood and Dogloitch Wood would provide greater and better quality habitat opportunities for badgers.

4.3.7 Otter

Desk Study

There were no records for otter (*Lutra lutra*) returned from the desk study.

No field signs of otter were identified during the 2011 phase 1 survey (WYG, 2011).

Field Surveys

No evidence of otter was recorded during the field survey. However, Hey beck, to the east of the site, does have potential to support otter. Evidence from radio-tracking (Jefferies *et al.* 1986 cited Chanin, 2003) and from studies of the distribution of road casualties (Chanin, 2001 cited Chanin, 2003) shows that otters will use tiny streams and ditches including dry watercourses as regular commuting routes. Therefore, the tributaries on site may have some limited potential to support commuting otters, although connectivity along the onsite watercourses is very poor.



4.3.8 Water vole

Desk Study

Although over 2km from the site, it is considered notable that four records of water vole (*Arvicola terrestris*) have been recorded approx. 2.5km from the site within the last 7 years.

No field signs of water vole were identified during the 2011 phase 1 survey (WYG, 2011).

Field Survey

No evidence of water vole was recorded during the field survey. Generally, water voles prefer sites with wide swathes of riparian vegetation, both growing from the banks and from the water, with easily penetrable earth or silt-shored banks and slow-flowing relatively deep (over 1m depth) watercourses which are not heavily shaded (Dean, Strachan, Gow & Andrews, 2016). Two of the three water bodies on site which flow into the Hey Beck are currently dry and therefore are assessed as being unlikely to have the potential to support water vole at the present time. The central ditch which runs to the south of Dogloitch Wood was flowing but contained shallow water and exited from a culvert. The water bodies and dry ditches may provide some limited commuting habitat for water voles.

4.3.9 Brown Hare

Desk Study

One record for brown hare (*Lepus europaeus*) was returned from 1992 located approximately 500m from the site.

No field signs of brown hare were identified during the 2011 phase 1 survey (WYG, 2011).

Field Survey

The large arable fields and hedgerows provide good habitat for brown hares. During the site visit two brown hares were identified within the semi-improved grassland fields within the north of the site.

4.3.10 Hedgehog

Desk Study

There were no records for hedgehog (*Erinaceus europaeus*) returned from the desk study.



No field signs of hedgehog were identified during the 2011 survey (WYG, 2011).

Field Survey

The improved grassland, network of hedgerows and tall ruderal/scrub habitats provide potentially suitable foraging and hibernating habitat for hedgehog.

4.3.11 Invasive Species

Desk Study

Invasive, non-native Schedule 9 Himalayan balsam (*Impatiens glandulifera*) has been recorded between 581m and 1.8km from the site.

Field Survey

Himalayan Balsam, listed in Schedule 9 of the *Wildlife and Countryside Act 1981* (as amended) was recorded across the site; particularly within the ditches, alongside water courses and along field margins (Photographs 8 and 9).

4.3.12 Other Species

The WCA Schedule 8 listed plant bluebell (*Hyacinthoides non-scripta*), has been located on numerous occasions between 581m and 1.8km from the site. During the time of the survey in July, bluebells enter a period of dormancy and therefore, identifying them was not possible. Much of the habitat on site is open and do not provide favourable habitats for bluebell; however, shaded or partially shaded areas in broadleaved woodland and along treelines and hedgerows do provide suitable habitat for bluebells (Plantlife, 2014).



Photograph 8: Himalayan balsam in a dry ditch running along the south site boundary



Photograph 9: Himalayan balsam along a farm track near the western boundary



5.0 Constraints and Opportunities

The potential effects of development upon protected/notable sites, habitats and species of relevance to the site are outlined below along with outline recommendations for further survey and/or mitigation where appropriate. Due to the generic development proposals listed in section 1.3 and the absence of further species survey information (where required) these recommendations are indicative at this stage. Further information would be required in order to make more detailed/comprehensive assessments of the potential effects of, and mitigation recommended for, development proposals.

5.1 Statutory and Non-Statutory sites

No internationally designated sites, were identified within 20km of the site, or with habitat connectivity to the site. Therefore, these protected sites are not considered to be a constraint to the proposed development.

No statutory sites were identified within 2km of the site and therefore statutory protected sites are not considered to be a constraint to the proposed development.

Nine non-statutory designated sites are located within 2km of the site. It is considered that all non-statutory designated sites, apart from Dunn Wood and Dogloitch Wood, are located at a sufficient distance from the site boundary that the proposed development of the site will not directly or indirectly impact these nature conservation sites.

Dunn Wood and Dogloitch Wood both border sections of the eastern site boundary. Due to the close proximity of the broad-leaved woodland to the site, it is anticipated that the trees and their delicate root systems could be damaged unless specific tree protection measures in line with British Standard BS5837 are implemented during site construction. A tree survey is likely to be required to include a scaled tree constraints plan showing the root protection area along with the up-to-date current crown protection areas of the trees. During construction, a suitable buffer of approx. 30m (or the height of the tallest tree) should be maintained between the woodland and the site. The woodlands should be protected in line with a site specific tree report, to ensure the full protection of both woodlands. This buffer could be planted with a wild flower meadow mix (e.g. Emorsgate WM2 – Standard General Purpose Meadow Mixture) to enhance the area for wildlife, in particular invertebrates which provide a food source for bats and birds.

The predominant habitats onsite consist of low value improved grazing pastures; arable fields supporting crops of wheat and barley; and occasional semi-improved grassland fields which are utilised as hay meadows.



Of higher value within the site are the hedgerows; the majority of which are native species-poor, native species-poor which trees and a small number of defunct hedgerows. Hedgerows create linear habitats which form commuting corridors throughout the site and connect habitats within the wider environment allowing both fauna and flora to move and disperse between habitats, including connecting pockets of woodland. It is therefore recommended that hedgerows remain in-situ where possible or, if likely to be removed or impacted on by the development, a dedicated hedgerow survey be undertaken in order to establish which hedgerows are 'important' under the Hedgerow Regulations 1997. There are small pockets of broad-leaved semi-natural woodland and broad-leaved plantation throughout the site which should be retained, where possible, and enhanced within the development. Connectivity between the pockets should be improved by planting native trees and scrub to connect un-connected areas, such as the two broad-leaved semi-natural pockets within the centre of the site.

The three onsite watercourses/ditches, both wet and dry, which flow into Hey Beck also provide good commuting habitat for a wide range of flora and fauna and therefore it is recommended that all onsite watercourses are maintained and, where possible, should be buffered and enhanced for local wildlife. To improve the habitat, a wild grassland seed mix such as Emorsgate EM2 – Standard General Purpose Meadow Mixture could be sown between the water courses / ditches and the development area.

Dense continuous scrub and tall ruderal vegetation provide good foraging and resting habitat for birds, badgers, hedgehogs, brown hare and invertebrates. Along linear habitats, scrub, woodland and tall ruderal vegetation should be retained if possible. Alternatively, if the removal is necessary additional scrub habitat should be planted throughout the site and should consist of native species including hawthorn (*Crataegus monogyna*), blackthorn (*Prunus spinose*), holly (*Ilex aquifolium*), dog rose (*Rosa canina*), guelder rose (*Viburnum poulus*) and hazel (*Corylus avellana*). Fruit and nut bearing species should be used wherever possible to provide an additional food source for local wildlife.

5.2 Protected and Notable Species

5.2.1 Invertebrates

The waterbodies or site are considered unsuitable to support white-clawed crayfish and the terrestrial habitat onsite is considered to only provided habitat to common and widespread invertebrates. Therefore, no further surveys are recommended.

However, the site could be enhanced for invertebrates through wildflower planting along the wet ditches and woodland edges which would provide a good feeding source for invertebrate. This would subsequently provide food sources for local bird and bat species.



5.2.2 Great Crested Newts

The great crested newt and its habitat are protected under the *Wildlife and Countryside Act 1981* (as amended) and the *Conservation of Habitats and Species Regulations 2010* (as amended).

There are no ponds located within the site boundary. One pond (P1) was surveyed 75m west of the site boundary on Chidswell Farm Yard; this pond was considered 'poor' habitat for GCN due to the high population of fish and lack of egg laying substrate.

The further eight ponds within 500m of the site boundary were not accessible during the Extended Phase 1 Survey. Although ponds 6, 7, 8 and 9 are located within 500m of site, busy roads are considered to act as a barrier between these ponds and the site, making movement of GCN between these ponds and the site unlikely. However, ponds 2, 3, 4 and 5 are considered to be connected to the site by hedgerows, ditches and field margins in the surround landscape. In addition, habitats including tall ruderal, scrub, hedgerows and semi-improved grassland across the site are considered to provide suitable commuting corridors for GCN. Ponds 2, 3, 4 and 5 have previously been subject to a HSI assessment, however this was conducted five years ago and these ponds are likely to have change over this period of time. Therefore, updated HSI assessment of ponds 2, 3, 4 and 5 is recommended to determine the likelihood of breeding GCN being present within 500m of the site.

5.2.3 Reptiles

All species of native reptiles are listed under the *Wildlife and Countryside Act 1981* (as amended) and the NERC Act 2006.

No records of reptiles were provided on or within 2km of the site and the site generally consists of poor reptile habitat. However, small areas of habitat including areas of tall ruderal vegetation, scrub, hedgerow, areas of semi-improved grassland and wet/dry ditches, with connectivity to the wider landscape via Hey Beck, provide some suitable habitat for reptiles.

The local authority ecologist should be consulted with regards to the presence of reptile within the wider landscape to determine whether further reptile surveys are required onsite.

5.2.4 Birds

All nesting birds are protected from disturbance whilst nesting by the *Wildlife and Countryside Act 1981* (as amended). There is potential for nesting birds to be present across the site, particularly farmland birds. This includes bird species of conservation importance e.g. skylark (BoCC Red List) and house sparrow (BoCC Red List).



To ensure that appropriate mitigation measures are put in place for the loss of potential bird nesting habitat on site, a breeding bird survey is recommended prior to any development taking place. The breeding bird survey is recommended to comprise four survey visits, spaced between March and June. The aim of the breeding bird survey would be to determine the species present and/or nesting on the site. Breeding bird surveys should follow the methodology recommended by Bibby *et al.*, (2000). Essentially, the method involves mapping all birds seen or heard during walkover visits to the site, paying particular attention to behaviour which indicates breeding (e.g. singing or carrying nesting material or food).

It is recommended that a winter walkover survey is to be undertaken between November and March in order to fully determine the potential for foraging barn owls on site and the requirement for any further surveys. Additionally, a licenced barn owl surveyor should visit all accessible outbuildings onsite and within 250m of the site boundary to determine any whether any barn owl roost lie within these areas.

5.2.5 Bats

Breeding, Resting and Hibernating Bats

All species of British bats and their roosts are fully protected under the *Wildlife & Countryside Act 1981 (as amended)* and the *Conservation of Habitats and Species Regulations 2010 (as amended)*.

Buildings

The single building on site; an engine house dating from the Second World War, is completely sealed providing no potential for bat roosting.

Trees

As some trees were identified to provide suitable roosting habitat for bat species, it is recommended that a specific daytime tree survey assessment is undertaken to provide a detailed assessment of their potential to support roosting bats, once it is fully understood which trees have potential to be directly or indirectly impacted by the proposed works. This will then determine any further emergence / re-entry surveys required to determine the likely presence or absence of bats within trees to be impacted by the development on site.

Foraging and Commuting Bats

ODPM 06/2005: Biodiversity and Geological Conservation, the circular that accompanied the now redundant Planning Policy Statement 9 (PPS9) but which itself is still valid, requires that mitigating for



impacts caused by developments to foraging and commuting routes should be considered when determining planning applications.

The site contains a wide range of suitable habitats for foraging and commuting bats including mature hedgerows, wet/dry ditches, areas of scrub and tall ruderal and areas of open pasture grassland and is therefore classified to be of moderate suitability for foraging bats. It is recommended that a suite of bat activity surveys take place between May to September (inclusive) across the site in order to determine the use of the site by foraging and commuting bats. This will include conducting transects across the site and the use of static detectors.

5.2.6 Badgers

Badgers and their setts are protected under the *Protection of Badgers Act 1992* and the NPPF (Appendix B) stipulates that considering their welfare and mitigating for damage to their habitat are material considerations when considering planning applications.

No evidence of badger activity was recorded during the field survey. However, the site contains a range of habitats suitable for foraging and sett creation. Badgers are mobile animals able to rapidly move into new habitats and it is therefore recommended that an updated survey is conducted to confirm the continued absence of this species immediately prior to submitting a planning application.

5.2.7 Otters

The otter and its habitat are protected under the *Wildlife and Countryside Act 1981* (as amended) and the *Conservation of Habitats and Species Regulations 2010* (as amended). The European sub-species is listed as globally threatened in the IUCN Red List (see Appendix B).

There are no records of otter within 2km of the site. The three onsite water bodies / ditches which flow into the Hey Beck provide some limited habitat for otters, however the habitats would not support fish and therefore would be unable to provide a food source for otter. It is therefore unlikely that otters will be present onsite. If during works otter or evidence of otter are noted, works should stop and a suitably qualified ecologist should be contacted immediately.

5.2.8 Water Voles

Water voles and their habitat are protected under the *Wildlife and Countryside Act 1981* (as amended) (see Appendix B).

Although no evidence of water vole was recorded during the field survey; there are 4 records from 2009 of water vole within 2.5km of the site. Additionally, the ditches onsite is considered to provide



suitable commuting habitat for water vole. It is therefore recommended that a dedicated water vole survey is undertaken of the water course / ditches. This is in order to determine the presence/likely absence of water vole on and adjacent to site. In accordance with Natural England Guidelines on 'Water Voles and Development', any major proposals affecting on or within 50m of any watercourses or associated ponds should be surveyed for water vole. In accordance with appropriate guidance, these surveys should be undertaken between March and October in order to provide reliable results in accordance with the methodology prescribed within Dean, Strachan, Gow & Andrews, (2016).

5.2.9 Brown Hare

The brown hare receives limited legal protection. *The Conservation of Species and Habitats Regulations (2010)* prohibits certain methods of taking or killing and *The Hare Preservation Act 1892* forbids the sale of adult brown hares during their main breeding period (1st March – 31st July). However, the brown hare is listed as a Priority Species in the Local Biodiversity Action Plan (Kirklees BAP) and under Section 41 of the 2006 *Natural Environment and Rural Communities (NERC) Act*, which means public bodies including local and regional authorities, in implementing their duty under Section 40, should have regard to the conservation of this species when assessing planning applications.

