



suncredit
ENERGY

SHAWHOUSE, WHALLEY

September 2018

Ecological Report

On behalf of Suncredit Energy





Shawhouse Farm, Clitheroe Road, Whalley

Ecological Impact Assessment

October 2018

Control sheet

 <p>www.bowlandecology.co.uk</p>	2 York Street, Clitheroe, Lancashire, BB7 2DL. 01200 446777	Unit 2, Dye Works, New Lanark, ML11 9DB. 01555 438880
Job number:	BOW17.970	
Title:	Shawhouse Farm, Clitheroe Road, Whalley – <i>Ecological Impact Assessment</i>	
Client:	Suncredit Solutions Ltd	
Prepared by:	Ellen Milner, <i>Senior Ecologist</i>	
Checked by:	Claire Wilson, <i>Senior Ecologist</i>	
Date of Issue:	October 2018	
Version:	1	
Revisions:	0	
Status:	FINAL	
<p>This report is prepared by Bowland Ecology Ltd for the sole and exclusive use of Suncredit Solutions Ltd in response to their particular instructions. No liability is accepted for any costs, claims or losses arising from the use of this report or any part thereof for any purpose other than that for which it was specifically prepared or by any party other than Suncredit Solutions Ltd.</p> <p>This report has been prepared by an ecological specialist and does not purport to provide legal advice. You may wish to take separate legal advice.</p> <p>The information which we have prepared and provided is true, and has been prepared and provided in accordance with the BS42020:2013 and the Chartered Institute of Ecology and Environmental Management’s Code of Professional Conduct. We confirm that the opinions expressed are our true and professional bona fide opinions.</p> <p>Bowland Ecology is accredited to Quality Guild (QG) standards in respect of our Quality, Environmental and Health and Safety procedures. The QG is an independent externally audited and accredited system that has been developed according to the principles of ISO9001, ISO14001 and OHAS18001.</p>		
Signed (Author) 	Signed (QA) 	

Contents

Executive Summary 1

1. Introduction 1

2. Methodology 2

3. Results 4

4. Assessment of Potential Impacts 8

5. Mitigation Recommendations 10

References..... 11

Appendix A - Phase 1 Habitat Plan 12

Appendix B - Target Notes 13

Appendix C - Scheme Design 17

Appendix D - Legislative Information 18

Executive Summary

Bowland Ecology Ltd was commissioned by Suncredit Solutions Ltd to complete an ecological impact assessment of an area proposed for an energy generation scheme at Shawhouse Farm, Whalley, Lancashire, BB7 9AD (SD 73135 37323)

The application site comprises bare ground (compacted gravel) which has become vegetated around the margins with a sparse over of ephemeral and early colonising species. The scheme is for the development of a 'peaking plant' which is a gas fired electricity generation plant.

The survey comprised an extended Phase 1 survey completed on 4th September 2018 by Ellen Milner MRes, BA (Hons), CEnv, MCIEEM.

The data search with Lancashire Environmental Record Network (LERN) identified that there is one SSSI within the 2 km search area. However this is designated on the basis of earth heritage and therefore is not relevant to the ecological assessment.

There are 12 Biological Heritage Sites within 2 km, although 11 of these lie beyond 700 m from the site. Calderstones Hospital Wood land /Railway Line lies 260 m from the site. However, the small scale nature of the scheme indicates that impacts to these sites are considered unlikely.

The loss of a small area of bare ground vegetated with some sparse ephemeral cover is considered to be a negligible ecological impact and no mitigation is proposed. A new 70 m section of hedgerow is to be planted along the eastern edge of the development, along the existing fence line, which will be an ecological enhancement.

No scrub or tree removal is required and therefore no direct impact to breeding birds or bats are envisaged. There are mature trees within boundaries close to the proposed compound which could be directly impacted through root damage during construction works.

Himalayan balsam is present within boundaries close the application boundary and therefore the scheme has the potential to spread this species which is listed on Schedule 9 of the Wildlife and Countryside Act, 1981, as amended.

Other notable species which could potentially occur in the area, such as hedgehog or brown hare would be most likely to use the adjacent habitats which will not be impacted.

The generator compound will be established in proximity to mature trees and therefore to avoid indirect impacts such as through root damage, the establishment of tree protection areas should be considered. An appropriate stand off of 5 - 7 m from the Himalayan balsam should be demarcated on site and any potentially contaminated material should be treated as Controlled Waste and disposed on in accordance with government guidance.

As an enhancement, two bat boxes (Schwegler 2F) could be installed on mature trees within the ownership boundary.

1. Introduction

- 1.1 Bowland Ecology Ltd was commissioned by Suncredit Solutions Ltd to complete an ecological impact assessment at Shawhouse Farm, Whalley, Lancashire, BB7 9AD (SD 73135 37323). The site is subject to proposals for an energy generation scheme.
- 1.2 The site lies to the north of Whalley, north of the A59, and is bordered to the west by a railway line. The site is located within a pastoral setting characterised by large fields and mature hedgerows/boundaries, between the built up areas of Whalley, Barrow and Wiswell.
- 1.3 The scheme is for the development of a 'peaking plant' which is a gas fired electricity generation plant. These are power plants designed to help balance the fluctuating power requirements of the electricity grid that run on mains and stored natural gas. Peaking stations typically operate in standby mode, and then when there is a peak in demand for power from the electricity grid the gas generators receive a signal to commence operation. The indicative layout is for two compounds - one is a 4MW 11KV connection and the other is a 20MW 33KV connection which will serve two different networks (11 and 33KV).
- 1.3 The purpose of the survey was to: 1) identify and map habitats occurring within the survey area, 2) identify the presence of (or potential for) wildlife interests with particular reference to the need for further surveys and legal requirements, and 3) provide an ecological assessment, identify potential impacts and provide recommendations pertaining to the proposal.
- 1.4 This report includes a description of survey methods, a summary description of habitats and fauna and outlines measures to provide protection and enhancements for biodiversity.

