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Bird Grove Farm

Updated Habitat Survey

Commissioned for:
Mr & Mrs M Gellatly
Bird Grove Farm
Hilderstone
Stafford
Staffordshire
ST15 8SL

December 2021

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Habitat Survey (updated Dec 2021) –
Bird Grove Farm

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Chris Seabridge
Managing Director

1 Introduction

It is proposed to construct eight biomass boilers at Bird Grove Farm, near Hilderstone, Staffordshire. The development will also include widening of the entrance road into the site from Cresswell Road, adaption of existing buildings to house four boilers and the construction of a yard to the east of the site to house four boilers and containers.

Nigel Baskerville of Chris Seabridge & Associates Ltd. was instructed to undertake an Ecological Survey of the proposed development area to determine its impact on habitats and species.

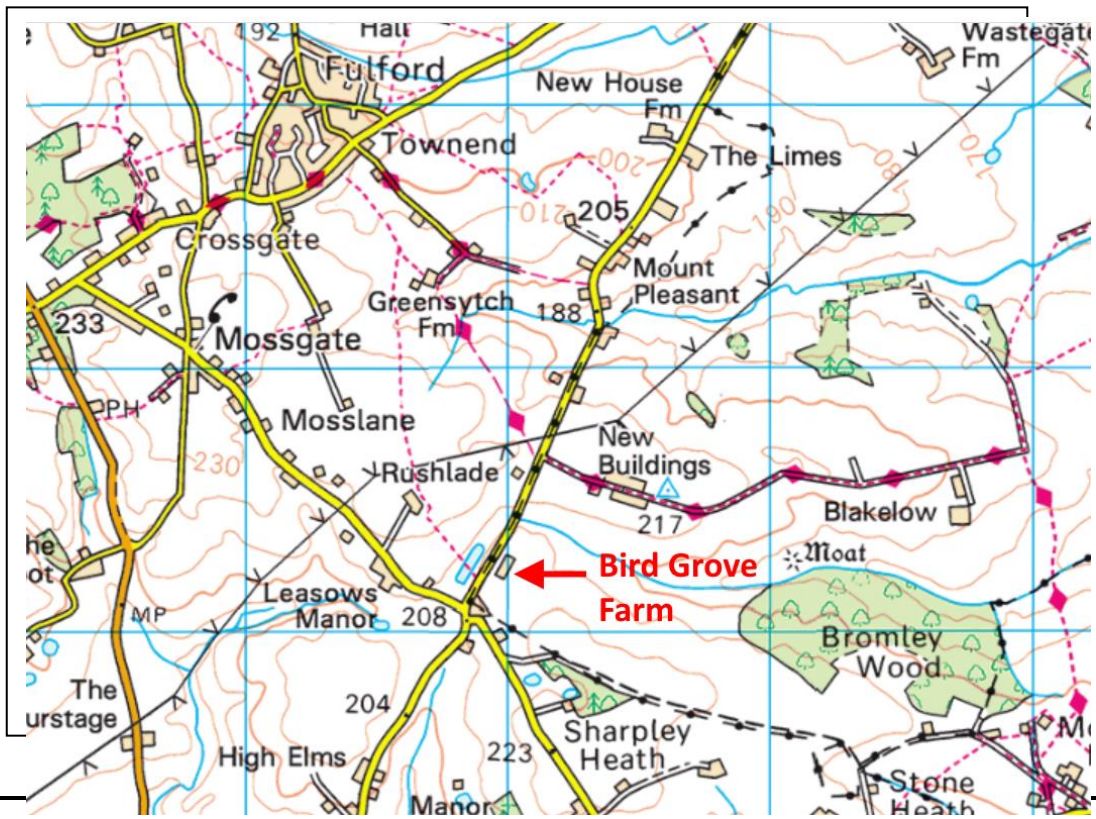
The methodology involved conducting a UK Habitat Classification Survey of the site and its surroundings to identify habitats and the presence or potential presence of protected species and species of conservation concern.

Following the ecological survey carried out on 10th June 2021, the roadside hedgerow and several trees were removed for safety and highway visibility reasons in November 2021. The report has been updated to take into account these changes and also to address concerns raised by Staffordshire Wildlife Trust concerning the potential presence of great crested newts.

1.1 Site Location

The site of the proposed development near Bird Grove Farm is located approximately 1 mile to the north east of Hilderstone at Grid Reference SK9600 3623. The location of the site is shown in Figure 1 below.

Figure 1: *Map showing location of development land at Bird Grove Farm*



2 Methodology

2.1 Desk Study

Staffordshire Ecological Record (SER) provided species/sites records within 2km of the site boundary on 1st September 2021.

The following websites were also accessed to search for habitat and species records within the vicinity of the development site:

- Multi-Agency Geographic Information for the Countryside. www.magic.gov.uk
- National Biodiversity Network Gateway. www.data.nbn.org.uk

2.2 Field Survey

2.2.1 Habitats

A UK Habitat Classification Survey was carried out on by Nigel Baskerville C.Env MCIEEM on 26th November 2021 updating a survey conducted on 10th June 2021. The survey followed the procedure described in the User Manual for UK Habitat Classification (Butcher et al, 2020). It also included recording evidence of protected species and species of conservation concern (including Local Biodiversity Action Plan species), as well as identification of features and habitats capable of supporting such species.