Hares need to rotate between different habitats throughout the seasons, and therefore habitat fragmentation can be a problem. Hares are generally absent from areas of significant human activity and will get disturbed by domestic animals (cats and dogs). Where possible hares appear to avoid waterlogged areas and favour drier parts.

As a result of the scheme it is highly likely that brown hare habitat on site will be significantly reduced such that the site could no longer support this species. In the wider landscape (to the east) there is considered to be an abundance of foraging and breeding habitat including a mixture of different habitats they require at various times of the year (spring-sown crops, hay meadows, winter crop stubble, woodland) (Cresswell *et al*, 2012).

To avoid conflict between hares, humans and domestic animals, it is recommended that hares are not encouraged to remain on site by mitigating for the species. The abundance of a mosaic of suitable habitat for brown hare in the wider landscape to the east of the site, is considered sufficient to support breeding and wintering brown hares in the local area.

During site clearance works, it is recommended that reasonable avoidance and awareness measures are taken to avoid killing or injury of brown hares. A walkover survey should be completed by a suitably qualified ecologist prior to any works to check for hares. Appropriate working methods on site



should include back-filling or coverage of excavations when not in use and contractors should check the site / stored materials at the beginning of each day during works.

5.2.10 Hedgehogs

The hedgerows, scrub and tall ruderal vegetation provide good foraging, commuting and hibernating habitat for hedgehogs. Hedgerows should be retained where possible in their entirety. If hedgerows or scrub are removed, compensatory planting should be provided in the form of native scrub throughout the site. Suitable native species include hawthorn, blackthorn, holly, dog rose, guelder rose and hazel. Additionally, as a precautionary approach, it is recommended that any future works on site should be preceded by a toolbox talk to make contractors aware of the potential to find protected/notable species. Any hedgehogs found during future works should be moved offsite to a safe area.

5.3 Invasive Species

The *Wildlife and Countryside Act 1981* (as amended) recognises several invasive plant species list in Schedule 9 of the Act (see Appendix B, Table B2).

The schedule 9 species Himalayan balsam was recorded in abundance throughout the site. It thrived along the ditches and field margins and appears to have spread since the last walkover survey conducted by WYG in June 2011.

Consultation should be undertaken with the local authority ecologist and Environment Agency as to the appropriate management and treatment for invasive plant species at the site. As Himalayan balsam is largely associated with the watercourse on an adjacent to the site e.g. Hey Beck, it may be difficult to manage due to seeds being spread from further upstream. It is not illegal to have these plant species on your land; however, it is illegal to cause the spread of the species into the wild. It is therefore advised that, prior to works commencing on the site, that a dedicated invasive plant species survey be undertaken to map the location of plants on the site. A dedicated management plan can then be devised; this will set out appropriate methodology to prevent any illegal spread of the species into the wild and to ensure correct and efficient disposal and management.

5.4 Generic Mitigation

It is recommended that the proposed development is designed to retain/incorporate hedgerows, mature trees and areas of more species rich grassland where possible. Reducing potential light spill and disturbance effects upon these features will allow much of their current habitat value to be preserved. Where necessary, mitigation, compensation and enhancement would ideally focus upon



providing habitat connectivity, dark corridors and diversifying the habitat resource present. This could potentially be achieved through multi-functional green spaces, in combination with the design of sustainable urban drainage systems, amenity/recreation areas and green routes, though may also include targeted wildlife resources and refuge opportunities, such as double hedgerows. The lighting and landscaping schemes would ideally be designed in consultation with an ecologist and informed by further dedicated species survey information. The development should seek to align with the National Planning Policy Framework, Local Planning policies and ODPM Circular 06/2005 in achieving no net loss in biodiversity. Further assessments and mitigation may be provided following review of completed survey data and with reference to the proposed scheme design, once plans are available.



6.0 Summary of Recommendations

There are no international designated sites within 20km of the site, and no nationally designated sites within 2km of the site and therefore residential development of the site would be unlikely to impact the interests of Natura 2000 sites or sites of national importance for nature conservation.

Therefore, no wider ecological constraints have been identified at this stage that that would be likely to prevent residential development on the site in principal. However, a series of baseline ecological surveys and assessments are recommended to inform the appropriate extent and siting of development alongside the retention and creation of more semi-natural habitats to ensure no net loss in biodiversity.

In addition, opportunities should be sought, where necessary, for ecological enhancement. Of note, it will be important to understand the nature of site usage by species that may be less tolerant of residential development effects, including habitat loss, fragmentation and disturbance. For example, the presence of large numbers of disturbance-sensitive, ground nesting birds of conservation concern, may require notable mitigation measures, which may affect the form and nature of development, if these cannot be adequately mitigated for onsite or compensated for nearby.

The following protected species surveys have been recommended to confirm the likely presence / absence of species on the site and thus feed into any mitigation/landscape designs.

- Detailed hedgerow survey to identify 'important' hedgerows in accordance with Hedgerow Regulations 1997;
- Breeding bird surveys across the site to take place between March and June;
- Barn owl scoping survey to be conducted between November and March;
- Updated GCN HSI surveys are recommended on ponds 2, 3, 4 and 5 to determine the likely presence or absence of GCN within 500m of the site boundary;
- The local authority ecologist should be contacted with regards to the presence of reptiles in the wider landscape, to determine whether a specific reptile survey is required;
- A specific daytime tree assessment is recommended to provide a detailed assessment of any trees with potential to be directly or indirectly impacted by the proposed works both onsite and in close proximity to the site, to search for further evidence of, or features suitable for roosting bats;



- Further bat emergence / re-entry survey recommendations will be made following completion of the bat roost potential assessment, if necessary. These surveys can only take place between April and September;
- Bat activity survey across the site to determine the use of the site by foraging and commuting bats, to take place between April & September;
- Surveys of the water courses for water vole, take place between March and October;
- Dedicated badger survey. Optimal period is spring and early autumn/winter although all survey methods are possible throughout the year; and
- Detailed invasive species survey of land where ground disturbance is likely and composition of an Invasive Species Management Plan.

Please refer to the Ecology Survey Calendar in Appendix E for further details of time constraints in relation to ecological surveys.



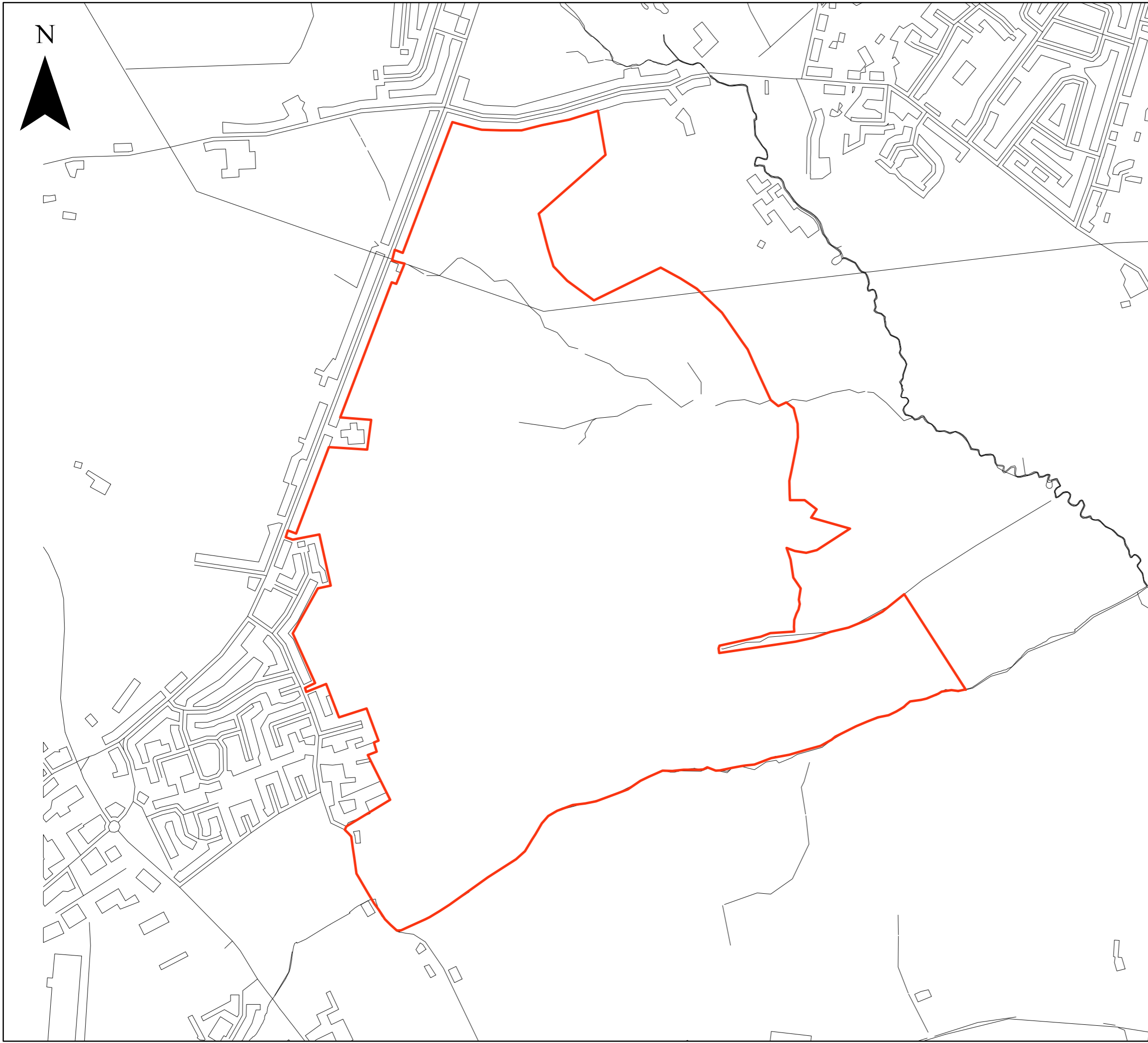
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FIGURES

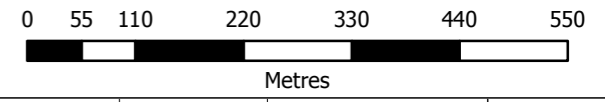
Figure 1 – Site Location Plan



Legend

 Survey Area Boundary

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Church Commissioners for England

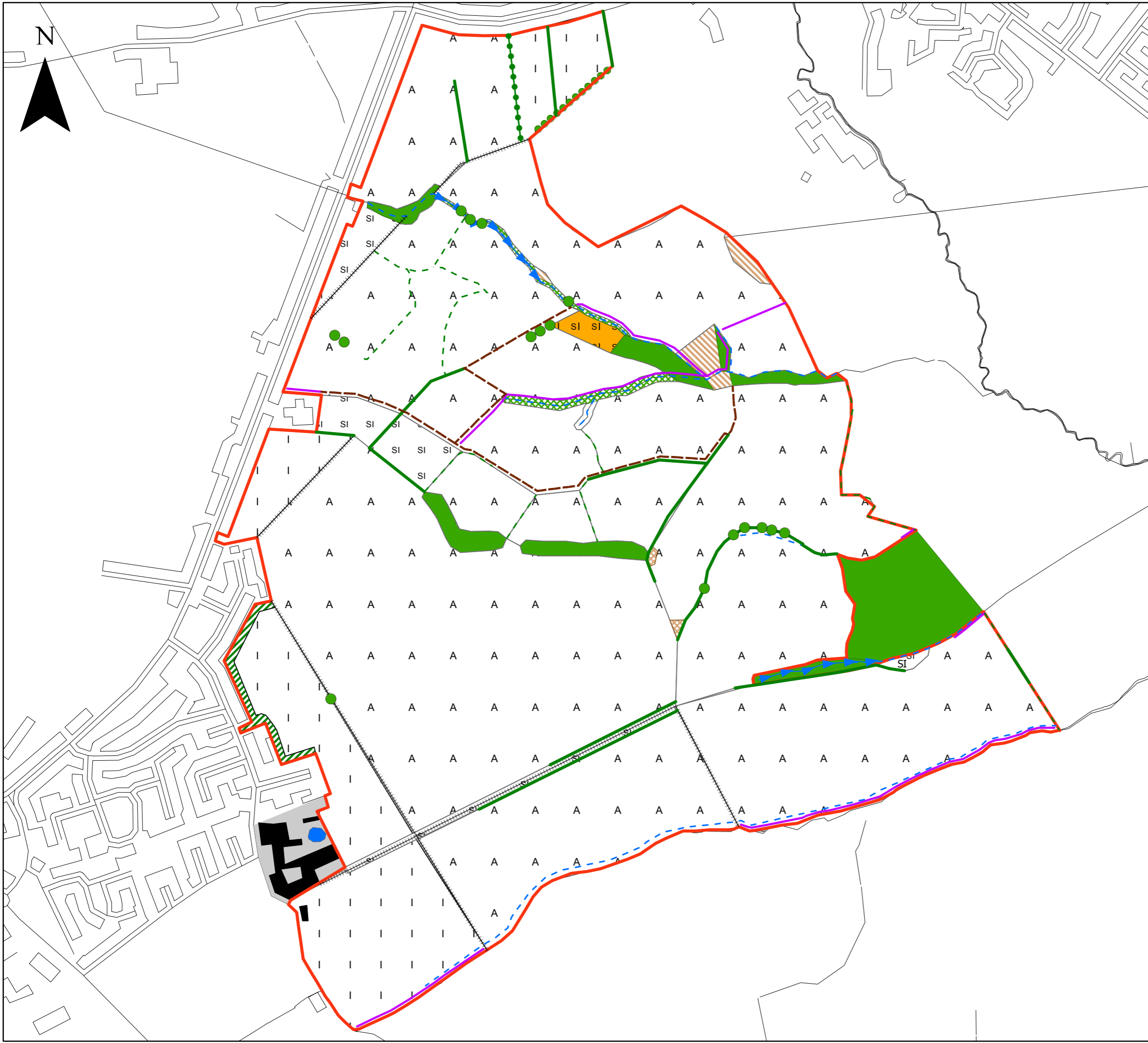
Project:
Land at Chidswell

Title:
Site Location Plan

Office: 4594	Project No: A054074	Figure No: 1
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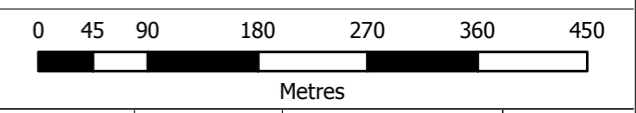


