

Preliminary Ecological Appraisal

Land off Easington Road, Hartlepool

Presented to England Lyle Good

Issued: May 2017

Delta-Simons Project No. 17-0153.01




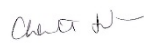
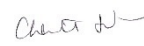
Delta-Simons Environmental Consultants Limited
Head Office: 3 Henley Office Park, Doddington Road, Lincoln, LN6 3QR
Tel: 01522 882555 | www.deltasimons.com



Report Details

Client	England Lyle Good Planning
Report Title	Preliminary Ecological Appraisal
Site Address	Land off Easington Road, Hartlepool
Project No.	17-0153.01
Delta-Simons Contact	Sue Charlton sue.charlton@deltasimons.com

Quality Assurance

Issue No.	Status	Issue Date	Comments	Author	Technical Review	Authorised
1	Final	12/05/2017				
				Sue Charlton Principal Ecologist	Charlotte Sanderson Associate and Ecology Team Leader	Charlotte Sanderson Associate and Ecology Team Leader

About us

Delta-Simons is a trusted, multidisciplinary environmental consultancy, focused on delivering the best possible project outcomes for customers.

Specialising in Environment, Health & Safety and Sustainability, Delta-Simons provide support and advice within the property development, asset management, corporate and industrial markets. Operating from eight locations - Lincoln, London, Leeds, Manchester, Norwich, Nottingham, Durham and Dublin - we employ over 70 environmental professionals, bringing experience from across the private consultancy and public sector markets.

Delta-Simons is proud to be a founder member of the Inogen® Environmental Alliance, enabling us to efficiently deliver customer projects worldwide by calling upon over 4,330 resources in our global network of consultants, each committed to providing superior EH&S and sustainability consulting expertise to our customers. Inogen® Environmental Alliance offers its clients more consultants, with more services in more countries than the traditional multinational consultancy.

Executive Summary

<p>Scope of Works</p>	<p>Delta-Simons Environmental Consultants Ltd was instructed by England, Lyle and Good (ELG, 'the Client') to undertake a Preliminary Ecological Appraisal (PEA) Survey of field situated off Easington Road, Hartlepool in County Durham (the Site'). The PEA comprised a Phase 1 Habitat Survey and protected species assessment, which was completed on 28th April 2017. The survey was undertaken to inform a planning application for the Site.</p>
<p>Current Site Status</p>	<p>The Site comprises a recently ploughed field surrounded by a margin of semi-improved neutral grassland to the west and south, beyond which a wide strip of dense scrub lined the southern boundary, and plantation woodland along the western boundary. To the north and east were hedgerow boundaries, whilst a stream flowed along much of the southern boundary. Derelict stables were present in the north-western corner of the Site surrounded by hard standing.</p>
<p>Proposed Development</p> <p>Results:</p> <p>Habitats on-Site</p> <p>Habitats adjoining the Site</p> <p>Potential for Protected/ Notable Species</p>	<p>It is understood that the proposals are for a residential development of up to 50 dwellings, with associated hard and soft landscaping. The proposals have not yet been finalised.</p> <p>The following habitats are found on the Site:</p> <ul style="list-style-type: none"> ▲ Broadleaved Plantation Woodland; ▲ Dense Scrub; ▲ Semi-Improved Neutral grassland ▲ Running Water; ▲ Arable; ▲ Intact Species-Poor Hedgerow; ▲ Defunct Species-Poor Hedgerow; ▲ Fence; ▲ Building; and ▲ Hardstanding. <p>To the north of the Site is arable land, to the east beyond Hart to Haswell Walkway Local Nature Reserve and Local Wildlife Site, and the east coast mainline railway line, is further arable land, whilst to the west beyond Easington Road is 'Seaview Residential Park', and to the south is residential development on the northern edge of Hartlepool.</p> <p>The woodland, hedgerow and scrub habitats offer ideal nesting habitat for small passerine bird species, whilst the recently ploughed land offers opportunities for a range of ground nesting bird species.</p> <p>A single dead tree was assessed to offer low Bat Roost Potential, and the Site offers foraging and commuting opportunities for bats around the edges.</p> <p>The Site offers suitable habitat for hedgehogs.</p>