2. Methodology

- 2.1 The desk study, extended Phase 1 habitat survey and ecological impact assessment followed CIEEM's Guidelines for Preliminary Ecological Appraisal and Guidelines for Ecological Report Writing (CIEEM, 2017 a & b) and are in line with the British Standard BS42020:2013 'Biodiversity – Code of practice for planning and development'.

Desk Study

- 2.2 The aim of the desk study was to identify the presence of statutory and non-statutory wildlife sites within the area and any legally protected species or Habitats and Species of Principal Importance for the conservation of biodiversity (Section 41 NERC Act 2006).
- 2.3 The Multi-Agency Geographic Information for the Countryside (MAGIC) website (www.magic.gov.uk) was reviewed for information on locally, nationally and internationally designated sites of nature conservation importance (statutory sites only) and Habitats of Principal Importance on or within 2 km of the site boundary.
- 2.4 Local species records and details on non-statutory designated sites on and within 2 km of the site were obtained following a data search with Lancashire Environmental Record Network (LERN).
- 2.5 Ordnance Survey maps and aerial photographs¹ were reviewed to help identify any continuous habitat and any other notable habitats including ponds within the surrounding area.
- 2.6 Natural England's great crested newt (*Triturus cristatus*) licensing method statement template (Form WML-A14-2 (version December 2015²) advises that, for developments resulting in permanent or temporary habitat loss at distances over 250 m from the nearest pond, careful consideration should be given to whether a survey is appropriate. Although the species may use suitable terrestrial habitat up to 500 m from a breeding pond, in this instance a 250 m search radius was considered appropriate due to the very small footprint of the project.

Field Survey

- 2.7 The extended Phase 1 habitat survey followed standard methodology (JNCC, 2010 and CIEEM, 2017a). All features of ecological significance were target noted and a colour coded map of the habitats on site produced.
- 2.8 This survey methodology records information on the habitats together with any evidence of and potential for legally protected and notable fauna, in particular:
- potential roosting sites for bats within buildings and trees (identification of suitable cracks and crevices – survey undertaken externally and from ground level only).
 - assessing the suitability of habitats for other notable and protected species such as nesting birds (including any active or disused nests),

¹ <http://maps.google.co.uk/maps>

² <https://www.gov.uk/government/publications/great-crested-newts-apply-for-a-mitigation-licence>

reptiles, water vole (*Arvicola amphibius*), otter (*Lutra lutra*), white-clawed crayfish (*Austropotamobius pallipes*) and badger (*Meles meles*).

- checking for the most common invasive plant species subject to strict legal control including: Japanese knotweed (*Fallopia japonica*), giant knotweed (*F. sachalinensis*), hybrid knotweed (*F. x bohemica*), giant hogweed (*Heracleum mantegazzianum*), rhododendron (*R. ponticum*, *R. ponticum* x *R. maximum* and *R. luteum*) and Himalayan balsam (*Impatiens glandulifera*);
- assessing the suitability of the habitat for amphibians and for the protected great crested newt. Ponds on site and within 250 m were subject to a Habitat Suitability Index (HSI) (Oldham *et al.* 2000) assessment for great crested newt³.

2.9 The extended Phase 1 Habitat survey was undertaken on the 4th September 2018 by Ellen Milner MRes, BA (Hons), CEnv, MCIEEM. All areas of the site and surrounding areas were accessible for survey. The weather during the survey was approximately 20°C, dry and cloudy with a slight breeze (Beaufort 1).

2.10 The timing of the Phase 1 habitat survey was within the optimum period for completing such a survey and all areas of the site were accessible for inspection, and therefore provided no constraint to the assessment.

Limitations

2.11 Ecological surveys are limited by factors which affect the presence of plants and animals such as the time of year, migration patterns and behaviour. Therefore the survey of the study area has not produced a complete list of plants and animals.

2.12 The list of invasive plant species included on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) is extensive and these plants are found in a range of different habitats, including aquatic habitats. The extended Phase 1 Habitat survey checked, in particular, for the presence of Japanese knotweed, giant knotweed, hybrid knotweed, giant hogweed, rhododendron and Himalayan balsam. There may be other invasive plant species present on the site which were not recorded, but it is considered that this survey is sufficient to identify any significant constraints posed by invasive plants.

³ An HSI is a numerical index, between 0 and 1. Values close to 0 indicate unsuitable habitat, 1 represents optimal habitat. The HSI for the great crested newt incorporates ten suitability indices, all of which are factors known to affect this species. The HSI for great crested newts is a measure of habitat suitability - it is not a substitute for newt surveys.