Results of the Habitat Survey are presented as a colour coded map (See Appendix I - Habitat Survey at Bird Grove Farm), with 'Target Note' (TN) locations marked with numbers. Targets Notes comprising of more detailed information on selected features of ecological interest and the potential value to protected species are contained in Appendix II - Targets Notes Table. Associated photographic records are included in the assessment which cross references with the target notes and are shown in Appendix III – Photographic Record.

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2.2.2 Hedgerow Survey

During the June 2021 survey, the roadside hedgerow was assessed in accordance with the Wildlife and landscape criteria of the hedgerow Regulations 1997 (HMSO 1997).

Hedgerows that are assessed as important under the Wildlife and Landscape criteria of the Hedgerow Regulations 1997 require permission from the local planning authority before they can be removed. To be considered important, a hedgerow has to have been in existence for 30 years or more and satisfy at least one of the eight criteria listed in part II of Schedule 1 of the Hedgerow Regulations 1997.

The hedgerow length and dimensions were measured, noting any hedgerow trees and gaps in the hedge line. The number of connections with other hedgerows, ponds or woodland was also noted.

Woody species were identified and counted in the central stretch of 30m within each half of the hedgerows (as listed in Schedule 3 of the Hedgerow Regulations 1997). The

aggregate number of species was divided by 2 to give the average number of woody species per 30m.

Any associated features such as hedge banks and ditches were also noted. Woodland species present in the hedge bottom were identified (as listed in Schedule 2 of the Hedgerow Regulations 1997).

2.2.3 Protected species

Habitats or features with the potential to support protected or priority species were recorded as a target note (see Appendix II - Targets Notes Table). In addition any of the characteristic field signs of protected species were recorded as shown in Table 1 below.

Table 1: *Key habitats and field signs of protected and priority species*

Species	Indicative habitat	Characteristic field signs
Great crested newts *Triturus cristatus*	Breeding habitat – ponds. Foraging habitat - rough grassland, scrub and woodland. Resting and hibernation habitat - log and rubble piles, animal burrows. The Habitat Suitability Score (HSI) was calculated for all ponds within the site boundary (Oldham et al. 2000). A HSI is a numerical index based on ten suitability indices giving a score of between 0 and 1. 0 indicates unsuitable habitat, 1 represents optimal habitat for great crested newts.	Eggs on aquatic vegetation (spring).
Bats	Roosts – buildings, trees, underground features (caves etc.). Foraging – woodland, ponds, hedgerows, wetland. Commuting routes – linear habitats (hedgerows, watercourses, tree lines).	Droppings, prey residues (such as fly or moth wings) and urine stains at roost sites.
Water vole *Arvicola terrestris*	Watercourses and water bodies.	Burrows, latrines, footprints, feeding signs in the form of 'grazing lawns'.
Reptiles	Rough grassland, log and rubble piles.	Sloughed skins.
Birds	A variety of habitats.	Nests, tree holes.
Invertebrates	All habitats. Richest sites tend to be semi-natural habitats (i.e. woodland, grassland).	Few specific signs. Solitary bee and wasp burrows.

2.3 Limitations

2.3.1 Desk Study

The biological records from the desk study are not a comprehensive list of species data and therefore it is possible that protected species not identified in the search may be present within the vicinity of the development site.

2.3.2 Field Survey

There were no constraints on access to the site and the full area was surveyed. The survey of flowering plants during the June survey was conducted inside the optimal survey window, which meant that the majority of flowering plants would have been apparent at the time of survey.

3 Results

3.1 Desk based study

3.1.1 Statutory sites

There are no statutory sites within 2km of the development site.

3.1.2 Non Statutory sites

There are seven Local Wildlife Sites (LWS) and one Biodiversity Alert Site (BAS) within 2km of the development site as shown below in Table 2. The location of the non-statutory sites is shown on the map in Appendix VI.

Table 2: *Non Statutory sites within 2km of Bird Grove Farm*

Site ID	Name	Reason for selection	Distance from site (m)
93-47-47	Stallington Heath	A small woodland which is situated a short distance west of Fulford	1950
93-56-00	The Leasows (west of)	A semi-improved grassland bank in a field partly cut for silage.	800
93-64-76	Garshall Green (road verges north of)	Managed hedges with mature trees top the hedgebanks supporting a rich ground flora. A species rich ditch runs along the base of the hedgebank and is some places the verges become wider and grassy with an unimproved neutral grassland sward.	1300
93-67-26	Mount Pleasant (west of)	Two fields of semi-improved neutral grassland, the north-western-most smaller field contains a small pond with diverse marginal and some aquatic vegetation.	1200
93-68-83	New Inn (near) BAS	This site comprises a complex of small fields of semi-improved grassland crossed by a wet ditch and bounded by species-poor hedges with mature hedgerow trees. Site includes 93/68/82	1950
93-74-24	Wheatlow Brooks	A complex site comprising the adjacent habitats to a stream and its tributaries. For part of its length the stream runs through a deep bare sandstone cutting, and for most of the rest of its length it has tree lined banks and occasional areas of grassland	850
93-76-50	Bromley Wood	A woodland of variable age and structure, with a more mature section along its northern length. Silver birch and common oak are dominant components. Silver birch is naturally regenerating in clear fellings.	850
93-77-53	Hose Wood	The remnants of ancient semi-natural woodland scattered amongst arable land. Much of the 42ha of woodland was cleared through reclamation schemes, to provide grazing land for the adjacent farms.	1300

