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Extended Phase 1 Ecology Survey
Land at the former Welland Hospital Site
Roman Bank
Fulney
South Holland
Lincolnshire
NGR TF25809 23833

Survey by
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Extended Phase 1 Ecology Survey, Land at the former Welland Hospital, Roman Bank, Fulney

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Non-Technical Summary

The site surveyed comprises an irregular parcel of land near the junction of Roman Bank and Holbeach Road, Fulney centred at NGR TF25809 23833 which was previously occupied by the building and facilities of Welland Hospital and a garage site both of which have been cleared of buildings. The boundary and landscaped areas of the former hospital contain a number of mature and semi-mature trees, some of which are known to be protected by Tree Preservation Orders.

The Applicant has commissioned a Phase 1 Ecology and Protected Species survey of the former Hospital site area and amenity land to the east to determine whether there is anything of significant ecological value or any evidence of protected species present at the site as there are proposals to develop the site for residential housing. A BS5837 Tree Survey report has already been prepared (ref CBE Consulting report P986 /1215 /02) and this report should be read in conjunction with the Tree Survey report. An inspection of the site and the immediate surrounding areas was completed on 22nd October 2015.

The defined site area was previously a hospital site and contained a number of large buildings which have been demolished leaving only the foundations and hard standing areas on the site. The land is entirely surrounded by residential houses and commercial buildings but there is a small parcel of open amenity grassland, now lying unmanaged, on the eastern side of the site.

Within the grounds of the former hospital there were a number of landscaped areas planted with trees and shrubs and at the eastern end of the site is a line of mature Lime trees. The aerial photograph below shows the site area as it was prior to the demolition of the hospital facilities.

There are two areas of unmanaged amenity grassland within the area surveyed. At the eastern end of the site area is a quite large area of grassland becoming overgrown by coarser grasses and also showing early stages of succession to scrub. The dense sward is still dominated by amenity grasses with significant colonisation by coarser grasses and common weeds. Boundary areas are also being colonised by bramble and sapling trees. In the western area of the site, lying between the remains of the hospital buildings and the line of Lime trees, is a small area of overgrown amenity grassland similar in character and diversity to the land to the east.

Occupying the majority of the western half of the site area and a section along the south boundary adjacent to Holbeach Road is land formerly supporting buildings and roads / parking areas. The foundations of buildings are still present and concrete and tarmacadam cover the majority of the surface areas.

Around the margins of the former buildings are borders which have small and medium sized trees, shrubs and some amenity plants. There are no uncommon or unusual plants or plant communities present colonising the former areas of landscaped border

As has been noted in the Tree Survey report, there is a line of mature Lime (Tilia europaea) trees crossing the centre of the site visually dividing the site area into two parts. This line of mature trees is protected under TPO Spalding 66 / 2005. These are large mature trees forming a dense linear canopy which is supported by dense under canopy growth. There are also scattered trees around the margins of the site area, most notably along the perimeter with Roman Bank.

The majority of the area surveyed has low ecological value as a result of its location and previous use. The previous hospital site has been cleared of buildings and whilst now naturalising, is at an early stage in this process with no significant habitat development having taken place. Similarly the area of grassland at the eastern side of the site was until recently mown amenity grassland and whilst succession has started and new plant species are colonising, the diversity is still limited as there are no area of significant diversity nearby to provide a diverse seed bank.

The only area with significant ecological value is the line of Lime trees through the centre of the site. These are large trees of significant landscape and ecological value. Any proposed development should aim to retain these trees, or at least the majority of these. And provide sufficient space for their continued growth and development.

It is concluded that if the former hospital site and area of amenity grassland to the east are developed, direct impact on the biodiversity of the area should be negligible provided the line of Lime trees is retained within any scheme and given sufficient space. There will be no loss of any significant habitat areas of high biodiversity nor will development of the site area cause fragmentations of any such habitats within the locality by isolating these.

The survey of this site has not found any evidence of activity by protected species. Some of the trees within the site have been identified as having 'low or moderate roost potential' but all of the tree with moderate roosts potential are being retained. The inspection of the site did not identify any physical evidence to indicate the presence of roosting bats but the 2012 Bat Survey Guidelines recommend activity surveys if trees with features are impacted by any proposed development. One tree, T22 Goat Willow, has minor features and this is due to be removed. There is no evidence of bats roosting in this tree but it should be checked again immediately before being removed.

There was no evidence to indicate the presence of any other protected species within the survey area and no additional protected species surveys (except for the potential bat surveys of the trees noted above) have been recommended.

Part 1: Site Details

1. Introduction

1.1 Site Description and Location

The site surveyed comprises an irregular parcel of land near the junction of Roman Bank and Holbeach Road, Fulney centred at NGR TF25809 23833 which was previously occupied by the building and facilities of Welland Hospital and a garage site both of which have been cleared of buildings. The boundary and landscaped areas of the former hospital contain a number of mature and semi-mature trees, some of which are known to be protected by Tree Preservation Orders. The location of the site is shown on the plan within **Figure 1** and an aerial photograph has been provided within **Figure 2** to place the site in context.



Figure 1: Site location.

Copyright Microsoft Corporation Mapping 2015

The Applicant has commissioned a Phase 1 Ecology and Protected Species survey of the former Hospital site area and amenity land to the east to determine whether there is anything of significant ecological value or any evidence of protected species present at the site as there are proposals to develop the site for residential housing. A BS5837 Tree Survey report has already been prepared (ref CBE Consulting report P986 /1215 /02) and this report should be read in conjunction with the Tree Survey report.

