

KJ Ecology Ltd

Preliminary Ecological Appraisal  
and  
Biodiversity Net Gain assessment  
for  
Boiling Wells Farm, South Rauceby

December 2023



**Client :**

David Bellamy,  
Greylees Ltd,  
Boiling Wells Farm,  
Grantham Road,  
South Rauceby,  
Lincolnshire,  
NG34 8QX.

Tel.  
e-mail

**Prepared by :**

Kevin Johnson BSc PgD PGCE MCIEEM,  
KJ Ecology Ltd,  
17, The Meadow,  
Caistor,  
Lincs,  
LN7 6XD.

Tel. 07807 655237  
e-mail [kevin@kjecology.co.uk](mailto:kevin@kjecology.co.uk)



## Contents

	Executive Summary.....	i
1	Introduction .....	1
1.1	Terms of Instruction .....	1
1.2	Site Location .....	1
1.3	Site Description.....	1
1.4	Proposed Development.....	2
1.5	Report Limitations.....	2
1.6	Background to KJ Ecology Ltd .....	2
2	Methodology.....	2
2.1	Desk top study .....	2
2.2	Preliminary Ecological Appraisal .....	2
2.2.1	Habitat and Plant Assessment .....	3
2.2.2	Amphibian Survey .....	3
2.2.3	Badger Survey .....	3
2.2.4	Preliminary Bat Roost Assessment .....	4
2.2.5	Nesting Bird Survey.....	5
2.2.6	Invertebrate Survey .....	5
2.2.7	Other Mammals Survey .....	5
2.2.8	Reptile Survey .....	5
2.2.9	Water Vole Survey.....	5
2.3	Biodiversity Net Gain.....	5
2.4	Survey Constraints .....	6
3	Survey Results .....	6
3.1	Desk top study .....	6
3.1.1	Habitats.....	6
3.1.2	Protected Species.....	6
3.2	Preliminary Ecological Appraisal .....	7
3.2.1	Habitat and Plant Assessment .....	7
3.2.2	Badger Survey.....	7
3.2.3	Preliminary Bat Roost Assessment .....	7
3.2.4	Nesting Bird Survey.....	7
3.2.5	Invertebrate Survey .....	7
3.2.6	Other Mammals Survey .....	8
3.2.7	Reptile Survey .....	8
3.3	Biodiversity Net Gain.....	8
3.3.1	Area Habitats .....	8
3.3.1.1	On-Site Habitat Baseline .....	8
3.3.1.2	On-Site Habitat Creation .....	8
3.3.1.3	On-Site Enhancement.....	8
3.3.2	Headline Results.....	9
4	Evaluation and Recommendations.....	9
4.1	Evaluation .....	9
4.2	Recommendations .....	10
5	Legislation and Policy Guidance .....	10
5.1	Protected Species.....	11
5.1.1	European Protected Species .....	11
5.1.2	Amphibians .....	11
5.1.3	Badgers .....	12
5.1.4	Birds.....	12
5.1.5	Plants .....	13
5.1.6	Reptiles .....	13
5.2	Invasive Non-natives .....	14
5.3	National Planning Policy Framework .....	14
6	References .....	15

## Appendices

	Appendix 1: Maps.....	19
	Map 1: Location map of Boiling Wells Farm, South Rauceby.....	20

<b>Map 2: Habitat map for Boiling Wells Farm, South Rauceby .....</b>	<b>21</b>
<b>Appendix 2: Photos .....</b>	<b>22</b>
<b>Photos for Boiling Wells Farm, South Rauceby .....</b>	<b>23</b>
<b>Appendix 3: Preliminary Ecological Appraisal Results .....</b>	<b>24</b>
<b>Survey Results for Boiling Wells Farm, South Rauceby .....</b>	<b>25</b>
<b>Appendix 4: Habitat Assessment Sheets .....</b>	<b>27</b>
<b>Habitat Assessment sheet for Sparsely vegetated area.....</b>	<b>28</b>
<b>Habitat assessment sheet for the Grassfield .....</b>	<b>29</b>
<b>Appendix 5: LERC Search Summary Report .....</b>	<b>30</b>
<b>LERC Search Summary Report Grid Reference: TF 0403 4582, Buffer: 2km.....</b>	<b>31</b>

## Executive Summary

Oliver Grundy of JHG Planning Consultancy Ltd on behalf of David Bellamy of Greylees Ltd are applying to construct two broiler poultry units at Boiling Wells Farm, Grantham Road, South Rauceby. To comply with planning procedures Oliver Grundy of JHG Planning Consultancy Ltd on behalf of David Bellamy of Greylees Ltd commissioned Kevin Johnson of KJ Ecology Ltd to carry out a Preliminary Ecological Appraisal and Biodiversity Net Gain on the 9<sup>th</sup> October 2023.

The proposed development site is in a rural setting with South Rauceby 900m to the West and Sleaford 1km to the East. The site is on the North side of Grantham Road at Grid Ref TF 0403 4582.

The proposed development area is a flat area with a combination of soil and stoned areas. On this area are mounds of soil and an area where materials are stored. Surrounding the proposed development site is a grass bank and a grassfield. The immediate vicinity consists of other boiler poultry units and associated infra-structure, grassfield, woodland, arable fields, hedges with trees and a ditch.

On the 10<sup>th</sup> November and 5<sup>th</sup> December 2023 the following methodologies were carried out on land at Boiling Wells Farm, Grantham Road, South Rauceby:

1. Desk top study – To establish what protected habitats and species are within the area;
2. Preliminary Ecological Appraisal – Used to identify the likelihood of any protected species been found on the site, identify any features, habitats or species which would constitute potential constraints to any development which might take place, and to make recommendations for mitigation and/or further survey work, as appropriate;
3. Biodiversity Net Gain Assessment to establish if the proposals will leave the site in a better ecological state then they started out with.

The surveys found that:

1. The desk top study revealed that there is one statutory site (Wilsford and Rauceby Warrens SSSI) and nine non-statutory sites including Rauceby Park LWS within 2kms of the proposed development. There are 56 protected and 78 priority species recorded within 2kms of the planned development, including Water Vole (*Arvicola amphibius*);
2. The Preliminary Ecological Appraisal found no signs or possibilities for protected species on the development area;
3. The Biodiversity Net Gain calculation using the Biodiversity Metric 4.0 Calculation Tool (April 2023) revealed that the initial baseline gave 12.64 habitat units and no habitat units will be created with the new broiler poultry units. The retained grassland and the newly created grassland and woodland habitats will produce 14.85 habitat units. This is a 2.22 habitat unit gain or 17.53% net gain. This means that the plans have reached the required 10% net gain.

From these survey results, KJ Ecology Ltd has no objections to the proposed construction of two broiler poultry units at Boiling Wells Farm, Grantham Road, South Rauceby, as long as the following recommendations are followed:

1. As there is potential for Hedgehogs within the area, then any trenches need to be covered at night during construction to prevent them from falling in;
2. The wildflower areas need planting up with wildflowers in the Springtime with a suitable mix from a reputable supplier. The wildflower meadow area will require cutting in late August time with the vegetation being moved off site and a second cut in November time to reduce the vigour of the grasses. Some reseedling may be required to reach the stated target.



# **Main Report**





# **1 Introduction**

## **1.1 Terms of Instruction**

Oliver Grundy of JHG Planning Consultancy Ltd on behalf of David Bellamy of Greylees Ltd are applying to construct two broiler poultry units at Boiling Wells Farm, Grantham Road, South Rauceby. To comply with planning procedures Oliver Grundy of JHG Planning Consultancy Ltd on behalf of David Bellamy of Greylees Ltd commissioned Kevin Johnson of KJ Ecology Ltd to carry out a Preliminary Ecological Appraisal and Biodiversity Net Gain on the 9<sup>th</sup> October 2023.

The purpose of the Preliminary Ecological Appraisal is to identify the likelihood of any protected species been found on the site, identify any features, habitats or species which would constitute potential constraints to any development which might take place, and to make recommendations for mitigation and/or further survey work, as appropriate.

In addition to the Preliminary Ecological Appraisal a Biodiversity Net Gain assessment for the proposed development is to be carried out. Biodiversity Net Gain is an approach to development that aims to leave the natural environment in a measurably better state than beforehand. This means protecting existing habitats and ensuring that lost or degraded environmental features are compensated for by restoring or creating environmental features that are of greater value to wildlife and people. It does not change the fact that losses should be avoided where possible, a key part of adhering to a core environmental planning principle called the mitigation hierarchy (DEFRA, 2018).

## **1.2 Site Location**

The proposed development site is in a rural setting with South Rauceby 900m to the West and Sleaford 1km to the East. The site is on the North side of Grantham Road at Grid Ref TF 0403 4582, as shown in Map 1 (Appendix 1).

## **1.3 Site Description**

The proposed development area is a flat area with a combination of soil and stoned areas (Photos 1 and 2, Appendix 2). On this area are mounds of soil and an area where materials are stored. Surrounding the proposed development site is a grass bank and a grassfield (Photos 3 and 4, Appendix 2).

The immediate vicinity consists of other boiler poultry units and associated infra-structure, grassfield, woodland, arable fields, hedges with trees and a ditch.

## **1.4 Proposed Development**

It is proposed to construct two broiler poultry units at Boiling Wells Farm, Grantham Road, South Rauceby as per planning application.

## **1.5 Report Limitations**

This report is for the sole use of the client and its' reproduction or use by anyone else is forbidden unless written consent is given by the author.

The ecological data in this report is only valid for 18 months from the survey date of 10<sup>th</sup> November 2023, as wildlife, especially Protected Species move about and natural conditions can change over time.

## **1.6 Background to KJ Ecology Ltd**

On the 9<sup>th</sup> October 2023 KJ Ecology Ltd was appointed to carry out a Preliminary Ecological Appraisal and Biodiversity Net Gain assessment on land at Boiling Wells Farm, Grantham Road, South Rauceby. KJ Ecology Ltd is an independent Ecological Consultancy run by Kevin Johnson BSc Pgd PGCE MCIEEM (Member of the Chartered Institute of Ecology and Environmental Management) and has several years of experience in environmental consultancy work. This work has ranged from working on the rail, roads, airports, house building projects, barn conversions and pipeline work. Kevin Johnson was initially an Ecology and Environmental Lecturer at various colleges and taught students how to carryout surveys and about the environment. Kevin Johnson then went on to work for a number of ecological consultancies such as Penny Anderson Associates, which is one of the original environmental consultancy companies and is well respected.

## **2 Methodology**

### **2.1 Desk top study**

The purpose of a desk study is to identify any statutory and non-statutory sites of nature conservation importance (such as Special Areas of Conservation (SACs), Sites of Special Scientific Interest (SSSIs) and County Wildlife Sites (CWSs)) and Protected Species within reasonable distance of the site.

The sources of information used in the desk top study included:

- Lincolnshire Environmental Records Centre;
- Multi-Agency Geographic Information for the Countryside (MAGIC).

### **2.2 Preliminary Ecological Appraisal**

A Preliminary Ecological Appraisal was carried out to Joint Nature Conservation Committee (JNCC) and Chartered Institute of Ecology and Environmental Management (CIEEM) guidelines on the 10<sup>th</sup>

November 2023 by Kevin Johnson of KJ Ecology Ltd who has numerous years' experience in carrying out Preliminary Ecological Appraisals. The perimeter of the site, then the area inbetween was walked in a zig-zag fashion as much as possible, so that as much wildlife information could be recorded about the site. The immediate area around site was also surveyed for signs of wildlife and how they may influence the proposed development. Two hours was spent on the site looking for signs of wildlife and any species seen were recorded using the DAFOR scale. The DAFOR scale is a way of quantifying the abundance of species on the site as a percentage of the area. All fauna were given a Rare recording unless there were a lot of them. The DAFOR scale used was:

Dominant	Most common species within the survey area >75%
Abundant	Really very common in the survey area.
Frequent	Found the species in several places in the survey area and there was usually more than just a few individuals in each of these places. Also if a species was very common in that part, with many individuals and covered a substantial area.
Occasional	Species that occur in several places in the survey area, but whose populations are usually not very big. Can be used if very common in one small area of habitat within the survey area, but occupies just a small area.
Rare	Species that occur as a small number of individuals in the survey area. This small number of individuals may be located in one place, or scattered over several different locations.