3. Results

Designated Sites and Habitats of Principal Importance

- 3.1 The desk study identified one national statutory designated site within the 2 km search area. Light Clough SSSI is designated on the basis of earth heritage (geological) and therefore is given no further consideration in this ecological assessment. However, the site lies within the impact risk zone for this SSSI which details that the LPA should consult Natural England on all planning applications in relation to potential risks to the SSSI.
- 3.2 The desk study identified the following twelve non-statutory Biological Heritage Sites (BHS) within the search area as follows:
- Calderstones Hospital Woodland /Railway Line (73NW09), 260 m to the north-west. This is a site supporting alder – willow carr woodland, swamp and grassland habitats.
 - Hard Hill Common (73NW18, 700 m to the north). Formerly common land which has been drained for agricultural improvement but still supporting localised areas of purple moor grass/rush pasture.
 - Barrow Brook Field (73NW17), 700 m to the north. A site supporting damp semi-natural neutral grassland (MG4 NVC classification).
 - Spring Wood (73NW14), 1.3 km to the south-east. A woodland and scrub site.
 - Mitton Wood (73NW05), 1.4 km to the west. A large semi-natural woodland site listed on Lancashire Inventory of Ancient Woodland (Provisional) (English Nature 1994).
 - Sir John's Wood and Lords Park Wood (73NW12), 1.5 km to the south-east. A woodland and scrub site.
 - Calder Bank, Broken Bough (73NW1), 1.5 km to the south-east. A steep bank along the northern side of the River Calder, and a continuation of St John's Wood. It supports a population of rough horsetail (*Equisetum hyemale*) which is listed on the Lancashire Red Data List of Vascular Plants.
 - Small Field (73NW16), 1.8 km to the north-west. A site supporting semi-natural neutral grassland adjoining the eastern bank of the River Ribble.
 - Mitton Hall Wood (73NW0), 1.8km to the north-west. Designated on the basis of woodland and scrub habitats.
 - River Ribble from London Road Bridge Preston, in West, to County Boundary, in East (LSRRI), 1.8 km to the north-west. Important for sea trout, salmon, otter, water vole, sand martin and kingfisher. The habitats associated with the river comprise woodland, grassland and, locally, swamp and tall-herb communities.

- Chew Bank Wood (73NW04), 1.9 km to the south-west. Designated on the basis of woodland and scrub habitats.
 - Planes Wood (73NW13), 2 km to the south-east. A woodland and scrub site.
- 3.3 There are no ponds on or within 250 m of the application site shown on Ordnance Survey maps or visible on aerial images. There is a culvert which is flooded at the western end of the ditch described at TN2. However this does not appear to be a permanent feature and no aquatic vegetation was present.
- 3.4 With regard to Habitats of Principal Importance (HPI), the woodland to the north of the access track to Shawhouse Farm, immediately north of the application area, and the woodlands to either side of the A59 are listed as deciduous woodland HPI. There are other small blocks of deciduous woodland in the search area, with more significant blocks associated with Biological Heritage Sites such as Spring Wood, which is also listed as Ancient Woodland. A large area of Lowland Fen HPI occurs to the north (Hard Hill Common BHS), and small areas of lowland calcareous grassland, good quality semi-improved grassland and traditional orchard HPI's are also present within the search area.

Habitats

- 3.5 The Phase 1 Habitat plan of the site presented in Appendix A includes the locations of the target notes which are described below. Plant species nomenclature follows Stace (2010) and latin names for botanical species are included within the target notes at Appendix B.
- 3.6 The application site comprises compacted gravel/hardstanding which has become vegetated in places with ephemeral species typical of brownfield sites with a gravelly substrate.

Bare ground/ephemeral habitats

- 3.7 The main development area where the generator compound will be located is described in TN3. This is a bare area of compacted gravel where containers, pallets, trailers and silage bales have been stored. There is some growth of ephemeral vegetation including greater plantain, colt's-foot, common ragwort, perennial rye-grass, hard rush, willowherb sp., creeping jenny, silverweed, redshank, common figwort, sow thistle sp., ribbed melilot and orache sp. The proposed access route into the site from Clitheroe Road is also a hardstanding, compacted gravel track which currently services Shawhouse Farm and associated buildings.

Tree line/boundary

- 3.8 TN4 describes a tree line which lies immediately north of the proposed generator compound area. This comprises ash, hawthorn, alder and wych elm. The ground flora comprises common nettle, broad-leaved dock, creeping thistle, hedge bindweed and Himalayan balsam.
- 3.9 A further tree line is described at TN5 which lies to the west of the proposed generator compound, and lies alongside the railway line. It comprises ash, oak sp. and sycamore. There are large stands of Himalayan balsam, along with broad-leaved dock, tufted hair-grass, creeping buttercup, willowherb sp., mugwort, common nettle, orache sp., and hedge bindweed.

Broadleaved Woodland

- 3.10 Woodland to the north of farm access track, bordering the cemetery is described at TN1. The canopy comprises ash, hawthorn, sycamore, dog rose, cherry sp., hazel, elder, silver birch and rowan. The ground flora comprises bramble, common nettle, common hogweed, greater plantain, giant horsetail, great willowherb, ribwort plantain, dog's mercury and ground elder.

Running Water

- 3.11 A ditch to the north of farm access track is described at TN2. It is brick/stone lined and is culverted beneath an access to a United Utilities pumping station. The culvert is currently flooded but no aquatic vegetation is present.
- 3.12 A small shaded rocky stream flows through the woodland described at TN1. This is approximately 1 m wide, the banks of which are reinforced in places. The banksides are vegetated with common male fern and mosses.

Species-poor Semi-improved Grassland

- 3.13 Grazed fields of semi-improved grassland are present at TN6, to the south of the farm access track from Clitheroe Road, and the surrounding area.