Figure 2 – Extended Phase 1 Habitat Survey



Legend

- Survey Area Boundary
- - - Dirt Track
- Himalayan Balsam
- +++++ Fence
- ▶ Running Water
- - - Dry Ditch
- Standing Water
- Introduced Shrub
- Buildings
- Hard standing
- A Arable
- - - Defunct Native Species-Poor Hedge
- Native Species-poor Hedge and Trees
- Native Species-poor Hedge
- Mature Tree
- ✕ Scrub
- Line of Trees
- Dense Continuous Scrub
- Broadleaved Plantation
- Broadleaved Semi-natural Woodland
- SI Semi-improved Neutral Grassland
- SI Poor Semi-improved Grassland
- I Improved Grassland
- Tall Ruderal



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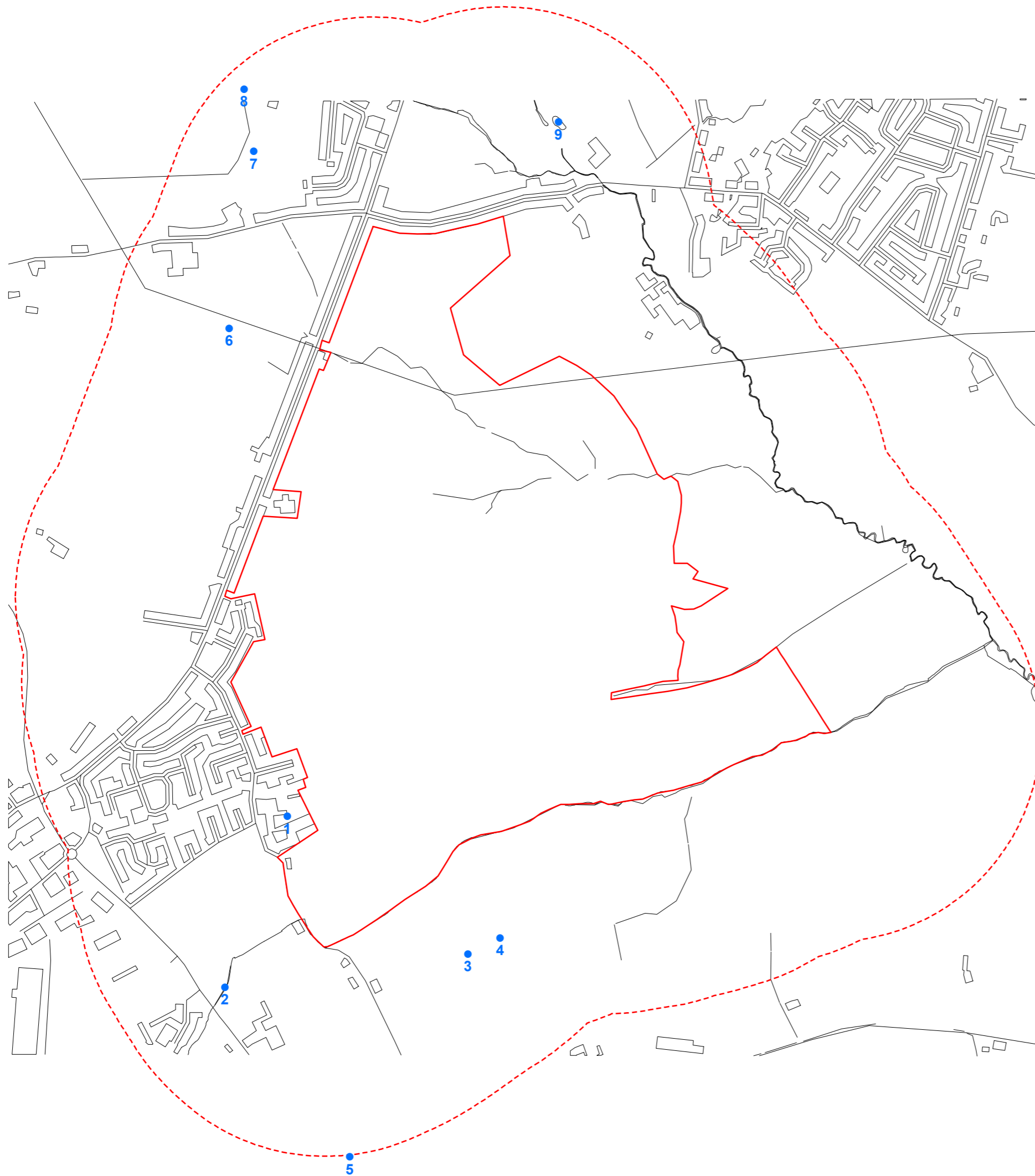
Project:
Land at Chidswell

Title:
**Extended Phase 1
Habitat Survey**




Office: 4594	Project No: A054074	Figure No: 2
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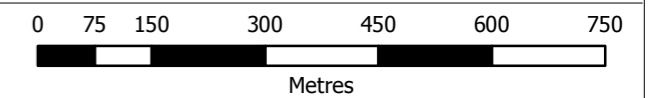


Figure 3 – Pond Locations with 500m of Site Boundary



Legend

-  Site Boundary
-  Site Boundary 500m Buffer
-  Ponds within 500m of Site Boundary



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Sheet Size: **A3** Scale of Original: **1:10,000**

Client:
Church Commissioners for England

Project:
Land at Chidswell

Title:
**Pond Locations within
500m of the Site**

Office:	Project No:	Figure No:
4594	A054074	3



APPENDIX A – Report Conditions



Report Conditions

Land at Chidswell, Dewsbury: Extended Phase 1 Habitat Survey Report

This report is produced solely for the benefit of the Church Commissioners for England and no liability is accepted for any reliance placed on it by any other party unless specifically agreed in writing otherwise.

This report is prepared for the proposed uses stated in the report and should not be used in a different context without reference to WYG Environment. In time improved practices, fresh information or amended legislation may necessitate a re-assessment. Opinions and information provided in this report are on the basis of WYG using due skill and care in the preparation of the report.

This report refers, within the limitations stated, to the environment of the site in the context of the surrounding area at the time of the inspections. Environmental conditions can vary and no warranty is given as to the possibility of changes in the environment of the site and surrounding area at differing times.

This report is limited to those aspects reported on, within the scope and limits agreed with the client under our appointment. It is necessarily restricted and no liability is accepted for any other aspect. It is based on the information sources indicated in the report. Some of the opinions are based on unconfirmed data and information and are presented as the best obtained within the scope for this report.

Reliance has been placed on the documents and information supplied to WYG Environment by others but no independent verification of these has been made and no warranty is given on them. No liability is accepted or warranty given in relation to the performance, reliability, standing etc. of any products, services, organisations or companies referred to in this report.

Whilst skill and care have been used, no investigative method can eliminate the possibility of obtaining partially imprecise, incomplete or not fully representative information. Any monitoring or survey work undertaken as part of the commission will have been subject to limitations, including for example timescale, seasonal and weather related conditions.

Although care is taken to select monitoring and survey periods that are typical of the environmental conditions being measured, within the overall reporting programme constraints, measured conditions may not be fully representative of the actual conditions. Any predictive or modelling work, undertaken as part of the commission will be subject to limitations including the representativeness of data used by the model and the assumptions inherent within the approach used. Actual environmental conditions are typically more complex and variable than the investigative, predictive and modelling approaches indicate in practice, and the output of such approaches cannot be relied upon as a comprehensive or accurate indicator of future conditions.

The potential influence of our assessment and report on other aspects of any development or future planning requires evaluation by other involved parties. The performance of environmental protection measures, e.g. of buildings and other structures in relation to acoustics, vibration, noise mitigation, and other environmental issues is influenced to a large extent by the degree to which the relevant environmental considerations are incorporated into the final design and specifications and the quality of workmanship and compliance with the specifications on site during construction. WYG accept no liability for issues with performance arising from such factors.

December 2016

WYG Environment Planning Transport Ltd



APPENDIX B – Legislation, Conventions & Threatened Lists



Introduction

The UK has ratified a number of Conventions and implemented legislation pertaining to the protection of biodiversity and habitats, either independently or as member state of the European Union. These are defined and summarised below.

Lists of threatened, endangered and extinct species are also provided, together with a summary explanation of each.

Bern Convention (1982)

The *Convention on the Conservation of European Wildlife and Natural Habitats* (the *Bern Convention*) was adopted in Bern, Switzerland in 1979, and was ratified in 1982. Its aims are to protect wild plants and animals and their habitats listed in Appendices 1 and 2 of the Convention, and regulate the exploitation of species listed in Appendix 3. The regulation imposes legal obligations on participating countries to protect over 500 plant species and more than 1000 animals.

To meet its obligations imposed by the Convention, the European Community adopted the *EC Birds Directive* (1979) and the *EC Habitats Directive* (1992 – see below). Since the Lisbon Treaty, in force since 1st December 2009, European legislation has been adopted by the European Union.

Biodiversity Action Plan (BAP)

The UK *Biodiversity Action Plan* (UKBAP – UK Steering Group, 1995; UK Biodiversity Group, 1998 - 2000) lists and prioritises habitats and species and sets national targets to be achieved. The intent of the UKBAP, however, is much broader than the protection and enhancement of less common species, and is meant to embrace the wider countryside as a whole.

Following the UK Post-2010 Biodiversity Framework the UK BAP Priority Habitat and Species lists have since been superseded by individual lists of Species of Principal Importance for the Conservation of Biodiversity for England, Scotland and Wales under the NERC Act (2006), as outlined in the appropriate section below.

Local Biodiversity Action Plans (LBAP) identify habitat and species conservation priorities at a local level (typically at the County level), and are usually drawn up by a consortium of local Government organisations and conservation charities.



Birds Directive (BD)

The *EC Directive on the Conservation of Wild Birds (791409/EEC)* or '*Birds Directive*' was introduced to achieve favourable conservation status of all wild bird species across their distribution range. In this context, the most important provision is the identification and classification of Special Protection Areas (SPAs) for rare or vulnerable species listed in Annex 1 of the Directive, as well as for all regularly occurring migratory species, paying particular attention to the protection of wetlands of international importance.

Birds of Conservation Concern (BoCC)

This is a review of the status of all birds occurring regularly in the United Kingdom. It is regularly updated and is prepared by leading bird conservation organisations, including the British Trust for Ornithology (BTO), Joint Nature Conservation Committee (JNCC) and The Royal Society for the Protection of Birds (RSPB).

The latest report was produced in 2009 (Eaton, M. *et. al.*, 2015) and identified 52 red list species, 126 amber species, and 68 green species. The criteria are complex, but generally:

- Red list species are those that have shown a decline of the breeding population, non-breeding population or breeding range of more than 50% in the last 25 years.
- Amber list species are those that have shown a decline of the breeding population, non-breeding population or breeding range of between 25% and 50% in the last 25 years. Species that have a UK breeding population of less than 300 or a non-breeding population of less than 900 individuals are also included, together with those whose 50% of the population is localised in 10 sites or fewer and those whose 20% of the European population is found in the UK.
- Green list species are all regularly occurring species that do not qualify under any of the red or amber criteria are green listed

Bonn Convention

The Convention on the Conservation of Migratory Species of Wild Animals or '*Bonn Convention*' was adopted in Bonn, Germany in 1979 and came into force in 1985. Participating states agree to work together to preserve migratory species and their habitats by providing strict protection to species listed in Appendix I of the Convention. It also establishes agreements for the conservation and management of migratory species listed in Appendix II.



In the UK, the requirements of the convention are implemented via the *Wildlife & Countryside Act 1981* (as amended), *Wildlife (Northern Ireland) Order 1985*, *Nature Conservation and Amenity Lands (Northern Ireland) Order 1985* and the *Countryside and Rights of Way Act 2000* (CRoW).

Global IUCN Red List

The International Union for Conservation of Nature (IUCN) Threatened Species was devised to provide a list of those species that are most at risk of becoming extinct globally. It provides taxonomic, conservation status and distribution information about threatened taxa around the globe.

The system catalogues threatened species into groups of varying levels of threat, which are: Extinct (EX), Extinct in the Wild (EW), Critically Endangered (CE), Endangered (EN), Vulnerable (VU), Near Threatened (NT), Least Concern (LC), Data Deficient (DD), Not Evaluated (NE). Criteria for designation into each of the categories is complex, and consider several principles.

Habitats Directive

The *Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora*, or the '*Habitats Directive*', is a European Union directive adopted in 1992 in response to the Bern Convention. Its aims are to protect approximately 220 habitats and 1,000 species listed in its several Annexes.

In the UK, the *Habitats Directive* is transposed into national law via the *Conservation of Habitats and Species (Amendment) Regulations 2012* in England, Scotland and Wales, and via the *Conservation (Natural Habitats, &c) Regulations (Northern Ireland) 1995 (as amended)* in Northern Ireland.

Protection of Badgers Act 1992 (PBA 1992)

The main legislation protecting badgers in England and Wales is the *Protection of Badgers Act 1992* (the 1992 Act). Under the 1992 Act it is an offence to: wilfully kill, injure, take or attempt to kill, injure or take a badger; dig for a badger; interfere with a badger sett by, damaging a sett or any part thereof, destroying a sett, obstructing access to a sett, causing a dog to enter a sett or disturbing a badger while occupying a sett.

The 1992 Act defines a badger sett as: "any structure or place which displays signs indicating current use by a badger"



National Planning Policy Framework (2012)

Following the publication of the National Planning Policy Framework (NPPF) in March 2012, *Planning Policy Statement 9 (PPS9): Biodiversity and Geological Conservation (2005)* has been withdrawn. However, *ODPM 06/2005: Biodiversity and Geological Conservation – Statutory Obligations and their impact within the Planning System* (the guidance document that accompanied PPS9) has not been withdrawn and, where more detailed guidance is required than is given within the NPPF, local planning authorities will continue to rely on ODPM 06/2005.

This guidance requires local planning authorities to take account of the conservation of protected species when determining planning applications and makes the presence of a protected species a material consideration when assessing a development proposal that, if carried out, would be likely to result in harm to the species or its habitat.

In the case of European Protected Species such as bats, planning policy emphasises that strict statutory provisions apply (including the *Conservation of Habitats and Species (Amendment) Regulations 2012*), to which a planning authority must have due regard.

Where developments requiring planning permission are likely to impact upon protected species it is necessary that protected species surveys are undertaken and submitted to meet the requirements of paragraph 98 of ODPM Circular 06/2005 which states that:

'The presence of a protected species is a material consideration when a planning authority is considering a development proposal that, if carried out, would be likely to result in harm to the species or its habitat.'

General guidance within the body of the NPPF which are also potentially relevant to the possible presence of bats at the site includes the following statements:

"The planning system should contribute to and enhance the natural and local environment by:

- protecting and enhancing valued landscapes, geological conservation interests and soils;
- recognising the wider benefits of ecosystem services;
- minimising impacts on biodiversity and providing net gains in biodiversity where possible, contributing to the Government's commitment to halt the overall decline in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures"



"Local planning authorities should set criteria based policies against which proposals for any development on or affecting protected wildlife or geodiversity sites or landscape areas will be judged."