The survey also included:

### 2.2.1 Habitat and Plant Assessment

The habitat on site was assessed for its ability to support protected species and whether it is of National/ Local importance. Any rare species of plant were noted as were any Invasive Non-natives under Part II of Schedule 9 of the Wildlife and Countryside Act 1981 (as amended).

### 2.2.2 Amphibian Survey

There are two ponds 500m to the North-east of the site and are surrounded by trees and scrub. There are confirmed records of Great Crested Newt (*Triturus cristatus*) 1.6kms to the South-south-west at Wilsford and Rauceby Warrens SSSI. Due to this fact, no further survey work is required.

### 2.2.3 Badger Survey

A Badger (*Meles meles*) survey was also undertaken and carried out as per The Mammal Society: Surveying Badgers booklet 1989. Any signs of Badger were recorded including sett holes (used, partially used, dis-used), the type of sett (as per table below), trails, footprints, latrines, hairs, snuffle holes, feeding remains, bedding

and scratching posts were all recorded.

### Sett Characterization

Type of sett	Sett Properties
Main sett	These usually have a large number of holes with conspicuous spoil heaps, and the sett generally looks very active. There are well used paths to and from the sett and between entrances. Normally the breeding sett is in continuous use, but it is possible to find a disused main sett in areas of low Badger density.
Annexe sett	These are close to the main sett, normally less than 150m away, and are usually connected to the main sett by obvious well-worn paths. They usually have several holes, but may not be in use all of the time.
Subsidiary Sett	These often have only a few holes (average of three to five). They are usually at least 50m from a main sett, and do not have an obvious path connecting with another sett. They are not continuously active.
Outlying Sett	These usually have only one or two holes, often have little spoil outside the hole, have no obvious path connecting with another sett, and are only used sporadically. When not in use by badgers, they may be taken over by Foxes or even Rabbits.

#### 2.2.4 Preliminary Bat Roost Assessment

A Preliminary Bat Roost Assessment was also undertaken and carried out to Bat Conservation Trust - Bat Surveys for Professional Ecologists: Good Practice Guidelines 2016. Using ladders, binoculars and an endoscope, the buildings were fully examined for potential access points, and any signs of bats. These signs included droppings, live or dead animals, urine or fur staining, feeding remains, and scratch marks. The buildings were then categorised into their suitability to support a bat roost using the following criteria outlined by Collins 2016 as shown in the table below. The categorisation of the building then determines the number of bat surveys required.

#### Bat roost suitability of structures and trees

Category (Potential to support roosting bats)	Description	Number of bat surveys required
Negligible suitability	Negligible habitat features on site likely to be used by roosting bats.	None
Low suitability	A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation). A tree of sufficient size and age to contain potential roost features but with none seen from the ground or features seen with only very limited roosting potential.	Trees – None Buildings - One
Moderate suitability	A structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely for a roost of high conservation status (with respect to roost type only – the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed).	Two
High suitability	A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.	Three

This work was undertaken by licenced bat worker Kevin Johnson (2018-34450-SCI-SCI) of KJ Ecology Limited who is fully trained in bat surveys and has been carrying out bat surveys for over 10 years.

### **2.2.5 Nesting Bird Survey**

A nesting bird survey was carried out which involved looking out for signs of nests and other indications were also used such as families (adult birds with accompanying juveniles), juvenile birds, adults carrying food, adults carrying nesting material, and piles of droppings/ food remains.

### **2.2.6 Invertebrate Survey**

The potential development site was assessed for its suitability to support a variety of invertebrates. No specific surveys were undertaken, but if a known species was seen, it was recorded.

### **2.2.7 Other Mammals Survey**

Evidence of small mammals was searched for such as Shrews and Voles as they are the basis of the food chain for many other species from Kestrels (*Falco tinnunculus*) to Barn Owl (*Tyto alba*). Other mammals and their signs were also noted from Moles (*Talpa europaea*) to deer.

### **2.2.8 Reptile Survey**

The area was searched for reptiles and suitable features for reptiles. As reptiles are ectotherms so need an external source to heat them up, basking areas were searched for including short grass area – embankment/ paths, woodland edges – base of trees, logs, stones or artificial e.g. corrugated metal sheets. Suitable refugia and hibernacula were also searched for.

### **2.2.9 Water Vole Survey**

There is a ditch 84m to the South of the proposed development area and there are two broiler poultry units between the site and the ditch. For this reason, no further Water Vole (*Arvicola amphibius*) survey work is required.

## **2.3 Biodiversity Net Gain**

On the 10<sup>th</sup> November 2023 a baseline assessment was done for the site and the baseline map is shown in Map 2, Appendix 1. For each habitat identified, the area was then measured; a condition assessment was carried out as per Biodiversity Metric 4.0 - Technical Annex 1 - Condition Assessment Sheets and Methodology, (July 2023) and finally the strategic significance of the site. These values are then added to Biodiversity Metric 4.0 Calculation Tool (April 2023) which automatically calculates the habitat units on site. The

results can be seen in the accompanying Excel spreadsheet - Boiling Fm S Rauceby - Biodiversity Metric 4.0 Calc.

The proposed illustrative Masterplan was then used to enter the data for the new proposed habitats into the Biodiversity Metric 4.0 Calculation Tool (April 2023). This included any retained or enhanced habitats. For each habitat type, the area was taken, the target condition for each habitat was assessed using the Biodiversity Metric 4.0 - Technical Annex 1 - Condition Assessment Sheets and Methodology, (July 2023), the strategic significance of the site and finally if the habitat is going to be created in advance or delayed. Using this data and the baseline data, the Biodiversity Metric 4.0 Calculation Tool (April 2023) would then calculate if there has been any Biodiversity Net Gain. If the required minimum 10% Biodiversity Net Gain has not been reached, then further discussions with the client are required until an agreed motion forward has been reached.

## **2.4 Survey Constraints**

The only survey constraint was that due to the time of year the survey was done, certain species would not be present. When the site was assessed on the 10<sup>th</sup> November 2023 the weather was cool (8 - 9C) with 40% cloud cover and a Gentle Northerly breeze.

## **3 Survey Results**

### **3.1 Desk top study**

The desk top study revealed the following results:

#### **3.1.1 Habitats**

The desk top study revealed that there is one statutory site (Wilsford and Rauceby Warrens SSSI) and nine non-statutory sites including Rauceby Park LWS within 2kms of the proposed development as shown in Appendix 5.

There are numerous habitats within the area which can support or provide opportunities for wildlife, including grassland, arable, woodland, hedges with trees and a ditch.

#### **3.1.2 Protected Species**

There are 56 protected and 78 priority species recorded within 2kms of the planned development on land at Boiling Wells Farm, South Rauceby, including Water Vole as shown in Appendix 5. The Birds of Conservation Concern 5 (2021) Red Data list for the area includes species such as Fieldfare (*Turdus pilaris*) which is also a Schedule 1 species under the Wildlife and Countryside Act 1981 (as amended). There are no recent records of protected plants, but there are records of amphibians such as Great Crested Newt, insects for

example White-letter Hairstreak (*Satyrrium w-album*) and reptiles including Common Lizard (*Zootoca vivipara*) within the area.

Other species can utilise the site such as Song Thrush (*Turdus philomelos*) which are on the Birds of Conservation Concern Amber list. Other declining species have been recorded within the area and include the Hedgehog (*Erinaceus europaeus*).

### **3.2 Preliminary Ecological Appraisal**

A Preliminary Ecological Appraisal was carried out on the 10<sup>th</sup> November 2023 by Kevin Johnson BSc Pgd PGCE MCIEEM, who has numerous years' experience in carrying out survey work. The species results of the Preliminary Ecological Appraisal can be found in Appendix 3 and a UK habitat map was produced (Map 2, Appendix 1).

The Preliminary Ecological Appraisal found the following results:

#### **3.2.1 Habitat and Plant Assessment**

Where the two broiler poultry units are planned the ground is a mixture of stone and sub-soil. There are materials stored in this area and there are mounds of soil. There are various herbaceous plants such as Prickly Sow-thistle (*Sonchus asper*) growing in the area, so giving the area a classification of Sparsely vegetated area. To the North and West of the site is a Modified grassland which is mainly Perennial Ryegrass (*Lolium perenne*) with sporadic herbaceous plants including Common Vetch (*Vicia sativa*). There were no rare or Invasive Non-natives plants on site.

#### **3.2.2 Badger Survey**

No signs of Badger were found on site.

#### **3.2.3 Preliminary Bat Roost Assessment**

The buildings adjacent to the site had no bat potential.

#### **3.2.4 Nesting Bird Survey**

No nesting birds were seen but there is potential for nesting birds in the grassland.

#### **3.2.5 Invertebrate Survey**

The weather was cool (8 - 9C) when the survey was carried out, so was not ideal for invertebrate surveys, hence none were seen. There was a limited range of flora that could support a few invertebrates on site. The wider habitat does suggest that the site will support a range of invertebrates from butterflies to moths to beetles.

### **3.2.6 Other Mammals Survey**

No mammals were seen on site, but the habitat does suggest that there will be Voles, Woodmice (*Apodemus sylvaticus*) and Shrews on site the grassland area. None of them will affect the proposed development.

### **3.2.7 Reptile Survey**

There were no signs of reptiles on site and there are no opportunities to support them.

## **3.3 Biodiversity Net Gain**

The baseline map is shown in Map 2, Appendix 1. The proposed outline plan was used to calculate the new habitat areas. All the data was added into the Biodiversity Metric 4.0 Calculation Tool (April 2023) to assess if there was going to be a net gain. The results can be seen in the accompanying Excel spreadsheet – Boiling Fm S Rauceby - Biodiversity Metric 4.0 Calc.

### **3.3.1 Area Habitats**

#### **3.3.1.1 On-Site Habitat Baseline**

The proposed development is on a sparsely vegetated area with patches of vegetation and is classed Sparsely vegetated land – Tall forbs (Line 1). This development area covers 2.634ha and is in Poor condition – see Appendix 4. This created 5.27 habitat units. The grassfield to the North and West of the site is a Perennial Ryegrass field so is categorised as Modified grassland. This is in Poor condition – See Appendix 4 and this 3.685ha produced 7.37 habitat units. 2.1ha of this grassland will be retained and 1.185ha will be enhanced. Overall, there are 12.64 habitat units on site.

#### **3.3.1.2 On-Site Habitat Creation**

The proposed layout of the site is shown in the accompanying proposed site layout plan. The two broiler poultry units (Line 1) and the concrete aprons (Line 3), are labelled as Urban – developed land; sealed surface. The crushed stone perimeter (Line 2) is classed as Urban – Artificial unvegetated; unsealed surface. None of these have any wildlife value. A new Woodland shelter belt will be created along the Western boundary of the site (Line 4). This 0.4ha will attain a Poor habitat condition over the 30 years of Biodiversity Net Gain and will produce 1.34 habitat units.

#### **3.3.1.3 On-Site Habitat Enhancement**

1.185ha of the grassfield is to be enhanced with a wildflower/grass mix to create Other neutral grassland. With good management this should easily reach a good habitat condition and produce 9.31 habitat units.



### **3.3.2 Headline Results**

The initial baseline gave 12.64 habitat units and no habitat units will be created with the new broiler poultry units. The retained grassland and the newly created grassland and woodland habitats will produce 14.85 habitat units. This is a 2.22 habitat unit gain or 17.53% net gain. This means that the plans have reached the required 10% net gain.