<p>Requirement for Further Surveys</p>	<p><u>Bats</u></p> <p>The findings of the initial Site assessment have identified no further requirement for protected species survey works at the Site unless the dead tree on the southern boundary of the Site requires felling to facilitate the proposals, in which case a licensed bat ecologist will need to complete a dawn return survey of the tree the morning that it is due to be felled, and if no bats are recorded to return to the tree it will be felled under supervision of the ecologist. The felling works must avoid the bat hibernation season (November-March, inclusive).</p> <p><u>Habitat Regulations Assessment (HRA)</u></p> <p>It is anticipated that a screening opinion will need to be prepared to inform an HRA. The Report will be used to assist the LPA in determining whether there will be a likely significant effect on the Natura sites that have been identified through the desk study for the Site.</p>
<p>Post-Development Recommendations and Enhancements</p>	<p><u>Nesting Birds</u></p> <p>If any woodland, scrub or hedgerow is to be cleared, or works be due to commence on the ploughed land, the works should be performed either before early March or after late August in order to avoid the main bird nesting season. If, however, Site clearance works are deemed necessary during the nesting period an experienced ecologist will be required to check the Site habitats immediately prior to works commencing to confirm that no nesting birds will be affected by the proposed works.</p> <p><u>Enhancements</u></p> <p>Following the issue of the NPPF (2012), by the Department for Communities and Local Government (DCLG), “<i>The planning system should contribute to and enhance the natural and local environment by: 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...</i>”; and, therefore, we recommend the following principles of design should be followed:</p> <ul style="list-style-type: none"> ▲ Planting should aim to enhance retained or adjacent vegetation and be of native species, or those of known value to wildlife, sourced from local nurseries to enhance foraging opportunities for local birds and bats, by increasing the invertebrate diversity on-Site. It is recommended that where trees are planted, they have a functional understorey. A species list of recommended trees and shrubs is provided in Appendix F. ▲ Installation of bird nest boxes and bat boxes on trees to be retained around the Site boundaries. Delta Simons can provide further advice on the type and locations of bird and bat boxes for the Site once the final development plans are known. ▲ The detailed lighting design on Site should be functional and directional and in line with current guidance It should avoid excessive up-lighting and light spill. The vegetation retained or planted on Site should be unlit, as should off-Site habitats. ▲ All fencing within the development should allow access and egress for hedgehogs. This requires 13 cm² access to be left in a coordinated network to enable access and egress between suitable foraging habitats throughout the Site, and to the wider landscape.
<p>This Preliminary Ecological Appraisal Executive Summary is intended as a summary of the assessment of the Site based on information received by Delta-Simons at the time of production. This Executive Summary should be read in conjunction with the full Report.</p>	

Table of Contents

1.0 INTRODUCTION.....	1
1.1 Purpose and Scope of the Survey.....	1
1.2 Site Description.....	1
1.3 Proposed Development.....	1
2.0 LEGISLATION & POLICY SUMMARY.....	2
3.0 METHODOLOGY.....	3
3.1 Desk Study.....	3
3.2 Survey.....	3
3.2.1 Birds.....	3
3.2.2 Amphibians.....	3
3.2.3 Reptiles.....	4
3.2.4 Bats.....	4
3.2.5 Badgers.....	4
3.2.6 Otters.....	4
3.2.7 Water Voles.....	4
3.2.8 Other Protected or Notable Species.....	4
3.2.9 Invasive Species.....	4
3.2.10 Hedgerows.....	4
3.2.11 Limitations to the Survey.....	5
4.0 RESULTS.....	6
4.1 Desk Study.....	6
4.2 Survey.....	8
4.2.1 Habitats on Site.....	8
4.2.2 Habitats immediately surrounding the Site.....	9
4.3 Notable and Protected Species Assessment Relevant to the Site.....	9
5.0 EVALUATION.....	12
6.0 RECOMMENDATIONS.....	13
6.1 Further Survey Requirement.....	13
6.2 Site Protection/ Enhancements.....	13
7.0 DISCLAIMER.....	15