Species

Plants (incl. Non-native Species)

- 3.14 Himalayan balsam records were retrieved as part of the desk study and this species is present within the boundaries at TN4 and TN5.
- 3.15 Other non-native species which were retrieved as part of the desk study but not noted on site were rhododendron, Japanese knotweed, giant hogweed and Canadian waterweed.

Birds

- 3.16 The desk study retrieved numerous bird records, including passerines, birds of prey and ground nesting species. The closest records, of species occurring within 500 m of the site are song thrush, mistle thrush, house sparrow, cuckoo, grey wagtail, marsh tit, starling, house martin and meadow pipit.
- 3.17 The habitats at TN4 and TN5, provide habitat for tree and shrub nesting birds, as does the woodland at TN1.
- 3.18 The improved grasslands at TN6 and the surrounding area may provide habitat for ground nesting species.

Bats

- 3.19 The desk study retrieved records of common pipistrelle, soprano pipistrelle, Daubenton's, noctule and Myotis species in the search area. The closest roost record is a pipistrelle sp. roost recorded by South Lancashire Bat Group in 2008 at Great Harwood, 250 m to the north of the site. The roost was confirmed as a maternity roost as young were present.
- 3.20 Information from MAGIC indicates that the closest European Protected Species Mitigation (EPSM) licence in place from Natural England is for the destruction of a common pipistrelle resting place 700 m to the north-east of the site (EPSM 2011-3043).

- 3.21 There is a mature ash within the boundary at TN4 which has broken boughs providing potential bat roosting features. There is also a large mature beech within the tree line along the railway at TN5 which has significant flaking bark, which may also provide a crevice suitable for roosting bats.
- 3.22 The linear features in the area, including those at TN1, TN4 and TN5 are likely to provide linear habitats which bats may use to navigate when commuting.
- 3.23 Overall the habitat within the planning application boundary is not considered to be of particular value for foraging bats, as it is unlikely to attract/support significant numbers of invertebrate prey.

Mammals

- 3.24 There is a record of water vole 1.8 km to the north-east of the site, at Barrow Lodge. Records also exist from 2015 for brown hare and European hedgehog.
- 3.25 The watercourse observed within the woodland at TN1 and the ditch at TN2 is unsuitable for water vole due to rocky and reinforced banks. Therefore water vole are not considered further within this report.
- 3.26 No evidence of other mammals such as badger was found during the survey. The habitats surrounding the site are likely to be used by hedgehog and possibly by brown hare, but the bare ground habitats within the application boundary are of no value to this species.

Amphibians

- 3.27 The desk study revealed a European Protected Species Mitigation (EPSM) licence in place from Natural England 550 m to the south, for damage and destruction of great crested newt resting places (2015-12648 EPSM-MIT).
- 3.28 There are desk study records for common frog and palmate newt (1 km to the north-west) and for common toad, a SPI 1.4 km to the south. There is a dated records of great crested newt (in addition to the licence detailed above, 1.3 km to the south-east) at Lawsonsteads Tank, and more recent records 750 m to the south, in Whalley from 2011.
- 3.29 There are no ponds on or within 250 m of the site and therefore amphibians are unlikely to occur on the site. There is a flooded culvert at the end of the ditch described at TN2 but this does not appear to be a permanent feature and no aquatic vegetation was present at the time of the survey.
- 3.30 The bare ground habitats within the application boundary provide no habitat for amphibians.

Other species

- 3.31 No evidence of, or habitat for other fauna was noted during the survey.

4. Assessment of Potential Impacts

- 4.1 An assessment of effects on ecological features has been made using the available design and survey information and the professional judgement of the ecologist. This includes a consideration of the relevant legislation (see Legal Information - Appendix D) and planning guidance. If there are changes to the proposals, such as a change to the proposed development design or to the construction method and programme, the assessment would need to be reviewed.
- 4.2 The proposals for the site are presented at Appendix C. The project comprises 12 generators within two fenced compounds. Also within the fenced compounds will be two private substations, a gas kiosk, a welfare cabin, workshop and oil storage. Access will be via the existing farm access track.

Designated Sites and Habitats of Principal Importance

- 4.3 The only SSSI is designated on the basis of geological interest and therefore is not relevant to the ecological assessment. As such, it is not considered further within this report.
- 4.4 The application area is of very small size and therefore there will be no direct impacts as a result of the scheme on the Biological Heritage Sites which occur in the surrounding area. The closest of these is 260 m from the site which is Calderstones Hospital Wood land /Railway Line, which lies beyond the railway line from the application site. The very small scale nature of the scheme indicates that indirect impacts are also unlikely. Beyond this, all BHS's lie in excess of 700 m from the application site and will not be impacted by the scheme.

Habitats

- 4.5 The land take associated with the project is restricted to compacted gravel which is vegetated with sparse cover of ephemeral vegetation around the margins - the ecological impact of which is negligible.
- 4.6 The boundaries at TN4 and TN5 will not be directly impacted by the scheme. Works will be required in close proximity to mature trees, which could lead to indirect impacts. However, there is a stand off of several meters from the tree lines to the proposed site compound, and the development will occur on the existing handstanding/compacted gravel area only. There could be indirect impacts, during the establishment of the generator compounds which could include damage to tree roots.

Species Impacts

- 4.7 Himalayan balsam is present within the features at TN4 and TN5 and therefore the project has the potential to spread this species, which is listed on Part 2 of Schedule 9 of the Wildlife and Countryside Act 1981 (as amended). Section 14(2) of the Act states that:

“if any person plants or otherwise causes to grow in the wild any plant which is included in Part 2 of Schedule 9, he shall be guilty of an offence”.

