Pegasus Planning Group

Ladydale, Leek

ECOLOGICAL APPRAISAL

October 2017

FPCR Environment and Design Ltd
Registered Office: Lockington Hall, Lockington, Derby DE74 2RH
Company No. 07128076. [T] 01509 672772 [F] 01509 674565 [E] mail@fpcr.co.uk [W] www.fpcr.co.uk

Rev	Issue Status	Prepared / Date	Approved/Date
-	Draft 1	PH / 11.09.15	PH / 11.09.15
A		PH / 21.09.15	PH / 21.09.15
B		PH / 29.09.15	PH / 29.09.15
C		PH / 24.11.15	PH / 24.11.15
D	Final		PH / 13.10.17

CONTENTS

TABLES

PHOTOGRAPHS

FIGURES

APPENDICES

1.0 INTRODUCTION

1.1 RMWJ Interests Ltd. commissioned FPCR Environment and Design Ltd. to undertake an ecological appraisal of an area of land located immediately northeast of Cauldon Close to the southeast of Leek Staffordshire. This was associated with a proposal for a planning application for 3 dwellings with associated access, open space and landscaping.

1.2 The area of land investigated is centred on grid ref SJ 98684 56002 extends to approximately 0.7ha.

1.3 The objective of the study was to make an initial investigation to determine habitats and species present within this area (hereafter referred to as the site) and to make an initial assessment of their ecological value and any potential ecological constraints to future development of it. Additional objectives were, where appropriate, to identify the need for additional surveys and to consider opportunities for ecological mitigation and enhancements within any future development design.

1.4 This ecological appraisal has also considered features beyond the site boundary. The extent of this additional study in terms of distance from the site is discussed in Section 2. For reference, the site and this wider area of investigation are referred to as the 'study area' within this report.

2.0 METHODOLOGY

Overview

2.1 The appraisal process has largely followed that recommended by the Chartered Institute of Ecology and Environmental Management (CIEEM)[1]. In summary, the key parts of that process have been:

- Gathering baseline ecological information via a desktop study, an initial field survey and subsequent additional vegetation and species surveys;
- Evaluation of the baseline information;
- Discussion of the results and subsequent conclusions.

Desk Study

2.2 Ecological information was requested from Staffordshire Ecological Record and the Staffordshire Amphibian and Reptile Group.

2.3 In addition, the following resources were interrogated for additional information and context:

- Multi Agency Geographic Information for the Countryside (MAGIC) website[2];
- Colour 1:25,000 OS base maps[3];
- Aerial photographs from Google Earth[4].

[1] CIEEM. (2013). *Guidelines for Preliminary Ecological Appraisal.* [online]. Winchester:CIEEM. Available at: http://www.cieem.net/guidance-on-preliminary-ecological-appraisal-gpea- [Accessed 21/09/2014].

[2] [Online]. http://magic.defra.gov.uk/

[3] [Online]. www.ordnancesurvey.co.uk

2.4 The geographical extent of the search area for biodiversity information was related to the significance of sites and species, and potential zones of influence which might arise from development within the northern section of the site. For this site the following scales of search were considered to be appropriate:

- 10km around the site boundary for sites of International Importance (e.g. Special Area of Conservation (SAC), Special Protection Area (SPA), Ramsar site);
- 2km around the site boundary for sites of National or Regional Importance, e.g. Sites of Special Scientific Interest (SSSI);
- 1km around the site for non-statutory designated sites of County Importance and for notable species records (e.g. protected species, 'species of principal importance' and other notable species). This search involved requesting information for each 1km grid square in which the site falls, plus information from each 1 km grid square adjoining these.

Field Survey

Overview

2.5 The field survey was undertaken by appropriately experienced and qualified FPCR ecologists initially during July 2015 and again, in October 2017 when the site was revisited to assess the nature of any changes that might have occurred in the intervening period.

Habitats

Initial Assessment

2.6 Survey methods followed the extended Phase 1 Survey technique as recommended by Natural England[5]. This involved a systematic walk over of the site to classify the broad habitat types and identify any 'habitats of principal importance' for the conservation of biodiversity as listed within Section 41 (S41) of the Natural Environment and Rural Communities (NERC) Act 2006[6].