3.1.3 Presence of protected species and other species of note

The data search from the desk study showed that several protected species and other species of principal concern have been recorded within 2km of the site. These are shown in Table 3 below.

Table 3: *Protected species and other species of Principal Concern within 2km of the development site*

Species	Latin name	Status	Distance from site	Most recent record	No of historic records	Recorded during survey
Bats						
Brown long-eared bat	*Plecotus auritus*	EPS, UK, PC	1206m	2018	4	
Common pipistrelle	*Pipistrellus pipistrellus*	EPS, UK, PC	1206m	2018	3	
Other Mammals						
European otter	*Lutra lutra*	EPS, UK	1041m	2014	1	
Brown hare	*Lepus europaeus*	PC	1578m	2015	10	
Western European hedgehog	*Erinaceus europaeus*	UK	1578m	2010	4	
Amphibians						
Great crested newt	*Triturus cristatus*	EPS, UK, PC	1665m	1999	2	
Reptiles						
Grass snake	Natrix natrix	UK, PC	1151m	1983	1	
Birds						
Yellowhammer	*Emberiza citrinella*	PC (red)	882m	2019	1	
Starling	*Sturnus vulgaris*	PC (red)	882m	2019	10	
Dunnock	*Prunella vulgaris*	PC (amber)	882m	2019	11	Yes
Bullfinch	*Pyrrhula pyrrhula*	PC (amber)	882m	2019	5	
Linnet	*Linaria cannabina*	PC (red)	882m	2019	2	Yes
Song thrush	*Turdus philomelos*	PC (red)	882m	2019	10	
House Sparrow	*Passer domesticus*	PC (red)	882m	2019	13	

Species	Latin name	Status	Distance from site	Most recent record	No of historic records	Recorded during survey
Tree Sparrow	*Passer montanus*	PC (red)	882m	2018	4	
Skylark	*Alauda arvensis*	PC (red)	882m	2019	4	

EPS: European Protected species UK: UK Protection. PC: Species of Principal Concern

3.2 Field Survey

3.2.1 Habitats

The location and extent of habitats are shown on the Habitat map in Appendix I.

Hedgerows (h2a)

The roadside hedgerow north of the main entrance (TN1) was classed as native intact species-rich. The hedge extended to a length of 75m and was intact with no gaps. It was removed in November 2021 as shown in Appendix III (Plate 2).

During the June 2021 survey a total of six woody species were recorded with five species in the surveyed 30m section as shown in Table 4 below;

Table 4: *Woody Shrub composition of roadside hedgerow (TN1)*

30m Section	Woody Species – common name	Latin name
Section 1	Common hawthorn Blackthorn Hazel Holly Elder	*Cataegus monogyna* *Prunus spinosa* *Corylus avellana* *Ilex aquifolium* *Sambucus nigra*

The other species recorded within the hedgerow was sycamore *Acer pseudoplatanus.*

No woodland species were recorded from Schedule 2 of the Hedgerow Regulations noted within the hedge bottom.

A 46m length of the roadside hedgerow south of the main entrance (TN5) was also removed in November 2021.

During the June 2021 survey a total of eight woody species were recorded with five species in the surveyed 30m section as shown in Table 5 below;

Table 5: *Woody Shrub composition of roadside hedgerow (TN5)*

30m Section	Woody Species – common name	Latin name
Section 1	Common hawthorn Blackthorn Holly Elder Ash	*Cataegus monogyna* *Prunus spinosa* *Ilex aquifolium* *Sambucus nigra* *Fraxinus excelsior*

The other species recorded within the hedgerow was sycamore *Acer pseudoplatanus,* Hazel *Corylus avellana* and goat willow *Salix caprea*.

No woodland species were recorded from Schedule 2 of the Hedgerow Regulations noted within the hedge bottom.

Semi-improved neutral grassland (g3c)

The area of semi-improved grassland to the north of the main entrance track extends to 0.29ha (TN2). Grasses include common bent (*Agrostis capillaris*), sweet veral grass (*Anthoxanthum odoratum*), meadow fox-tail (*Alopecurus pratensis*), cocks-foot (*Dactylis glomerata*), Yorkshire fog (*Holcus mollis*) and creeping bent (*Agrostis stolonifera*). Herbs include meadow buttercup (*Ranunculus acris*), common mouse-ear (*Cerastium fontanum*), dandelion (*Taraxacum officinale* agg.), broad-leaved dock (*Rumex obtusifolius*), yarrow (*Achillea millefolium*), red clover (*Trifolium pratense*) and white clover (*Trifolium repens*). Black knapweed (*Centaurea nigra*) is occasional along the margins.