- 4.8 It should be noted that it is not illegal to have a Schedule 9 species on your land, but it is illegal if this species is caused to spread onto other land as a result of works taking place. However, there is a stand off from the Himalayan balsam to the proposed site compound, and the development will occur on the existing handstanding/compacted gravel area only which will minimise the likelihood of causing the spread of the species.
- 4.9 The trees with bat roosting potential will not be directly impacted by the scheme. However, they could be indirectly impacted by damage to roots as discussed, which could have a detrimental impact on bat roosts, if present.
- 4.10 No scrub or tree removal is required and therefore no impact to breeding birds is envisaged.
- 4.12 The habitat within the application boundary is of negligible value to amphibians. There are no ponds on or within 250 m, with the exception of a flooded culvert which does not appear to be a permanent feature and did not support any aquatic vegetation. Therefore impacts are considered extremely unlikely and they are not considered further within this report.
- 4.13 No other protected species impacts are anticipated.

5. Mitigation Recommendations

- 5.1 This section provides the required measures to mitigate the impacts of the proposed development. A key element of the National Planning Policy Framework is to minimise impacts to biodiversity and provide enhancements. Paragraph 170 states that “*Planning policies and decisions should contribute to and enhance the natural and local environment by ... minimising impacts on and providing net gains for biodiversity...*”. Paragraph 175 also states that “*when determining planning applications, local planning authorities should ...*” encourage “*opportunities to incorporate biodiversity improvements in and around developments*”.

Habitats and Invasive Species

- 5.2 No mitigation is considered to be required for the loss of a small area of bare ground as this is a negligible impact. Although mitigation is not considered to be required, a section of new hedgerow of 70 m in length is to be planted along the eastern edge of the development, along the existing fence line. This will form an ecological enhancement.
- 5.3 Consideration should be given to the establishment of tree protection zones during construction for mature trees within the boundaries at TN4 and TN5.
- 5.4 In order to prevent the spread of Himalayan balsam from the site an appropriate stand off of 5-7 m should be demarcated on site with high visibility fencing to prevent any accidental ingress into areas vegetated with this species. These areas should not be used for the storage of plant or machinery.
- 5.5 If works are required within 5 m of the Himalayan balsam, potentially contaminated material should be accommodated on site or removed off site and disposed of appropriately off site to a licensed landfill, where it is likely to be classed as ‘Controlled Waste’. Refer to Government guidance⁴ for further information. .
- 5.6 Installation of two bat boxes (Schwegler 2F) on mature trees within the applicant’s ownership boundary would be an ecological enhancement.

Re-survey of the Site

- 5.7 No further surveys are considered necessary at this stage. However, if no works are undertaken on site within 12 months of this survey or if any changes to the proposals are made, a further ecological survey may be necessary (because of the mobility of animals and the potential for colonisation of the site).

⁴ <https://www.gov.uk/guidance/prevent-the-spread-of-harmful-invasive-and-non-native-plants>

References

British Standards Institution (2013) *BS 42020:2013 Biodiversity – Code of practice for planning and development*. British Standards Institution, London.

CIEEM (2017a) *Guidelines for Preliminary Ecological Appraisal*. Chartered Institute of Ecology and Environmental Management, Winchester.

CIEEM (2017b). *Guidelines for Ecological Report Writing*. 2nd Edition. *Chartered Institute of Ecology and Environmental Management, Winchester*.

JNCC (1993 revised 2010) *Handbook for Phase 1 Habitat Survey: A technique for environmental audit (reprint)*. Joint Nature Conservation Committee, Peterborough.



Stace, C. (2010) *New Flora of the British Isles*. Third Edition. Cambridge University Press, Cambridge.



Collins, J. (ed.) (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd Edition)*. The Bat Conservation Trust, London.