Species

Initial Assessment

2.7 During the initial extended Phase 1 Habitat survey, observations, identification and signs of any species protected under the following list of Acts and Regulations were noted:

- Part 1 of the Wildlife and Countryside Act 1981 (as amended)7;
- The Protection of Badgers Act 19928;

[4] [Online]. www.maps.google.co.uk

[5] JNCC. (1990). *Handbook for Phase 1 habitat survey – a technique for environmental audit.* Peterborough: JNCC

[6] *The Natural Environment and Rural Communities Act 2006.* [Online]. London:HMSO Available at: http://www.legislation.gov.uk/ukpga/2006/16/contents [Accessed 20/09/2014]

[7] *The Wildlife and Countryside Act 1981* (as amended). [Online]. London:HMSO Available at http://www.legislation.gov.uk/ukpga/1981/69 [Accessed 20/09/2014]

[8] *The Protection of Badgers Act 1992 (as amended)*. [Online]. London: HMSO Available at: http://www.legislation.gov.uk/ukpga/1992/51/contents [Accessed 20/08/2014].

- The Conservation of Habitats and Species Regulations 20109;
- The NERC Act 2006 – S41 species of principal importance for the conservation of biodiversity.

2.8 Given the nature of the habitats within and immediately surrounding the site, particular consideration was given to the potential presence of birds, bats, badger *Meles meles*, amphibians and reptiles.

3.0 RESULTS

Desk Study

3.1 Please refer to Figure 1 for the location of some of the following sites in relation to the study area.

Statutory Designations

3.2 The site does not fall within the designation boundary of any site of international, national or regionally important nature conservation importance.

Nearest Sites of International Importance

3.3 The nearest site of international importance is the South Pennine Moors SAC which forms part of the large area covered by the Peak District Moors (South Pennine Moors Phase 1) SPA, which is located approximately 5.5km northeast of the site. The features for which this area has been designated include; upland habitats and breeding birds (golden plover, merlin, peregrine, short-eared owl, dunlin)[11].

3.4 Peak District Dales SAC is located approximately 10km to the east of the site. The key feature for this designation is the semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco-Brometalia*) within the area[12].

Nearest Sites of National Importance (SSSIs)

3.5 The nearest site of national importance is Coombes Valley SSSI which is located approximately 3.3km southeast of the site. The next nearest site of national importance is Thorncliffe Moor SSSI, which is located approximately 4km to the northeast of the site.

3.6 Combes Valley is formed by ancient woodland, acid and neutral grassland within the valley of Coombe Brook. It supports outstanding assemblages of; woodland breeding birds, beetles Coleoptera and moths and butterflies Lepidoptera. Part of the site is a RSPB Reserve[13].

---

[9] *The Conservation of Habitats and Species Regulations 2010 – Statutory Instrument 2010 No.490.* [Online]. London:HMSO. Available at: http://www.legislation.gov.uk/uksi/2010/490/introduction/made [Accessed 20/08/2014].

[11] JNCC. (2001). *South Pennine Moors SPA Description.* [online]. Available at: http://jncc.defra.gov.uk/page-2001 [Accessed 19/09/2014].

[12] JNCC. (no date). *Peak District Dales SAC Site Description.* [online]. Available at: http://jncc.defra.gov.uk/ProtectedSites/SACselection/sac.asp?EUCode=UK0019859 [Accessed 19/09/2014].

[13] Natural England. (undated). *Combes Valley SSSI Citation.* [online]. Available at: http://www.sssi.naturalengland.org.uk/citation/citation_photo/1000026.pdf [Accessed: 19/09/2014].

3.7 Thorncliffe Moor SSSI has been notified as a SSSI as it:

"…constitutes the largest remaining area of upland heath and associated unimproved acidic grassland in the administrative county of Staffordshire; the majority of such outlying moorland on the southern fringes of the Pennines having been reclaimed for agriculture…" [14]

Nearest Local Nature Reserves

3.8 There are two local Local Nature Reserves (LNR) within 2km of the site; Brough Park Fields LNR, located approximately 1.16km to the north of the site; and Ladderedge Country Park, located approximately 1.6km to the southwest of the site.