The field to the south of the main entrance track extends to 1.34ha (TN7) and is of a similar species composition with additional herbs including common sorrel (*Rumex acetosella*) and cuckoo flower (*Cardamine pratensis*).

Modified grassland (g4)

The field on the eastern side of the development site comprises improved grassland which is disturbed in places (TN4). It is of moderate condition with less than six species per m^2.

It extends to 0.13ha and is dominated by perennial rye-grass (*Lolium perenne*) with Yorkshire fog and crested dog's-tail (*Cynosures cristatus*). Herbs include occasional meadow buttercup, white clover and red clover.

Buildings (u1b5)

The two buildings within the yard are of relatively modern construction, each measuring 18m x 11m (TN3). They are both steel framed with breeze block walls and metal/ concrete fibre corrugated sheeted roofs. The buildings were formerly in agricultural use and lie in a concrete yard.

3.2.2 Presence of protected species and other species of note

Bats

There are historic records of two species of bat within 2km of the site. Suitable roosting habitat is quite limited in the local vicinity with the buildings and trees on site offering negligible potential roost sites. Further afield the nearest woodland, Bromley Wood lies 850m to the east and offers both potential roosting and foraging habitat.

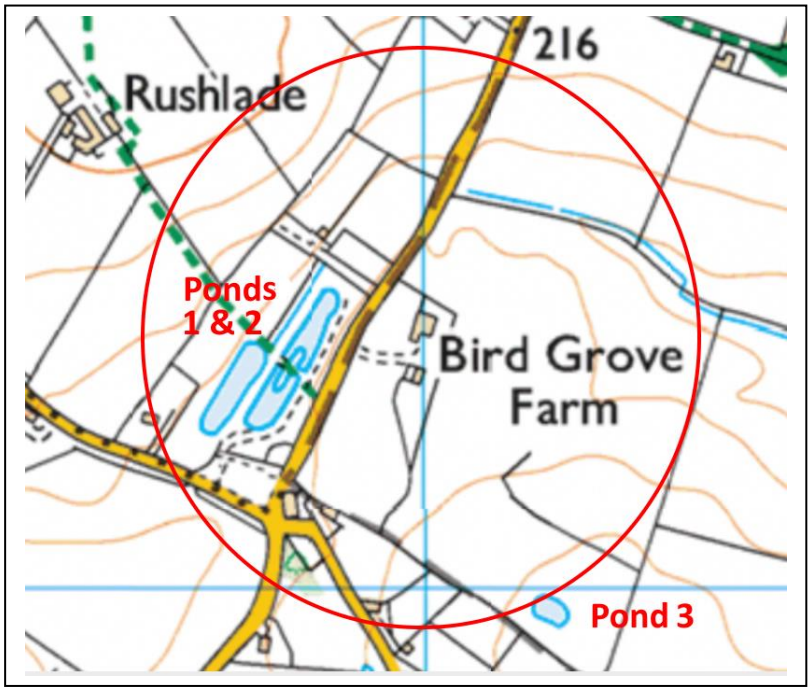
Birds

A variety of farmland and hedgerow birds were recorded during the visit and are likely to be breeding in the area, particularly in surrounding hedgerows, trees and scrub. During the June survey notable species recorded included dunnock and linnet, of which the latter is a red listed species of UK Conservation concern.

Great Crested Newts

Three ponds lie within 250 m of the site, as shown below in Figure 2.

Figure 2: *Location of ponds within 250m of the site at Bird Grove Farm*



Ponds 1 and 2 comprise two fishing lakes that lie approximately 40m west of the site (Appendix III, Plate 9). These were inspected from the public footpath. The larger of the lakes has a water surface area of 3500m^2 and was created approximately 20 years ago. The other has an area of 2500m^2 and was created within the last ten years. Both lakes are actively managed for coarse fishing with the surrounds of the lakes comprising mown improved grassland. Little emergent and submerged vegetation was noted during the visit and there is mixture of planted shrubs around part of the margins including willow, dogwood and laurel.

Pond 3 lies 250m from the site on neighbouring grassland. Permission was gained to inspect the pond. The pond extends to 700m2 and lies within a grazed improved grassland field. (Appendix III, Plate 10). Due to cattle having access to all of the pond margins, little emergent vegetation was present apart from soft rush (*Juncus effuses*) and fools watercress (*Apium nodiflorum*). A flock of 12 mallard were present during the visit.

A Habitat Suitability Index (HSI) score was calculated for the two ponds within 250m of the site. The HSI is a quantitative measure of habitat quality (Oldham R.S. et al 2000). The HSI is number between 0 (highly unsuitable) and 1 (highly suitable), derived from an assessment of ten habitat variables known to influence the presence of newts. The HSI is calculated on a single pond basis, but takes into account surrounding terrestrial habitat and local pond density. Although no substitute for a dedicated survey, it gives an indication of whether such a survey is needed.