An inspection of the site and the immediate surrounding areas was completed on 22nd October 2015. A photographic record of the key significant areas within or adjacent to the site is provided in Section 3 and an indicative species list is included within **Appendix 1.**

The defined site area was previously a hospital and garage containing a number of large buildings which have been demolished leaving only the foundations and hard standing areas on the site. The land is entirely surrounded by residential houses and commercial buildings but there is a small parcel of open amenity grassland, now lying unmanaged, on the eastern side of the site.

Within the grounds of the former hospital there were a number of landscaped areas planted with trees and shrubs and at the eastern end of the site is a line of mature Lime trees. The aerial photograph below shows the site area as it was prior to the demolition of the hospital facilities.

Figure 2: Site Contextual Aerial Photograph Image copyright Microsoft Corporation 2015



1.2 Objective of the Report

This report is an extended Phase 1 Habitat Survey and ecological appraisal. The objective of the ecological appraisal is to identify the habitat(s) present on, and surrounding, the site area being assessed. Any development of the site will require planning approval and this report has been prepared to provide information as part of the planning application process. To this end the report is required to comply with the recommendations and principles set out in the National Planning Policy Framework, March 2012 (NPPF). The report contains Biological Records and has been prepared to meet the standard required by BS42020 (British Standard for Biodiversity and Development).

The NPPF sets out the Government's objectives for planning in regard to the protection of habitats and biodiversity. The planning objectives in relation to biodiversity and the natural environment are stated within paragraph 109 of the NPPF and are as follows:

"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;"*

Within the NPPF the planning policy context requires that:

"*Planning policies and decisions should be based on up to date information about the natural environment and other characteristics of the area including …… an assessment of existing and potential components of ecological networks. A sustainability appraisal which meets the requirements of the European Directive on strategic environmental assessment should be an integral part of the plan preparation process, and should consider all the likely significant effects on the environment, economic and social factors*". NPPF Paragraph 165

This ecological appraisal provides information on the existing ecological and biodiversity value of the land on the site and also reports any evidence of protected species or significant habitats present. It has been provided to provide information to the Planning Authority in order to help meet the requirements of the NPPF and enable the Authority to assess the site area in accordance with the Code of Practice within BS42020 and guidelines issued by CIEEM in 2012. The report also identifies any habitats or species present that require more detailed surveys prior to any improvements being undertaken.

Part 2: Methodology and Survey Results

2. Appraisal Methodology

2.1 Baseline Study

Within NPPF Paragraph 7 it states that; "*There are three dimensions to sustainable development: economic, social and environmental." The environmental role includes "contributing to protecting and enhancing our natural, built and historic environment; and, as part of this, helping to improve biodiversity....*"

The biodiversity of a site area and the potential presence of protected species are factors relevant to all developments irrespective of the size scale and will apply to any development on the site being assessed. Available information on the baseline ecology of the site and its surroundings has been obtained and records relating to protected species have been reviewed. An indicative species list of plants found on the site is provided in **Appendix 1**. In addition, details of locally important sites and protected species known to be in the area obtained from the Greater Lincolnshire Nature Partnership (GLNP) are included within **Appendix 2**.

These data sources have been reviewed and the character and nature conservation value of habitats and species assessed. The aims of this appraisal of information are:

- To characterize all the existing available information regarding habitats and species that may be present at the site and provide up to date information about the environmental characteristics of the site area;
- To identify any habitats potentially present of nature conservation value in terms of local, regional and national context and within the context of local, regional and national policy; and,
- To identify any areas of ecological interest in order to either a) make recommendations to minimize the potential impact of any site works, or b) identify the need for a further survey work.

Following the appraisal of the available information, a site inspection has taken place to obtain specific site data at the site.

2.2 Habitats

The site was inspected on 22nd October 2015 using the extended Phase 1 Habitat Assessment methodology as adopted by Natural England (Joint Nature Conservation Committee 1993) and in accordance with the Guidelines for Preliminary Ecological Appraisal (2012) issued by the Institute of Ecology and Environmental Management (IEEM) and BS42020 (British Standard for Biodiversity and Development). The survey required a systematic walkover of the site to classify the habitat types present. A habitat base map and target notes have been prepared and included as **Figure 3** within section 3 of this report.

2.3 Protected Species

During the survey of the site, observations and identification or signs of any species protected under the Conservation (Natural Habitats &c) Regulations 2010 (incorporating regulations previously contained within Part 1 of the Wildlife and Countryside Act 1981) were noted. The site comprises three elements:

a) The western half of the site comprises foundations and hard standing areas where the former hospital buildings and facilities were situated with boundary areas of landscaping that have become overgrown.
b) Across the centre of the site area is a line of mature Lime trees with smaller trees and shrub growth providing under canopy cover.
c) The eastern part of the area surveyed comprises former amenity grassland that has lain unmanaged for a period and started to become overgrown.

The existing trees and grassland area at the site have been assessed for the presence of roosting bats. The remnant landscaped areas and small areas of shrubs and amenity planting have been searched for reptiles, nesting birds and small mammals. The site is considered to have limited potential for larger mammals due to its position within a well-developed area surrounded entirely by residential housing and commercial properties. Significant invertebrate populations are unlikely because of the character of the habitat and lack of diversity in the flora.