## **4 Evaluation and Recommendations**

### **4.1 Evaluation**

From the Desktop Ecological Assessment there is one statutory site (Wilsford and Rauceby Warrens SSSI) and nine non-statutory sites including Rauceby Park LWS within 2kms of the proposed development. This proposed development will have no effect upon any of these protected sites. The desktop study revealed that there are several protected species within 2kms of the site such as Water Vole. There were no signs of protected species found during the Preliminary Ecological Appraisal on the 10<sup>th</sup> November 2023. The grassfield part of the site may contain nesting birds but they will not be disturbed by the building.

The only other possibility for wildlife are Hedgehogs which are a priority species, so measures need to be in place to allow free movement of Hedgehogs within the area. Hedgehogs are partially protected under the Wildlife and Countryside Act 1981 (as amended) - may not be trapped without a licence from Natural England. To comply with this all trenches should be covered at night to prevent Hedgehogs falling in. Once the build has been completed, 13cmx13cm gaps need leaving at the base of the fences to allow Hedgehogs to pass between gardens.

The Biodiversity Net Gain calculation using the Biodiversity Metric 4.0 Calculation Tool (April 2023) revealed that the initial baseline gave 12.64 habitat units and no habitat units will be created with the new broiler poultry units. The retained grassland and the newly created grassland and woodland habitats will produce 14.85 habitat units. This is a 2.22 habitat unit gain or 17.53% net gain. This means that the plans have reached the required 10% net gain.

To reach the required habitat units on site, the wildflower meadow area will need sowing in Springtime and will require cutting in late August time with the vegetation being moved off site. If possible a second cut in November time on the wildflower meadow is required to reduce the vigour of the grasses. Some reseedling of flower species may be required to attain the good habitat condition.

The wildflower mix for the grass area needs to be bought from a reputable UK seed merchant such as:

<https://www.wildflower.co.uk>

<https://www.bostonseeds.com>

<https://britishwildflowermeadowseeds.co.uk>

## 4.2 Recommendations

KJ Ecology Ltd has no objections to the proposed construction of two broiler poultry units at Boiling Wells Farm, Grantham Road, South Rauceby, as long as the following recommendations are followed:

1. As there is potential for Hedgehogs within the area, then any trenches need to be covered at night during construction to prevent them from falling in;
2. The wildflower areas need planting up with wildflowers in the Springtime with a suitable mix from a reputable supplier. The wildflower meadow area will require cutting in late August time with the vegetation being moved off site and a second cut in November time to reduce the vigour of the grasses. Some reseedling may be required to reach the stated target.

## 5 Legislation and Policy Guidance

In the 1960s and 1970s concerns were raised about the loss of wildlife habitats and species. This led to The Convention on the Conservation of European Wildlife and Natural Habitats 1979 (Berne Convention) which came into force in 1982. The aim of this Convention is to conserve wild flora and fauna and their natural habitats; Promote cooperation between countries in their conservation efforts and, give particular emphasis to endangered and vulnerable species including migratory species.

In the UK this Convention was implemented by the creation of the Wildlife and Countryside Act 1981 (as amended). This Act was further strengthened by the Countryside and Rights Of Way Act 2000.

The UK has signed up to the EEC Council Directive on the Conservation of Natural Habitats and of Wild Flora and Fauna 1992 (Habitats Directive). The aim of the Habitats Directive is to contribute towards ensuring bio-diversity by means of the conservation of natural habitats and of wild fauna and flora in the European territory of the Member States. The UK transposed the Habitats Directive into The Conservation (Natural Habitats, &c.) Regulations 1994. To consolidate all the various amendments made to this Act, The Conservation of Habitats and Species Regulations 2017 has been introduced.

The UK has also signed up to The Convention on the Conservation of Migratory species of Wild Animals 1979 (The Bonn Convention) which

came into force in 1983 and so is therefore party to various agreements.

## **5.1 Protected Species**

### **5.1.1 European Protected Species**

Water Voles (*Arvicola amphibius*), Otters (*Lutra lutra*), Bats and Great Crested Newts (*Triturus cristatus*) are classed as European Protected Species. All European Protected Species are protected under Schedules 5 and 6 of the Wildlife and Countryside Act 1981 (as amended) and are also protected under Schedule 2 of the Conservation of Habitats and Species Regulations 2012. They are listed under Appendix III of the Bern Convention and Annex IV of the EC Habitats Directive. These species also have their habitats listed under Appendix II of The Bonn Convention and therefore the UK has an obligation to protect their habitat, including links to important feeding areas.

In relation to a development these laws and regulations make it illegal for a person to:

- Intentionally or recklessly kill, injure or take a European Protected Species;
- Intentionally or recklessly -
  - Damage or destroy any structure or place which any European Protected Species uses for shelter or protection;
  - Disturbs any such European Protected Species while it is occupying a structure or place which it uses for shelter or protection; or
  - Obstructs access to any structure or place which any such European Protected Species uses for shelter or protection;
- Deliberately or recklessly disturbs wild animals of any species in such a way as to be likely significantly to affect :
  - The ability of any significant group of animals to survive, breed, or rear or nurture their young; or
  - The local distribution or abundance of that species;
- Possess or transport European Protected Species or any part of a them, unless acquired legally;
- Sell (or offer for sale) or exchange European Protected Species, or parts of European Protected Species.

This legislation applies, regardless of the life stage (including eggs).

A European Protected Species Licence is required to carry out any activity that would otherwise involve committing an offence.

### **5.1.2 Amphibians**

All amphibians are protected under Schedule 5 of the Wildlife and Countryside Act, 1981 (as amended). Under Section 9(4b and c) of

the Wildlife and Countryside Act 1981 (as amended), it is an offence to :

- Disturb any GCN while it is occupying a structure or place which it uses for shelter or protection; or
- Obstructs access to any structure or place which a GCN uses for shelter or protection.

Under Section 9(5a and b) of the Wildlife and Countryside Act 1981 (as amended) it is an offence to :

- Possess or transport all Amphibians or any part of a them, unless acquired legally;
- Sell (or offer for sale) or exchange Amphibians, or parts of Amphibians.

GCN and Pool Frog (*Rana lessonae*) are also protected under Schedule 2 of The Conservation of Habitats and Species Regulations 2017. To avoid prosecution under these laws during development of the site, all precautions have to be taken to ensure that no intentional harm is done to these species and any disturbance or obstruction of access is done under licence.

### 5.1.3 Badgers

Badgers (*Meles meles*) are fully protected in the UK by the Protection of Badgers Act, 1992 and by Schedule 6 of the Wildlife and Countryside Act, 1981(as amended). This makes it an offence to:

- Wilfully kill, injure, take, possess or cruelly treat a badger
- Intentionally or recklessly damage, destroy or obstruct access to a badger sett.

Disturb a badger while it is occupying a sett. (*Disturbance could include digging or scrub clearance within 30m of the sett, and therefore advice should be sought before carrying out such activities*).

### 5.1.4 Birds

All wild birds are protected under Part 1: 1(1) of the Wildlife and Countryside Act, 1981 which states that:

1 Protection of wild birds, their nests and eggs.

(1)Subject to the provisions of this Part, if any person intentionally or recklessly —

- (a) kills, injures or takes any wild bird;
  - (b) takes, damages, destroys or otherwise interferes with the nest of any wild bird while that nest is in use or being built; or
  - (ba) at any other time takes, damages, destroys or otherwise interferes with any nest habitually used by any wild bird included in Schedule A1;
  - (bb) obstructs or prevents any wild bird from using its nest;
  - (c) takes or destroys an egg of any wild bird,
- they shall be guilty of an offence.

To avoid committing an offence no works should be carried out on a structure/ feature that is being used by nesting birds. Nesting is deemed to be over when the young have fully fledged.

Certain species which are listed in Schedule 1 of the Wildlife and Countryside Act receive special protection. In these cases any form of intentional or reckless disturbance when they are nesting or rearing dependant young, constitutes an offence.

#### **5.1.5 Plants**

Schedule 8 of the Wildlife and Countryside Act, 1981 (as amended) lists a range of rare plants that need protection such as Early Spider Orchid (*Ophrys sphegodes*) and wild plants exploited for commercial reasons for example English Bluebells. Section 13 of the Wildlife and Countryside Act, 1981 (as amended) states that it is illegal to:

- 1(a) Intentional picking, uprooting or destruction of plants on Schedule 8;
- 1(b) Unauthorised (by landowner) intentional uprooting of any wild plant not included in Schedule 8;
- 2(a) Selling, offering for sale, possessing or transporting for the purpose of sale, any plant (live or dead, part or derivative) on Schedule 8;
- 2(b) Advertising for buying or selling such things.

#### **5.1.6 Reptiles**

Common lizard (*Zootoca vivipara*), Slow worm (*Anguis fragilis*), Adder (*Vipera berus*) and grass snake are all protected under Schedule 5 of the Wildlife and Countryside Act, 1981 against intentional injuring, killing or selling. For development sites in England, Wales or Scotland, to avoid prosecution under the Wildlife and Countryside Act 1981 (as amended), wherever works will impact on Slow Worms, Common Lizards, Adders and/or Grass-snakes there must be evidence that every reasonable effort was made to avoid breaking the law – including proof of adequate surveys and mitigation plans. Mitigation measures should, ideally, be agreed with Natural England.

Only the Sand Lizard (*Lacerta agilis*) and Smooth Snake (*Coronella austriaca*) are fully protected under the Wildlife and Countryside Act, 1981 (Section 9) and Regulation 9 of the Conservation of Habitats and Species Regulations 2010 against :

- Killing, injuring or capture;
- Damaging or destroying a breeding or resting site;
- Intentionally obstructing access to a place used for shelter;
- Keeping, transporting or selling.

This means that not only are the animals themselves protected but so are their habitats.

## 5.2 Invasive Non-natives

Section 14 of the Wildlife and Countryside Act 1981 (as amended) prevents Invasive Non-native animals and plants being released into the wild which may cause ecological, environmental, or socio-economic harm. Section 14 states:

- (1) Subject to the provisions of this Part, if any person releases or allows to escape into the wild any animal which –
  - (a) Is of a kind which is not ordinarily resident in and is not a regular visitor to Great Britain in a wild state; or
  - (b) Is included in Part I of Schedule 9,  
he shall be guilty of an offence
- (2) Subject to the provisions of this Part, if any person plants or otherwise causes to grow in the wild any plant which is included in Part II of Schedule 9, he shall be guilty of an offence.

This includes plants such as Himalayan Balsam (*Impatiens glandulifera*) and Japanese Knotweed (*Fallopia japonica*). Japanese Knotweed is controlled by other Acts and Regulations including:

- Environmental Protection Act 1990 - Waste containing Japanese Knotweed is classified as 'controlled waste'. As such, you must observe the appropriate duty of care for its proper handling and disposal as per Section 33 and 34. The movement of Japanese Knotweed is also covered by the Waste (England and Wales) Regulations 2011 and The Hazardous Waste Regulations 2005;
- Community Protection Notices can be issued to the owners of land with Japanese knotweed by the relevant local authority, by a person or body authorised by the local authority, or by a constable;
- Anti-social Behaviour, Crime and Policing Act 2014 - Notice can be given requiring someone to control or prevent the growth of Japanese knotweed or other plants capable of causing serious problems to communities;
- The Infrastructure Act 2015, contains powers to compel landowners to control or eradicate invasive non-native species and permits authorised persons to enter land to carry out species control operations at the landowner's expense.

## 5.3 National Planning Policy Framework

The National Planning Policy Framework (NPPF) was published on the 27<sup>th</sup> March 2012 and has several updates with the latest being 20<sup>th</sup> July 2021. The NPPF sets out the Government's planning policies for England and how these should be applied. As this is an ecological report, the ecological side of the NPPF will be dealt with here. One part of the NPPF is in achieving sustainable development (Chapter 2)

and how to secure net gains through the implementation of plans and the application policies with applications in presumption on favour of sustainable development.