Table 6: *Great Crested Newt Habitat Suitability Index for the ponds in the immediate surroundings of the development site*

Criteria	Ponds 1 & 2	Pond 3
SI1 - Location	1.0	1.0
SI2 - Pond area	0.8	1.0
SI3 - Pond drying	1.0	1.0
SI4 - Water quality	0.33	0.67
SI5 - Shade	1	1
SI6 - Fowl	0.67	0.67
SI7 - Fish	0.01	0.67
SI8 – Pond Density/km²	1.00	1.00
SI9 – Terrestrial habitat	0.67	0.67
SI10 - Macrophytes	0.50	0.50
HSI	**0.48**	**0.79**
Category	**Poor**	**Good**

4 Impact Assessment

4.1 Statutory and non-statutory sites

It is unlikely for the development to have a significant adverse effect on the adjacent non-statutory sites, as the site is not linked physically or hydrologically to have an indirect effect such as for example from air-borne pollutants.

4.2 Habitats

The proposed widening of the entrance road width will result in the loss of approximately 150m^2 of semi-improved grassland which has a local conservation value but lacks species diversity and the presence of uncommon/rare plant species.

There will also be a loss of approximately 645m^2 of modified grassland beneath the permeable hard standing, containers and biomass boilers. The habitat is considered to be of low conservation value due to a lack of lack of species diversity and the presence of uncommon/rare plant species.

Hedgerows are a UK Biodiversity Action Plan (BAP) Priority Habitat and as such should where possible be retained within the development layout. To ensure adequate highway visibility at the entrance from Cresswell Road, two sections of hedgerow either side of the main entrance with a total length of 121m were removed in November 2021.

Both sections of removed hedgerow were considered '**not important'** under the Hedgerow Regulations 1997 as although they contained an average of five woody species, only one associated feature; less than 10% gaps was identified during the June survey. In addition, the hedges did not run alongside a bridleway, footpath, road used as a public path, or a byway open to all traffic.

4.3 Species

4.3.1 Great crested newts

The nearest water bodies (Ponds 1 & 2) to the development site comprise two fishing lakes which have a poor Habitat Suitability Habitat Index Score for great crested newts. Pond 3 which lies 250m to the south east of the site whilst having a 'good' HSI score, lies within an improved grassland field with no direct link to the development site via dispersal routes such as hedgerows. It is considered that the risk of potential disturbance to great crested newts caused by the development is low and no further survey work is recommended.

4.3.2 Bats

No living mature trees capable of supporting roosting bats are proposed to be removed during the development works. Proposed works will also involve the removal of a section of roadside hedgerow which might potentially provide foraging/commuting habitat for bats.

4.3.3 Birds

Development works could potentially cause disturbance to nesting birds in the section of road side hedgerow that is planned to be removed. Clearance works should be ideally conducted outside the main bird nesting season (March – August inclusive). If works are carried out during the nesting season then a suitably qualified ecologist should make a check for nesting birds immediately before works commence.

5 Recommendations

5.1 Hedgerow Planting

The 121m of hedgerow that has been removed to improve highway visibility will be replaced with a new hedgerow set back slightly further from the road. In addition a further 120m of new native species-rich hedgerow will be planted along the northern and eastern boundaries of the site as shown in the Landscaping plan (Mid West Planning).

Planting of the hedgerows should be carried out in autumn/winter. Shrubs should be planted in two staggered rows 0.5m apart and with plants 30 cm apart in the rows (approximately 6 plants per metre). Shrubs should be protected by canes and spiral guards. Weed control should to be carried out for the first three years after establishment so as to maintain a 1.5m wide weed free strip with the hedge in the centre.

The species mixture for the hedgerows is based on locally native trees and shrub species present in surrounding hedgerows and is shown in the Table 7 below.

Table 7: *Planting mixture for new hedgerows*

Species	%	Size
Hawthorn- *Crataegus monogyna*	50	40-60cm
Hazel - *Corylus avellana*	10	40-60cm
Crab apple – *Malus sylvestris*	2.5	40-60cm
Field maple - *Acer campestre*	15	40-60cm
Dogwood - *Cornus sanguinea*	5	40-60cm
Dog rose - *Rosa canina*	2.5	40-60cm
Blackthorn - *Prunus spinosa*	15	40-60cm

Following disturbance of the soil after the hedgerow was removed, it is recommended that a suitable mixture of native shade tolerant perennial wild flowers is established adjacent to the hedgerow.