"When determining planning applications, local planning authorities should aim to conserve and enhance biodiversity by applying the following principles:

- if significant harm resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;"

Species of Principal Importance in England

Section 41 (S41) of this Act requires the Secretary of State to publish a list (in consultation with Natural England) of habitats and species which are of principal importance for the conservation of biodiversity in England. The S41 list is used to guide decision-makers such as public bodies including local and regional authorities, in implementing their duty under Section 40 of the *Natural Environment and rural Communities (NERC) Act 2006*, to have regard to the conservation of biodiversity in England, when carrying out their normal (e.g. planning) functions. The S41 list includes 65 habitats of principal importance and 1,150 species of principal importance.

The Conservation of Habitats and Species Regulations 2010 (as amended)

The *Conservation of Habitats and Species Regulations 2010 (as amended)* came into force on 16th August 2012 and amend the *Conservation of Habitats and Species Regulations 2010* to ensure the various provisions of Directive 92/43/EC ('the Habitats Directive') are transposed in a clear manner.

Regulations place a duty on the Secretary of State to propose a list of sites which are important for either habitats or species (listed in Annexes I or II of the Habitats Directive respectively) to the European Commission. These sites, if ratified by the European Commission, are then designated as Special Protection Areas (SPAs) within six years. The 2012 amendments include that public bodies help preserve, maintain and re-establish habitats for wild birds.

The Regulations also make it an offence to deliberately capture, kill, disturb or trade in the animals listed in Schedule 2, or pick, uproot, destroy, or trade in the plants listed in Schedule 5 (see Table B1).



Table B1 Schedules of the Conservation of Habitats and Species (Amendment) Regulations 2012

Schedule 2 – European Protected Species of Animals		Schedule 5 – European Protected Species of Plant	
Common name	Scientific name	Common name	Scientific name
Horseshoe bats	Rhinolophidae - all species	Shore dock	<i>Rumex rupestris</i>
Common bats	Vespertilionidae - all species	Killarney fern	<i>Trichomanes speciosum</i>
Wild Cat	<i>Felis silvestris</i>	Early gentian	<i>Gentianella anglica</i>
Dolphins, porpoises and whales	Cetacea – all species	Lady's-slipper	<i>Cypripedium calceolus</i>
Dormouse	<i>Muscardinus avellanarius</i>	Creeping marshwort	<i>Apium repens</i>
Pool Frog	<i>Rana lessonae</i>	Slender naiad	<i>Najas flexilis</i>
Sand lizard	<i>Lacerta agilis</i>	Fen orchid	<i>Liparis loeselii</i>
Fisher's estuarine moth	<i>Gortyna borelii lunata</i>	Floating-leaved water plantain	<i>Luronium natans</i>
Great crested newt	<i>Triturus cristatus</i>	Yellow marsh saxifrage	<i>Saxifraga hirculus</i>
Otter	<i>Lutra lutra</i>		
Lesser whirlpool ram's-horn snail	<i>Anisus vorticulus</i>		
Smooth snake	<i>Coronella austriaca</i>		
Sturgeon	<i>Acipenser sturio</i>		
Natterjack toad	<i>Bufo calamita</i>		
Marine turtles	<i>Caretta caretta</i> , <i>Chelonia mydas</i> , <i>Lepidochelys kempii</i> , <i>Eretmochelys imbricata</i> , <i>Dermochelys coriacea</i>		



The Hedgerow Regulations 1997

The *Hedgerow Regulations 1997* were made under Section 97 of the *Environment Act 1995* and came into force in 1997. They introduced new arrangements for local planning authorities in England and Wales to protect important hedgerows in the countryside, by controlling their removal through a system of notification. Important hedgerows are defined by complex assessment criteria, which draw on biodiversity features, historical context and the landscape value of the hedgerow.

Wildlife and Countryside Act 1981 (as amended)

This is the principal mechanism for the legislative protection of wildlife in the UK. This legislation is the chief means by which the '*Bern Convention*' and the *Birds Directive* are implemented in the UK. Since it was first introduced, the Act has been amended several times.

The Act makes it an offence to (with exception to species listed in Schedule 2) intentionally:

- kill, injure, or take any wild bird,
- take, damage or destroy the nest of any wild bird while that nest is in use, or
- take or destroy an egg of any wild bird.

In addition, the Act makes it an offence (subject to exceptions) to:

- intentionally or recklessly kill, injure or take any wild animal listed on Schedule 5,
- interfere with places used for shelter or protection, or intentionally disturbing animals occupying such places.
- The Act also prohibits certain methods of killing, injuring, or taking wild animals.

Finally, the Act also makes it an offence (subject to exceptions) to:

- intentionally pick, uproot or destroy any wild plant listed in Schedule 8, or any seed or spore attached to any such wild plant,
- unless an authorised person, intentionally uproot any wild plant not included in Schedule 8,
- sell, offer or expose for sale, or possess (for the purposes of trade), any live or dead wild plant included in Schedule 8, or any part of, or anything derived from, such a plant.

Following all amendments to the Act, Schedule 5 'Animals which are Protected' contains a total of 154 species of animal, including several mammals, reptiles, amphibians, fish and invertebrates. Schedule



8 'Plants which are Protected' of the Act, contains 185 species, including higher plants, bryophytes and fungi and lichens. A comprehensive and up-to-date list of these species can be obtained from the JNCC website.

Part 14 of the Act makes unlawful to plant or otherwise cause to grow in the wild any plant which is listed in Part II of Schedule 9.

Table B2 provides a comprehensive list of plant species listed in this schedule. It is recommended that plant material of these species is disposed of as bio-hazardous waste, and these plants should not be used in planting schemes.

Table B2 Invasive plant species listed in Schedule 9 of the Wildlife & Countryside Act 1981 (as amended)

Common name	Scientific name
Perfoliate alexanders	<i>Smyrniun perfoliatum</i>
Red algae	<i>Grateloupia luxurians</i>
Variagated yellow archangel	<i>Lamiastrum galeobdolon</i> subsp. <i>argentatum</i>
Yellow azalea	<i>Rhododendron luteum</i>
Himalayan balsam	<i>Impatiens glandulifera</i>
Cotoneaster	<i>Cotoneaster horizontalis</i>
Entire-leaved cotoneaster	<i>Cotoneaster integrifolius</i>
Himalayan cotoneaster	<i>Cotoneaster simonsii</i>
Hollyberry cotoneaster	<i>Cotoneaster bullatus</i>
Small-leaved cotoneaster	<i>Cotoneaster microphyllus</i>
False Virginia creeper	<i>Parthenocissus inserta</i>
Virginia creeper	<i>Parthenocissus quinquefolia</i>
Purple dewplant	<i>Disphyma crassifolium</i>
Fanwort or Carolina water-shield	<i>Cabomba caroliniana</i>
Water fern	<i>Azolla filiculoides</i>
Hottentot fig	<i>Carpobrotus edulis</i>
Three-cornered garlic	<i>Allium triquetrum</i>
Giant hogweed	<i>Heracleum mantegazzianum</i>
Water hyacinth	<i>Eichhornia crassipes</i>
Giant kelp	<i>Macrocystis</i> spp.
Giant knotweed	<i>Fallopia sachalinensis</i>
Hybrid knotweed	<i>Fallopia japonica</i> × <i>Fallopia sachalinensis</i>
Japanese knotweed	<i>Fallopia japonica</i>
Few-flowered garlic	<i>Allium paradoxum</i>
Water lettuce	<i>Pistia stratiotes</i>



Common name	Scientific name
Montbretia	<i>Crocsmia x crocosmiiflora</i>
Parrot's-feather	<i>Myriophyllum aquaticum</i>
Floating pennywort	<i>Hydrocotyle ranunculoides</i>
Duck potato	<i>Sagittaria latifolia</i>
Floating water primrose	<i>Ludwigia peploides</i>
Water primrose	<i>Ludwigia grandiflora</i>
Water primrose	<i>Ludwigia uruguayensis</i>
Rhododendron	<i>Rhododendron ponticum</i>
Rhododendron	<i>Rhododendron ponticum</i> × <i>Rhododendron maximum</i>
Giant rhubarb	<i>Gunnera tinctoria</i>
Japanese rose	<i>Rosa rugosa</i>
Giant salvinia	<i>Salvinia molesta</i>
Green seafingers	<i>Codium fragile</i>
Californian red seaweed	<i>Pikea californica</i>
Hooked asparagus seaweed	<i>Asparagopsis armata</i>
Japanese seaweed	<i>Sargassum muticum</i>
Laver seaweeds (except native species)	<i>Porphyra</i> spp
Australian swamp stonecrop or New Zealand pygmyweed	<i>Crassula helmsii</i>
Wakame	<i>Undaria pinnatifida</i>
Curly waterweed	<i>Lagarosiphon major</i>
Waterweeds	<i>Elodea</i> spp.



APPENDIX C – Data Search Results



West Yorkshire
**Ecology
Service**

West Yorkshire Ecology Service
Registry of Deeds
Newstead Road
Wakefield
WF1 2DE
Tel/Fax: 01924 306 793
Email: ecology@wyjs.org.uk

ECOLOGICAL RECORDS SEARCH

FOR

LAND AT CHIDSWELL FARM

Ref No:- 20160726 K965 LP

Date: 08/08/2016

Prepared For Peter Kneen

WYG

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1 Introduction

This report provides a summary of the protected and notable species, and designated sites information held by West Yorkshire Ecology Service (WYES) within 2km of the supplied site boundary (grid reference SE 27198 23404).

The information within this report is supplied subject to WYES's 'Terms and Conditions', which can be viewed on the WYES website (<http://www.ecology.wyjs.org.uk>).

2 Species

Please see Appendix C for records held by WYES within your defined search area.

2.1 SENSITIVE SPECIES RECORDS

2.1.1 Badgers

There is known badger activity in this area.

Badgers are protected under the Protection of Badgers Act 1992 and offences can result from both reckless and deliberate damage, disturbance or destruction.

Please see the separate confidential badger map for more information.

BADGERS ARE STILL BEING PERSECUTED, PLEASE DO NOT PASS THESE RECORDS ONTO THIRD PARTIES (INCLUDING SUPPORTING DOCUMENTATION FOR PLANNING APPLICATIONS).

3 Designated sites

3.1 INTERNATIONALLY DESIGNATED SITE

3.1.1 Special Protection Areas

There are no Special Protection Areas within your search area.

3.1.2 Special Areas of Conservation

There are no Special Areas of Conservation within your search area.

3.2 NATIONALLY DESIGNATED SITES

3.2.1 Sites of Special Scientific Interest

There are no Sites of Special Scientific Interest within the search area.

3.3 LOCALLY DESIGNATED SITES

3.3.1 Sites of Ecological or Geological Importance

There are no second tier sites (SEGI) occurring within the search area.

3.3.2 Sites of Scientific Interest

There are no second tier sites (SSI) occurring within the search area.

Sites of Scientific Interest (SSI) in the Wakefield district have recently been superseded by Wakefield Local Wildlife Sites (LWS) under the Local Development Framework (LDF). Please refer to Wakefield LWS in section 3.3.5.

There are no former Sites of Scientific Interest (SSI) in your search area.

3.3.3 Local Wildlife Sites

West Yorkshire is currently going through a process of merging 2nd and 3rd tier local sites into a single Local Wildlife Site (LWS) designation. Sites should be given the same protection as SSIs and SEGIs, as set out in UDPs/LDFs.

- Dogloitch Wood
- Dunn Wood
- Haigh Hall Spring Wood North
- Haigh Hall Spring Wood South
- Haigh Wood
- Scargill Wood
- Soothill Wood

Citations for LWS are provided in Appendix B.

Please refer to the link below for the West Yorkshire Local Wildlife Site Selection Criteria.
<http://www.ecology.wyjs.org.uk/wyjs-ecology-ls.asp>

3.3.4 Leeds Nature Areas

Leeds Nature Areas (LNA) are sites of local or district-wide importance for the enjoyment, study or conservation of wildlife, geological features and landforms. Detailed site descriptions can be made available upon request. Sites recorded include:

- Ardsley Reservoir
- Haigh Hall Spring Wood
- Haigh Wood
- Judes Pond

See Figure 1 for Leeds Wildlife Habitat Network data (updated version Dec 2014). Please see the below link to the Leeds Core Strategy.

<http://www.leeds.gov.uk/council/Pages/Core-Strategy-Introduction-Page.aspx>

3.3.5 Wakefield Local Wildlife Sites

There are no Wakefield Local Wildlife Sites within your search area.

See Figure 1 for Wakefield Wildlife Habitat Network data.

Wildlife Habitat Network data for Wakefield can be found on the links below:

<http://mapping.wakefield.gov.uk/ldf/LDFDistrictMap.aspx>

http://www.wakefield.gov.uk/residents/planning/policy/local-plan/development-policies#.VCpzuRa_5Uk

Download “Development Policies” see page 25

3.3.6 Kirklees – Sites of Wildlife Significance

Kirklees – Sites of Wildlife Significance (SWS) are sites of local or district-wide importance for the enjoyment, study or conservation of wildlife, geological features and landforms, but there is seldom detailed ecological information on record for them. Sites recorded include:

- Dogloitch Wood
- Dunn Wood
- Scargill Wood
- Soothill Brick Works

See Figure 1 for Kirklees Wildlife Habitat Network data.

Wildlife Habitat Network data for Kirklees can be found on the link below:

<http://www.kirklees.gov.uk/business/regeneration/udp/UDP.aspx>

“D6 – Green corridor” download Proposals Maps (Bottom of webpage)

“3 the natural environment” download pdf page 7

NE5 development proposals involving land identified on the proposals map as part of a wildlife corridor should make provision for the retention of the corridor and the protection of the wildlife value of the land.