A methodical inspection was carried out to look for any evidence of protected species using the site and to identify any habitats with potential to provide significant shelter or foraging opportunities for these. The survey was carried out by Christopher Barker, an experienced ecological consultant, licensed Bat Worker and Chartered Environmentalist

2.4 Consultations

A review of the available data obtained from the Greater Lincolnshire Nature Partnership (GLN) confirms that the site is not a statutory or non-statutory site.

There are no Statutory sites within the 1km grid square search area and very few Non-statutory sites of significance. There are five Local Wildlife Sites identified in the Biological Records Report (Appendix 2) summarised in the table below.

Site reference	**Name**	**Distance / Direction**	**Relationship to site being assessed**
740	Spalding Cemetery	0.7km W	None. Separated by significant industrial and residential areas.
829	Vernatt's Drain	0.66km W	None. Separated by significant industrial and residential areas.

830	Vernatt's nature reserve	0.74km W	None. Separated by significant industrial and residential areas.
4174	Coronation Channel	0.23km E	None. Separated by significant industrial and residential areas.
4183	River Welland	0.07km W	No direct link apart from proximity but separated from the site by a large industrial complex.

A review of the data for protected species identified a small number of significant records relating to the immediate vicinity of the site.

There are no ponds or wetland areas within the site and no records of Great Crested Newt within the 1km gird square. Since this land was until recently a hospital site and adjacent area of intensively managed amenity grassland, the terrestrial habitat would have been considered very poor for amphibians. The site is isolated from any habitat areas suitable for amphibians so colonisation of the site since it has lain derelict is unlikely. It is concluded that the potential for GCN to be present within the survey area is negligible.

There are a small number of records for Grass Snake in the vicinity of Vernatt's Drain and Nature Reserve to the west and north of the area being assessed. However, the site area has no links to the area where reptiles have been recorded and is quite isolated. Until recently the area being assessed did not contain habitat of potential interest to reptiles so the potential for a significant population of reptiles to be present in considered to be very low.

A wide range of birds are recorded as being known to be present in the area, particularly around Coronation Drain, Vernatt's Drain and the River Welland. These records include, Yellow Wagtail, Lesser Redpoll, Greylag Goose, Swift, Black Tern, Barn Owl, Black Winged Stilt, Brambling, Corn Bunting, Cuckoo, Fieldfare, Goldeneye. Green Sandpiper, Redshank, Bullfinch, Red Kite, Peregrine, Song Thrush, Swift, Starling and Spotted Flycatcher. The majority of sightings are in the vicinity of the water features at Coronation Drain and Vernatt's Drain and Nature Reserve or along the River Welland and the potential for these species to be using the site area is relatively limited.

Nesting within the site area by Schedule 1 species is likely to have been limited by the land use and land management until very recently. Nesting within the mature Lime trees is quite possible and the now overgrown borders and grassland areas could potentially be of interest to foraging and ground nesting birds. However, such interest is likely to be limited by the position of the site and the presence of a local cat populations in the adjacent houses. Significant ground nesting activity is therefore considered to be of fairly low likelihood. Common species may be utilising the trees and scrub that is within the site for nesting purposes.

There are known to be roosts and foraging areas for bats in the vicinity of the site and there are records of Brown Long-eared, Noctule, Pipistrelle and Daubenton's bats in the general area. The majority of sightings are associated with the areas of woodland and aquatic habitat in the areas around Coronation Drain, Vernatt's Nature Reserve and the River Welland. The site does not contain any buildings that could be used for roosting purposes but there are a small number of mature trees with low / moderate roost potential so the impact of any development on these will need to be carefully considered.

Whilst the site area is entirely surrounded by urban development, it is close to the River Welland and Coronation Drain and dies contain some mature trees and grassland areas that could be of potential interest to foraging bats, particularly species tolerant of artificial lighting that forage in domestic gardens and foraging within the site should be considered likely.

There is no record of badgers at the site nor any known setts in the immediate vicinity. The presence of badgers within the survey area is considered very unlikely given its location and isolation. The nearest record of badger activity is 700m to the north adjacent to Vernatt's Drain.

The records of Harvest Mouse, Otter and Water Vole all relate to sightings around Coronation Drain, Vernatt's Drain and the River Welland and considering the relative isolation of the site cause by urban development and the lack of suitable habitat for these species within the site, the potential for them to be present is considered to be very low.

A summary of records for species in the area provided by GLNP is shown in the table within **Appendix 2.** Plans showing the location of the nearest non-statutory ecological areas and conservation sites are also provided within **Appendix 2.**

3. Survey Findings

3.1 Habitat Classifications and Target Notes

Target Note: Unmanaged Amenity Grassland
There are two areas of unmanaged amenity grassland within the area surveyed. At the eastern end of the site area is a quite large area of grassland becoming overgrown by coarser grasses and also showing early stages of succession to scrub. The dense sward is still dominated by amenity grasses such as Perennial Ryegrass (Lolium perenne) and Fescue (Festuca sp) with significant colonisation by coarser grasses such as Yorkshire Fog (*Holcus lanatus*), Couch (*Elymus repens*) and Brome (*Bromus sterilis*) also present. As is common for such amenity grassland areas common weeds have colonised such as Plantain (*Plantago major* and *lanceolata*), Chickweed (*Stellaria media*), Speedwell (*Veronica* sp), and Dandelion (*Taraxacum officinale*) are present with taller forbs such as nettle (*Urtica dioica*), dock (*Rumex obtusifolius*), creeping thistle (*Cirsium arvense*) and Teasel (*Dipsacus fullonium*) taking advantage of the lack of mowing to colonise and spread. Boundary areas are also being colonised by bramble (*Rubus fruiticosa*) and sapling trees such as Goat Willow (*Salix caprea*) and Hawthorn (*Crataegus monogyna*). Whilst it is becoming overgrown, this parcel of land is still classified as J1.2 'Amenity Grassland' but is reverting to Poor semi-improved grassland JNCC B6 due to lack of management.