Table 8: *Recommended wildflower mixture for hedge bottom*

Species	Latin
Angelica, Wild	*Angelica sylvestris*
Bedstraw, Hedge	*Galium mollugo*
Campion, Red	*Silene dioica*
Cowslip	*Primula veris*
Mustard, Garlic	Alliaria petiolata
Hedge Parsley, Upright	Torilis japonica
Foxglove,	Wild Digitalis purpurea
Self-heal	Prunella vulgaris
Woundwort, Hedge	Stachys sylvatica
Musk Mallow	Malva moschata

5.2 Enhancement of 'Other neutral grassland' (TN2)

Currently the grassland to the west and south of the development site is semi-improved and apart from black knapweed on the margins is lacking several wildflower species indicative of Lowland Meadow Priority Habitat. Further species could be introduced to the site either by green hay strewing using hay from a local donor site or by sowing seed/ plugs into the sward. A list of suitable species is shown in Table 8 below.

Table 8: *Suggested Lowland Indicator species to include in sowing mixture*

Species	Latin
Field scabious	*Knautia arvensis*
Yellow rattle	*Rhinanthus minor*
Bird's-foot trefoil	*Lotus corniculatus*
Ladies bedstraw	*Galium verum*
Ox-eye daisy	*Leucanthermum vulgare*
Wild carrot	*Daucus carota*
Cowslip	*Primula veris*

5.3 Bat boxes

It is recommended that bat boxes are erected on the buildings and surrounding mature trees.

To provide a range of habitats with varying temperatures for roosting, three bat boxes should be attached to the building/ tree trunk and arranged in a south east to south west aspect. Ideally the boxes should be placed at least 3m off the ground.

The boxes should be of woodcrete construction as these are more durable than wooden boxes. Suitable boxes include Schwegler 2F and 2FN models.

6 Biodiversity net gain

The following measures are suggested to provide biodiversity net gain. This is in accordance with the National Planning Policy Framework (February 2019) which states that:

'Opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity'. *(Chap. 15, Paragraphs 175).*

6.1 Biodiversity Metric 3.0

The Biodiversity Metric 3.0 Calculation tool (Version updated July 2021) was used to assess net biodiversity gain.

6.1.1 Site habitat baseline

The habitat baseline for the site including the field to the west is shown in Table 9 below. There is a total of 2.84 Habitat Units.

Table 9: *The habitat baseline at the development site*

UK HAB habitat	Area (ha)	Length (m)	Condition	Total Habitat Units	Total hedgerow Units
g3c – Other neutral grassland	0.29		Moderate	2.32	
g4 – Modified grassland	0.13		Moderate	0.52	
u1b5 - Building	0.05		n/a		
u – Hard standing	0.09		n/a		
h2a - Hedgerow		121m	Good		1.43

A summary of the habitat unit values for grassland lost and retained following the development is shown in Table 10 below.

Table 10: *Retained and lost habitat at Bird Grove Farm*

UK HAB habitat	Area retained (ha)	Habitat units retained	Hedgerow Units retained	Area lost (ha)	Habitat units lost	Hedgerow Units lost
g3c – other neutral grassland	0.27	2.16		0.02	0.16	
g4 – Modified grassland	0.07	0.42		0.06	0.24	
h2a - Hedgerow				121m		1.43
TOTAL	**0.34**	**2.60**	**0.02**	**0.08**	**0.40**	**1.43**

6.1.2 Proposed on site habitat creation and enhancement

It is planned to increase the species diversity of the other neutral grassland to the west of the development site, by establishing further indicator species of Lowland Meadow Priority Habitat.

The results of net biodiversity gain for the development using the Biodiversity Metric 3.0 Calculation tool are shown in the following two tables.

Table 11: *Net Biodiversity gain for habitat enhancement of other neutral grassland*

Proposed habitat	Quantity	Habitat units delivered	Hedgerow units delivered
Lowland Meadow	0.27 ha	3.17	
Hedgerows	241m		1.89

Table 12: *Summary of net biodiversity gain*

Baseline habitat units	**2.84**	**Baseline hedgerow units**	**1.43**
Post intervention habitat units	**3.45**	**Post intervention hedgerow units**	**1.89**
Total net unit change	**0.61**	**Total net unit change**	**0.46**
Total net % change	**21.60**	**Total net % change**	**31.54**

It can be concluded that there will be a net biodiversity gain of 21.60 % for habitats and 31.54 % for hedgerows