3.3.7 Local Nature Reserves

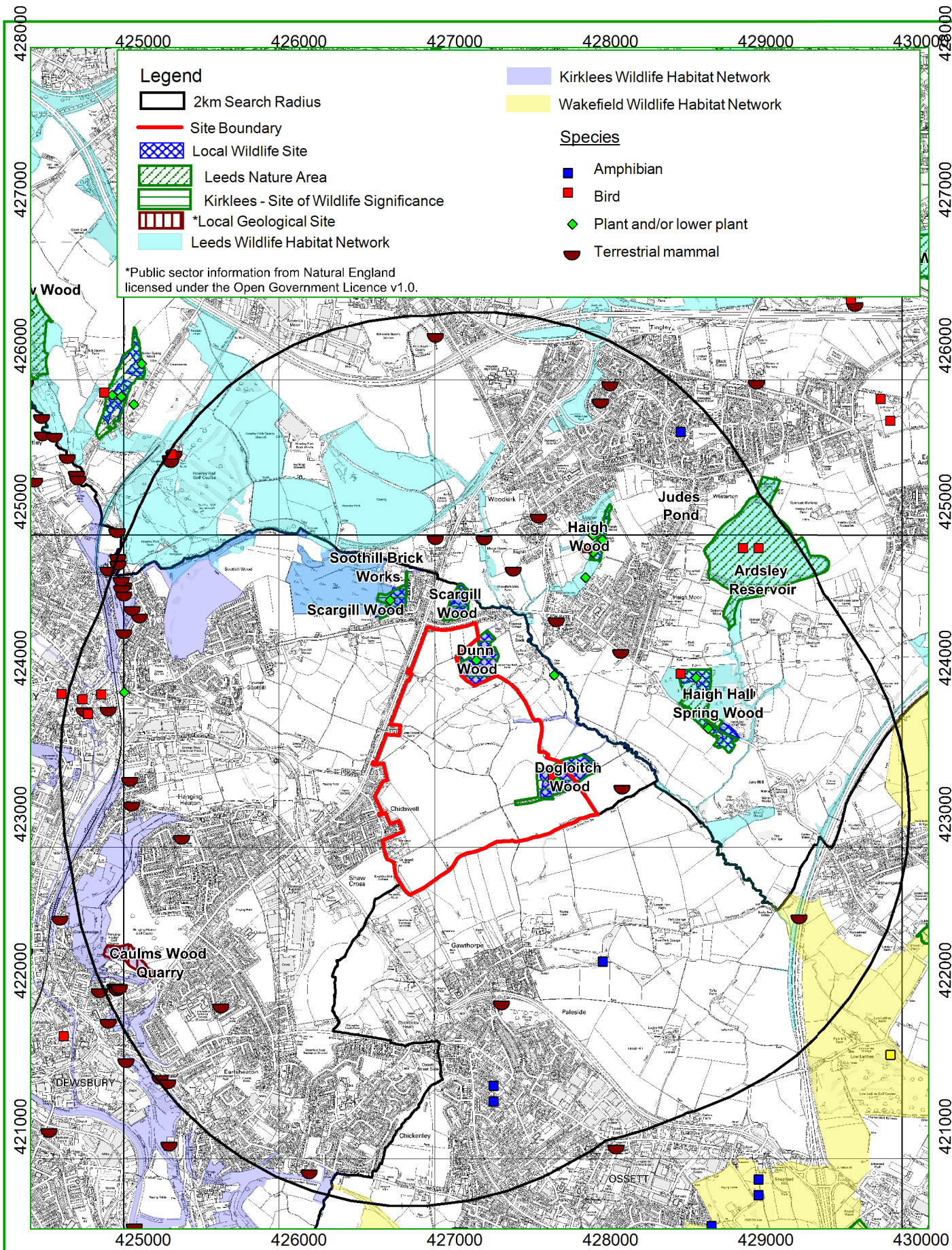
There are no Local Nature Reserves (LNR) within your search area.

3.3.8 Local Geological Sites

There is a Local Geological Site (Regionally Important Geological Site (RIGS)) within your search area, namely Caulms Wood Quarry. RIGS are areas identified as being important for their geological features. More details of this or other RIGS sites can be obtained from the West Yorkshire Geology Trust (team@wyorksgeologytrust.org).

RIGS citations are provided in Appendix B.

Figure 1 – Species and Designated Sites



Legend

- 2km Search Radius
- Site Boundary
- Local Wildlife Site
- Leeds Nature Area
- Kirklees - Site of Wildlife Significance
- *Local Geological Site
- Leeds Wildlife Habitat Network
- Kirklees Wildlife Habitat Network
- Wakefield Wildlife Habitat Network

Species

- Amphibian
- Bird
- Plant and/or lower plant
- Terrestrial mammal

*Public sector information from Natural England licensed under the Open Government Licence v1.0.

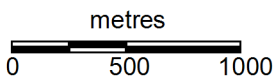
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Scale 1:33000
At Size A4



**FIGURE 1:
SPECIES &
DESIGNATED
SITES**



Appendix A. Explanation of Species Designations

Wildlife and Countryside Act 1981 – main designations cited

Abbreviation	Full Name	Description	Offences include, but not limited to
Sch1_part1	Schedule 1, Part 1	Birds which are protected by special penalties at all times	<ul style="list-style-type: none"> disturb any specially protected bird while it is building its nest; disturb any specially protected bird while it is near a nest containing eggs or young; or disturb the young of any of these birds before they are wholly independent.
Sch1_part2	Schedule 1, Part 2	Birds which are protected by special penalties during the close season	
Sch5	Schedule 5	Animals which are protected	<ul style="list-style-type: none"> intentional or reckless killing, injuring, taking; damage to, destruction of, obstruction of access to any structure or place used by a scheduled animal for shelter or protection; and disturbance of animal occupying such a structure or place.
Sch5_sect9.1	Schedule 5, Section 9(1)	Animals which are protected from killing and/or taking	<ul style="list-style-type: none"> intentional killing, injuring and/or taking <p>NB: certain species are only partly protected by this section. Check primary legislation for details.</p>
Sch5_sect9.5	Schedule 5, Section 9(5)	Animals which are protected from sale	<ul style="list-style-type: none"> selling, offering for sale, possessing or transporting for the purpose of sale (live or dead animal, part or derivative); and advertising for buying or selling such things
Sch8	Schedule 8	Plants which are fully protected	<ul style="list-style-type: none"> pick, uproot, trade in, or possess (for the purposes of trade).
Sch8_sect 13.2 (sale only)	Schedule 8, Sections 13(2a+2b)	Plants which are protected from sale only	<ul style="list-style-type: none"> selling, offering for sale, possessing or transporting for the purpose of sale, any plant (live or dead, part or derivative) + advertising for buying or selling such things

Sch9_part1	Schedule 9, Part 1	Animals which are established in the wild.	<ul style="list-style-type: none"> the release of animals and planting of plants listed in Schedule 9. the above offences can be made legal through the granting of licences by the appropriate authorities. NB: <i>Tyto alba</i> refers to captive bred only.
Sch9_part2	Schedule 9, Part 2	Plants which are established in the wild.	

Biodiversity Action Plans

Abbreviation	Full Name
UKBAP	UK Biodiversity Action Plan
WYBAP	West Yorkshire Priority Species List
Bradford BAP	Bradford Biodiversity Action Plan
Calderdale BAP	Calderdale Biodiversity Action Plan
Kirklees BAP	Kirklees Biodiversity Action Plan
Leeds BAP	Leeds Biodiversity Action Plan
Wakefield BAP	Wakefield Biodiversity Action Plan

Birds of Conservation Concern (BOCC) 2009

List	Description
Red	High conservation concern
Amber	Medium conservation concern

Red Data Book Categories (Based on ICUN Guidelines)

Abbreviation	Full Name
EX	Extinct
EW	Extinct in the Wild
CR	Critically Endangered
VU	Vulnerable
NT	Near Threatened
LC	Least Concern
DD	Data Deficient
NE	Not Evaluated

Nationally Notable Invertebrates:

Abbreviation	Full Name	Description
NR	Nationally Rare	found in 15 or fewer hectads
Notable or NS	Nationally Notable or Nationally Scarce	found in between 16 and 100 hectads
Notable A	Nationally Notable A	found in 16 to 30 hectads
Notable B	Nationally Notable B	found in between 31 and 100 hectads

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Appendix B. Designated Site Citations

Appendix C. Species Records

Grid Ref	Common Name	Latin Name	Taxon Group	Date	Record Type	Abundance	Designation	Distance from site centroid (m)
SE281223	Common Toad	<i>Bufo bufo</i>	amphibian	26/03/1994	field record	3 Count of Adult	Sch5_sect9.5b; UKBAP; WYBAP	1,424
SE281223	Common Toad	<i>Bufo bufo</i>	amphibian	10/07/1999	under debris		Sch5_sect9.5b; UKBAP; WYBAP	1,424
SE274214	Common Frog	<i>Rana temporaria</i>	amphibian	23/03/1995	field record		Sch5_sect9.5b; WYBAP	2,013
SE274215	Common Frog	<i>Rana temporaria</i>	amphibian	23/03/1995	field record		Sch5_sect9.5b; WYBAP	1,914
SE274215	Common Frog	<i>Rana temporaria</i>	amphibian	25/03/1995	caught	33 Count of Adult	Sch5_sect9.5b; WYBAP	1,914
SE281223	Common Frog	<i>Rana temporaria</i>	amphibian	26/03/1994	field record	17 Count of Spawn	Sch5_sect9.5b; WYBAP	1,424
SE286257	Common Frog	<i>Rana temporaria</i>	amphibian	08/03/2002	None	20 Count of Spawn	Sch5_sect9.5b; WYBAP	2,687
SE286257	Common Frog	<i>Rana temporaria</i>	amphibian	08/03/2002	None	30 Count of Adult	Sch5_sect9.5b; WYBAP	2,687
SE291249	Goshawk	<i>Accipiter gentilis</i>	bird	1980	field record		Sch1_part1	2,415
SE291249	Skylark	<i>Alauda arvensis</i>	bird	1970 - 1988	field record		BoCC:Red; UKBAP; WYBAP	2,415
SE291249	Pintail	<i>Anas acuta</i>	bird	01/09/1987	field record	1 Count of Adult	Sch1_part2; BoCC:Amber	2,415
SE291249	Shoveler	<i>Anas clypeata</i>	bird	01/09/1985	field record	16 Count of Adult	BoCC:Amber	2,415
SE291249	Shoveler	<i>Anas clypeata</i>	bird	1970 - 1988	field record		BoCC:Amber	2,415

Grid Ref	Common Name	Latin Name	Taxon Group	Date	Record Type	Abundance	Designation	Distance from site centroid (m)
SE290249	Teal	<i>Anas crecca</i>	bird	03/03/2014	field observation		BoCC:Amber	2,338
SE291249	Teal	<i>Anas crecca</i>	bird	1970 - 1988	field record		BoCC:Amber	2,415
SE291249	Teal	<i>Anas crecca</i>	bird	1983 - 1987	field record		BoCC:Amber	2,415
SE291249	Teal	<i>Anas crecca</i>	bird	January 1985 - March 1985	field record		BoCC:Amber	2,415
SE291249	Teal	<i>Anas crecca</i>	bird	01/01/1988	field record	1 Count of Female	BoCC:Amber	2,415
SE291249	Teal	<i>Anas crecca</i>	bird	01/11/1988	field record	1 Count of Female	BoCC:Amber	2,415
SE291249	Wigeon	<i>Anas penelope</i>	bird	1970 - 1988	field record		BoCC:Amber	2,415
SE291249	Wigeon	<i>Anas penelope</i>	bird	1983 - 1987	field record		BoCC:Amber	2,415
SE291249	Wigeon	<i>Anas penelope</i>	bird	01/12/1985	field record	8 Count of Adult	BoCC:Amber	2,415
SE291249	Wigeon	<i>Anas penelope</i>	bird	01/01/1987	field record	7 Count of Adult	BoCC:Amber	2,415
SE291249	Wigeon	<i>Anas penelope</i>	bird	01/09/1987	field record	8 Count of Adult	BoCC:Amber	2,415
SE291249	Wigeon	<i>Anas penelope</i>	bird	01/12/1987	field record	5 Count of Adult	BoCC:Amber	2,415
SE290249	Mallard	<i>Anas platyrhynchos</i>	bird	27/01/2014	field observation		BoCC:Amber	2,338
SE290249	Mallard	<i>Anas platyrhynchos</i>	bird	03/03/2014	field observation		BoCC:Amber	2,338
SE291249	Mallard	<i>Anas platyrhynchos</i>	bird	1983 - 1987	field record		BoCC:Amber	2,415

Grid Ref	Common Name	Latin Name	Taxon Group	Date	Record Type	Abundance	Designation	Distance from site centroid (m)
SE291249	Mallard	<i>Anas platyrhynchos</i>	bird	1987 - 1988	field record	3 Count of Adult	BoCC:Amber	2,415
SE291249	Gadwall	<i>Anas strepera</i>	bird	1970 - 1988	field record		BoCC:Amber	2,415
SE291249	Gadwall	<i>Anas strepera</i>	bird	05/02/1985	field record	1 Count of Adult	BoCC:Amber	2,415
SE291249	Greylag Goose	<i>Anser anser</i>	bird	01/01/1987	field record	1 Count of Adult	Sch1_part2; BoCC:Amber	2,415
SE291249	Greylag Goose	<i>Anser anser</i>	bird	01/12/1987	field record	1 Count of Adult	Sch1_part2; BoCC:Amber	2,415
SE2476023932	Swift	<i>Apus apus</i>	bird	2010	field record		BoCC:Amber; WYBAP	2,488
SE2479523835	Swift	<i>Apus apus</i>	bird	2010	field record		BoCC:Amber; WYBAP	2,435
SE2487923963	Swift	<i>Apus apus</i>	bird	2010	field record		BoCC:Amber; WYBAP	2,379
SE291249	Swift	<i>Apus apus</i>	bird	15/08/1985	field record	100 Count of Adult	BoCC:Amber; WYBAP	2,415
SE291249	Short-Eared Owl	<i>Asio flammeus</i>	bird	1970 - 1988	field record		BoCC:Amber; WYBAP	2,415
SE291249	Pochard	<i>Aythya ferina</i>	bird	1970 - 1988	field record		BoCC:Amber	2,415
SE291249	Pochard	<i>Aythya ferina</i>	bird	28/08/1985	field record	36 Count of Adult	BoCC:Amber	2,415
SE290249	Tufted Duck	<i>Aythya fuligula</i>	bird	03/03/2014	field observation		BoCC:Amber	2,338
SE291249	Tufted Duck	<i>Aythya fuligula</i>	bird	1970 - 1988	field record		BoCC:Amber	2,415
SE291249	Tufted Duck	<i>Aythya fuligula</i>	bird	1983 - 1987	field record		BoCC:Amber	2,415
SE291249	Tufted Duck	<i>Aythya fuligula</i>	bird	1985	field record	20 Count of Adult	BoCC:Amber	2,415