Paragraph 8 (iii) states - **An environmental objective** – to contribute to protecting and enhancing our natural, built and historic environment; including making effective use of land, helping to improve biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy.

To achieve sustainability and Biodiversity Net Gain, planning policies should make effective use of land, and conserve, and enhance the Natural Environment. Effective use of land can be achieved by:

- Supporting developments of underutilised land and buildings;
- Recognising the multiple benefits from both urban and rural land;
- Developments that would enable new habitat creation or improve public access to the countryside;
- Recognise that some undeveloped land can perform many functions, such as for wildlife, recreation, flood risk mitigation, cooling/shading, carbon storage or food production.

To conserve and enhance the Natural Environment, leading to Biodiversity Net Gain, planning policies and decisions should contribute to and enhance the natural and local environment by:

- Protecting and enhancing the intrinsic value and beauty of the countryside e.g. Areas of Outstanding Beauty and Nature Reserves (Local and National);
- Minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures. These include Wildlife Corridors, the Stepping Stones that connect them and areas identified by national, and local partnerships for habitat management, enhancement, restoration or creation;
- Promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.

## 6 References

Amphibian and Reptile Groups of the UK (May 2010) ARG UK Advice Note 5: Great Crested Newt Habitat Suitability Index, [Online], ARG. Available at: [www.arguk.org/advice-and-guidance/view-category](http://www.arguk.org/advice-and-guidance/view-category)

- Barker, J. Hoskin, R. & Butterworth, T. (2019) Biodiversity Net Gain: Good Practice Principles for development – A Practical Guide, CIRIA, London
- Chartered Institute of Ecology and Environmental Management (2012) Technical Guidance Series : Guidelines for Preliminary Ecological Appraisal, [Online], CIEEM. Available at: <http://www.cieem.net/> [Members only]
- Clough et al (2017) Code of Practice : Managing Japanese Knotweed, London, INNSA
- Collins, J (ed.) (2016) Bat Surveys for Professional Ecologists : Good Practice Guidelines – 3<sup>rd</sup> Edition, London, BCT
- Convention on the Conservation of European Wildlife and Natural Habitats, Bern, 19.IX.1979, Brussels, EC
- Convention on the Conservation of Migratory Species of Wild Animals, UNEP/CMS, Bonn
- Countryside Rights of Way Act 2000 (c.37) London: HMSO
- DEFRA (2023) MAGIC, [Online] DEFRA. Available at: <http://magic.defra.gov.uk/MagicMap.aspx> [accessed 5<sup>th</sup> December 2023]
- English Nature (2001) Water Vole: Guidance for Planners & Developers, English Nature, Peterborough
- Gilbert G, Gibbons DW, Evans J. (1998) *Bird Monitoring Methods: Breeding Bird Survey* (pages 389-393). RSPB
- Joint Nature Conservation Committee (2010) Handbook for Phase 1 habitat survey: A technique for environmental audit, JNCC, Peterborough
- Langton et al, (2001) Great Crested Newt Conservation Handbook, Froglife, Halesworth
- Lincolnshire Environmental Records Centre (2023) 2km radius of TF 0403 4582. Available at: <https://search.glnp.org.uk/> [accessed 7<sup>th</sup> December 2023]
- Ministry of Housing, Communities and Local Government (2021) National Planning Policy Framework, Available at



<https://www.gov.uk/guidance/national-planning-policy-framework> [accessed 1<sup>st</sup> August 2021]

Natural England (2023) Biodiversity Metric 4.0 Calculation Tool - macro-enabled, [Online], Natural England. Available at <https://publications.naturalengland.org.uk/publication/5338007268491264> [accessed 3<sup>rd</sup> May 2023]

Natural England (2023) Biodiversity Metric 4.0 - Technical Annex 1 - Condition Assessment Sheets and Methodology, [Online], Natural England. Available at: <https://publications.naturalengland.org.uk/publication/4510441569779712> [accessed 26<sup>th</sup> July 2023]

Oldham et al, (2000) Evaluating the suitability of habitats for Great Crested Newts (*Triturus cristatus*), Herpetological Journal, Vol. 10, pp. 143-155.

Ordnance Survey (2023) OSmap, [Online] Ordnance Survey. Available at: <https://getamap.ordnancesurvey.co.uk> [accessed 7<sup>th</sup> December 2023]

Property Care Association (2018) Code of Practice for the Management of Japanese Knotweed, Huntingdon, PCA

Protection of Badgers Act 1992 (c.51) London: HMSO

Stanbury et al (2021) The status of our bird populations: the fifth Birds of Conservation Concern in the UK, Channel Islands and Isle of Man and second IUCN Red List assessment of extinction risk for GB. British Birds 114: 723-747. Available at <https://britishbirds.co.uk/content/status-our-bird-populations> [accessed 13<sup>th</sup> November 2021]

Strachan et al (2011) Water Vole Conservation Handbook: Third Edition, Wildlife Conservation Research Unit, Abingdon

The Conservation of Habitats and Species Regulations 2017 (No. 1012) London: HMSO

UK Habitat Classification Working Group (2018) UK Habitat Classification – Habitat Definitions V1.0. Available at: <https://ecountability.co.uk/ukhabworkinggroup-ukhab> [accessed 8<sup>th</sup> June 2020]

UK Habitat Classification Working Group (2018) UK Habitat Classification User Manual. Available at:

<https://ecountability.co.uk/ukhabworkinggroup-ukhab>  
[accessed 8<sup>th</sup> June 2020]

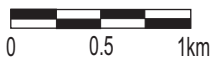
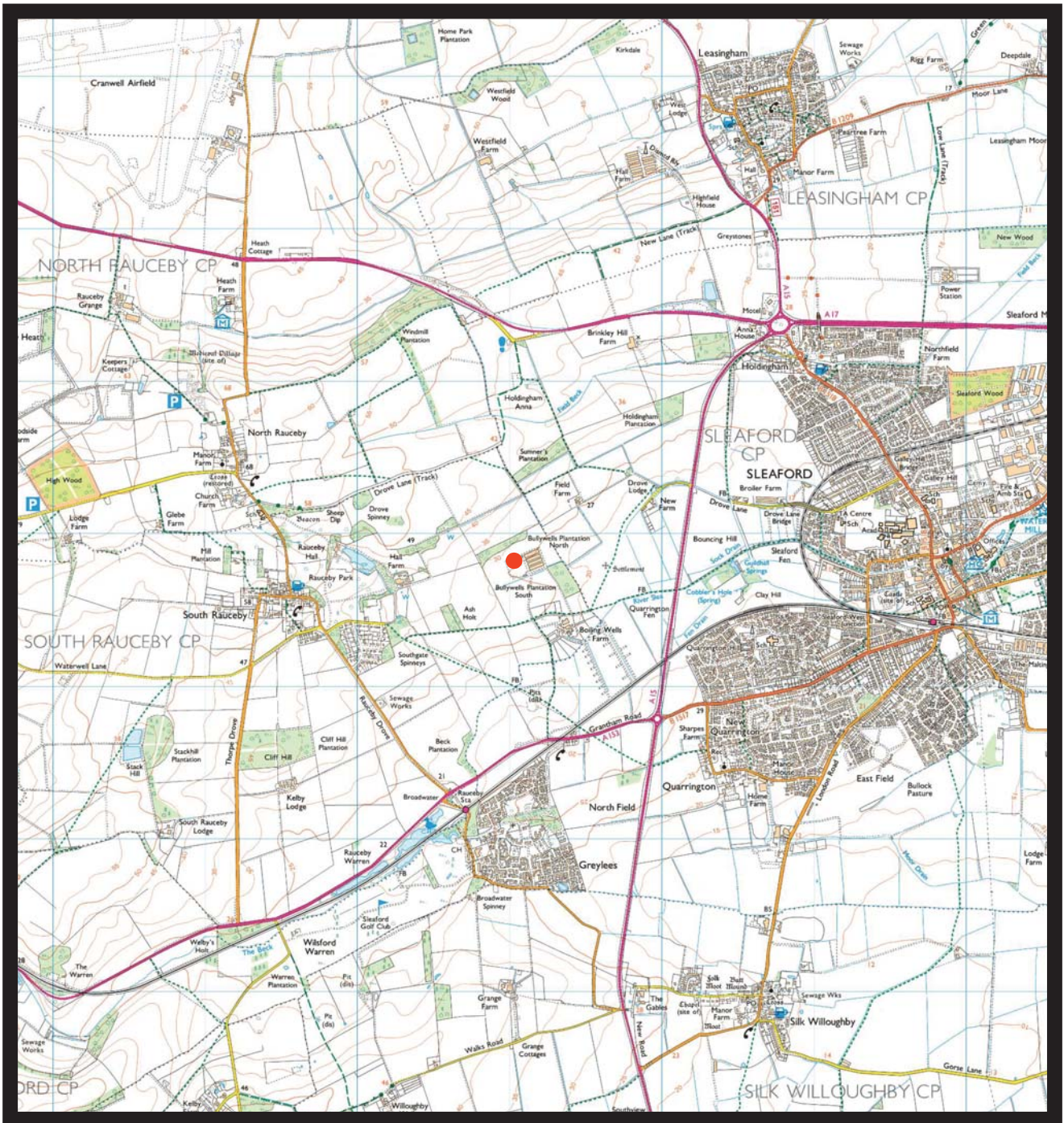
Wildlife and Countryside Act 1981 (as amended) 2004 (c.39) London:  
HMSO

# **Appendicies**



# Appendix 1 Maps

**Map 1: Location map of Boiling Wells Farm, South Rauceby.**



Ordnance Survey C Crown Copyright 2023. All Rights reserved  
Licence Number 100051497. Plotted Scale 1:40,000

Site Plan 1:40,000

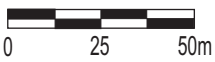
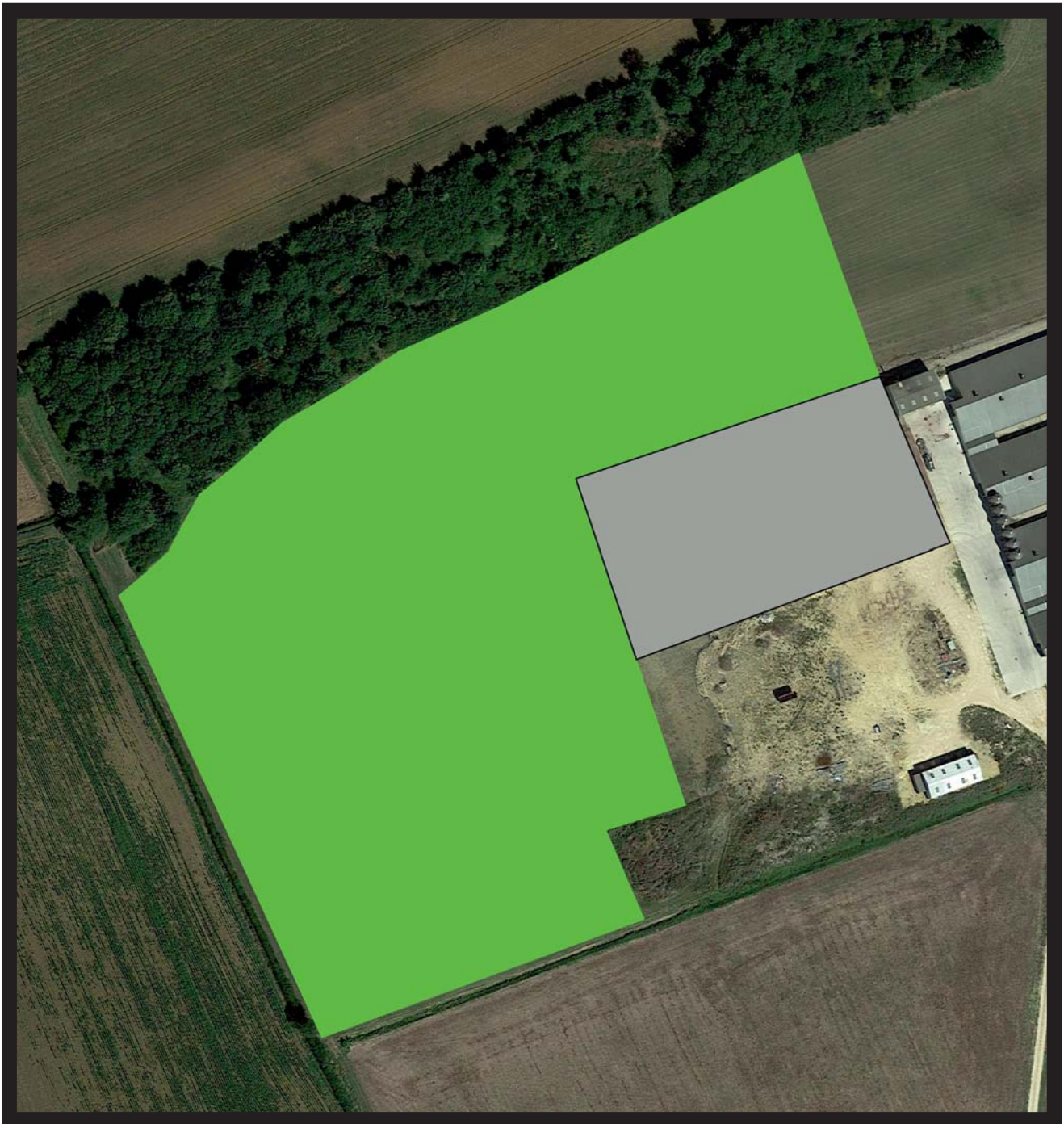
**Legend**