Non-Statutory Designations

3.9 Within Staffordshire, sites with a non-statutory biodiversity designation which represent Local Sites as referred to within the National Planning Policy Framework (NPPF)[15] and Government Circular 06/2005[16] comprises a series of sites which fall into two categories of ecological value:

"The series of sites within Staffordshire are ranked into two categories of value, namely Sites of Biological Importance [SBI] *and Biodiversity Alert Sites* [BAS]. *Sites of Biological importance are sites of 'substantive nature conservation value' in a County context and are given a degree of protection through the planning system. Biodiversity Alert Sites are sites of local rather than County importance. These sites have some nature conservation value and have the potential to be of 'substantive nature conservation value' through appropriate management. This designation helps target land management advice to bring new sites into the SBI system."*[17]

3.10 SBIs and BASs within close proximity of the site are listed in Table 1.

Table 1: Non-statutory designated Local Wildlife Sites within 1km – 2km of the site

Site name/ref	Approximate location from the site
Ladydale SBI/LWS	Site forms part of the SBI
An area of poor semi-improved grassland with a large proportion of semi-improved neutral grassland. The Lady o' th' Dale Well runs through the north and northwestern woodland area, and flows along the entire southern border of the site.	
Ladydale Wood Pasture SBI/LWS	Immediately adjacent to the site in the south east
A hillside of semi-improved neutral grassland rising towards the north-east, with a scattering of broad-leaved trees. The southern and eastern areas of the site contain marshy grassland, and there are several marshy areas further up the hillside.	
Ballington Wood SBI/LWS	Approximately 200m south of the site

[14] Natural England. (undated). *Thorncliffe Moor SSSI Citation.* [online]. Available at: http://www.sssi.naturalengland.org.uk/citation/citation_photo/1003081.pdf [Accessed: 19/09/2014].

[15] Department for Communities and Local Government. (2012). *National Planning Policy Framework.* [Online]. London: Department for Communities and Local Government. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/6077/2116950.pdf [Accessed 20/09/2014]

[16] ODPM. (2005). *Government Circular: Biodiversity and Geological Conservation.* London: ODPM & DEFRA

[17] http://www.staffs-ecology.org.uk/html2010/index.php5?title=SBI_Guidelines

Site name/ref	Approximate location from the site
Ballington Wood is cited in the woodland inventory as ancient semi-natural woodland. This is relevant to some sections of the wood however, some areas, predominantly the northern section, has been replanted with coniferous and mixed stands.	
Knivedon Hall SBI/LWS	1.7 km to the northeast
Marshy grassland with adjoining semi-improved neutral grassland and broadleaved woodland. A fragment of unimproved neutral grassland is also present on the site. Scattered scrub, predominately hawthorn, is present across the site together with a number of mature trees including pendunculate oak and ash with alder along the water courses. (2006)	
Lowe Hill (retained BAS)	Approximately 1km southeast of the site
A steep, east facing bank with two gullies running down to a plain where the water slows and creates areas of marshy grassland before leaching into a small stream.	
Birchall Meadow BAS	0.6km to the southwest
Birchall Meadow consists mainly of semi-improved neutral grassland. An area of tall ruderal habitat occurs along the western and southern edge of the site, scattered trees are situated throughout the grassland and a species-rich intact hedgerow runs along the eastern side of the site. The grassland has a high proportion of herbs together with a mixture of both coarse and finer grasses. (2009)	
Borough Park Fields LNR & SBI/LWS	Approximately 1.1km north of the site
The site covers an area of approximately 8.27 hectares, and comprises mainly of unimproved and semi-improved neutral grassland, with a large area of poor semi-improved grassland located to the east of the site.	
Ball Haye Green Disused Tip SBI/LWS	Approximately 1.1km north of the site
A disused tip supporting a variety of vegetation types including marshy grassland, species-rich semi-improved neutral grassland, species-poor semi-improved neutral grassland, broad-leaved semi-natural woodland and scrub.	

Species Records

3.11 The data search with Staffordshire Ecological Record returned a large number (140+) of protected species records from the study area, with just records for bluebell *Hyacinthoides non-scripta* falling within the site boundary. For ease of reference these are shown on Figure 1b..

Badger

3.12 Badger records are confidential but in general terms the consultation confirmed a population in the wider Leek area

Birds

3.13 There are several records for barn owl *Tyto alba* dated 2002-10 located approximately 900m to the northeast of the site.