In the western area of the site, lying between the remains of the hospital buildings and the line of Lime trees, is a small area of overgrown amenity grassland similar in character and diversity to the land to the east. This parcel of land is also classified as J1.2 'Amenity Grassland' but is beginning to revert to 'Poor semi-improved grassland' JNCC B6 due to lack of management


Grassland west of the tree belt


Grassland in the east of the site



Land in the east of the site



Grassland and path in the east of the site



Grassland in the east of the site



Grassland in the east of the site

Target Note: Brownfield Site area – Hardstanding and remnant borders
Occupying the majority of the western half of the site area and a section along the south boundary adjacent to Holbeach Road is land formerly supporting buildings and roads / parking areas. The foundations of buildings are still present and concrete and tarmacadam cove the majority of the surface areas.

Around the margins of the former buildings are borders which have small and medium sized trees, shrubs and some amenity plants present such as Barberry (*Berberis* sp), Aster (*Aster* sp), Cherry (*Prunus avium*), Cherry Laurel (*Prunus laurocerasus*), Broom (*Cytisus scoparius*), Buddleia (*Buddleia davidii*), Cotoneaster (*Cotoneaster* sp), Privet (*Legustrum vulgare*) all becoming overgrown by encroaching weeds such as bramble (*Rubus fruiticosa*), ragwort (*Senecio jacobaea*), sowthistle (*Sonchus arvensis*), willowherb (*Epilobium* sp), nettle (*Urtica dioica*) and dock (*Rumex obtusifolius*).

There are no uncommon or unusual plants or plant communities present and the species colonising the areas of landscaped border include Cow Parsley (Anthriscus sylvestris), Cleaver (*Galium aparine*), Hop Trefoil (*Trifolium campestre*), Clover (*Trifolium repens*), Medick (*Medicago lupulina*), Comfrey (*Symphytum officinale*), Couch (*Elymus repens*) , Yorkshire Fog (*Holcus lanatus*), Lesser Willowherb (*Epilobium hirsutum*), Forget me Not (*Myosotis arvensis*), Creeping Thistle (*Cirsium arvense*), Buttercup (*Ranunculus repens*) and Prickly Lettuce (*Lactuca serriola*).

This area of brownfield land has not yet significantly naturalised to support a mosaic of micro-habitats that will be attractive to wildlife. It is classed as JNCC J3 ‘Built up area’ and JNCC J1.4 ‘Introduced shrub’.








Target Note: Scrub and Trees
As has been noted in the Tree Survey report, there is a line of mature Lime (Tilia europaea) trees crossing the centre of the site visually dividing the site area into two parts. This line of mature trees is protected under TPO Spalding 66 / 2005. These are large mature trees forming a dense linear canopy which is supported by dense under canopy growth of Elder (Sambucus nigra), Hawthorn (Crataegus monogyna) and small sapling Ash (Fraxinus excelsior), Birch (Betula pendula) and Sycamore (Acer pseudoplatanus). This linear canopy area is classified as JNCC A1.1.1 ‘Broadleaved semi-natural woodland’.

There are scattered trees around the margins of the site area, most notably along the perimeter with Roman Bank where there is a line of Birch (Betula pendula) supported by Cherry (Prunus avium), Whitebeam (Sorbus aria) and a single specimen Cedar of Lebanon (Cedrus libani).



Birch along Roman Bank



Birch, Cherry and Whitebeam



Lime trees in centre of site



Lime trees in centre of site.

Target Note: Boundary Hedgerow
There is one hedgerow within the area surveyed located on the south eastern boundary of the site adjacent to Holbeach Road. This is a privet hedge, formerly box trimmed.

Hedgerow Regulations
A measure of statutory protection is afforded to hedgerows under the Hedgerow Regulations 1997, where any ecological or archaeological features are defined as being 'important'. The Removal of important hedgerows requires consent from the local planning authority, except in certain prescribed circumstances. The importance of hedgerows can be assessed according to the criteria identified in Part II Schedule I of the Hedgerow Regulations 1997. A hedgerow is identified as being 'Ecologically Important' if has existed for 30 years or more and satisfies at least one of the criteria listed below.

- *Criteria 6*: Contain certain categories of species of birds, animals or plants listed in the Wildlife and Countryside Act 1981 or the British Red Data Books
- *Criteria 7*: The hedgerows includes:
  a) At least 7 schedule III woody species, on average in a 30m length;
  b) At least 6 schedule III woody species, on average in a 30m length and has at least 3 associated features;
  c) At least 6 schedule III woody species, on average in a 30m length, including a black popular tree, or large-leaved lime, or small-leaved lime or wild service tree;
  d) At least 5 schedule III woody species, on average in a 30m length and has at least 4 associated features.