● Location of site

KJ Ecology Ltd  
Drawn by : KJ  
Date : 09/12/2023



**Map 2: Habitat map for Boiling Wells Farm, South Rauceby.**



Ordnance Survey C Crown Copyright 2023. All Rights reserved  
Licence Number 100051497. Plotted Scale 1:3,400

Site Plan 1:3,400

**Legend**

- Modified grassland
- Sparsely vegetated land



KJ Ecology Ltd  
Drawn by : KJ  
Date : 09/12/2023

# Appendix 2

# Photos



**Photos for Boiling Wells Farm, South Rauceby.**



Photo 1: North-west view of the site



Photo 2: South-east view of the site



Photo 3: View West across grassfield



Photo 4: North-west view across Western part of field

# Appendix 3

## Preliminary Ecological Appraisal Results

### Survey Results for Boiling Wells Farm, South Rauceby.

Common Name	Scientific Name	DAFOR
<b>Trees</b>		
Goat Willow	<i>Salix caprea</i>	R
<b>Shrubs</b>		
Bramble	<i>Rubus fruticosus agg.</i>	R
Butterfly Bush	<i>Buddleja davidii</i>	R
<b>Herbaceous plants</b>		
Alsike Clover	<i>Trifolium hybridum</i>	O
Bristly Oxtongue	<i>Picris echioides</i>	F
Broad-leaved Dock	<i>Rumex obtusifolius</i>	R
Common Bird's-foot-trefoil	<i>Lotus corniculatus</i>	O
Common Field Speedwell	<i>Veronica persica</i>	O
Common Figwort	<i>Scrophularia nodosa</i>	R
Common Mouse-ear	<i>Cerastium holosteoides</i>	O
Common Nettle	<i>Urtica dioica</i>	R
Common Ragwort	<i>Senecio jacobaea</i>	O
Common Vetch	<i>Vicia sativa</i>	O
Creeping Buttercup	<i>Ranunculus repens</i>	O
Creeping Thistle	<i>Cirsium arvense</i>	F
Dandelion	<i>Taraxacum officinale agg</i>	O
Dove's-foot Crane's-bill	<i>Geranium molle</i>	O
Fat-hen	<i>Chenopodium album</i>	R
Goosegrass	<i>Gallium aparine</i>	R
Greater Plantain	<i>Plantago major</i>	O
Great Willowherb	<i>Epilobium hirsutum</i>	O
Ground Ivy	<i>Glechoma hederacea</i>	R
Groundsel	<i>Senecio vulgaris</i>	R
Herb Robert	<i>Geranium robertianum</i>	R
Hoary Willowherb	<i>Epilobium parviflorum</i>	O
Hogweed	<i>Heracleum sphondylium</i>	O
Lucerne	<i>Medicago sativa</i>	O
Prickly Sow-thistle	<i>Sonchus asper</i>	O
Ribwort Plantain	<i>Plantago lanceolata</i>	O
Scentless Mayweed	<i>Tripleurospermum inodorum</i>	O
Small-flowered Crane's-bill	<i>Geranium pusillum</i>	O
Smooth Cat's-ear	<i>Hypochoeris glabra</i>	R
Spear Thistle	<i>Cirsium vulgare</i>	R
Teasel	<i>Dipsacus fullonum</i>	R
Wavy Bitter-cress	<i>Cardamine flexuosa</i>	O
Weld	<i>Reseda luteola</i>	R
White Clover	<i>Trifolium repens</i>	F
Wild Mignonette	<i>Reseda lutea</i>	R
<b>Grasses</b>		
Annual Meadow Grass	<i>Poa annua</i>	O
Cocksfoot	<i>Dactylis glomerata</i>	O
Common Bent	<i>Agrostis capillaris</i>	R
Common Couch	<i>Elymus repens</i>	O
Creeping Bent	<i>Agrostis stolonifera</i>	R
False Oat Grass	<i>Arrhenatherum elatius</i>	O
Perennial Ryegrass	<i>Lolium perenne</i>	D
Red Fescue	<i>Festuca rubra</i>	O

<b>Mammals</b>		
Hare (signs)	<i>Lepus europaeus</i>	R
<b>Birds</b>		
Blackbird	<i>Turdus merula</i>	R
Blue Tit	<i>Cyanistes caeruleus</i>	R
Carrion Crow	<i>Corvus corone</i>	R
Goldfinch	<i>Carduelis carduelis</i>	R
Long-tailed Tit	<i>Aegithalos caudatus</i>	R
Pied Wagtail	<i>Motacilla alba</i>	R
Reed Bunting	<i>Emberiza schoeniclus</i>	R
Skylark	<i>Alauda arvensis</i>	R
Snipe	<i>Gallinago gallinago</i>	R
Woodpigeon	<i>Columba palumbus</i>	R

# **Appendix 4**

## **Habitat Assessment Sheets**

## Habitat Assessment sheet for Sparsely vegetated area

Condition Assessment Criteria		Criterion passed (Yes or No)	Notes (such as justification)
<b>Core Criteria - must be assessed for all urban habitat types:</b>			
A	Vegetation structure is varied, providing opportunities for vertebrates and invertebrates to live, eat and breed. A single structural habitat component or vegetation type does not account for more than 80% of the total habitat area.	N	
B	The habitat parcel contains different plant species that are beneficial for wildlife, for example flowering species providing nectar sources for a range of invertebrates at different times of year.	N	
C	Invasive non-native plant species (listed on Schedule 9 of WCA <sup>1</sup> ) and others which are to the detriment of native wildlife (using professional judgement) <sup>2</sup> cover less than 5% of the total vegetated area <sup>3</sup> .  <b>Note - to achieve Good condition, this criterion must be satisfied by a complete absence of invasive non-native species (rather than &lt;5% cover).</b>	Y	
<b>Additional Criteria - must be assessed for Open mosaic habitat on previously developed land only:</b>			
D1	The parcel shows spatial variation and forms a mosaic of at least four early successional communities (a) to (h) PLUS bare substrate. (a) annuals; (b) mosses/liverworts; (c) lichens; (d) ruderals; (e) inundation species; (f) open grassland; (g) flower-rich grassland; (h) heathland.		
D2	The parcel contains pools of water such as permanent and ephemeral waterbodies.		
<b>Additional Criteria - must be assessed for Bloowale and SuDS habitat types only:</b>			
E1	Plant species are mostly native. If non-native species are present, they should not be detrimental to the habitat or native wildlife <sup>4</sup> .		
E2	The vegetation is comprised of plant species suited to wetland or riparian situations.		
<b>Additional Criterion - must be assessed for Intensive green roofs only:</b>			
F	The roof has a minimum of 50% native and non-native wildflowers. 70% of the roof area is soil and vegetation (including water features).		
<b>Additional Criterion - must be assessed for Biodiverse green roofs only:</b>			
G	The roof has a varied depth of 80 – 150 mm; at least 50% is at 150 mm and is planted and seeded with wildflowers and sedums or is pre-prepared with sedums and wildflowers.  <b>Note – to achieve Good condition some additional habitat, such as sand piles, stones, logs etc are present.</b>		
Essential criteria relevant for habitat type achieved (Yes or No)			
Number of criteria passed <b>3</b>			
<b>Condition Assessment Result</b>		<b>Condition Assessment Score</b>	<b>Score Achieved x/3</b>
<b>Results for habitats requiring assessment of 3 core criteria only (all listed urban habitats except Open mosaic habitat on previously developed land, Bloowale, SuDS and Green roofs):</b>			
* Passes all 3 core criteria; AND * Meets the requirements for Good condition within criterion C.		Good (3)	
* Passes 2 of 3 core criteria; OR * Passes 3 of 3 core criteria but does not meet the requirements for Good condition within criterion C.		Moderate (2)	
* Passes 0 or 1 of 3 core criteria.		Poor (1)	1

## Habitat assessment sheet for the Grassfield

Condition Assessment Criteria		Criterion passed (Yes or No)	Notes (such as justification)
A	There are 6-8 vascular plant species per m <sup>2</sup> present, including at least 2 forbs (this may include those listed in Footnote 1). <b>Note - this criterion is essential for achieving Moderate or Good condition.</b>	N	1-2 sp per sqm
B	Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20% is more than 7 cm) creating microclimates which provide opportunities for vertebrates and invertebrates to live and breed.	N	Has been mown
C	Some scattered scrub (including bramble <i>Rubus fruticosus</i> agg.) may be present, but scrub accounts for less than 20% of total grassland area. Note - patches of scrub with continuous (more than 90%) cover should be classified as the relevant scrub habitat type.	Y	None present
D	Physical damage is evident in less than 5% of total grassland area. Examples of physical damage include excessive poaching, damage from machinery use or storage, erosion caused by high levels of access, or any other damaging management activities.	N	Non present
E	Cover of bare ground is between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens) <sup>2</sup> .	N	None present
F	Cover of bracken <i>Pteridium aquilinum</i> is less than 20%.	Y	None present
G	There is an absence of invasive non-native plant species <sup>3</sup> (as listed on Schedule 9 of WCA <sup>4</sup> ).	Y	None present
Essential criterion achieved (Yes or No)			N
Number of criteria passed			3
Condition Assessment Result (out of 7 criteria)	Condition Assessment Score	Score Achieved x/□	
Passes 6 or 7 criteria including passing essential criterion A	Good (3)		
Passes 4 or 5 criteria including passing essential criterion A	Moderate (2)		
Passes 3 or fewer criteria; OR Passes 4 - 6 criteria (excluding criterion A)	Poor (1)	3	

# Appendix 5

## LERC Search Summary Report



# LERC Search Summary Report

**Grid Reference: TF 0403 4582**  
**Buffer: 2km**

**Date of publication: 07/12/2023**  
**Expires: 07/12/2024**

*Achieving more for nature*

## Report Details

Produced for	Kevin Johnson, KJ Ecology Ltd
Search area	

## Terms and conditions

1. The data and reports provided by LERC are only to be used for the specific purpose they were produced.
2. The data and any copyright remains the property of GLNP, its licensors and/or the data providers (as applicable), and the data products and services remain the copyright of GLNP.
3. Permission to use the data and reports provided by LERC expires 12 months following supply.

For full terms and conditions see <https://search.glnp.org.uk/terms-and-conditions>

This report summarises a search of statutory sites, non-statutory sites, other sites, habitats and species within the specified area; where no information is returned for a section, it is excluded from this summary report.