Table

Table 1 Statutory Designated Sites within 2 km of the Site centre

Table 2 Non-Statutory Sites within 2 km of the Site centre

Figures

Figure 1 Site Location Map

Figure 2 Extended Phase 1 Habitat Plan

Appendices

Appendix A Relevant Legislation

Appendix B References

Appendix C Assessment of Structures, Trees and Habitats for Bats

Appendix D Target Notes

Appendix E Photographs

Appendix F Native Floral Species to Plant for Wildlife Enhancement On-Site

1.0 Introduction

1.1 Purpose and Scope of the Survey

Delta-Simons Environmental Consultants Ltd was instructed by England Lyle Good (ELG) Planning ('the Client') to undertake a Preliminary Ecological Appraisal (PEA). The survey was undertaken of a field off Easington Road on the northern edge of Hartlepool, County Durham (hereafter referred to as the "Site"). In addition, public land immediately surrounding the Site was surveyed, where access allowed. The survey was undertaken to inform an outline planning application for a residential development at the Site.

The PEA has been undertaken in accordance with current guidelines (CIEEM, 2013).

The aims of the PEA were to:

- ▲ Identify habitat types on the Site using the standard methodology devised by the Joint Nature Conservation Committee (JNCC, 2010);
- ▲ Identify areas of potential for protected species/ species of conservation concern within the Site;
- ▲ Identify areas of potential for protected species/ species of conservation concern immediately outside the Site;
- ▲ Identify any invasive plant species included within Schedule 9 of the Wildlife and Countryside Act (WCA) 1981 (as amended);
- ▲ Prepare a Phase 1 Habitat Plan of the Site; and
- ▲ Propose recommendations for further surveys, where appropriate.

The Site location and the survey area are shown in Figure 1.

1.2 Site Description

The Site is centred at Ordnance Survey (OS) grid reference NZ 48261 36206, to the north of Hartlepool in County Durham. The Site covers an area of 2.2 hectares (ha) and comprises a field of ploughed land with a margin of semi-improved neutral grassland to the south and west, beyond which was a wide strip of dense scrub up to the southern Site boundary, and broadleaved plantation woodland to the western boundary. Along the northern and eastern boundaries were hedgerows, whilst the majority of the southern boundary was defined by a stream. The Site is predominantly flat and did not support standing water at the time of the survey.

To the north of the Site is arable land, to the east beyond Hart to Haswell Walkway Local Nature Reserve (LNR) and Local Wildlife Site (LWS) and the east coast mainline railway line, is further arable land, whilst to the west beyond Easington Road is 'Seaview Residential Park', and to the south is residential development on the northern edge of Hartlepool.

The Site layout is shown in Figure 2.

1.3 Proposed Development

It is understood that the Site is proposed for a residential development of up to 50 dwellings, with associated hard and soft landscaping, however, the proposals have not yet been finalised.

2.0 Legislation & Policy Summary

Specific habitats and species of relevance to the Site receive legal protection in the United Kingdom under various pieces of legislation, including:

- ▲ National Planning Policy Framework (NPPF, 2012);
- ▲ The Conservation of Habitats and Species Regulations 2010 (as amended);
- ▲ The Wildlife and Countryside Act (WCA) 1981 (as amended);
- ▲ The Countryside and Rights of Way (CRoW) Act 2000;
- ▲ The Natural Environment and Rural Communities Act (NERC) 2006;
- ▲ The Hedgerow Regulations 1997; and
- ▲ The Protection of Badgers Act 1992.

Where relevant, this appraisal takes account of the legislative protection afforded to specific habitats and species. The legislation surrounding each faunal or floral species or group is provided in Appendix B.

3.0 Methodology

The PEA has been undertaken to the following current guidance: CIEEM (2013), Guidelines for Preliminary Ecological Appraisal; and BS 42020: 2013 Biodiversity. Code of Practice for Planning and Development.

3.1 Desk Study

Data search

A data search was undertaken to identify statutory and non-statutory designated sites and records of protected and notable species.

Available records of protected and notable species were collated from the local record centre, Environmental Records Information Centre North East (ERIC NE) in April 2017, along with the non-statutory designated sites within a 2 km radius of the Site centre. In addition, a search for statutory designated sites for nature conservation within 2 km of the Site centre was undertaken. The statutory designated site search was performed using the Multi-Agency Geographic Information for the Countryside (MAGIC) website.