  The associated features are:
  i. a bank or wall which supports the hedgerow along at least one half of its length;
  ii. gaps which do not exceed 10% of the length of the hedgerow;

iii. on average, at least one tree per 50 metres;
iv. at least 3 schedule 2 woodland species within one metre, in any direction, of the outermost edges of the hedgerow;
v. a ditch along at least one half of the length of the hedgerow;
vi. connections with other hedgerows, woods or ponds scoring 4 points or more (where a connection to another hedgerow scores 1 and a connection to a broad-leaved wood or pond scores 2); or
vii. a parallel hedgerow within 15 metres of the hedgerow.

- *Criteria 8:* Run alongside a bridleway, footpath, road used as a public path, or a byway open to all traffic and includes at least 4 woody species, on average, in a 30m length and has at least 2 associated features as listed above.

In accordance with these regulations, regular 30m sections of the hedgerow along Holbeach Road was sampled i.e. woody species were recorded for 30m out of every 100m in order to sample the hedgerow in a systematic way. The average number of species for the hedgerow was derived by totaling the number of species recorded and dividing by the number of sections. This gives an average to compare with the Hedgerow Regulations Criteria. Only when the average number of species is 5 or more are associated features taken into account. An average of 5 woody species and 4 associated features are needed for a hedgerow to be defined as important hedgerow in accordance with the regulations. The exception to this is when a hedgerow runs alongside a footpath or bridleway. In this case only 4 woody species and 2 associated features are needed.

The hedgerow along Holbeach road comprises very uniform Privet (*Legustrum vulgare*) with occasional Sycamore (*Acer pseudoplatanus*), Ash (*Fraxinus excelsior*) and Hawthorn (*Crataegus monogyna*) saplings. Hedgerow 1 has an average of 1.5 species per 30m linear length and no associated features and therefore does not qualify as an 'important hedgerow' under the regulations but it does provide significant screening along the southern boundary of the open grassland area.


Privet hedge along Holbeach Road

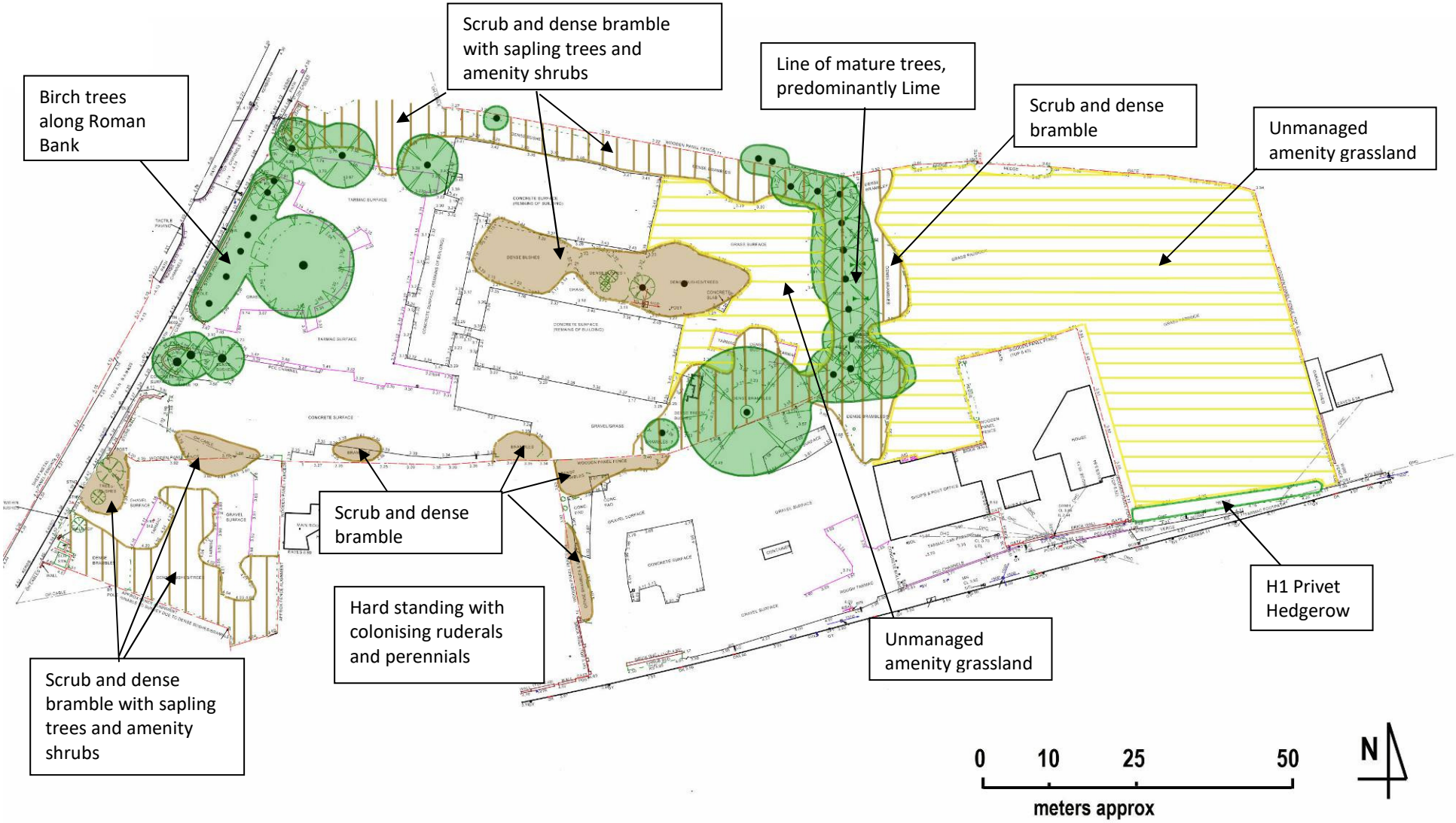


Figure 3: Habitat Plan

3.2 Evidence of Protected Species

The 2015 inspections have found no indication of any activity by protected species across the site area. No significant tracks or trails were seen in any location within the site or along the boundary vegetation. The site margins and areas of scrub and taller vegetation were carefully inspected for evidence of reptiles and small mammals.