Hedgehog

3.14 A relatively large number of records for hedgehog *Erinaceus europaeus* were returned. These dated from 1981-2010 and were located between 300 and 1.6 km from the site with the majority from residential development towards the northeast of the site.

Field Survey – Habitats

3.15 Plant nomenclature follows Stace (2010)[18]. Key points in the following descriptions are located on Figure 3 as Target Note (TN) points. The locations of habitats are also provided in Figure 3.

Scrub

3.16 Dense continuous scrub extends into the site round the boundaries in the north of the site, where bramble *Rubus fruticosus* agg. dominates. Additional species present included a range of ruderal species including stinging nettle *Urtica dioica*, hogweed, blue alkanet *Pentaglottis sempervirens* and hedge bindweed *Calystegia sepium.*

Semi-improved grassland

3.17 The vast majority of the site supports species-poor neutral grassland that appears to have been unmanaged for some time. Coarse grasses such as false-oat grass *Arrhenatherum elatius,* cock's-foot *Dactylus glomerata* and Yorkshire fog *Holcus lanatus* were abundant as were a number of ruderal species including hogweed *Heracleum sphondylium* and common ragwort *Senecio jacobaea* (photograph 1). The cover of this coarse vegetation appears to have increased since the survey completed in 2015, with the grassland now becoming tussocky and with a litter layer developing in addition to tree saplings becoming more frequent.2 Finer grasses including common bent *Agrostis capillaris*, sweet vernal grass *Anthoxanthum odoratum* and red fescue *Festuca rubra* are still present within the sward, although now only locally frequent to the south. In addition to a number of ruderal species noted above a range of common forbs were present including meadow buttercup *Ranunculus acris*, white clover *Trifolium repens* and ribwort plantain *Plantago lanceolata*. Localised species Pignut *Conopodium majalis,* which can be indicative of less improved conditions, was present rarely.

Photograph 1: coarse semi-improved grassland and ruderal vegetation

[18] Stace, C.A. (2010). *New Flora of the British Isles. Third Edition.* Cambridge: Cambridge University Press.

3.18 Toward the south of the grassland habitat species richness increased and the frequency of finer grasses, particularly common bent, increased (TN 1). Additional species not present, or of much reduced cover, in the wider compartment included frequent black knapweed *Centaurea nigra*, common cat's-ear *Hypochaeris radicata,* field woodrush *Luzula campestris*, common sorrel *Rumex acetosa,* red clover *Trifolium pratense*, yellow oat grass *Trisetum flavescens* and occasionally devils-bit scabious *Succisa pratensis.*

Fen – Valley Mire

3.19 The southern extent of the site supports a fen vegetation (photograph 2) over a peat substrate evident along the incised brook corridor to the east, where evidence of attempted drainage of this area was also noted. The fen appears to be fed by small springs at the base of a steep bank rising to the grassland in the rest of the compartment on its northern and western edge.

Photograph 2: Fen vegetation in the south of the site

3.20 The fen is dominated by soft rush *Juncus effusus*, with a range of other frequent to abundant associates including common valerian *Valeriana officinalis,* angelica *Angelica sylvestris*, marsh thistle *Cirsium palustre,* greater Willowherb *Epilobium hirsutum* and bod stitchwort *Stellaria uliginosa*. Additional species of more lower cover or localised occurrence include greater bird's-foot trefoil *Lotus pedunculatus*, marsh willowherb *Epilobium palustre,* lady fern *Athyrium filix-femina* and opposite-leaved golden saxifrage *Chrysosplenium oppositifolium* and floating sweet grass *Glyceria fluitans* close to the stream.

Running Water

3.21 A small stream flows along a proportion of the south-eastern boundary. The water course was shallow ranging from 50mm to 250mm in depth and up to 1m wide and relatively fast flowing over a sand and gravel substrate. Occasional cobbles and urban debris were present throughout.

Photograph 3: stream banks with woodland vegetation

Photograph 4: Stream with sand, gravel and cobble bed

3.22 Its western (site-side) bank was formed of 1.5-2m high clay/peat and only sparsely vegetated by liverworts, mosses and the occasional lady fern. Small seepages and the remains of clay field drainage pipes were present. Its eastern (off-site side) bank was of more shallow gradient and supported a grassland a woodland ground flora comprising rough meadow grass *Poa trivialis*, lesser celandine *Ranunculus ficaria*, wood avens *Geum urbanum* and in its southern extent broad leaved helleborine *Epipactis helleborine*.