Appendix A - Phase 1 Habitat Plan



Appendix B - Target Notes

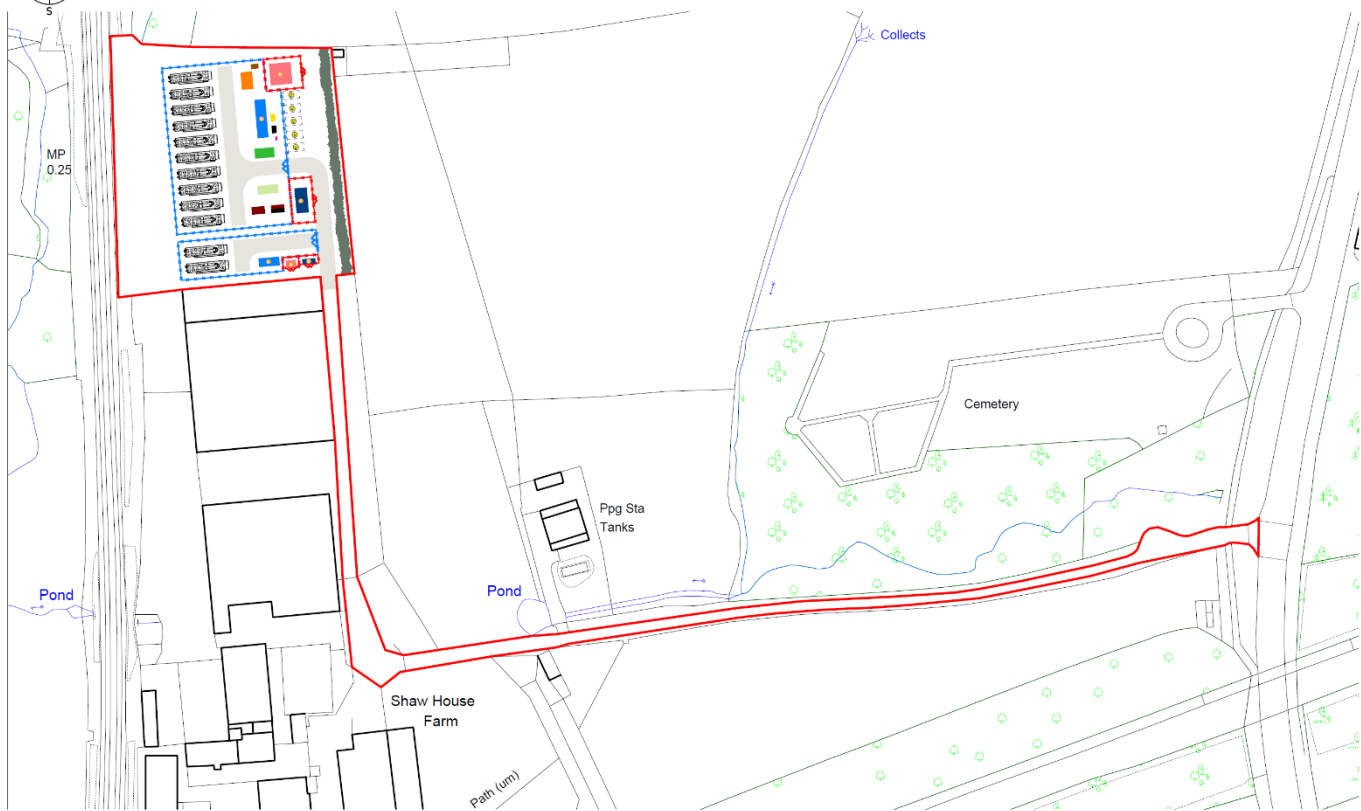
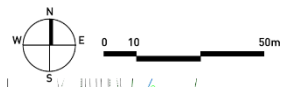
TN Ref	Description	Photo
1	<p>Woodland to the north of farm access track, bordering the cemetery. Canopy comprises <i>Fraxinus excelsior</i>, <i>Crataegus monogyna</i>, <i>Acer pseudoplatanus</i>, <i>Rosa canina</i>, <i>Prunus sp.</i>, <i>Corylus avellana</i>, <i>Sambucus nigra</i>, <i>Betula pendula</i> and <i>Sorbus aucuparia</i>. There are some branches overhanging the access track. The ground flora comprises <i>Rubus fruticosus</i> agg., <i>Urtica dioica</i>, <i>Heracleum sphondylium</i>, <i>Plantago major</i>, <i>Equisetum telmateia</i>, <i>Epilobium hirsutum</i>, <i>Plantago lanceolata</i>, <i>Mercurialis perennis</i> and <i>Aegopodium podagraria</i>.</p> <p>A small shaded rocky stream flows through the woodland. This is approximately 1 m wide, the banks of which are reinforced in places. The banksides are vegetated with <i>Dryopteris filix-mas</i>, <i>Hedera helix</i> and mosses.</p>	 

<p>2</p>	<p>Ditch to north of farm access track. It is brick/stone lined and is culverted beneath an access to a United Utilities pumping station. The culvert is currently flooded but no aquatic vegetation is present.</p>	
<p>3</p>	<p>A bare area of compacted gravel where containers, pallets, trailers and silage bales have been stored. There is some growth of ephemeral vegetation including <i>Plantago major</i>, <i>Tussilago farfara</i>, <i>Senecio jacobaea</i>, <i>Lolium perenne</i>, <i>Juncus inflexus</i>, <i>Epilobium</i> sp., <i>Lysimachia nummularia</i>, <i>Potentilla anserina</i>, <i>Persicaria maculosa</i>, <i>Scrophularia nodosa</i>, <i>Sonchus oleraceus</i>, <i>Sonchus</i> sp., <i>Melilotus officinalis</i> and <i>Atriplex</i> sp.</p>	

<p>4</p>	<p>A tree and scrub line comprising <i>Fraxinus excelsior</i>, <i>Crataegus monogyna</i>, <i>Alnus glutinosa</i>, and <i>Ulmus glabra</i>. The ground flora comprises <i>Urtica dioica</i>, <i>Rumex obtusifolius</i>, <i>Cirsium vulgare</i>, <i>Calystegia sepium</i> and <i>Impatiens glandulifera</i>.</p> <p>There is one mature <i>Fraxinus excelsior</i> with broken boughs providing bat roost potential.</p>	
<p>5</p>	<p>Line of trees adjacent to the railway line bordering the western side of the application site, comprising <i>Fraxinus excelsior</i>, <i>Quercus sp.</i>, and <i>Acer pseudoplanatus</i>. There are large stands of <i>Impatiens glandulifera</i>, along with <i>Rumex obtusifolius</i>, <i>Deschampsia cespitosa</i>, <i>Ranunculus repens</i>, <i>Epilobium sp.</i>, <i>Artemisia vulgaris</i>, <i>Urtica dioica</i>, <i>Atriplex sp.</i> and <i>Calystegia sepium</i>.</p>	
<p>6</p>	<p>Species poor semi-improved field, currently grazed.</p>	