## About the Lincolnshire Environmental Records Centre

The Lincolnshire Environmental Records Centre (LERC) collates wildlife and geological information for Greater Lincolnshire from various sources and makes it available for various uses. This data is crucial to aid conservation management of sites, to help organisations prioritise action, and to understand the distribution of species and trends over time. For more information on LERC or to request a data search, visit the website at <https://glnp.org.uk/partnership/lerc/>



*Lincolnshire Environmental Records Centre is an ALERC accredited LRC, meeting the standard level criteria. For more information on accreditation, see the ALERC website at <http://www.alerc.org.uk/alerc-accreditation.html>*

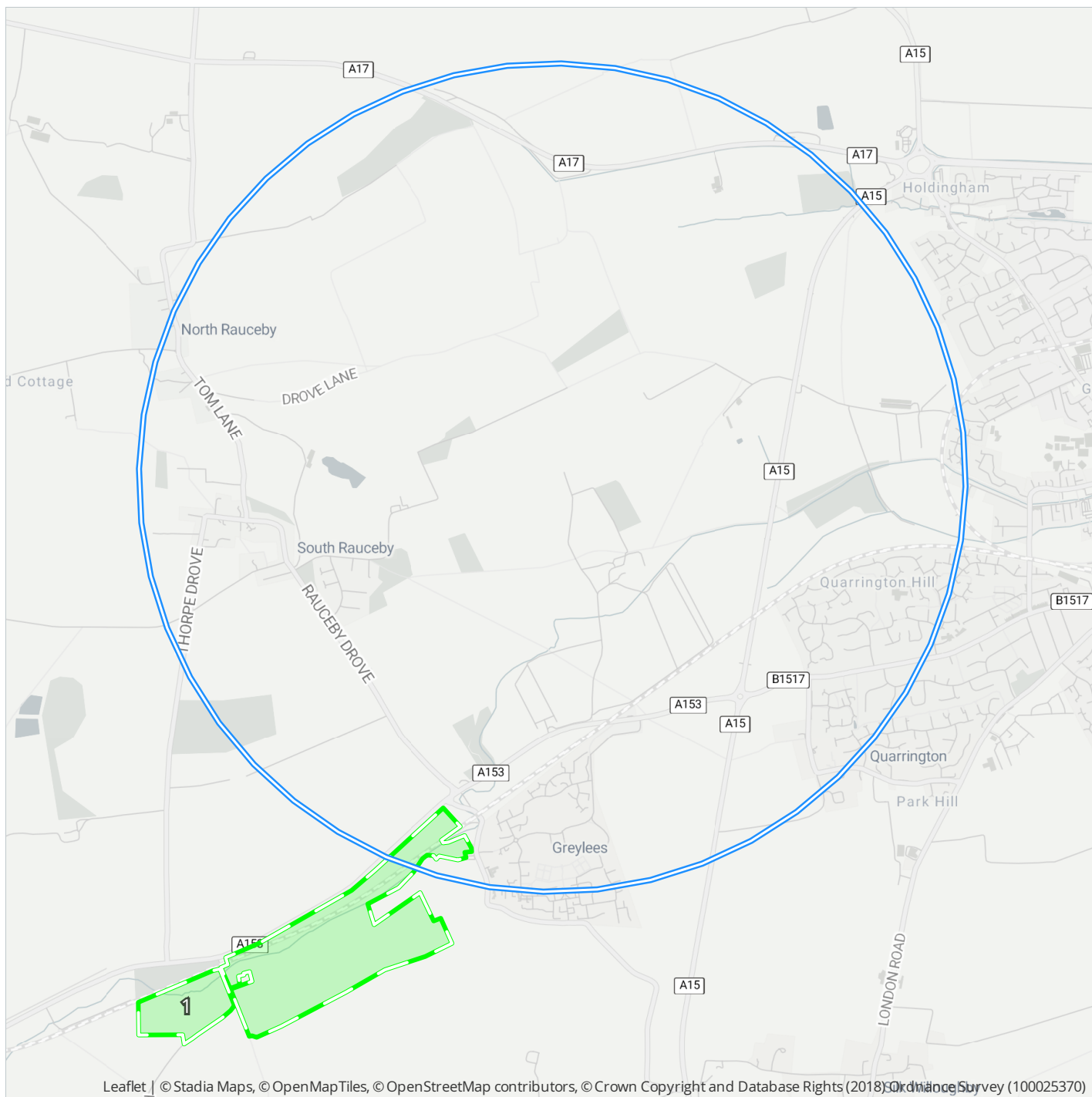
## Statutory Sites

Statutory sites are those afforded legal protection aimed at preventing activities that may damage features of interest. Further information on these sites is available from [Natural England](#) (SSSIs, NNRs, LNRs, SPAs, SACs, Ramsars) and [The National Association for Areas of Outstanding Natural Beauty](#) (AONBs).

Contains public sector information licensed under the Open Government Licence v3.0.

Code	Designation	Status	Name
1	SSSI	Notified	Wilsford & Rauceby Warrens

# Statutory Sites within the search area



Space restrictions on the map may result in some sites not being labelled.

 Site of Special Scientific Interest

 Search area

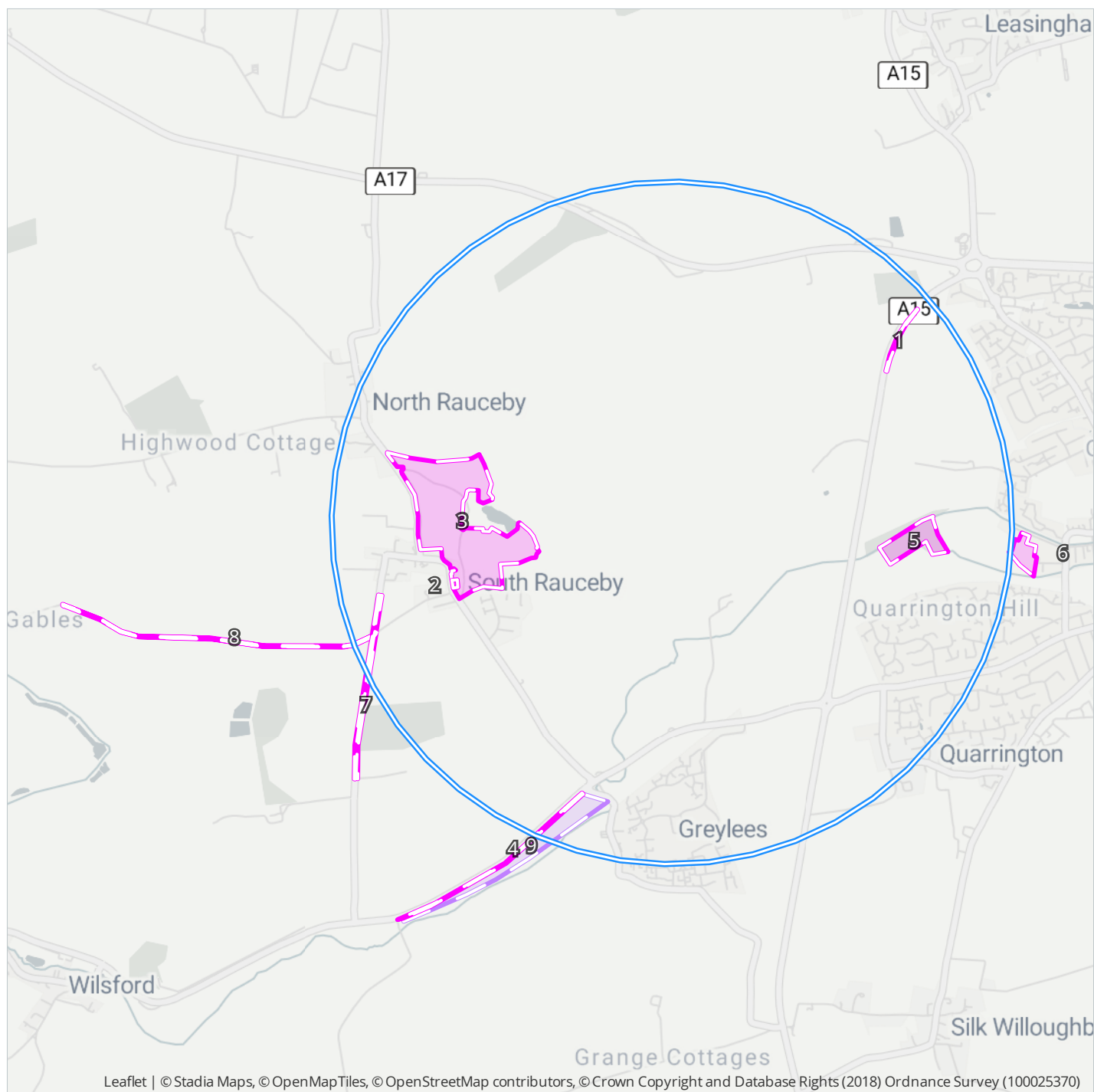
## Non-statutory sites

The GLNP works directly with local authorities to coordinate the Local Sites system in Greater Lincolnshire. Sites are selected by the Nature Partnership, based on recommendations made by its expert working groups known as the LWS Panel and LGS Panel. The Register of Local Sites is then submitted for inclusion within local authority planning policy.

These sites are recognition of wildlife or geological value and are a testament to the land management that is already being undertaken on them. Identifying these sites helps local authorities meet their obligations under legislation and government guidance, including reporting on the number of sites in positive management for Single Data List Indicator 160-00.

Code	Designation	Status	Name
1	LWS	Selected	A15 Holdingham Road Verges
2	LWS	Selected	Manor House Paddock
3	LWS	Selected	Rauceby Park
4	LWS	Selected	Rauceby Warren Road Verge
5	LWS	Selected	Sleaford Fen
6	LWS	Selected	Sleaford Meadows
7	LWS	Selected	South Rauceby, Thorpe Drove Verges
8	LWS	Selected	Waterwell Lane Verges
9	LGS	Selected	Rauceby Warren

## Non-statutory sites within the search area



*Space restrictions on the map may result in some sites not being labelled. Please refer to the site citations for details.*