3.23 Aquatic vegetation within the channel was rare, with only very localised brooklime *Veronica beccabunga* and water forget-me-not *Myosotis scorpioides* noted.

Hedgerow

3.24 A single hedgerow was present along the north-eastern boundary where it occurs in association with a drystone wall. No recent management appears to have occurred and as a result if is tall and wide. It was of mixed composition, supporting a range of shrub and tree species including hawthorn *Crataegus monogyna*, holly *Ilex aquifolium*, ash *Fraxinus excelsior* and sycamore *Acer pseudoplatanus* with mature ash and common lime *Tilia x europaea* also present. Rhododendron *Rhododendron ponticum* was also noted encroaching from adjacent land.

Mature Trees

3.25 A single mature oak *Quercus robur* occurs within the site on the steep bank where the fen and grassland meet. |It was in generally good condition although rot holes and dead wood were present in the canopy.

Species

Badgers

3.26 Evidence that the site forms a part of a badger social groups home range was noted. Further information is contained within Appendix B, which should remain confidential and not be released into the public domain.

Bats

3.27 The site and habitats within it are likely to be used by bats for foraging and commuting through. Habitats of particular value for foraging bats are likely to include the fen and more established boundary habitats that are likely to provide a rich source of invertebrate prey items.

3.28 No evidence of current bat occupation within the site was observed, although this could, perhaps, be expected given the survey period. Nevertheless, potential bat roost habitat was noted in association with the single mature oak tree (TN 2) which supported a number of features that could be sued by roosting bats including rot holes and flaking bark.

Birds

3.29 Few bird species were observed or heard within the site during the survey. Those that were noted, including nuthatch *Sitta europaea*, wood pigeon *Columba palumbus*, dunnock *Prunella modularis* and wren *Troglodytes troglodytes*, are generally common and widespread within the wider countryside.

3.30 Habitats within the site are also considered to be of limited potential value to birds due in part to its small size. The dominant grassland habitat within the site, is unlikely to provide significant habitat for any breeding species, although it may provide some limited foraging habitat for a small number of species.

3.31 The hedgerow and scrub within and around the boundaries of the site are likely to be used by some species although are unlikely to be significant in anything other than a site or very local context

Herpetofauna

3.32 No ponds or other features that could be used by breeding amphibians were observed within the site which, is largely isolated from other potential breeding sites by surrounding roads and established built development.

3.33 The site supports suitable habitat for reptiles. Records of members of this group are howver absent from the local area and recent surveys would suggest that this group is unlikely to be present.

4.0 DISCUSSION

4.1 The proposals for the site include the development of 3 dwellings with public open space and access provision as indicated in the Sketch Appraisal (Pegasus Group EMS.2772.SK02).

Statutory Designations

Sites of International Importance

4.2 There would be no impact on the South Pennine Moors SAC or the Peak District Dales SAC given their respective distances of 5.5km and 9.9km from the proposed development.

Sites of National Importance

4.3 Interrogation of the MAGIC database shows that the site (as bounded by the red line boundary on the application plans) is not located within the SSSI Impact Risk Zones for the nearest SSSIs (Coombes Valley SSSI and Thorncliffe Moor SSSI). Consequently, no impact on these sites is likely to arise as a result of the proposed development.

Local Nature Reserves

4.4 The two Local Nature Reserves located within 2km of the site, Brough Park Fields and Ladderedge Country Park are unlikely to receive any significant increase in visits as a result of the applications very limited size. As a key concept of a Local Nature Reserve is public access to areas with nature conservation interest, management of access forms an integral part of site management. Given the maximum number of houses proposed it is considered that the level of increased visitors to these sites would not constitute a negative impact.

Non-Statutory Designations

Staffordshire Sites of Biological Importance and Biodiversity Alert Sites (SBIs and BASs)[20]

4.5 The most relevant impact on these non-statutory sites arises from the fact that the site falls within the designation boundary of Ladydale SBI.