Herpetofauna: The walkover survey was completed on a grid pattern looking for evidence or indication of reptiles. Whilst the site does contain small areas of scrub and tall perennial growth, the land was until quite recently intensively managed and this, combined with the isolated location of the site and the lack of records for the location does not make it likely that a significant population of reptiles will be present.

Any suitable locations within the site including the dense bramble adjacent to concrete foundations and any loose stone were searched for basking reptiles although very few suitable features of potential interest to reptiles were identified. A further reptile survey is not recommended as the potential for a significant population to be present is low.

Amphibians: there are no water features within the site and no records of amphibians within the immediate locality including Great Crested Newt. No evidence of amphibians was found during the site inspection. Overall, the potential for amphibians is considered to be negligible and further surveys are not recommended.

Chiroptera: Within the exception of the line of mature Lime trees across the centre of the site, there are no other structures that would be of interest to roosting bats. A small number of the trees are identified as having low / moderate roost potential, primarily due to the growth of dense ivy. Only one tree with 'low roost potential will need to be removed and this was searched for evidence of bat activity and none was found.

No physical evidence to indicate the presence of roosting bats was found in any location. The site area could provide suitable foraging habitat for bat species found within urban areas within gardens as there are trees and adjacent grassland areas that would attract insects. However, this area is unlikely to be a site of high foraging potential and does not appear to be not located so as to provide a significant link between any such areas in the locality. Some bat foraging activity should be considered likely across the site in the vicinity of the Lime Trees. Any potential impact on the trees arising from the development should be considered in regard to the potential to impact bats using the site.

Birds: The trees and areas of scrub growth were inspected for evidence of nesting birds and whilst no active nests could be seen, bird activity and the potential presence of nests should be anticipated in the future within these areas. Nesting and foraging by birds in the ground vegetation is likely to be impacted by the presence of nearby residential houses with a cat population. Only common bird species were seen during the site inspection.

Mammals: The inspection of the site area did not find any burrows or holes. No tracks or droppings of any kind other than dog were found. It is very unlikely that species such as Badger and Deer are using the site area for foraging or commuting. It is evident that there are no setts or significant badger trails within the red line boundary area surveyed.

3.3 Ecological Constraints and Opportunities

The relative simplicity and small scale of the site does not require a detailed Ecological Constraints and Opportunities Plan (ECOP) to be prepared.

Constraints:

The Lime trees within the centre of the site are protected by a Tree Preservation Order. These should be retained within any proposed development although it is likely on or two may need to be sacrificed in order to link an access road between the western area of the site where the former hospital buildings were located and the amenity grassland area to the east

Any of the Lime trees that are proposed for removal should be assessed for the presence of roosting bats and nesting birds.

Opportunities:
In the western part of the site formerly occupied by the hospital buildings there are relatively few opportunities for ecological enhancement as most of this area is still covered by foundations and roads. Some marginal areas of ground with trees exist and where possible these should be retained and incorporated into any proposed development.

The amenity grassland area to the east of the site is flat and featureless. If areas of landscaping containing native species could be established within the context of any development this would be beneficial.

The use of native trees and shrubs should be implemented throughout and if possible the canopy cover across the site area should be maintained by planting some native trees that will be positioned to allow these to reach full maturity.