Local Wildlife Site



Search area



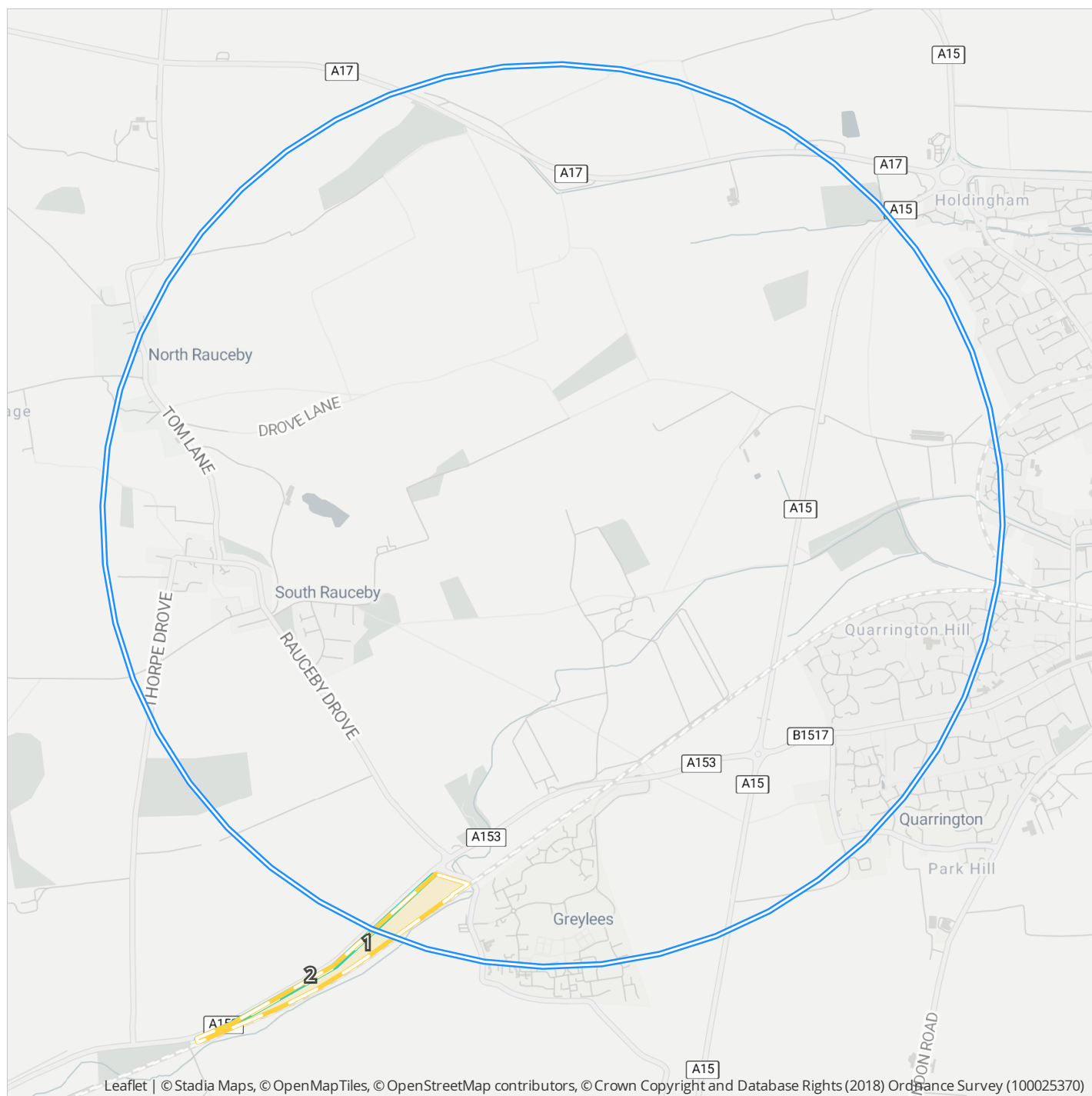
Local Geological Site

## Other Sites

There are a number of other sites which can be important for the biodiversity they support and as part of the natural environments wider ecological network. For more information on these, please contact the relevant organisation.

Code	Designation	Status	Name
1	LWT	-	Rauceby Warren
2	RNR	-	California Plantation


## Other Sites within the search area



*Space restrictions on the map may result in some sites not being labelled.*

 Lincolnshire Wildlife Trust Reserve

 Search area

 Roadside Nature Reserve



## Habitats

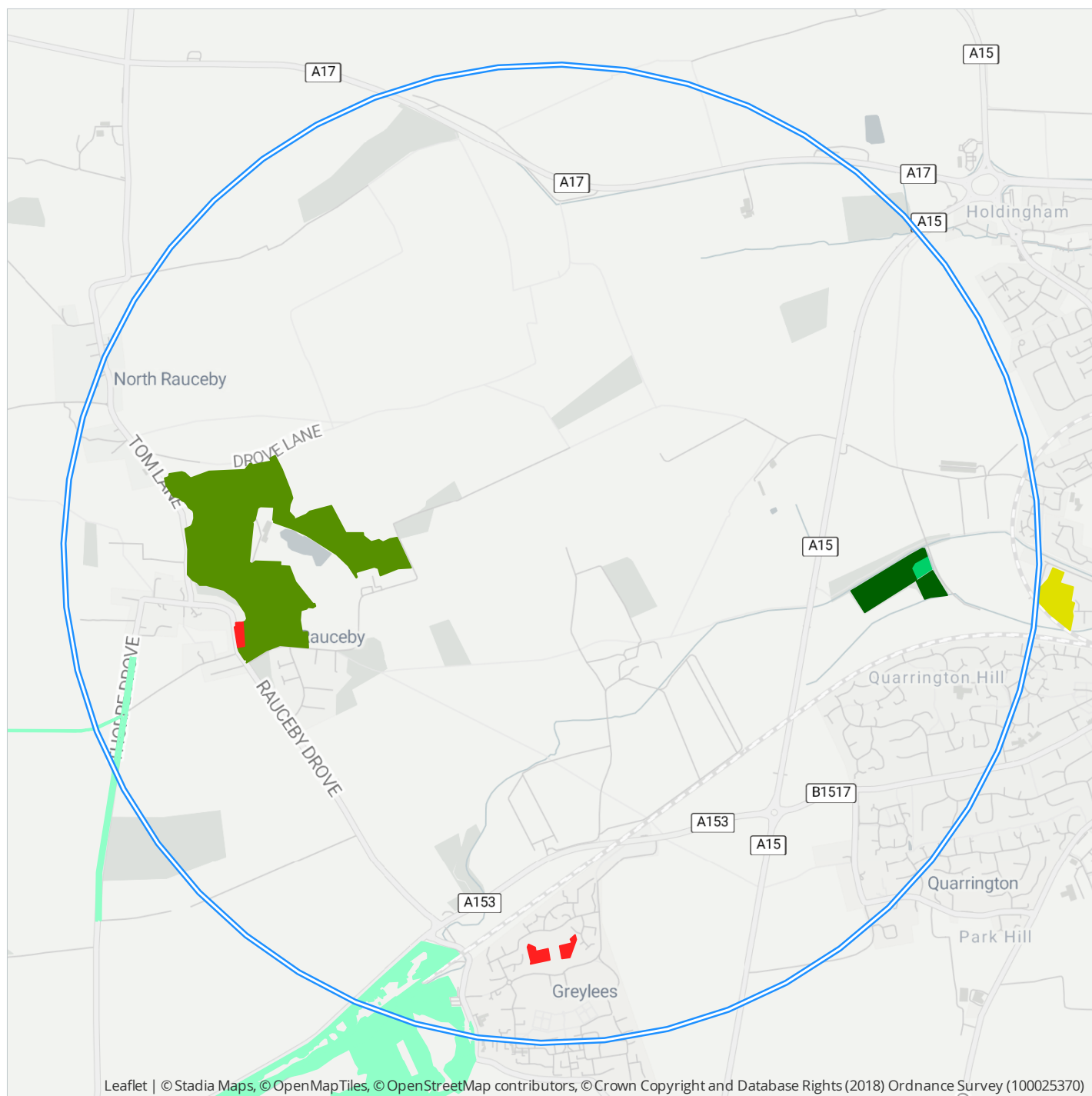
Priority habitats are those identified as being the most threatened and requiring conservation action in the UK. The most-recent list of UK priority species and habitats was published in August 2007 following a 2-year review of the process and priorities, representing the most comprehensive analysis of such information ever undertaken in the UK.

The data presented is the most up-to-date of the data collated by the GLNP and mostly comes from surveys of Local Sites; further historic data and non-Priority habitat data may also be available. Absence of information doesn't mean that the Priority habitat isn't present merely that no information is held.

A number of different datasets have been consulted to produce this report - a summary of attribution statements is available at <https://glnp.org.uk/images/uploads/services/lincolnshire-environmental-records-centre/habitat%20attribution.pdf>.

Type	Habitat	Survey Date	Area (ha)
Priority Habitat	Lowland calcareous grassland	2007 - 2014	47.82
Priority Habitat	Lowland meadows	2008	2.21
Priority Habitat	Lowland mixed deciduous woodland	2008	3.69
Priority Habitat	Traditional orchards	2010 - 2017	1.07
Priority Habitat	Wet woodland	2008	0.41
Priority Habitat	Wood-pasture and parkland	2019	30.66

## Habitats within the search area



*Space restrictions on the map may result in some sites not being labelled.*

- |  |   |
|--|---|
| <span style="display: inline-block; width: 15px; height: 10px; background-color: #90EE90; border: 1px solid black;"></span> Lowland calcareous grassland     | <span style="display: inline-block; width: 15px; height: 10px; background-color: #00FF00; border: 1px solid black;"></span> Wet woodland              |
| <span style="display: inline-block; width: 15px; height: 10px; background-color: #FFFF00; border: 1px solid black;"></span> Lowland meadows                  | <span style="display: inline-block; width: 15px; height: 10px; background-color: #808000; border: 1px solid black;"></span> Wood-pasture and parkland |
| <span style="display: inline-block; width: 15px; height: 10px; background-color: #006400; border: 1px solid black;"></span> Lowland mixed deciduous woodland | <span style="display: inline-block; width: 15px; height: 10px; border: 2px solid blue; border-radius: 50%;"></span> Search area                       |
| <span style="display: inline-block; width: 15px; height: 10px; background-color: #FF0000; border: 1px solid black;"></span> Traditional orchards             |   |

## Species

Lincolnshire Environmental Records Centre holds records on the following species within or overlapping the search area. Data shown is as held by LERC; past records of presence of a species does not guarantee continued occurrence and absence of records does not imply absence of a species, merely that no records are held. Confidential data, zero abundance records, data at poorly defined geographic resolutions and data pending validation and/or verification are also excluded from this report. A number of different datasets have been consulted to produce this report - a summary of attribution statements is available at <https://glnp.org.uk/images/uploads/services/lincolnshire-environmental-records-centre/species%20attribution.pdf>

### Amphibian (4 taxa)

Common Frog, <i>Rana temporaria</i>	8	1976 - 2016	Protected
Common Toad, <i>Bufo bufo</i>	6	1976 - 2013	Protected, Priority
Great Crested Newt, <i>Triturus cristatus</i>	28	1983 - 2018	Protected, Priority, Local Priority
Smooth Newt, <i>Lissotriton vulgaris</i>	5	1976 - 2010	Protected, Local Priority

### Bird (77 taxa)

, <i>Motacilla flava flava/beema</i>	1	2010 - 2010	Local Priority
Alauda arvensis arvensis, <i>Alauda arvensis arvensis</i>	7	2022 - 2022	Priority, Local Priority
Alcedo atthis ispida, <i>Alcedo atthis ispida</i>	4	2021 - 2022	Protected
Anser anser anser, <i>Anser anser anser</i>	3	2022 - 2022	Protected
Apus apus apus, <i>Apus apus apus</i>	1	2021 - 2021	Local Priority
Barn Owl, <i>Tyto alba</i>	21	1997 - 2019	Protected, Local Priority
Brambling, <i>Fringilla montifringilla</i>	7	1998 - 2021	Protected
Bullfinch, <i>Pyrrhula pyrrhula</i>	60	1976 - 2021	Local Priority
Canada Goose, <i>Branta canadensis</i>	14	1984 - 2020	Non-native
Corn Bunting, <i>Emberiza calandra</i>	18	1998 - 2017	Local Priority
Cuckoo, <i>Cuculus canorus</i>	16	1984 - 2022	Priority
Cuculus canorus canorus, <i>Cuculus canorus canorus</i>	2	2021 - 2022	Priority
Curlew, <i>Numenius arquata</i>	9	1998 - 2016	Priority, Local Priority
Dark-bellied Brent Goose, <i>Branta bernicla bernicla</i>	1	2021 - 2021	Priority
Dotterel, <i>Charadrius morinellus</i>	1	2000 - 2000	Protected
Egretta garzetta garzetta, <i>Egretta garzetta garzetta</i>	5	2022 - 2022	Protected
Egyptian Goose, <i>Alopochen aegyptiaca</i>	3	2000 - 2000	Non-native
Emberiza citrinella caliginosa, <i>Emberiza citrinella caliginosa</i>	1	2022 - 2022	Priority, Local Priority
Emberiza schoeniclus schoeniclus, <i>Emberiza schoeniclus schoeniclus</i>	10	2021 - 2022	Priority, Local Priority
Eurasian Eagle-Owl, <i>Bubo bubo</i>	1	2015 - 2015	Non-native
Falco peregrinus peregrinus, <i>Falco peregrinus peregrinus</i>	1	2022 - 2022	Protected
Fieldfare, <i>Turdus pilaris</i>	96	1984 - 2022	Protected
Gadwall, <i>Mareca strepera</i>	1	2003 - 2003	Non-native