4.1 Staffordshire 'Local Sites' or Local Wildlife Sites system, comprises two tiers of designation which represent two categories of ecological value of sites. Sites of Biological Importance (also referred to as Local Wildlife Sites) are sites which are considered to be of substantive nature conservation value at County level and as such these are afforded a degree of protection through the planning system. Biological Alert Sites are sites which are considered to have the potential to be of substantive nature conservation value if subjected to appropriate management.

4.2 The individual habitat selection guidelines consider the value of habitats at both these levels with criteria which have different thresholds for the two levels of designation, and this is the case for the grassland selection guidelines.

[20] Webb, J., Lawley, S., Cadman, D., Slawson, C., Smith, J., & Weightman, J. (2008). *Guidelines for the selection of Sites of County Biological Importance in Staffordshire – February 2008*. Stafford: Staffordshire Wildlife Trust.

Staffordshire SBI Grassland Selection Criteria

4.3 Sites can be assessed against the criteria for SBIs either through the presence of specific National Vegetation Classification (NVC) grassland communities or by the use of a points scoring system based around the presence, and abundance, of species which are included on the guideline's Checklist of Grassland Species. Biodiversity Alert Sites can only be assessed using this points scoring system.

4.4 The citation for Ladydale SBI lists the habitats present using the standard Phase 1 Habitat codes and descriptions and provides extensive descriptions of the component parts of the site with no mention of NVC communities. This is consistent with the survey of the site which indicated that the grassland within the site was unlikely to fall with one of the identified NVC communities of importance.

4.5 The points system requires information regarding the presence of particular species and their relative abundance within the stand. This abundance is defined by use of the DAFOR system.

4.6 The DAFOR scale is a method of assessing the abundance of plant species over a given area using the scale points of D (dominant), A (abundant), F (frequent), O (occasional) and R (rare). However, there is no strict quantative definition and users of the scale, unless directed otherwise, have to make their interpretation of what these scale points mean. The Staffordshire SBI selection guidelines do not give any guidance on this matter.

Habitats

4.7 The degree to which habitats receive consideration within the planning system relies on a number of mechanisms, including:

- Inclusion within a specific policy, for example veteran trees, ancient woodland and linear habitats within the National Planning Policy Framework (NPPF);
- A non-statutory site designation (e.g. Local Wildlife Site);
- Habitats considered as habitats of principal importance for the conservation of biodiversity as listed within Section 41 of NERC;
- Habitats identified as being a Priority Habitat within the local Biodiversity Action Plan.

4.8 A summary of the National and Local policies of relevance to the site are outlined in Appendix A.

4.9 The grassland within the site is of variable interest with some areas where indicators of a lack of intensive improvement were observed. The survey of the grassland indicated that, although a small part of the grassland is of increased species richness, as a whole, the grassland fails to meet the criteria for designation as an SBI (score of 20 or above) due to a lack of qualifying indicator species of sufficient cover. The score attained (14), did meet the threshold at the lower end of the qualifying range for the lower tier BAS sites (score of 14-19). It is of course accepted that further more detailed botanical survey may reveal further species, although given the generally poor nature of much of the grassland and predominance of negative indicator species it is considered unlikely that this habitat would qualify as an SBI.

4.10 It should also be noted that much of the interest was highly localised on the bank between the grassland and fen vegetation, which is considerably smaller than the required 0.25ha required for qualification. Nevertheless, the proposals have sought to ensure that this area is retained within the site design, providing an opportunity to not only maintain the resource but also enhance it through securing sympathetic management, which would not otherwise occur inevitably leading to further decline.

4.11 The fen vegetation, while supporting some species indicative of poor management and /or succession, supported a range of species of localised occurrence in the wider area. Fen vegetation is capable of qualifying for SBI and BAS status, although the threshold for qualification of 0.25ha was not reached within the site which supports approximately 0.1ha of fen. Nevertheless it was considered to be of local value complementing the suite of habitats present locally. Current proposals indicate that this fen vegetation would be retained in situ, which is welcomed. It will be necessary to ensure that it does not decline as a result of an alteration in its underlying hydrology.

4.12 The boundary habitats including the drystone wall/hedgerow and small stream which forms most of the eastern boundary will not be affected by the proposals and impacts are unlikely.