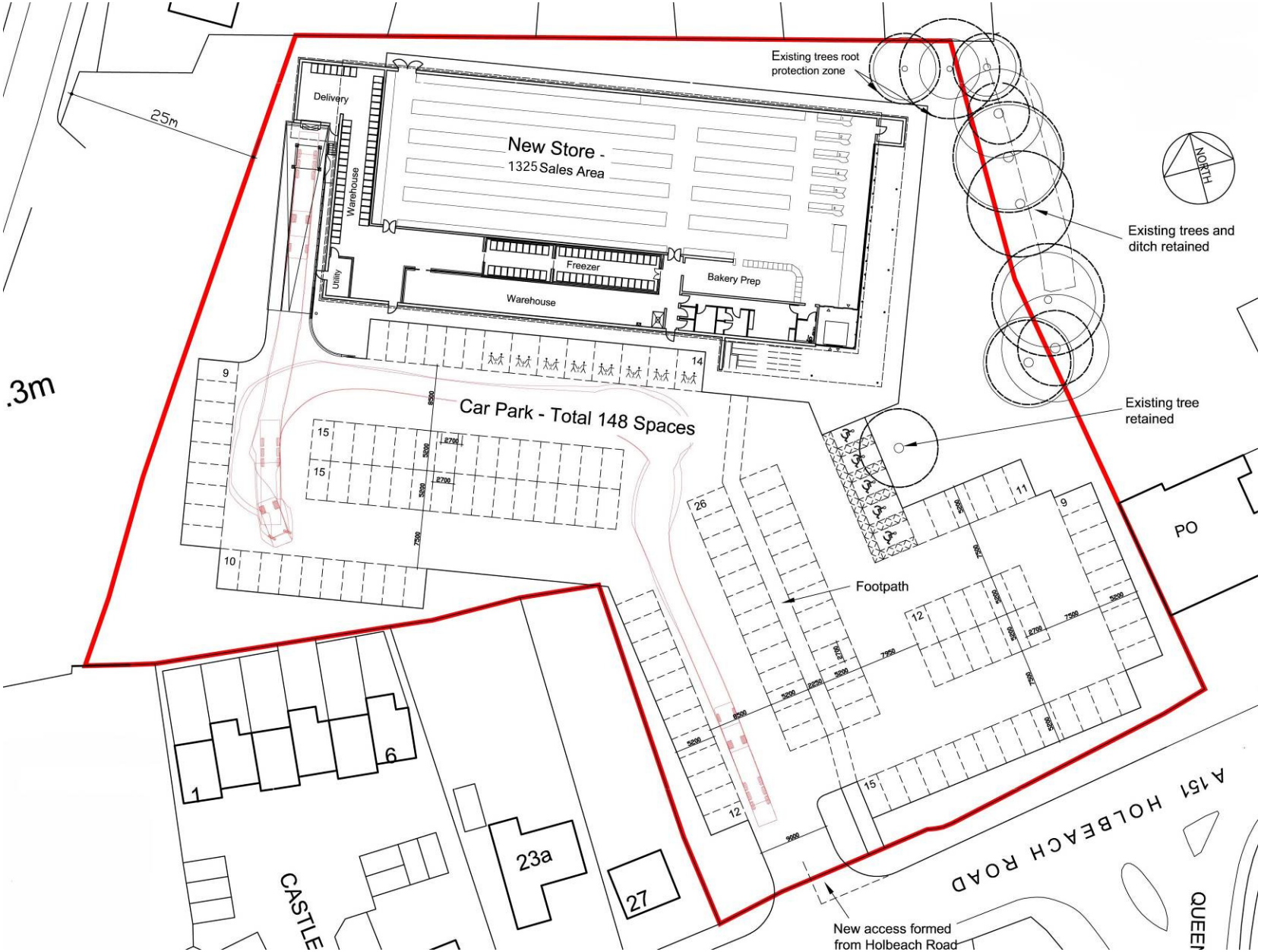

Existing trees root protection zone
Delivery
25m
New Store -
1325 Sales Area
Warehouse
Utility
Freezer
Bakery Prep
Warehouse
NORTH
Existing trees and ditch retained
Existing tree retained
Car Park - Total 148 Spaces
PO
Footpath
A151 HOLBEACH ROAD
CASTLE
23a
27
New access formed from Holbeach Road

Figure 4A


20
24
15
14
13
12
11
10
9
8
7
6
5
4
3
2
1
18
19
16
17
PO
41
43
53
A 151
4.0m
HOLBEACH ROAD

Figure 4B


N
0
50metres
Windmill
Court
NOTE:
PROPOSED DWELLINGS
TO BE 2 STOREY WITH AN
APPROXIMATE MAXIMUM
HEIGHT OF 9.3 METRES
ABOVE INTERNAL
FINISHED FLOOR LEVEL
OF DWELLINGS.
ROMAN BANK
1 to 6
7 to 9
6a
27
17
16
15
14
13
12
11
10
9
8
1
2
3
4
5
6
7
1
6
CASTLE CLOSE
13
21
23
23a
5

Figure 4C

Part 3: Ecological Appraisal

4. Scale of Redevelopment Proposed

Within the NPPF 2012, guidance on the provision or retention of biodiversity within any proposed areas for development and measures to ensure the safeguarding of protected species are provided. In the context of this site, when originally issued in January 2016, no development plan was available. Subsequently, a development plan has been provided in July 2017 showing that the western part of the site is to be used for commercial purposes and the eastern section of the site and a strip along the edge of Roman Bank for new residential housing (Figures 4A/B/C). A revised assessment of potential impact has been provided below.

4.1 Impact of the Proposals on Site Biodiversity

The level of biodiversity within the site being assessed must be a consideration in determining the *'impact on biodiversity'* that may arise from any development on the site. Within the NPPF Paragraphs 114 and 117 state that:

"Local planning authorities should..... Set out a strategic approach...., planning positively for the creation, protection, enhancement and management of networks of biodiversity and green infrastructure; (114) and,

"...minimise impacts on biodiversity and geodiversity by promoting the preservation, restoration and re-creation of priority habitats, ecological networks and the protection and recovery of priority species populations, linked to national and local targets, and identify suitable indicators for monitoring biodiversity….; (117)

The majority of the area in the western side of the site formerly occupied by the hospital buildings and facilities has low ecological value as a result of its location and previous use. The previous hospital site has been cleared of buildings and whilst now naturalising, is at an early stage in this process with no significant habitat development having taken place. Similarly the area of grassland at the eastern side of the site was until recently mown amenity grassland and whilst succession has started and new plant species are colonising, the diversity is still limited as there are no area of significant diversity nearby to provide a diverse seed bank.

The only area with significant ecological value is the line of Lime trees through the centre of the site. These are large trees of significant landscape and ecological value. The proposed commercial development will lie to the west side of these trees and the proposed residential development to the east, leaving all of the trees in place. The commercial layout shows significant space being provided for these trees on the western side. The residential layout shows houses being constructed fairly close but not within the canopy extents of existing rooting areas.