## Bird (77 taxa)

Gallinago gallinago gallinago, <i>Gallinago gallinago gallinago</i>	2	2021 - 2022	Local Priority
Goldeneye, <i>Bucephala clangula</i>	4	1997 - 2001	Protected
Grasshopper Warbler, <i>Locustella naevia</i>	21	2002 - 2009	Priority
Green Sandpiper, <i>Tringa ochropus</i>	13	1996 - 2011	Protected
Grey Partridge, <i>Perdix perdix</i>	39	1976 - 2020	Priority, Local Priority, Non-native
Greylag Goose, <i>Anser anser</i>	69	1994 - 2019	Protected
Hedge Accentor, <i>Prunella modularis occidentalis</i>	7	2022 - 2022	Priority
Hen Harrier, <i>Circus cyaneus</i>	1	2011 - 2011	Protected
Hobby, <i>Falco subbuteo</i>	4	2000 - 2009	Protected
Hoopoe, <i>Upupa epops</i>	2	1984 - 2005	Protected
House Sparrow, <i>Passer domesticus</i>	168	1976 - 2022	Priority, Local Priority
Kingfisher, <i>Alcedo atthis</i>	259	1984 - 2022	Protected
Lapwing, <i>Vanellus vanellus</i>	67	1976 - 2022	Priority, Local Priority
Larus argentatus argenteus, <i>Larus argentatus argenteus</i>	15	2022 - 2022	Priority
Lesser Redpoll, <i>Acanthis cabaret</i>	14	2002 - 2022	Priority
Linaria cannabina cannabina, <i>Linaria cannabina cannabina</i>	2	2021 - 2022	Local Priority
Linnet, <i>Linaria cannabina</i>	77	1984 - 2021	Local Priority
Little Egret, <i>Egretta garzetta</i>	92	2010 - 2022	Protected
Locustella naevia naevia, <i>Locustella naevia naevia</i>	5	2021 - 2021	Priority
Mandarin Duck, <i>Aix galericulata</i>	122	1994 - 2022	Non-native
Marsh Harrier, <i>Circus aeruginosus</i>	4	2002 - 2006	Protected
Merlin, <i>Falco columbarius</i>	3	1998 - 2002	Protected
Milvus milvus milvus, <i>Milvus milvus milvus</i>	1	2022 - 2022	Protected
Mute Swan, <i>Cygnus olor</i>	1	2003 - 2003	Non-native
Osprey, <i>Pandion haliaetus</i>	1	2012 - 2012	Protected
Passer domesticus domesticus, <i>Passer domesticus domesticus</i>	8	2021 - 2022	Priority, Local Priority
Perdix perdix perdix, <i>Perdix perdix perdix</i>	1	2022 - 2022	Priority, Local Priority
Peregrine, <i>Falco peregrinus</i>	4	2001 - 2011	Protected
Pintail, <i>Anas acuta</i>	2	1998 - 1998	Protected, Non-native
Poecile montanus kleinschmidti, <i>Poecile montanus kleinschmidti</i>	1	2022 - 2022	Priority
Pyrrhula pyrrhula pileata, <i>Pyrrhula pyrrhula pileata</i>	2	2022 - 2022	Priority, Local Priority
Quail, <i>Coturnix coturnix</i>	1	1998 - 1998	Protected
Red Kite, <i>Milvus milvus</i>	6	2006 - 2022	Protected
Red-crested Pochard, <i>Netta rufina</i>	17	2006 - 2007	Non-native
Redshank, <i>Tringa totanus</i>	1	1984 - 1984	Local Priority
Redwing, <i>Turdus iliacus</i>	65	1984 - 2022	Protected
Reed Bunting, <i>Emberiza schoeniclus</i>	60	1976 - 2022	Priority, Local Priority

## Bird (77 taxa)

Ring Ouzel, <i>Turdus torquatus</i>	2	2011 - 2015	Priority
Skylark, <i>Alauda arvensis</i>	87	1976 - 2022	Local Priority
Snipe, <i>Gallinago gallinago</i>	8	1975 - 2008	Local Priority
Song Thrush, <i>Turdus philomelos</i>	153	1976 - 2022	Local Priority
Spotted Flycatcher, <i>Muscicapa striata</i>	23	1984 - 2011	Priority
Starling, <i>Sturnus vulgaris</i>	207	1976 - 2021	Local Priority
<i>Sturnus vulgaris vulgaris</i> , <i>Sturnus vulgaris vulgaris</i>	14	2021 - 2022	Priority, Local Priority
Swift, <i>Apus apus</i>	93	1984 - 2022	Local Priority
Tree Sparrow, <i>Passer montanus</i>	39	1976 - 2017	Priority, Local Priority
<i>Turdus iliacus iliacus</i> , <i>Turdus iliacus iliacus</i>	1	2022 - 2022	Protected
<i>Turdus philomelos clarkei</i> , <i>Turdus philomelos clarkei</i>	10	2022 - 2022	Priority, Local Priority
Turtle Dove, <i>Streptopelia turtur</i>	39	1998 - 2018	Priority, Local Priority
Whooper Swan, <i>Cygnus cygnus</i>	7	2009 - 2021	Protected, Non-native
Wryneck, <i>Jynx torquilla</i>	1	2015 - 2015	Protected, Priority
Yellow Wagtail, <i>Motacilla flava</i>	38	1998 - 2017	Local Priority
Yellow Wagtail, <i>Motacilla flava flavissima</i>	1	2022 - 2022	Priority, Local Priority
Yellowhammer, <i>Emberiza citrinella</i>	131	1976 - 2022	Priority, Local Priority

## Bony Fish (Actinopterygii) (2 taxa)

Brown/Sea Trout, <i>Salmo trutta</i>	9	1994 - 2005	Priority
European Eel, <i>Anguilla anguilla</i>	9	1994 - 2005	Priority, Local Priority

## Crustacean (2 taxa)

<i>Crangonyx pseudogracilis</i> , <i>Crangonyx pseudogracilis sens. str.</i>	1	2013 - 2013	Non-native
<i>Crangonyx pseudogracilis/floridanus</i> , <i>Crangonyx pseudogracilis/floridanus sens. lat.</i>	3	2013 - 2013	Non-native

## Flowering Plant (8 taxa)

Butterfly-bush, <i>Buddleja davidii</i>	4	2010 - 2017	Non-native
False-acacia, <i>Robinia pseudoacacia</i>	1	2016 - 2016	Non-native
Italian Alder, <i>Alnus cordata</i>	1	2016 - 2016	Non-native
<i>Lamiaeum galeobdolon</i> subsp. <i>argentatum</i> , <i>Lamiaeum galeobdolon</i> subsp. <i>argentatum</i>	2	2008 - 2016	Non-native
Purple Milk-vetch, <i>Astragalus danicus</i>	19	1964 - 2010	Priority
Russian-vine, <i>Fallopia baldschuanica</i>	1	2016 - 2016	Non-native
Wall Cotoneaster, <i>Cotoneaster horizontalis</i>	1	2016 - 2016	Non-native
Winter Heliotrope, <i>Petasites fragrans</i>	1	2017 - 2017	Non-native

### Insect - Beetle (Coleoptera) (1 taxa)

Scarce Four-dot Pin-palp, <i>Bembidion quadripustulatum</i>	1	1945 - 1945	Priority
---	---	-------------	----------

### Insect - Butterfly (4 taxa)

Large Tortoiseshell, <i>Nymphalis polychloros</i>	1	1946 - 1946	Protected
---	---	-------------	-----------

Small Heath, <i>Coenonympha pamphilus</i>	35	1973 - 2021	Priority
---	----	-------------	----------

Wall, <i>Lasiommata megera</i>	8	1956 - 1996	Priority
--------------------------------	---	-------------	----------

White-letter Hairstreak, <i>Satyrrium w-album</i>	8	1939 - 2018	Protected, Priority
---	---	-------------	---------------------

### Insect - Moth (3 taxa)

Blood-vein, <i>Timandra comae</i>	1	2010 - 2010	Priority
-----------------------------------	---	-------------	----------

Cinnabar, <i>Tyria jacobaeae</i>	11	1982 - 2019	Priority
----------------------------------	----	-------------	----------

Forester, <i>Adscita statices</i>	2	2017 - 2017	Priority
-----------------------------------	---	-------------	----------

### Reptile (3 taxa)

Common Lizard, <i>Zootoca vivipara</i>	18	1976 - 2019	Protected, Priority
--	----	-------------	---------------------

Grass Snake, <i>Natrix helvetica</i>	11	1976 - 2016	Protected, Priority
--------------------------------------	----	-------------	---------------------

Slow-worm, <i>Anguis fragilis</i>	1	1976 - 1976	Protected, Priority
-----------------------------------	---	-------------	---------------------

### Terrestrial Mammal (8 taxa)

American Mink, <i>Neovison vison</i>	1	2020 - 2020	Non-native
--------------------------------------	---	-------------	------------

Brown Hare, <i>Lepus europaeus</i>	16	1976 - 2009	Priority
------------------------------------	----	-------------	----------

Chinese Muntjac, <i>Muntiacus reevesi</i>	8	2000 - 2020	Non-native
---	---	-------------	------------

Eastern Grey Squirrel, <i>Sciurus carolinensis</i>	17	1976 - 2017	Non-native
--	----	-------------	------------

European Water Vole, <i>Arvicola amphibius</i>	25	1976 - 2020	Protected, Priority, Local Priority
--	----	-------------	-------------------------------------

Feral Ferret, <i>Mustela putorius subsp. furo</i>	2	1990 - 2013	Protected, Priority
---	---	-------------	---------------------

Harvest Mouse, <i>Micromys minutus</i>	1	1999 - 1999	Priority
--	---	-------------	----------

West European Hedgehog, <i>Erinaceus europaeus</i>	96	1976 - 2021	Priority
--	----	-------------	----------

### Terrestrial Mammal (bat) (10 taxa)

Bat, <i>Chiroptera</i>	54	1992 - 2022	Protected, Priority, Local Priority
------------------------	----	-------------	-------------------------------------

Brown Long-eared Bat, <i>Plecotus auritus</i>	21	1989 - 2020	Protected, Priority, Local Priority
---	----	-------------	-------------------------------------

Common Pipistrelle, <i>Pipistrellus pipistrellus sensu stricto</i>	3	2005 - 2005	Protected, Local Priority
--	---	-------------	---------------------------

Daubenton's Bat, <i>Myotis daubentonii</i>	2	1979 - 2003	Protected, Local Priority
--	---	-------------	---------------------------

Myotis Bat species, <i>Myotis</i>	2	1979 - 2005	Protected, Priority, Local Priority
-----------------------------------	---	-------------	-------------------------------------

Natterer's Bat, <i>Myotis nattereri</i>	1	2005 - 2005	Protected, Local Priority
---	---	-------------	---------------------------

Noctule Bat, <i>Nyctalus noctula</i>	2	1965 - 1979	Protected, Priority, Local Priority
--------------------------------------	---	-------------	-------------------------------------

## Terrestrial Mammal (bat) (10 taxa)

Pipistrelle Bat species, <i>Pipistrellus</i>	7	1998 - 2022	Protected, Priority, Local Priority
Soprano Pipistrelle, <i>Pipistrellus pygmaeus</i>	1	2003 - 2003	Protected, Priority, Local Priority
Whiskered/Brandt's Bat, <i>Myotis mystacinus/brandtii</i>	1	2005 - 2005	Protected

Greater Lincolnshire Nature Partnership  
Banovallum House  
Manor House Street  
Horncastle  
Lincolnshire  
LN9 5HF

Tel: 01507 528398  
Email: [info@glnp.org.uk](mailto:info@glnp.org.uk)  
Web: [www.glnp.org.uk](http://www.glnp.org.uk)

*Achieving more for nature*