Species

Badgers

4.13 No important setts would be directly affected by the proposals and no direct impacts are therefore likely.

4.14 There was some evidence of foraging in and passage through the site, however, the site is likely to be only a very small fraction of the occupying badger social groups home range and as such any loss of foraging habitat, which is abundant elsewhere and in close proximity to the site would not be significant. Similarly, the proposals retain a significant proportion of open space that could be easily utilised by badgers both for passage through the site and for foraging such that impacts are unlikely.

Bats

4.15 The site is of relatively small size and, although habitats are likely to support some bat prey items, it is unlikely to provide a significant resource given that habitats of high quality are present abundantly in the wider area and the loss of the site is considered unlikely to affect the viability of any local population. Nevertheless, the single oak tree located within the site was noted as supporting feature that could be used by roosting bats.

4.16 Bats, and their roosts are protected under Section 41 of the Conservation of Habitats and Species Regulations 2010 and under the Wildlife and Countryside Act 1981 (as amended) and it is recommended that this tree remains unaffected by proposals. The current layout seeks to retain this tree in situ and further indirect effects could be easily avoided through the use of a range of simple design measures focused on any future lighting such as:

- avoiding unnecessary lighting
- the use of low-intensity lighting

- minimising light spill with the use of directed lighting or designing planting to shield sensitive areas

4.17 Sensitive design of the sites lighting scheme will ensure that bats can continue to use features such as hedgerows and trees for roosting, foraging and commuting.

Birds

4.18 The development would only result in the loss of species-poor semi-improved grassland which is of limited value to birds. The proposed development would therefore not have any negative impact on any protected species of bird. The replacement of the species-poor semi-improved grassland with gardens and development landscaping will provide additional habitat for a range of urban edge species some of which, like dunnock, are Species of Principal Importance, resulting in a positive impact on local bird assemblages.

5.0 CONCLUSIONS

5.1 This ecological appraisal has identified a number of habitats within the site, including species poor semi-improved and semi-improved grassland, located in the north and centrally within the site, Fen vegetation located to the south of the site and a range of more peripheral habitats including continuous scrub and ruderal vegetation and a hedgerow. A single mature oak also occurs within the site.

5.2 Habitats of greatest value include the fen vegetation, which, although a localised habitat type, is of insufficient size to merit designation as an SBI, and the semi-improved grassland, which, although supporting a range of indicator species included in the Checklist of Grassland Species in the Staffordshire SBI Guidelines, is also not of sufficient species richness for designation as an SBI, although still meets the criteria for the secondary lower tier BAS designation.

5.3 Nevertheless, the site still forms a part of a much wider designation known as the Ladydale SBI a Staffordshire Site of Biological Importance and one considered to be of County importance for the habitats it supports. Locally designated sites, which include SBIs, are a material consideration of Staffordshire Moorlands District Council's adopted Core Strategy Policy NE1 Biodiversity and Geodiversity Resources. Development of land within an SBI has the potential to be contrary to policy NE1, but the policy does allow for development within a designated site subject to certain parameters being met. These include:

"…mitigation conservation and mitigation measures are provided; or if this is not possible the need for, and benefit of, the development is demonstrated to clearly outweigh the need to safeguard the intrinsic nature conservation value of the site and compensatory measures are implemented"

5.4 In the context that the site supports habitats that fail to meet the qualifying criteria for designation as an SBI, although do in part qualify as BAS, and despite its inclusion within the Ladydale SBI, some development may be achievable particularly as the habitats of greatest interest will either be conserved in situ (fen) or can potentially be retained or compensated through translocation/habitat creation within the site (SI grassland) as is consistent with Policy NE1.

5.5 The presence of badgers was noted in the area, although significant impacts are unlikely to occur.

5.6 Further potential effects on fauna would also be mitigated by the retention and buffering of suitable habitats such as the mature standard tree, which supports suitable habitat for roosting bats and peripheral hedgerows and scrub, which may support a range of common urban edge bird species.

5.7 It is recommended that sympathetic management of retained habitats occurs in the event that the scheme is granted approval. This could be expected to include the rotational management of fen vegetation to prevent scrub and woodland encroachment and the annual management of retained and created grassland habitats to maximise their species diversity. This would ensure compliance with Policy NE1 to provide mitigation and compensation.