In addition, free and publicly accessible Ordnance survey maps and aerial photographs were searched for waterbodies on, or within, 500 m of the Site boundary. This information has been used to assess the Site for its potential for amphibians, the results of which are found in Section 4.3.

3.2 Survey

The habitats on the Site, were surveyed on 26th April 2017 by a Delta-Simons ecologist. Since access was not permitted to the surrounding land, it was visually assessed from the Site boundary.

The following was undertaken during the survey:

- ▲ Habitats were classified and mapped using the standard JNCC Phase 1 habitat classification and methodology (JNCC, 2010). Dominant plant species were recorded in each different habitat. The plant species nomenclature followed that of Stace (2010);
- ▲ Terrestrial habitats on-Site were surveyed for the presence of, or potential for the following protected or notable species:
 - ▲ Birds: All species with special reference to key species (such as those on Schedule 1 of the WCA, 1981 (as amended), England Biodiversity Priority Species (EBP) (previously UK Biodiversity Action Plan (UKBAP) species) and Birds of Conservation Concern (BoCC) (Eaton et al., 2015);
 - ▲ Amphibians: Great Crested Newt (GCN) *Triturus cristatus*;
 - ▲ Reptiles: common lizard *Zootoca vivipara*, adder *Vipera berus*, slow worm *Anguis fragilis*, and grass snake *Natrix natrix*; and
 - ▲ Mammals: bat (all species) and badger *Meles meles*.
- ▲ Aquatic habitats were assessed for their potential to support and any signs of otter *Lutra lutra*, water vole, *Arvicola amphibius* white clawed crayfish *Austropotamobius pallipes*, GCN, and grass snake.
- ▲ Widespread terrestrial and aquatic invasive species listed on Schedule 9 of the WCA 1981 (as amended) were recorded. These are Japanese knotweed, *Fallopia japonica* giant knotweed *Fallopia sachalinensis* hybrid knotweed, *Fallopia baldschuanica*, giant hogweed *Heracleum mantegazzianum*, and Himalayan balsam *Impatiens glandulifera*, and New Zealand pygmyweed *Crassula helmsii*.

3.2.1 Birds

Visual and/ or audible identification was made of any birds on the Site or flying over the Site during the survey period. Suitable habitat was, where possible, inspected and any evidence of nesting activity was recorded.

3.2.2 Amphibians

The terrestrial habitats at the Site were assessed for their potential to support amphibian species and a desk search was undertaken (see Section 3.1).

3.2.3 Reptiles

A cold-searching method was employed which involved identifying suitable habitats for reptiles within areas on-Site and immediately off-Site. Natural and artificial refugia (logs, large debris and so on) were lifted and examined for the presence of reptiles and their field signs (such as shed skins).

Suitable habitats for reptiles were identified within areas on-Site. Since reptiles are currently hibernating, natural and artificial refugia (logs, large debris etc.) were not checked beneath for the presence of reptiles.

3.2.4 Bats

The Site was assessed for its suitability to support roosting and foraging bats.

An assessment of BRP of structures on the Site was completed by a surveyor who holds a Natural England Bat Survey Licence, and with reference to the guidelines specified within Natural England's Bat Mitigation Guidelines (2004), and the Collins (2016) Good Practice Guidelines. The survey method enables each building and tree to be categorised in relation to its value for roosting bats (see Appendix C). In addition, the suitability of the on-Site habitats to support foraging and commuting bats was also assessed (see Appendix C).

The exterior of the stables on the Site was visually assessed for potential bat access points and evidence of bat activity. Features such as small gaps/ crevices beneath eaves or within the brick work which had potential as bat access points into the building, were sought. Evidence that these potential access points were actively used by bats included staining within gaps and bat droppings or urine staining under gaps. Indicators that potential access points were likely to be unused by bats included the presence of cobwebs and general detritus within the apertures.

The interior of the building was assessed for evidence of bat activity, particularly beneath features that bats may use for roosting and/ or as an access points. Features such as gaps within walls or beams, as well as evidence of bats including dropping and urine staining, moth wings and dead bats were sought from the roof void floor and sides.