It is concluded that if the former hospital site and area of amenity grassland to the east are developed, direct impact on the biodiversity of the area should be negligible provided the line of Lime trees is retained within any scheme and given sufficient space as shown in Figures 4A and 4B. There will be no loss of any significant habitat areas of high biodiversity nor will development of the site area cause fragmentations of any such habitats within the locality by isolating these.

4.2 Impact of the Proposals on Protected Species

The requirements of Part IV of ODPM / Defra Circular 06/2005 in regard to the protection of certain species are still applicable under the new NPPF. The presence of protected species at the site must be taken into consideration. NPPF March 2012 paragraph 119

makes the following provision in relation to the presence of protected species on, or making use of, a site proposed for any development:

"The presumption in favour of sustainable development (paragraph 14) does not apply where development requiring appropriate assessment under the Birds or Habitats Directives is being considered, planned or determined."

The survey of this site has not found any evidence of activity by protected species. Some of the trees within the site area building on site have been identified as having 'low or moderate roost potential' and should be subjected to an emergence and activity survey if the proposed development requires these to be felled. However, the development plans provide indicate that the majority of the mature trees within the site are being retained. Trees within the western area of the site, including Cedar T2 identified in the tree survey report, will require a nesting bird survey and roosting bat survey before being removed.

The inspection of the site did not identify any physical evidence to indicate the presence of roosting bats but the 2012 Bat Survey Guidelines recommend such surveys if trees with features are impacted by any proposed development.

There was no evidence to indicate the presence of any other protected species within the survey area and no additional protected species surveys (except for the potential bat surveys of the trees noted above) have been recommended.

5. Conclusions and Recommendations

The site assessed is an area comprising a former hospital site now cleared of buildings, an area of amenity grassland now laying unmanaged and a small area containing a line of significant Lime trees, situated in an urban area at Roman Bank. Fulney.

After inspecting the site it is concluded that:

a) In the area formerly occupied by the hospital facilities there are no areas of high biodiversity or high ecological value present within the area being proposed for development.
b) In the area occupied by previously intensively managed amenity grassland there are no areas of high biodiversity or high ecological value present within the area being proposed for development.
c) With the exception of a line of mature Lime trees protected under a Tree Preservation Order and of high landscape value located in the centre of the site between the two areas identified above, there are no significant ecological constraints present within the land to be developed.
d) No evidence of any protected species was found within the site area and no further protected species surveys have been recommended at the present time. The trees proposed for removal along the western edge of the site will require further consideration and nesting bird and bat activity surveys may be needed prior to these trees being removed.

Christopher Barker CEnv

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National Biodiversity Network: Protected species data downloaded from URL http://data.nbn.org/interactive/map

Appendix 1 – Indicative Species List

Woody Tree and Shrub Species	***Ground Flora and Perennial Species***
Apple *(Malus domestica)* Ash (*Fraxinus excelsior*) Barberry (Berberis vulgaris) Birch (Betula pendula) Broom (*Cytisus scoparius*), Buddleia (Buddleia davidii) Cedar (Cedrus libani) Cherry (*Prunus avium)* Cherry Laurel (*Prunus laurocerasus*), Cotoneaster (*Cotoneaster* sp), Elder (*Sambucus nigra*) Goat Willow (*Salix caprea)* Hawthorn (*Crataegus monogyna*) Holly (Ilex aquifolium) Ivy (*Hedera helix)* *Lime (Tilia europaea)* Privet (*Legustrum vulgare*) Sycamore *(Acer pseudoplatanus)* *Whitebeam (Sorbus aria)*	Aster (*Aster* sp), Barren Brome (*Bromus sterilis*) Bindweed (*Bilderdykia convolvulus*), Bramble (*Rubus fruiticosa*), Buttercup (*Ranunculus repens*), Chickweed (*Stellaria media*). Cleaver (*Galium aparine*), Clover (*Trifolium repens*) Comfrey (*Symphytum officinale*), Cow Parsley (*Anthriscus sylvestris*) Creeping Thistle (*Cirsium arvense*), Couch (*Elymus repens*), Dandelion (*Taraxacum* sp), Dock (*Rumex obtusifolius*), Fescue (*Festuca rubra*) Forget me Not (*Myosotis arvensis*), Groundsel (*Senecio vulgaris*) Ground Elder (*Aegopodium podagraria*) Ground ivy – (Glechoma hederacea) Hawkweed (*Hieraceum* sp) Hogweed (*Heracleum sphondylium*) Hop Trefoil (*Trifolium campestre*), Lesser Willowherb (*Epilobium hirsutum*), Mayweed (*Chamomilla suaveolens*) Meadow Grass (*Poa* sp) Medick (*Medicago lupulina*), Mignonette (*Reseda lutea*) Milfoil *(Achillea millefolium)* Nettle (*Urtica dioica*), Perennial Ryegrass (*Lolium perenne*) Periwinkle (Vinca minor) Plantain (*Plantago lanceolata*) Prickly Lettuce (*Lactuca serriola*) Ragwort (*Senecio jacobaea*), Sowthistle (*Sonchus asper*) Speedwell (*Veronica officinalis*) Teasel (*Dipsacus fullonium*) Thistle (*Cirsium arvense*) willowherb (*Epilobium* sp), Yorkshire Fog (*Holcus lanatus*)

Appendix 2 Biological Records
Separate Appendix provided by GLNP