Grid Ref	Common Name	Latin Name	Taxon Group	Date	Record Type	Abundance	Designation	Distance from site centroid (m)
SE291249	Scaup	<i>Aythya marila</i>	bird	1970 - 1988	field record		Sch1_part1; BoCC:Red; UKBAP	2,415
SE291249	Scaup	<i>Aythya marila</i>	bird	01/11/1988	field record	1 Count of Adult	Sch1_part1; BoCC:Red; UKBAP	2,415
SE291249	Brent Goose	<i>Branta bernicla</i>	bird	1988	field record	3 Count of Individual	BoCC:Amber	2,415
SE291249	Canada Goose	<i>Branta canadensis</i>	bird	June 1985 - August 1985	field record	15 Count of Adult	Sch9_part1	2,415
SE291249	Canada Goose	<i>Branta canadensis</i>	bird	1987	field record		Sch9_part1	2,415
SE291249	Barnacle Goose	<i>Branta leucopsis</i>	bird	12/11/1985	field record	2 Count of Adult	BoCC:Amber	2,415
SE290249	Goldeneye	<i>Bucephala clangula</i>	bird	27/01/2014	field observation		Sch1_part2; BoCC:Amber	2,338
SE291249	Goldeneye	<i>Bucephala clangula</i>	bird	1970 - 1988	field record		Sch1_part2; BoCC:Amber	2,415
SE291249	Goldeneye	<i>Bucephala clangula</i>	bird	1983 - 1987	field record		Sch1_part2; BoCC:Amber	2,415
SE291249	Goldeneye	<i>Bucephala clangula</i>	bird	January 1987 - March 1987	field record	1-3 Count of Adult	Sch1_part2; BoCC:Amber	2,415
SE291249	Goldeneye	<i>Bucephala clangula</i>	bird	01/04/1987	field record	1 Count of Adult	Sch1_part2; BoCC:Amber	2,415
SE291249	Goldeneye	<i>Bucephala clangula</i>	bird	November 1987 - December 1987	field record	1-2 Count of Adult	Sch1_part2; BoCC:Amber	2,415

Grid Ref	Common Name	Latin Name	Taxon Group	Date	Record Type	Abundance	Designation	Distance from site centroid (m)
SE291249	Goldeneye	<i>Bucephala clangula</i>	bird	January 1988 - May 1988	field record	1 Count of Adult	Sch1_part2; BoCC:Amber	2,415
SE291249	Dunlin	<i>Calidris alpina</i>	bird	1970 - 1988	field record		BoCC:Red; WYBAP	2,415
SE291249	Dunlin	<i>Calidris alpina</i>	bird	1988	field record	1-5 Count of Adult	BoCC:Red; WYBAP	2,415
SE27782343	European Goldfinch	<i>Carduelis carduelis</i>	bird	07/07/2013	None		Kirklees BAP	581
SE291249	Twite	<i>Carduelis flavirostris</i>	bird	01/10/1985	field record		BoCC:Red; UKBAP; WYBAP	2,415
SE291249	Little Ringed Plover	<i>Charadrius dubius</i>	bird	Spring 1985	field record		Sch1_part1	2,415
SE291249	Ringed Plover	<i>Charadrius hiaticula</i>	bird	01/08/1988	field record		BoCC:Amber	2,415
SE291249	Black Tern	<i>Chlidonias niger</i>	bird	03/05/1988	field record		Sch1_part1; BoCC:Amber	2,415
SE291249	Hen Harrier	<i>Circus cyaneus</i>	bird	04/04/1985	field record	1 Count of Adult	BoCC:Red; WYBAP	2,415
SE291249	Bewick's Swan	<i>Cygnus columbianus</i>	bird	24/10/1985	field record	8 Count of Adult	Sch1_part1; BoCC:Amber	2,415
SE291249	House Martin	<i>Delichon urbica</i>	bird	16/08/1985	field record	100 Count of Adult	BoCC:Amber; WYBAP	2,415
SE280249	Yellowhammer	<i>Emberiza citrinella</i>	bird	16/05/2013	field observation		BoCC:Red; UKBAP; WYBAP	1,696
SE291249	Reed Bunting	<i>Emberiza schoeniclus</i>	bird	24/10/1985	field record	15 Count of Adult	BoCC:Amber; UKBAP; WYBAP	2,415

Grid Ref	Common Name	Latin Name	Taxon Group	Date	Record Type	Abundance	Designation	Distance from site centroid (m)
SE291249	Merlin	<i>Falco columbarius</i>	bird	1985	field record		Sch1_part1; BoCC:Amber; WYBAP	2,415
SE291249	Merlin	<i>Falco columbarius</i>	bird	1988	field record	1 Count of Adult	Sch1_part1; BoCC:Amber; WYBAP	2,415
SE291249	Peregrine	<i>Falco peregrinus</i>	bird	28/08/1985	field record		Sch1_part1; WYBAP	2,415
SE291249	Hobby	<i>Falco subbuteo</i>	bird	1980	field record		Sch1_part1	2,415
SE291249	Hobby	<i>Falco subbuteo</i>	bird	01/05/1988	field record	1 Count of Adult	Sch1_part1	2,415
SE291249	Black-throated Diver	<i>Gavia arctica</i>	bird	1979 - 1981	field record		BoCC:Amber; UKBAP	2,415
SE291249	Oystercatcher	<i>Haematopus ostralegus</i>	bird	1970 - 1988	field record		BoCC:Amber	2,415
SE2533325504	Swallow	<i>Hirundo rustica</i>	bird	13/07/2010	nest		BoCC:Amber; WYBAP	2,804
SE291249	Swallow	<i>Hirundo rustica</i>	bird	01/04/1988	field record	1 Count of Adult	BoCC:Amber; WYBAP	2,415
SE290249	Herring Gull	<i>Larus argentatus</i>	bird	27/01/2014	field observation		BoCC:Red; UKBAP	2,338
SE290249	Herring Gull	<i>Larus argentatus</i>	bird	03/03/2014	field observation		BoCC:Red; UKBAP	2,338
SE291249	Herring Gull	<i>Larus argentatus</i>	bird	1987	field record	557 Count of Adult	BoCC:Red; UKBAP	2,415
SE291249	Herring Gull	<i>Larus argentatus</i>	bird	01/02/1988	field record	642 Count of Adult	BoCC:Red; UKBAP	2,415
SE291249	Herring Gull	<i>Larus argentatus</i>	bird	01/11/1988	field record	500 Count of Adult	BoCC:Red; UKBAP	2,415
SE291249	Common Gull	<i>Larus canus</i>	bird	16/05/1985	field record	80 Count of Adult	BoCC:Amber	2,415

Grid Ref	Common Name	Latin Name	Taxon Group	Date	Record Type	Abundance	Designation	Distance from site centroid (m)
SE291249	Common Gull	<i>Larus canus</i>	bird	1987	field record	50-60 Count of Adult	BoCC:Amber	2,415
SE291249	Lesser Black-Backed Gull	<i>Larus fuscus</i>	bird	1987	field record	70 Count of Adult	BoCC:Amber	2,415
SE291249	Lesser Black-Backed Gull	<i>Larus fuscus</i>	bird	March 1988 - August 1988	field record	300 Count of Adult	BoCC:Amber	2,415
SE291249	Lesser Black-backed Gull	<i>Larus fuscus</i>	bird	17/04/1988	field record	1 Count of Adult	BoCC:Amber	2,415
SE291249	Iceland Gull	<i>Larus glaucoides</i>	bird	01/01/1987	field record	1 Count of Adult	BoCC:Amber	2,415
SE291249	Iceland Gull	<i>Larus glaucoides</i>	bird	01/02/1987	field record	1 Count of Adult	BoCC:Amber	2,415
SE291249	Iceland Gull	<i>Larus glaucoides</i>	bird	01/12/1987	field record	1 Count of Adult	BoCC:Amber	2,415
SE291249	Iceland Gull	<i>Larus glaucoides</i>	bird	1988	field record	1 Count of Adult	BoCC:Amber	2,415
SE291249	Glaucous Gull	<i>Larus hyperboreus</i>	bird	1988	field record	1 Count of Adult	BoCC:Amber	2,415
SE291249	Great Black-Backed Gull	<i>Larus marinus</i>	bird	1970 - 1988	field record		BoCC:Amber	2,415
SE291249	Great Black-Backed Gull	<i>Larus marinus</i>	bird	01/01/1987	field record	250 Count of Adult	BoCC:Amber	2,415
SE291249	Great Black-Backed Gull	<i>Larus marinus</i>	bird	01/11/1987	field record	180 Count of Adult	BoCC:Amber	2,415
SE291249	Great Black-Backed Gull	<i>Larus marinus</i>	bird	January 1988 - February 1988	field record	185 Count of Adult	BoCC:Amber	2,415
SE291249	Great Black-Backed Gull	<i>Larus marinus</i>	bird	November 1988 -	field record	520 Count of Adult	BoCC:Amber	2,415

Grid Ref	Common Name	Latin Name	Taxon Group	Date	Record Type	Abundance	Designation	Distance from site centroid (m)
				December 1988				
SE290249	Black-Headed Gull	<i>Larus ridibundus</i>	bird	27/01/2014	field observation		BoCC:Amber	2,338
SE290249	Black-Headed Gull	<i>Larus ridibundus</i>	bird	03/03/2014	field observation		BoCC:Amber	2,338
SE291249	Black-Headed Gull	<i>Larus ridibundus</i>	bird	1970 - 1988	field record		BoCC:Amber	2,415
SE291249	Black-Headed Gull	<i>Larus ridibundus</i>	bird	13/01/1985	field record	2500 Count of Adult	BoCC:Amber	2,415
SE291249	Black-Headed Gull	<i>Larus ridibundus</i>	bird	January 1988 - March 1988	field record	1200 Count of Adult	BoCC:Amber	2,415
SE291249	Black-Headed Gull	<i>Larus ridibundus</i>	bird	September 1988 - November 1988	field record	6000 Count of Adult	BoCC:Amber	2,415
SE291249	Jack Snipe	<i>Lymnocyptes minimus</i>	bird	01/02/1988	field record		BoCC:Amber	2,415
SE291249	Velvet Scoter	<i>Melanitta fusca</i>	bird	01/12/1988	field record	1 Count of Adult	Sch1_part1; BoCC:Amber	2,415
SE291249	Common Scoter	<i>Melanitta nigra</i>	bird	1985	field record	18 Count of Female; 2 Count of Individual	Sch1_part1; BoCC:Red; UKBAP	2,415
SE291249	Common Scoter	<i>Melanitta nigra</i>	bird	01/11/1985	field record	6 Count of Adult	Sch1_part1; BoCC:Red; UKBAP	2,415
SE291249	Smew	<i>Mergus albellus</i>	bird	1988	field record	100 Count of Adult	BoCC:Amber	2,415

Grid Ref	Common Name	Latin Name	Taxon Group	Date	Record Type	Abundance	Designation	Distance from site centroid (m)
SE291249	Yellow Wagtail	<i>Motacilla flava</i>	bird	1985	field record		BoCC:Red; UKBAP; WYBAP	2,415
SE291249	Spotted Flycatcher	<i>Muscicapa striata</i>	bird	1970 - 1988	field record		BoCC:Red; UKBAP; WYBAP	2,415
SE291249	Curlew	<i>Numenius arquata</i>	bird	1987	field record		BoCC:Amber; UKBAP; WYBAP	2,415
SE291249	Curlew	<i>Numenius arquata</i>	bird	01/02/1988	field record	18 Count of Adult	BoCC:Amber; UKBAP; WYBAP	2,415
SE291249	Ruddy Duck	<i>Oxyura jamaicensis</i>	bird	28/09/1985	field record		Sch9_part1	2,415
SE291249	Osprey	<i>Pandion haliaetus</i>	bird	01/09/1985	field record	1 Count of Adult	Sch1_part1; BoCC:Amber	2,415
SE291249	Marsh Tit	<i>Parus palustris</i>	bird	1970 - 1988	field record		BoCC:Red; UKBAP	2,415
SE2533325504	House Sparrow	<i>Passer domesticus</i>	bird	13/07/2010	nest		BoCC:Red; UKBAP; WYBAP	2,804
SE280249	Willow Warbler	<i>Phylloscopus trochilus</i>	bird	16/05/2013	field observation		BoCC:Amber	1,696
SE286241	Willow Warbler	<i>Phylloscopus trochilus</i>	bird	19/04/2013	field observation		BoCC:Amber	1,562
SE291249	Green Woodpecker	<i>Picus viridis</i>	bird	01/10/1987	field record	1 Count of Adult	BoCC:Amber	2,415
SE291249	Grey Plover	<i>Pluvialis squatarola</i>	bird	September 1988 - November 1988	field record	1 Count of Adult	BoCC:Amber	2,415

Grid Ref	Common Name	Latin Name	Taxon Group	Date	Record Type	Abundance	Designation	Distance from site centroid (m)
SE291249	Slavonian Grebe	<i>Podiceps auritus</i>	bird	1988	field record	1 Count of Adult	Sch1_part1; BoCC:Amber	2,415
SE291249	Avocet	<i>Recurvirostra avosetta</i>	bird	1983	field record		Sch1_part1; BoCC:Amber	2,415
SE291249	Arctic Skua	<i>Stercorarius parasiticus</i>	bird	1980	field record		BoCC:Red; UKBAP	2,415
SE291249	Common Tern	<i>Sterna hirundo</i>	bird	1985	field record	2 Count of Adult	BoCC:Amber	2,415
SE291249	Common Tern	<i>Sterna hirundo</i>	bird	22/05/1985	field record	1 Count of Adult	BoCC:Amber	2,415
SE291249	Arctic Tern	<i>Sterna paradisaea</i>	bird	01/05/1987	field record	3 Count of Adult	BoCC:Amber	2,415
SE291249	Arctic Tern	<i>Sterna paradisaea</i>	bird	02/05/1988	field record	1 Count of Adult	BoCC:Amber	2,415
SE291249	Whitethroat	<i>Sylvia communis</i>	bird	1970 - 1988	field record		BoCC:Amber	2,415
SE291249	Shelduck	<i>Tadorna tadorna</i>	bird	01/05/1987	field record	9 Count of Adult	BoCC:Amber	2,415
SE291249	Shelduck	<i>Tadorna tadorna</i>	bird	01/07/1987	field record	1 Count of Adult	BoCC:Amber	2,415
SE291249	Shelduck	<i>Tadorna tadorna</i>	bird	1988	field record	2 Count of Adult	BoCC:Amber	2,415
SE291249	Spotted Redshank	<i>Tringa erythropus</i>	bird	01/08/1988	field record	1 Count of Adult	BoCC:Amber	2,415
SE291249	Greenshank	<i>Tringa nebularia</i>	bird	01/04/1988	field record	1 Count of Adult	Sch1_part1	2,415
SE291249	Green Sandpiper	<i>Tringa ochropus</i>	bird	01/05/1988	field record		Sch1_part1; BoCC:Amber	2,415
SE291249	Redshank	<i>Tringa totanus</i>	bird	1970 - 1988	field record		BoCC:Amber	2,415
SE291249	Redshank	<i>Tringa totanus</i>	bird	01/08/1985	field record	1-3 Count of Adult	BoCC:Amber	2,415