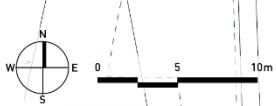
Appendix C - Scheme Design

1:1000 SCALE



KEY: SITE LAYOUT	
[Red outline]	APPLICATION BOUNDARY
[Blue square]	GAS KIOSK
[Light blue square]	PRIVATE SUBSTATION
[Green square]	WELFARE
[Light green square]	WORKSHOP
[Brown square]	NER
[Orange square]	33/11KW TX
[Dark red square]	OIL STORAGE
[Black square]	WASTE OIL
[Pink square]	DNO SUBSTATION
[Yellow square]	11/0.4KW TX
[Black square]	BT
[Black square]	STBY GENERATOR
SURFACE MATERIALS:	
[Grey square]	TARMACADUM
ENCLOSURE DETAILS:	
[Blue dashed line]	3M ACOUSTIC FENCE/2.4M SECURITY FENCE (COUPLED)
[Red dashed line]	2.4M SECURITY FENCING
[Yellow circle with V]	VISITOR PARKING
[Blue triangle]	ACOUSTIC ACCESS GATE
[Red triangle]	SECURITY GATE
[Green square]	PROPOSED SHRUB PLANTING

1:200 SCALE



Pegasus accepts no liability for any use of this document other than for its original purpose, or by the original client, or following Pegasus' express agreement to such use. T: 01256 641717 www.pegasusgroup.co.uk

SHAWHOUSE, WHALLEY - SITE LAYOUT



Appendix D - Legislative Information

This report provides guidance of potential offences as part of the impact assessment. This report does not provide detailed legal advice and for full details of potential offences against protected species the relevant acts should be consulted in their original forms i.e. The Wildlife and Countryside Act, 1981, as amended, The Countryside and Rights of Way Act 2000, The Natural Environment and Rural Communities Act, 2006 and The Conservation of Habitats and Species Regulations 2010.

Species	Legislation	Offences	Notes on licensing procedures and further advice
Species that are protected by European and national legislation			
Bats <i>European protected species</i>	Conservation of Habitats and Species Regulations 2017 Reg 41	Deliberately ¹ capture, injure or kill a bat; Deliberate disturbance ² of bats; Damage or destroy a breeding site or resting place used by a bat. The protection of bat roosts is considered to apply regardless of whether bats are present.	An NE licence in respect of development is required in England. https://www.gov.uk/bats-protection-surveys-and-licences <i>European Protected Species: Mitigation Licensing- How to get a licence</i> (NE 2010) <i>Bat Mitigation Guidelines</i> (English Nature 2004) <i>Bat Workers Manual</i> (JNCC 2004) <i>BS8596:2015 Surveying for bats in trees and woodland</i> (BSI, 2015)
	Wildlife and Countryside Act 1981 (as amended) ⁴ S.9	Intentionally or recklessly ³ obstruct access to any structure or place used for shelter or protection or disturb a bat in such a place.	Licence from NE is required for surveys (scientific purposes) that would involve disturbance of bats or entering a known or suspected roost site.
Birds	Conservation of Habitats and Species (Amendment) Regulations 2012	N/A	Authorities are required to take steps to ensure the preservation, maintenance and re-establishment of a sufficient diversity and area of habitat for wild birds in the United Kingdom, including by means of the upkeep, management and creation of such habitat. This includes activities in relation to town and country planning functions.
	Wildlife and Countryside Act 1981 (as amended) ⁴ S.1	Intentionally kill, injure or take any wild bird; Intentionally take, damage or destroy the nest of any wild bird while that nest is in use or being built; Intentionally take or destroy the nest or eggs of any wild bird. Schedule 1 species Special penalties are liable for these offences involving birds on Schedule 1 (e.g. most birds of prey, kingfisher, barn owl, black redstart, little ringed plover). Intentionally or recklessly ³ disturb a Schedule 1 species while it is building a nest or is in, on or near a nest containing eggs or young; intentionally or recklessly disturb dependent young of such a species.	No licences are available to disturb any birds in regard to development. Licences are available in certain circumstances to damage or destroy nests, but these only apply to the list of licensable activities in the Act and do not cover development. General licences are available in respect of 'pest species' but only for certain very specific purposes e.g. public health, public safety, air safety. https://www.gov.uk/wild-birds-protection-surveys-and-licences https://www.gov.uk/prevent-wild-birds-damaging-your-land-farm-or-business
Other species			
Rabbits, foxes and other wild mammals For BAP species and Species of Principal Importance, see below	Wild Mammals (Protection) Act 1996	Intentionally inflict unnecessary suffering to any wild mammal.	Natural England provides guidance in relation to rabbits (Technical Information note TIN003, Rabbits- management options for preventing damage, July 2007) and foxes (which are also protected under the Wildlife and Countryside Act 1981 from live baits and decoys, see Species Information notes SIN003 (2011), <i>Urban foxes</i> and SIN004 (2011) <i>The red fox in rural areas</i> as well as other wild mammals. Lawful and humane pest control of these species is permitted.

¹Deliberate capture or killing is taken to include "accepting the possibility" of such capture or killing

²Deliberate disturbance of animals includes in particular any disturbance which is likely a) to impair their ability (i) to survive, to breed or reproduce, or to rear or nurture their young, or (ii) in the case of animals of hibernating or migratory species, to hibernate or migrate; or b) to affect significantly the local distribution or abundance of the species to which they belong.