SUMMARY OF PLANNING POLICY RELEVANT TO THE SITE

National Planning Policy Framework (NPPF)

The National Planning Policy Framework (NPPF) was published on 27th March 2012. It replaced all previous Planning Policy Statements (PPS) along with other planning guidance. Embedded within the NPPF is the premise of '*presumption in favour of sustainable development*' which is laid out in twelve central land-use planning principles which underpin the production of development plans and decision taking.

Within this strand of sustainable development the NPPF aims to "*seek positive improvements in the quality of the built, natural and historic environment*." which, amongst others, includes, "…*moving from a net loss of bio-diversity to achieving net gains for nature*."

Within the NPPF there are clear objectives for conserving and enhancing the natural environment:

> "*The planning system should contribute to and enhance the natural and local environment by:*
>
> - *protecting and enhancing valued landscapes, geological conservation interests and soils;*
> - *recognising the wider benefits of ecosystem services;*
> - *minimising impacts on biodiversity and providing net gains in biodiversity where possible, contributing to the Government's commitment to halt the overall decline in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;*
> - *preventing both new and existing development from contributing to or being put at unacceptable risk from, or being adversely affected by unacceptable levels of soil, air, water or noise pollution or land instability; and*
> - *remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate".*

Staffordshire Moorlands District Council Planning Policies

Staffordshire Moorlands District Council adopted their Core Strategy on 26/03/2014. Within the Core Strategy Policy NE1 Biodiversity and Geodiversity Resources makes specific reference to locally designated sites which would encompass SBIs:

"NE1-BiodiversityandGeologicalResources

The biodiversity and geological resources of the District and neighbouring areas will be conserved and enhanced by positive management and strict control of development by: …

…3. Conserving and enhancing regional and locally designated sites. The Council will not permit any development proposal which would directly or indirectly result in significant harm to geological and biodiversity conservation interests including ancient woodland and, unless it can be demonstrated that:

- *there is no appropriate alternative site available; and*
- *all statutory and regulatory requirement relating to any such proposal have been satisfied; and*
- *appropriate conservation and mitigation measures are provided; or if this is not possible*
- *the need for, and benefit of, the development is demonstrated to clearly outweigh the need to safeguard the intrinsic nature conservation value of the site and compensatory measures are implemented…*

…6. Ensuring development promotes the appropriate maintenance, enhancement, restoration and/or re-creation of biodiversity through its proposed nature, scale, location and design. The Staffordshire Moorlands Biodiversity Opportunity Map, in conjunction with the Staffordshire Biodiversity Action Plan, will be used to guide biodiversity enhancement measures to be included in development proposals as appropriate to the nature and scale of development proposed and other environmental interest, in particular supporting opportunities to increase grassland and heathland habitats including supporting targets in the UK and Staffordshire Biodiversity Action Plan".

Staffordshire Biodiversity Action Plan (SBAP)[21]

Although the UK BAP has now been replaced by the UK Post-2010 Biodiversity Framework, and counties across the country are likely to take differing approaches with regard to delivery of biodiversity within their areas, Local Biodiversity Action Plans remain a key element for securing the requirements of the NPPF. This is the case within Staffordshire where the local BAP, which has been operational since 1998 and which continues to provide a focus for conservation efforts within the County.

[21] *Staffordshire Biodiversity Action Plan.* Webpage. [online]. Available at: http://www.sbap.org.uk/ [Accessed 20/09/2014].

The current BAP seeks to achieve its targets by:

"Working at a landscape level, or ecosystems approach, the aim of the 3rd Edition SBAP is to focus conservation efforts on the areas within the county that will result in optimum benefit for ecological networks, habitats and species and allow for greater resilience to climate change…

… By integrating biodiversity objectives with other environmental, social and economic needs, the SBAP aims to provide a sustainable living and working environment that benefits both people and nature…

…By replacing Habitat and Species Action Plans with 14 "Ecosystem Action Plans" (EAPs) and one Rivers Action Plan, the SBAP aims to prioritise conservation management at a landscape level and contribute to local, regional and national conservation targets…"

The site falls within the area covered by the Species-rich Farmland Ecosystem Action Plan which has Lowland Meadows as a Priority Habitat and targets for hedgerows and native woodland, habitats which are present adjacent to the site. Example targets for Lowland Meadows are:

- Maintain the extent and condition of existing habitat
- Restoration of lowland meadows from semi-improved or neglected grassland (21ha by 2026).