7 References

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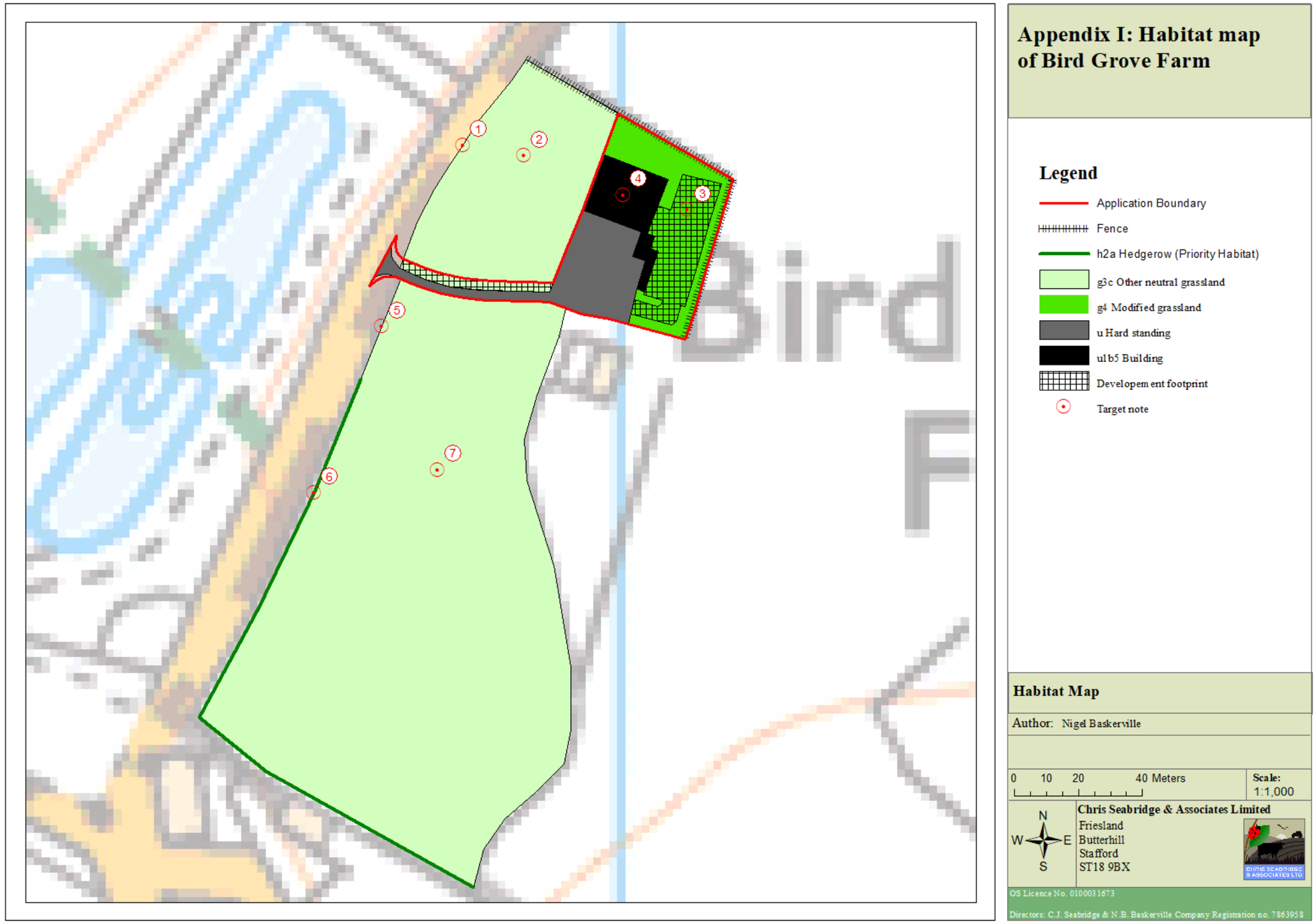
Appendix I: Habitat Map at Bird Grove Farm



Appendix I: Habitat map of Bird Grove Farm

Legend

- Application Boundary
- Fence
- h2a Hedgerow (Priority Habitat)
- g3c Other neutral grassland
- g4 Modified grassland
- u Hard standing
- u1b5 Building
- Developement footprint
- Target note

Habitat Map

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0 10 20 40 Meters

Scale: 1:1,000

N W E S

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Appendix II: Target Notes

Target note	Habitat/ feature	Description	Protected species potential
1	Former Intact native hedgerow (h2a)	Hedge removed in November 2021. Was an untrimmed roadside hedgerow (5-6m tall) and comprised hawthorn, holly, elder and sycamore	
2	Semi-improved grassland (g3c)	Hay field with grasses including Yorkshire fog, cock's-foot, rough meadow grass, meadow foxtail, common bent and sweet vernal grass. Herbs include meadow buttercup, yarrow, common mouse-ear, red clover, white clover with black knapweed on margins	
3	Buildings (u1b5)	Fairly modern steel framed buildings with breeze block walls and concrete floors.	Negligible roosting potential for bats Nesting birds
4	Improved grassland (g4)	Grasses include perennial rye-grass with Yorkshire fog, crested dog's-tail. Herbs include meadow buttercup, white clover and red clover.	
5	Former Intact native hedgerow (h2a)	46m section of Hedge removed in November 2021. Was an untrimmed and 3m wide roadside hedge. Shrubs included blackthorn, elder, hawthorn, holly and hazel with semi-mature ash and sycamore trees.	
6	Intact native hedgerow (h2a)	Untrimmed roadside hedge with blackthorn, hawthorn, goat willow, hazel and holly shrubs. Several trees including ash, sycamore and oak	Nesting birds
7	Semi-improved grassland (g3c)	Grasses include perennial rye-grass, meadow foxtail with Yorkshire fog, cock's-foot, sweet vernal grass and Yorkshire fog. Herbs include meadow buttercup, white clover, common sorrel, common mouse-ear, cuckoo flower and red clover.	