Lower levels of disturbance not covered by the Conservation of Habitats and Species Regulations 2017 remain an offence under the Wildlife and Countryside Act 1981 although a defence is available where such actions are the incidental result of a lawful activity that could not reasonably be avoided. Thus deliberate disturbance that does not result in either (a) or (b) above would be classed as a lower level of disturbance.

³The term 'reckless' is defined by the case of Regina versus Caldwell 1982. The prosecution has to show that a person deliberately took an unacceptable risk, or failed to notice or consider an obvious risk.

⁴The Wildlife and Countryside Act (1981) has been updated by various amendments, including the Countryside and Rights of Way Act 2000 and the Natural Environment and Rural Communities Act 2006. A full list of amendments can be found at <http://jncc.defra.gov.uk/page-1377>.

Site Designation	Legislation	Protection	Guidance
Site of Special Scientific Interest (SSSI)	Wildlife and Countryside Act 1981 (as amended)	It is an offence to carry out or permit to be carried out any potentially damaging operation. SSSIs are given protection through policies in the Local Development Plan.	Owners, occupiers, public bodies and statutory undertakers must give notice and obtain the appropriate consent under S.28 before undertaking operations likely to damage a SSSI. S.28G places a duty on all public bodies to further the conservation and enhancement of SSSIs. Further guidance can be found in the National Planning Policy Framework and the accompanying joint Circular (ODPM Circular 6/2005 & Defra Circular 01/2005) to PPS9 for England, which is still valid.
Local Nature Reserve (LNR)	National Parks and Access to the Countryside Act 1949 S.21	LNRs are given protection through policies in the Local Development Plan.	LNRs are generally owned and managed by local authorities. Development proposals that would potentially affect a LNR would need to provide a detailed justification for the work, an assessment of likely impacts,

Site Designation	Legislation	Protection	Guidance
			together with proposals for mitigation and restoration of habitats lost or damaged. Further guidance can be found in the National Planning Policy Framework and the accompanying joint Circular (ODPM Circular 6/2005 & Defra Circular 01/2005) to PPS9 for England, which is still valid.
Local Sites	There is no statutory designation for Local Sites.	Local Sites are given protection through policies in the Local Development Plan.	Development proposals that would potentially affect a Local Site would need to provide a detailed justification for the work, an assessment of likely impacts, together with proposals for mitigation and restoration of habitats lost or damaged. Further guidance can be found in the National Planning Policy Framework and the accompanying joint Circular (ODPM Circular 6/2005 & Defra Circular 01/2005) to PPS9 for England, which is still valid.

Habitats & Species	Legislation	Guidance
Species and Habitats of Principal Importance for the Conservation of Biodiversity	Natural Environment & Rural Communities Act 2006 S.40 (which superseded S.74 of the Countryside & Rights of Way Act 2000).	S.40 of the NERC Act 2006 sets out the duty for public authorities to conserve biodiversity in England. Habitats and species of principal importance for the conservation of biodiversity are identified by the Secretary of State in consultation with NE, are referred to in S.41 of the NERC Act for England. The list of habitats and species was updated in 2008: http://webarchive.nationalarchives.gov.uk/20140605090108/http://www.naturalengland.org.uk/ourwork/conservation/biodiversity/protectandmanage/habsandspeciesimportance.aspx The habitats and species listed are not necessarily of higher biodiversity value, but they may be in decline. Habitat Action Plans and Species Action Plans are written for them or are in preparation, to guide their conservation. Ecological impact assessments should include an assessment of the likely impacts to these habitats and species.
Biodiversity Action Plan (BAP) Habitats & Species	No specific legislation, unless it is also a species or habitat of principal importance as described above.	The UK Post 2010 Biodiversity Framework published in July 2012 succeeds the UK BAP. Following devolution in 1998, each of the four countries of the UK have developed their own Biodiversity Strategies. In England the current strategy is Biodiversity 2020: A strategy for England's wildlife and ecosystem services (2011), which also reflects a change in strategic thinking following the Convention for Biological Diversity's (CBD) Strategic Plan for Biodiversity 2011-2020 and the launch of the new EU Biodiversity Strategy. The UK Post 2010 Biodiversity Framework demonstrates how the work of the four countries and the UK contributes to the Aichi Biodiversity Targets in the CBD's Strategic Plan for Biodiversity 2011-2020. The original UK BAP list of species and habitats, prepared over 10 years ago, was used to compile the lists of species and habitats of principal importance under section 41 of the NERC Act 2006 which now forms the focus of England's Biodiversity Strategy. In addition to the England Biodiversity Strategy, there are also many BAPs at the regional and local level which feed into the delivery at the country level and also identify biodiversity priorities at the more local level.
Japanese knotweed, hybrid knotweed, giant knotweed Giant hogweed Rhododendron Himalayan balsam	Wildlife and Countryside Act 1981 (as amended) S.14	It is illegal to plant these species or otherwise cause them to grow or spread in the wild. Any contaminated soil or plant material containing Japanese knotweed or giant hogweed is classified as controlled waste and should be disposed of in a suitably licensed landfill site, accompanied by appropriate Waste Transfer documentation, and must comply with section 34 of the Environmental Protection Act 1990. The Knotweed Code of Practice (Environment Agency, 2013) Managing and controlling invasive rhododendron (Forestry Commission, 2006) Guidance on Section 14 of the Wildlife and Countryside Act, 1981 (Defra, 2010)