Grid Ref	Common Name	Latin Name	Taxon Group	Date	Record Type	Abundance	Designation	Distance from site centroid (m)
SE280249	Song Thrush	<i>Turdus philomelos</i>	bird	16/05/2013	field observation		BoCC:Red; UKBAP; WYBAP	1,696
SE291249	Ring Ouzel	<i>Turdus torquatus</i>	bird	1981	field record		BoCC:Red; UKBAP; WYBAP	2,415
SE290249	Lapwing	<i>Vanellus vanellus</i>	bird	03/03/2014	field observation		BoCC:Red; UKBAP; WYBAP	2,338
SE250240	Pyramidal Orchid	<i>Anacamptis pyramidalis</i>	flowering plant	Unknown	field record		Kirklees BAP	2,271
SE2670724593	Bluebell	<i>Hyacinthoides non-scripta</i>	flowering plant	20/05/2015	field observation	LA Count of DAFOR	Sch8_sect 13.2; Kirklees BAP	1,285
SE27262421	Bluebell	<i>Hyacinthoides non-scripta</i>	flowering plant	04/07/2013	field observation	F Count of DAFOR	Sch8_sect 13.2; Kirklees BAP	808
SE27782343	Bluebell	<i>Hyacinthoides non-scripta</i>	flowering plant	07/07/2013	field observation	A Count of DAFOR	Sch8_sect 13.2; Kirklees BAP	581
SE27962474	Bluebell	<i>Hyacinthoides non-scripta</i>	flowering plant	16/05/2013	field observation	R Count of DAFOR	Sch8_sect 13.2	1,536
SE28012490	Bluebell	<i>Hyacinthoides non-scripta</i>	flowering plant	16/05/2013	field observation	R Count of DAFOR	Sch8_sect 13.2	1,700
SE28012501	Bluebell	<i>Hyacinthoides non-scripta</i>	flowering plant	16/05/2013	field observation	O Count of DAFOR	Sch8_sect 13.2	1,798
SE28072498	Bluebell	<i>Hyacinthoides non-scripta</i>	flowering plant	16/05/2013	field observation	F Count of DAFOR	Sch8_sect 13.2	1,799
SE28672410	Bluebell	<i>Hyacinthoides non-scripta</i>	flowering plant	19/04/2013	field observation	O Count of DAFOR	Sch8_sect 13.2	1,624
SE28752377	Bluebell	<i>Hyacinthoides non-scripta</i>	flowering plant	19/04/2013	field observation	O Count of DAFOR	Sch8_sect 13.2	1,590
SE2776024115	Indian Balsam	<i>Impatiens glandulifera</i>	flowering plant	August 2009 -	field record		Sch9_part2	905

Grid Ref	Common Name	Latin Name	Taxon Group	Date	Record Type	Abundance	Designation	Distance from site centroid (m)
				October 2009				
SE27782343	Indian Balsam	<i>Impatiens glandulifera</i>	flowering plant	07/07/2013	field observation	R Count of DAFOR	Sch9_part2	581
SE28072498	Indian Balsam	<i>Impatiens glandulifera</i>	flowering plant	16/05/2013	field observation	R Count of DAFOR	Sch9_part2	1,799
SE28752377	Indian Balsam	<i>Impatiens glandulifera</i>	flowering plant	19/04/2013	field observation	R Count of DAFOR	Sch9_part2	1,590
SE2496424840	Water Vole	<i>Arvicola terrestris</i>	terrestrial mammal	05/08/2000	field record		Sch5; UKBAP; WYBAP; Kirklees BAP	2,650
SE2498324736	Water Vole	<i>Arvicola terrestris</i>	terrestrial mammal	05/08/2000	field record		Sch5; UKBAP; WYBAP; Kirklees BAP	2,579
SE2498524683	Water Vole	<i>Arvicola terrestris</i>	terrestrial mammal	05/08/2000	field record		Sch5; UKBAP; WYBAP; Kirklees BAP	2,550
SE25002464	Water Vole	<i>Arvicola terrestris</i>	terrestrial mammal	15/09/2009	field record		Sch5; UKBAP; WYBAP; Kirklees BAP	2,516
SE250244	Water Vole	<i>Arvicola terrestris</i>	terrestrial mammal	15/09/2009	field record		Sch5; UKBAP; WYBAP; Kirklees BAP	2,407
SE250247	Water Vole	<i>Arvicola terrestris</i>	terrestrial mammal	08/05/2009	field record		Sch5; UKBAP; WYBAP; Kirklees BAP	2,546
SE2505324549	Water Vole	<i>Arvicola terrestris</i>	terrestrial mammal	05/08/2000	dung/droppings/frass/pellet, etc.		Sch5; UKBAP; WYBAP; Kirklees BAP	2,426
SE251245	Water Vole	<i>Arvicola terrestris</i>	terrestrial mammal	08/05/2009	burrow/nesthole, occupied		Sch5; UKBAP; WYBAP; Kirklees BAP	2,362

Grid Ref	Common Name	Latin Name	Taxon Group	Date	Record Type	Abundance	Designation	Distance from site centroid (m)
SE2725	Water Vole	<i>Arvicola terrestris</i>	terrestrial mammal	30/09/1995	field record		Sch5; UKBAP; WYBAP	1,607
SE2731325000	Water Vole	<i>Arvicola terrestris</i>	terrestrial mammal	30/09/1995	field record		Sch5; UKBAP; WYBAP	1,599
SE2924	Water Vole	<i>Arvicola terrestris</i>	terrestrial mammal	28/09/1995	field record		Sch5; UKBAP; WYBAP	1,893
SE282234	Brown Hare	<i>Lepus europaeus</i>	terrestrial mammal	28/07/1992	field record	1 Count of Adult	UKBAP; WYBAP; Kirklees BAP	999
SE2523221537	Noctule	<i>Nyctalus noctula</i>	terrestrial mammal	May-14	field record		Sch5; UKBAP; WYBAP; Kirklees BAP	2,707
SE2529825518	Noctule	<i>Nyctalus noctula</i>	terrestrial mammal	25/08/2010	field record		Sch5; UKBAP; WYBAP	2,838
SE253255	Noctule	<i>Nyctalus noctula</i>	terrestrial mammal	25/08/2010	field record		Sch5; UKBAP; WYBAP	2,823
SE253255	Noctule	<i>Nyctalus noctula</i>	terrestrial mammal	31/08/2010	field record		Sch5; UKBAP; WYBAP	2,823
SE2474523898	Pipistrelle	<i>Pipistrellus pipistrellus</i>	terrestrial mammal	Jul-14	foraging	1 Count	Sch5; WYBAP; Kirklees BAP	2,495
SE249239	Common Pipistrelle	<i>Pipistrellus pipistrellus</i>	terrestrial mammal	05/08/2005	aural bat detector		Sch5; WYBAP; Kirklees BAP	2,345
SE2494422127	Pipistrelle	<i>Pipistrellus pipistrellus</i>	terrestrial mammal	06/07/2012	Roost (transitional)	1 Count	Sch5; WYBAP; Kirklees BAP	2,585
SE2494722123	Pipistrelle	<i>Pipistrellus pipistrellus</i>	terrestrial mammal	06/07/2012	Roost (transitional)	1 Count	Sch5; WYBAP; Kirklees BAP	2,584
SE2495222114	Pipistrelle	<i>Pipistrellus pipistrellus</i>	terrestrial mammal	06/07/2012	Roost (transitional)	1 Count	Sch5; WYBAP; Kirklees BAP	2,584
SE2495422106	Pipistrelle	<i>Pipistrellus pipistrellus</i>	terrestrial mammal	06/07/2012	Roost (transitional)	1 Count	Sch5; WYBAP; Kirklees BAP	2,587
SE2496522115	Pipistrelle	<i>Pipistrellus pipistrellus</i>	terrestrial mammal	06/07/2012	Roost (transitional)	1 Count	Sch5; WYBAP; Kirklees BAP	2,573

Grid Ref	Common Name	Latin Name	Taxon Group	Date	Record Type	Abundance	Designation	Distance from site centroid (m)
SE2497122120	Pipistrelle	<i>Pipistrellus pipistrellus</i>	terrestrial mammal	06/07/2012	Roost (transitional)	1 Count	Sch5; WYBAP; Kirklees BAP	2,565
SE25042345	Pipistrelle	<i>Pipistrellus pipistrellus</i>	terrestrial mammal	26/09/2011	field record		Sch5; WYBAP; Kirklees BAP	2,152
SE2523221537	Pipistrelle	<i>Pipistrellus pipistrellus</i>	terrestrial mammal	May-14	field record		Sch5; WYBAP; Kirklees BAP	2,707
SE2528321509	Pipistrelle	<i>Pipistrellus pipistrellus</i>	terrestrial mammal	01/06/2013	field record	1 Count	Sch5; WYBAP; Kirklees BAP	2,690
SE2532025545	Pipistrelle	<i>Pipistrellus pipistrellus</i>	terrestrial mammal	25/08/2010	Roost		Sch5; WYBAP; Leeds BAP	2,844
SE253255	Pipistrelle	<i>Pipistrellus pipistrellus</i>	terrestrial mammal	25/08/2010	Roost		Sch5; WYBAP; Leeds BAP	2,823
SE253255	Pipistrelle	<i>Pipistrellus pipistrellus</i>	terrestrial mammal	31/08/2010	Roost		Sch5; WYBAP; Leeds BAP	2,823
SE2562221998	Pipistrelle Bat species	<i>Pipistrellus sp.</i>	terrestrial mammal	22/08/2006	caught	1 Count of Adult	Sch5	2,108
SE275248	Pipistrelle Bat species	<i>Pipistrellus sp.</i>	terrestrial mammal	2005	field record		Sch5	1,428
SE2806225882	Pipistrelle Bat species	<i>Pipistrellus sp.</i>	terrestrial mammal	30/03/2004	Roost	2 Count of Adult	Sch5	2,622
SE2812025990	Pipistrelle Bat species	<i>Pipistrellus sp.</i>	terrestrial mammal	20/06/2007	Casualty	1 Count of Adult	Sch5	2,744
SE2819024276	Pipistrelle Bat species	<i>Pipistrellus sp.</i>	terrestrial mammal	09/07/2007	Roost (excluded)		Sch5	1,318
SE25052329	Vesper Bat species	<i>Vespertilionidae</i>	terrestrial mammal	10/09/2006	Injured	1 Count of Adult	Sch5	2,145
SE25372308	Vesper Bat species	<i>Vespertilionidae</i>	terrestrial mammal	07/06/2003	Injured	1 Count of Adult	Sch5	1,851
SE26192093	Vesper Bat species	<i>Vespertilionidae</i>	terrestrial mammal	14/06/2000	field record	2 Count of Adult	Sch5	2,669
SE270263	Vesper Bat species	<i>Vespertilionidae</i>	terrestrial mammal	1996	field record		Sch5	2,901

Grid Ref	Common Name	Latin Name	Taxon Group	Date	Record Type	Abundance	Designation	Distance from site centroid (m)
SE2742622017	Vesper Bat species	<i>Vespertilionidae</i>	terrestrial mammal	05/07/2005	Roost		Sch5	1,405
SE2766325138	Vesper Bat species	<i>Vespertilionidae</i>	terrestrial mammal	22/01/2005	Roost (hibernacula)		Sch5	1,794
SE2777724475	Vesper Bat species	<i>Vespertilionidae</i>	terrestrial mammal	1998	in building		Sch5	1,216
SE2806025880	Vesper Bat species	<i>Vespertilionidae</i>	terrestrial mammal	2004	Roost (hibernacula)		Sch5	2,620
SE2818924275	Vesper Bat species	<i>Vespertilionidae</i>	terrestrial mammal	2007	Roost		Sch5	1,317
SE2933622569	Vesper Bat species	<i>Vespertilionidae</i>	terrestrial mammal	1997	in building		Sch5	2,290



APPENDIX D – Kirklees BAP

Kirklees Species of Principal Importance

Note:

- These species are subject to 5 year review undertaken at a national level.
- Species which are probably extinct in Kirklees are highlighted (shaded) or not present but with potential to colonise.

Birds

Preferred Name	Common Name	Grouping	Kirklees Status
<i>Tetrao tetrix subsp. britannicus</i>	Black Grouse	bird	Not included in current plan. Species of Upland Heath. Unlikely breeder in short term - introduction required.
<i>Pyrrhula pyrrhula subsp. pileata</i>	Common Bullfinch	bird	Included in Kirklees Habitat Action Plan. Widespread.
<i>Cuculus canorus</i>	Common Cuckoo	bird	Not included in current plan. Scarce but widespread.
<i>Locustella naevia</i>	Common Grasshopper Warbler	bird	Included in Kirklees Habitat Action Plan. Scarce breeder.
<i>Carduelis cannabina subsp. autochthona/cannabina</i>	Common Linnet	bird	Included in current Kirklees Habitat Action Plan. Widespread.
<i>Sturnus vulgaris subsp. vulgaris</i>	Common Starling	bird	Included in Kirklees Habitat Action Plan. Widespread.
<i>Miliaria calandra subsp. calandra/clanceyi</i>	Corn Bunting	bird	Included in Kirklees Habitat Action Plan. Probably extinct.
<i>Crex crex</i>	Corn Crake	bird	Not included in current plan. Species of Hay Meadows. Unlikely breeder in short term.
<i>Numenius arquata</i>	Eurasian Curlew	bird	Included in Kirklees Habitat Action Plan. Now scarce in lowland areas.
<i>Passer montanus</i>	Eurasian Tree Sparrow	bird	Included in Kirklees Habitat Action Plan. Local distribution. Not in uplands.
<i>Caprimulgus europaeus</i>	European Nightjar	bird	Not included in current plan. Not present but probable that suitable habitat exists in areas of upland heath.
<i>Streptopelia turtur</i>	European Turtle Dove	bird	Included in Kirklees Habitat Action Plan. Probably extinct.