Appendix III Photographs

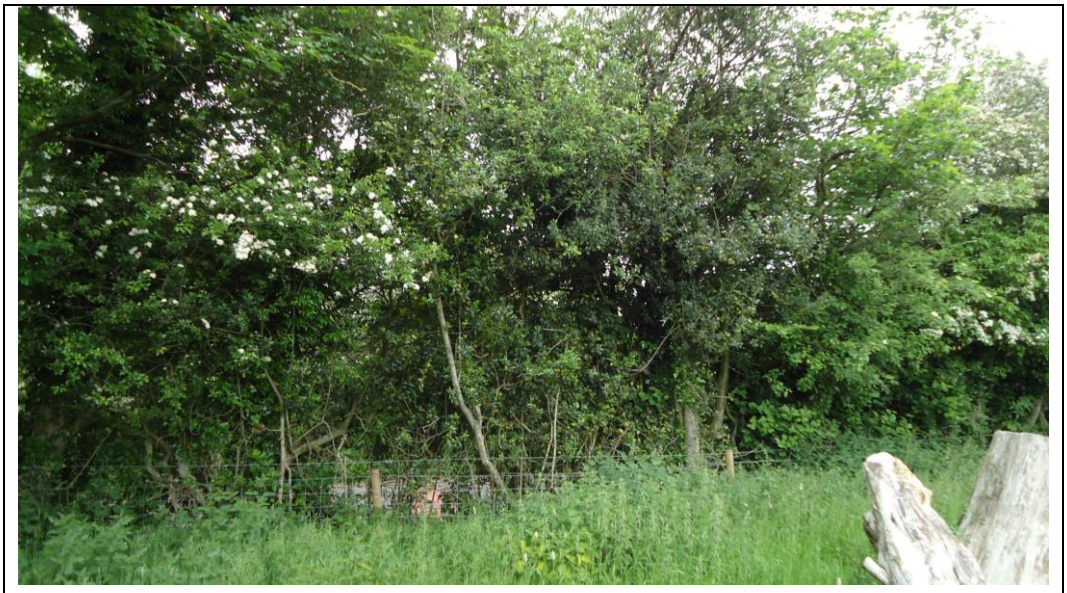

Plate 1: Looking at the eastern side of the roadside hedgerow that was removed in November 2021l to improve highway visibility at the entrance (TN1)



Plate 2: Looking north along site of former roadside hedgerow removed in November 2021 (TN1)



Plate 3: Looking back eastwards from the roadside hedge with the existing entrance track and fencing on the right. The field is semi-improved neutral grassland (TN2)



Plate 4: Looking south of main entrance along site of former roadside hedgerow removed (46m) in November 2021 (TN5)



Plate 5: Looking south westwards across the field of neutral semi-improved grassland (TN2) with the entrance track on the left (June 2021)



Plate 6: Interior of existing building (TN3)



Plate 7: Looking at the north and eastern elevations of the existing buildings on site (TN3)



Plate 8: Looking north across the area of modified grassland to the east of the development site (TN4)



Plate 9: Looking at the northern end of fishing lake which lies approximately 40m from the development site. The two lakes are shown as Ponds 1 and 2.



Plate 10: Looking east across Pond 3 which lies within a grazed improved grassland field.

Appendix V: Legislation

Legal information given below is a summary, and intended only for general guidance. The original legal documents should be consulted for definitive information.

Habitat Regulations

The conservation (Natural Habitats & c.) Regulations 1994, as amended by the Conservation (Natural Habitats & c.) (Amendment) Regulation 2007 and 2009 respectively, transpose Council Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Flora and Fauna (Habitats Directive) into English law, making it an offence to deliberately capture, kill or disturb any wild animal protected under the Habitat Regulations. It is also an offence to damage or destroy a breeding site or resting place of such an animal (even if the animal is not present at the time).

Wildlife & Countryside Act

The Wildlife and Countryside Act 1981, as amended by the Countryside and Rights of Way Act (CRoW) 2000 and the Natural Environment and Rural Communities Act (NERC) 2006, consolidates and amends existing national legislation to implement the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and Council Directive 79/409/EEC on the Conservation of Wild Birds (Birds Directive), making it an offence to:

- Intentionally kill, injure or take any wild bird or their eggs or nests (with certain exceptions) and disturb any bird species listed under Schedule 1 to the Act, or its dependent young while it is nesting.
- Intentionally kill, injure or take any wild animal listed under Schedule 5 to the Act; intentionally damage, destroy or obstruct any place used for shelter or protection by any wild animal listed under Schedule 5 to the Act; disturb certain Schedule 5 animal species while they occupy a place used for shelter or protection.
- Pick or uproot any wild plant listed under Schedule 8 of the Act.

Protection of Badgers Act

The Protection of Badgers Act 1992 makes it illegal to kill, injure or take a badger or to intentionally or recklessly interfere with a badger sett. Sett interference includes disturbing badgers whilst they are occupying a sett or obstructing access to it.

Appendix VI: Nature Conservation Sites