<u><i>Botaurus stellaris</i></u>	Great Bittern	bird	Not included in current plan. Unlikely breeder in short term. May winter if sufficient habitat present.
<u><i>Perdix perdix</i></u>	Grey Partridge	bird	Included in Kirklees Habitat Action Plan. Scarce.
<u><i>Coccothraustes coccothraustes</i></u>	Hawfinch	bird	Included in Kirklees Habitat Action Plan. Probably extinct.
<u><i>Prunella modularis subsp. occidentalis</i></u>	Hedge Accentor	bird	Included in Kirklees Habitat Action Plan. Widespread.
<u><i>Passer domesticus</i></u>	House Sparrow	bird	Included in Kirklees Habitat Action Plan. Species associated with human settlement. Widespread.
<u><i>Carduelis cabaret</i></u>	Lesser Redpoll	bird	Not included in current plan. Scarce but widespread.
<u><i>Vanellus vanellus</i></u>	Northern Lapwing	bird	Included in Kirklees Habitat Action Plan. Increasingly uncommon as breeding species.
<u><i>Lagopus lagopus subsp. scotica</i></u>	Red Grouse	bird	Included in Kirklees Habitat Action Plan. Common on upland heath.
<u><i>Emberiza schoeniclus</i></u>	Reed Bunting	bird	Included in Kirklees Habitat Action Plan. Local distribution in lowland areas, widespread in uplands.
<u><i>Turdus torquatus</i></u>	Ring Ouzel	bird	Included in Kirklees Habitat Action Plan. Scarce breeder (uplands only).
<u><i>Alauda arvensis subsp. arvensis/scotica</i></u>	Sky Lark	bird	Included in current Kirklees Habitat Action Plan. Widespread.
<u><i>Turdus philomelos subsp. clarkei</i></u>	Song Thrush	bird	Included in Kirklees Habitat Action Plan. Widespread.
<u><i>Muscicapa striata</i></u>	Spotted Flycatcher	bird	Included in Kirklees Habitat Action Plan. Scarce breeder.
<u><i>Anthus trivialis</i></u>	Tree Pipit	bird	Included in Kirklees Habitat Action Plan. Scarce breeder.
<u><i>Carduelis flavirostris subsp. bensonorum/pipilans</i></u>	Twite	bird	Kirklees Species Action Plan. Increasingly scarce breeder in uplands.
<u><i>Parus montanus subsp. kleinschmidti</i></u>	Willow Tit	bird	Included in Kirklees Habitat Action Plan. Increasingly scarce.
<u><i>Phylloscopus sibilatrix</i></u>	Wood Warbler	bird	Included in Kirklees Habitat Action Plan. Very scarce breeder.

<i>Motacilla flava subsp. flavissima</i>	Yellow Wagtail	bird	Included in Kirklees Habitat Action Plan. Very scarce breeder.
<i>Emberiza citrinella</i>	Yellowhammer	bird	Included in Kirklees Habitat Action Plan. Widespread.

Invertebrates

Preferred Name	Common Name	Grouping	Kirklees Status
<i>Formica lugubris</i>	Northern Wood Ant	ant	Kirklees Species Action Plan. Occurs at one site.
<i>Coenonympha pamphilus</i>	Small Heath	butterfly	Not included in current plan. Found in some acid grasslands across the district.
<i>Lasiommata megera</i>	Wall Brown	butterfly	Not included in current plan. Species of rough grassy habitats - thought to be fairly widespread in district.
<i>Satyrrium w-album</i>	White-letter Hairstreak	Butterfly	Associated with woodland edge and hedgerow habitats. Localised and scarce

Fish

Preferred Name	Common Name	Grouping	Kirklees Status
<i>Salmo salar</i>	Atlantic salmon	bony fish	Included in Kirklees habitat Action Plan. Salmon and sea trout not recorded but were present in past. Potential for recolonisation with improved water quality. Weirs are a barrier to migration. Uncertainty about native stock of brown trout exists.
	Brook Lamprey		
<i>Salmo trutta</i>	Brown/Sea trout	bony fish	
<i>Anguilla anguilla</i>	European eel	bony fish	Included in Kirklees habitat Action Plan. Not recorded but is likely to have been present in past. Potential for recolonisation with improved water quality. Weirs are a barrier to migration.
<i>Lampetra fluviatilis</i>	River lamprey	jawless fish	

Reptiles and Amphibians

Preferred Name	Common Name	Grouping	Kirklees Status
<i>Vipera berus</i>	Adder	reptile	Not included in current plan. Not recorded – status uncertain.
<i>Lacerta vivipara</i>	Common Lizard	reptile	Included in Kirklees Habitat Action Plan. Upland distribution.
<i>Bufo bufo</i>	Common Toad	amphibian	Included in Kirklees Habitat Action Plan. Fairly widespread but partial information about distribution.
<i>Natrix natrix</i>	Grass Snake	reptile	Not included in current plan. Unconfirmed record (KWLAF meeting 15/10/2007) – status uncertain.
<i>Triturus cristatus</i>	Great Crested Newt	amphibian	Kirklees Species Action Plan. 9 recorded sites.
<i>Anguis fragilis</i>	Slow-worm	reptile	Not included in current plan. Not recorded – status uncertain but probably not present.

Terrestrial Mammals

Note: The Common Pipistrelle bat has been delisted as a UK priority species

Preferred Name	Common Name	Grouping	Kirklees Status
<i>Lepus europaeus</i>	Brown Hare	terrestrial mammal	Included in Kirklees Habitat Action Plan. Widespread.
<i>Plecotus auritus</i>	Brown long-eared bat	terrestrial mammal	Included in Kirklees Habitat Action Plan. Recorded but status unknown.
<i>Lepus timidus</i>	Mountain Hare	terrestrial mammal	Included in Kirklees Habitat Action Plan. Widespread in uplands.
<i>Nyctalus noctula</i>	Noctule	terrestrial mammal	Included in Kirklees Habitat Action Plan. Recorded but status unknown.
<i>Lutra lutra</i>	Otter	terrestrial mammal	Included in Kirklees Habitat Action Plan. Status uncertain but recorded in district and neighbouring areas.
<i>Mustela putorius</i>	Polecat	terrestrial	Not included in current plan.

		mammal	Appear to spreading across country and may colonise naturally.
<i>Pipistrellus pygmaeus</i>	Soprano Pipistrelle	terrestrial mammal	Included in Kirklees Habitat Action Plan. Recorded but status unknown.
<i>Arvicola terrestris</i>	Water Vole	terrestrial mammal	Kirklees Species Action Plan. 3 recorded populations.
<i>Erinaceus europaeus</i>	West European Hedgehog	terrestrial mammal	Included in Kirklees Habitat Action Plan. Widespread.

Kirklees Local Species of Principal Importance

Note: these species are selected to differing criteria as indicated and based upon the best available information. The list will be subject to ongoing review.

Species showing a decline of between 25 and 50%

Species	Occurrence (breeding or resident)
Birds	
House Martin	Widespread
Kestrel	Widespread
Snipe	Local (some wet grasslands and bogs)
Swallow	Widespread
Swift	Widespread
Water Rail	Scarce (wetland)
Woodcock	Local (some woodlands)
Mammals	
Weasel	Widespread

Species for which Kirklees holds a significant part of the West Yorkshire Population

Species	Occurrence in Kirklees	Occurrence in West Yorkshire
Plants		
Changing Forget-me-not	Restricted to one site	Less than four sites
Early Marsh Orchid	Restricted to one site	?
Flowering Rush	Restricted to two sites	Four sites only
Fragrant Agrimony	Restricted to one site	Two sites only
Ivy Leaved Bellflower	Restricted to two sites	Two sites only
Marsh Helleborine	Restricted to one site	One site only
Slender Cudweed	Restricted to one site	One site only

Fungi		
<i>Strobilomyces floccopus</i>	Lower Stones Wood and Farnley Tyas area	Two sites only

Species scarce within Kirklees but more common elsewhere

Species	Occurrence in Kirklees
Plants	
Bog Asphodel	Ten sites
Broad Helleborine	One site
Common Centaury	Seven sites
Cowberry	Four sites
Dyer's Greenweed	Eight sites
Goldilocks	One site
Moscahatel	One site
Narrow-leaved Water Plantain	One site
Pyramidal Orchid	One site
Round-leaved Sundew	Three sites
Royal Fern	One site
Spindle Tree	One site
Twayblade	Two sites

Sites important for scarce (notable/Red Data Book (RDB) status) invertebrate species in Kirklees

Site	Site Co-ordinates (SE)	Number of recorded Notable/RDB species
Almondbury	160150	1
Beaumont Park	130146	1
Blackmoorfoot Reservoir	030130	28
Boothroyd Wood	080120	4
Bottoms Mill Wood	133074	2
Bradley Mills	155175	1
Crosland Hill	115145	1
Crosland Moor	115146	1
Dean Head Wood	155059	2
Dean Wood	120134	5
Deer Hill	070115	4
Deffer Wood	260090	7
Denby Dale	230080	3
Digley	110070	2
Dobb Dike	125063	1
Drop Clough	046133	11
Farnley Tyas	165125	2
Fenay Beck	185145	1

Green Wood (New House)	213083	2
Hade Edge	147053	1
Hagg Wood	150105	1
Hall Dike	115120	9
Hay Wood	153127	1
Holmfirth	150080	1
Honley	130120	2
Honley Wood	120115	8
Huddersfield	140160	1
Lepton Great Wood	195145	1
Lindley	115180	1
Lockwood	131150	1
Lockwood Brewer Dam	135150	1
Mag Dale	130122	4
Mag Wood	135130	2
March River Reservoir	015130	2
Marsh	125170	1
Mellor Wood	158143	1
Meltham Mills	115105	1
Meltham Moor	080090	1
Milnsbridge	115158	1
Molly Carr Wood	160137	1
Morton Wood	157067	4
Netherton	123132	3
New Mill	164088	2
Orange Wood	101123	1
Ramsden Clough	121053	4
Ravensknowle Park	163166	5
Royd Edge Clough	095097	4
Royd House Wood	160130	2
Scammonden	050160	1
Skelmanthorpe	235105	2
South Crosland	111130	1
Storthes Hall	185128	4
Tunnel End Reservoir	039121	2
Waterloo	181170	1
Wessenden Head	075075	1
West Wood	152075	1
Woodsome Lees	185135	2

Note: In part, this list reflects the survey effort. However, many other sites have not yet been surveyed.

Specially protected species occurring within Kirklees

Note: these species are afforded statutory legal protection.

Species	Occurrence (breeding)	Habitat
Birds		
Barn Owl	Intermittent in Kirklees	Lowland eastern areas

Golden Plover	Widespread in uplands	Blanket Bog and Upland Heath
Merlin	Scarce breeder	Blanket Bog and Upland Heath
Peregrine Falcon	Scarce breeder	Blanket Bog and Upland Heath
Short-eared Owl	Absent from most areas. Population fluctuates naturally	Blanket Bog, Upland Heath and large areas of rough grassland
Bats		
Common Pipistrelle (Pipistrellus pipistrellus)	Widespread	Various
Daubenton's Bat (Myotis daubentonii)	Widespread	Around waterbodies and wooded areas
Leisler's Bat (Nyctalus leisleri)	Local	Woodland and grassland
Natterer's Bat (Myotis nattereri)	Widespread?	Wooded areas
Whiskered Bat (Myotis mystacinus)	Widespread?	Wooded areas
Plants		
Bluebell (protection against removal and selling)	Widespread and common	Ancient and semi-natural woodlands



APPENDIX E – Ecology Survey Calendar

Ecology Survey Calendar



This calendar is a guide to the typical seasonal survey windows within which we usually have to work – it reflects best practice guidance. A number of visits may be required throughout the survey period with factors such as weather and geography potentially impacting dates. We pride ourselves on our innovative approaches and ability to find solutions so please speak to our ecologists before scheduling any work.

■ Optimal
 ■ Sub-optimal
 ■ No Survey

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
Extended Phase 1 Habitat Survey													
Botanical Surveys	Lower plants only (mosses & liverworts)			Detailed botanical surveys						Lower plants only (mosses & liverworts)			
Fungi			Early species only						All fungi including waxcaps				
Breeding Birds			4 x surveys spread throughout Mar to Jun										
Wintering Birds	4 x visits												
Migratory Birds													
Badgers	Survey methods are possible throughout the year, vegetation can obscure						evidence in the summer			Licensable period for disturbance			
Bat Roost Assessment													
Bats – Emergence and Activity	Hibernation surveys only			Activity & emergence surveys to be spaced throughout the season						Hibernation surveys only			
Dormice				Tube surveys are carried out between Apr to Nov Nut searches between Aug and Dec						Nut search only			
Red Squirrels	Visual surveys Dec to Mar			Hair tube surveys throughout the year									
Invertebrates					Optimal period varies between species, consult our team before scheduling								
Otters													
Water Voles	Burrow survey only	Habitat suitability assessment		Two surveys required: the first Apr to end Jun, the second Jul to Sep (to identify breeding territories and latrines)						Habitat suitability assessment	Burrow survey only		
Reptiles				Optimal survey period Apr to Jun									
Great Crested Newts			4 x aquatic surveys (must include 2 surveys mid-Apr to mid-May); eDNA survey season mid Mar to end Jun										
White-Clawed Crayfish	Habitat suitability assessment only			Weather dependent	No survey - females release offspring							Habitat suitability assessment only	
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	

Ecology Through The Seasons



SPRING

- The start of the 'typical' ecological survey season – consult us for forthcoming sites to make sure these windows are met.
- Spring is a great time to complete initial Phase 1 habitat surveys
- Key surveys: great crested newts and breeding birds. A good time to carry out reptile surveys – they like the sun after April showers, and dormouse surveys should be set up by the end of Spring to allow completion within the calendar year
- Hedgerow and scrub clearance will require pre-works checks for nesting birds
- Reptile and amphibian translocation and mitigation works can start as animals come out of hibernation

SUMMER

- Key surveys: bats, plants and invertebrates
- Although bat surveys during Spring and Autumn are possible, the presence of maternity roosts can only be confirmed in Summer
- Early summer marks the end of the great crested newt and breeding bird survey seasons
- Dormouse surveys set up in Spring will take place throughout Summer
- Summer is also the start of the period when works affecting badger setts may take place under licence

AUTUMN

- Autumn is the end of most survey periods including bats, reptiles and dormice
- Final survey dates can be hampered by poor weather so allow a buffer in the programme
- Late autumn is also the end of the period in which mitigation for many species may take place as animals become increasingly less active on the approach to hibernation
- Some wintering bird surveys, such as those for SPA qualifying species, commence in Autumn

WINTER

- Although most survey windows are closed through the winter, many surveys may still take place such as nut searches for dormice and baseline scoping surveys
- Winter is the key season for carrying out hibernation surveys for bats and surveys for wintering birds
- It is the optimum season for completing above-ground vegetation clearance works for hedgerows, woodland and scrub, when birds won't be nesting
- Winter is the perfect time to complete desk studies and constraints assessments so there is plenty of time to discuss options before the start of the survey and mitigation seasons

For more information, please contact Claire Wilmer, Director of Ecology, on 0207 250 7500 or email ecology@wyg.com