3.2.5 Badgers

The Site was inspected for signs of badger activity, including sett entrances, latrines, footprints, runs through vegetation, guard hairs caught on fences and snuffle holes, and its suitability to support this species assessed.

3.2.6 Otters

Suitable habitats for otter on-Site and immediately off-Site were identified and assessed.

3.2.7 Water Voles

Suitable habitats for water vole on-Site and immediately off-Site were identified and assessed.

3.2.8 Other Protected or Notable Species

Where applicable, during the survey, evidence was recorded of any other protected or notable species, including England Biodiversity Priority (EBP) species. Habitats with the potential to support additional protected or notable species were also recorded, if present, during the survey.

3.2.9 Invasive Species

The occurrence of any invasive plant species on the Site was identified in terms of species and stand size.

3.2.10 Hedgerows

An assessment of any hedgerows at the Site, which will be adversely affected by the proposed development, was undertaken using the standard hedgerow survey methodology outlined in the Hedgerow Regulations 1997. The purpose of the assessment was to ascertain whether the hedgerows are classified as 'nationally important' and, therefore, protected under the Hedgerow Regulations 1997. The assessment involves a scoring system which relies on particular features, number of woody and floral species present within the hedgerow habitat, and the age of the hedgerow.

3.2.11 Limitations to the Survey

There were no limitations to the survey in terms of access, timing and weather conditions.

The baseline conditions described in this report were accurate at the time at which the survey was undertaken. Should at least two years pass by, and/or conditions on-Site/ Site usage change prior to the commencement of works, an update survey should be undertaken.

4.0 Results

4.1 Desk Study

The pertinent information from the data search is set out below for designated sites, whilst species are discussed in the relevant species sections. Full results of the ERIC NE data search are available to the Client on request.

Designated Sites

The results of the MAGIC data search and the ERIC NE desk search indicate that there are six statutory designated sites and nine non-statutory designated sites within 2 km of the Site centre. A check for Natura 2000 sites within 5 km of the proposed development indicated that there were no further sites. Tables 1 and 2 below set out the designated sites identified.

Table 1: Statutory Designated sites within 2 km of the Site centre

Site Name	Designation	Distance and Direction from Site	Designation Criteria Summary
Durham Coast	Special Area of Conservation (SAC), National Nature Reserve (NNR), Site of Special Scientific Interest (SSSI)	460 m E	The Durham Coast is the only example of vegetated sea cliffs on magnesian limestone exposures in the UK. Their vegetation is unique in the British Isles and consists of a complex mosaic of paramaritime, mesotrophic and calcicolous grasslands, tall-herb fen, seepage flushes and wind-pruned scrub.
Teesmouth & Cleveland Coast	Ramsar, SPA	595 m E	This site qualifies under Article 4.1 of the Directive (79/409/EEC) by supporting populations of European importance of the following species listed on Annex I of the Directive: Breeding little tern <i>Sterna albifrons</i> ; on passage ringed plover <i>Charadrius hiaticula</i> and sandwich tern <i>Sterna sandvicensis</i> ; overwintering knot <i>Calidris canutus</i> and redshank <i>Tringa tetanus</i> . In addition, the area qualifies under Article 4.2 of the Directive (79/409/EEC) by regularly supporting at least 20,000 waterfowl including: Sanderling <i>Calidris alba</i> , Lapwing <i>Vanellus vanellus</i> , Shelduck <i>Tadorna tadorna</i> , Cormorant <i>Phalacrocorax carbo</i> , Redshank <i>Tringa tetanus</i> and Knot <i>Calidris canutus</i> .
Northumbria Coast	Ramsar, Special Protection Area (SPA)	1143 m NNE	This site qualifies under Article 4.1 of the Directive (79/409/EEC) by supporting populations of European importance of the following species listed on Annex I of the Directive:

			Breeding Little Tern <i>Sterna albifrons</i> , This site also qualifies under Article 4.2 of the Directive (79/409/EEC) by supporting populations of European importance of the following migratory species: Over wintering purple sandpiper <i>Calidris maritima</i> , and turnstone <i>Arenaria interpres</i> ,
Tees and Hartlepool Foreshore and Wetlands	SSSI	1224 m E	Comprises several coastal areas which are an integral part of the complex of wetlands, estuarine and maritime sites supporting the internationally important population of wildfowl and waders on the Tees Estuary.
Hart to Haswell Walkway	Local Nature Reserve (LNR)	Immediately adjacent to the eastern edge of the Site.	Urban fringe. This former railway line has a rich mix of magnesian limestone grassland, ponds, semi-mature and mature woodland.
Hart Warren	LNR	756 m E	Magnesium limestone dune system. Little tern nest to the northern extent of the site. Invertebrates include the northern brown argus <i>Aricia artaxerxes</i> and dingy skipper <i>Erynnis tages</i> butterflies. Damp hollows on top of the dunes support many species of orchid.

Table 2: Non-Statutory Designated sites within 2 km of the Site centre

Site Name	Designation	Distance and Direction from Site	Designation Criteria Summary
Hartville Meadow	Local Wildlife Site (LWS)	On site	Neutral grassland
Hart to Haswell Walkway	LWS	Immediately adjacent to the eastern edge of the site.	A mosaic of habitats along a former railway cutting. Mainly regenerating woodland with small area of ancient woodland to the north and patches of species rich grassland near the south. 23 species of butterfly.
Hart Warren Railway Embankment	LWS	774 m SE	North-east facing, steep sided railway embankment with very diverse flora. Large population of Bloody Crane's-bill. Also notable for Hedge Bedstraw, Pale St. John's-wort, Narrow-leaved Everlasting Pea, and Hairy Violet.

Thorpe Bulmer Dene	LWS	864 m NNW	Ancient semi-natural woodland.
--------------------	-----	-----------	--------------------------------

4.2 Survey

4.2.1 Habitats on Site

Figure 2 shows the extent of habitat types and boundary features. Descriptions of the habitat types and dominant plant species found at the Site are provided below. Habitat descriptions and codings are by broad habitat type, as listed in the Phase 1 Habitat Survey Manual (JNCC, 2010). Target Notes (TNs) are listed under Appendix D, whilst photographs of the Site survey are located in Appendix E.

Broadleaved Plantation Woodland

The woodland occurring at the western extent of the Site was mostly semi-mature in stature and comprised predominantly sycamore *Acer pseudoplatanus* with occasional ask *Fraxinus excelsior*. It supported mature scrub in the form of hawthorn *Crataegus monogyna*.

Intact Species-Poor Hedgerow

Species within the grassland included abundant cock's-foot *Dactylis glomerata* and perennial ryegrass *Lolium perenne*, frequent broad leaved dock *Rumex obtusifolius*, dandelion *Taraxacum officinale*, creeping thistle *Cirsium arvense*, hogweed *Heracleum sphondylium* and colt's-foot *Tussilago farfara* locally frequent cow parsley *Anthriscus sylvestris* and rosebay willowherb *Chamerion angustifolium*. Yarrow *Achillea millefolium* and meadow vetchling *Lathyrus pratensis* were rare.

Defunct Species-Poor Hedgerow

There was a defunct hedgerow bordering the northern boundary in association with a defunct post and wire fence. Shrubs comprised frequent hawthorn with occasional elder *Sambucus nigra* and Western European gorse *Ulex gallii*, and rare cherry *Prunus* sp. The ground layer comprised rank neutral grassland with species including abundant perennial ryegrass and red fescue *Festuca rubra*, with locally frequent cocksfoot and creeping bent *Agrostis stolonifera*. Forbs included frequent red clover *Trifolium pratense*, locally frequent bramble with a patch of cowslip *Primula veris* to the eastern edge.

Dense Scrub

Along the southern boundary of the Site was an outgrown hedgerow that now resembled dense scrub (Photograph 1), comprising predominantly hawthorn with occasional elder and dense bramble *Rubus fruticosus* agg.

Semi-Improved Neutral Grassland

A patch of rank neutral grassland remained in the south-eastern corner of the Site (Photograph 1), extending around the southern boundary and up to the north-western corner of the Site. The current entrance to the Site is at the north-western corner from Easington Road where vegetation was disturbed and a mix of rank neutral grassland and ruderals. Within the grassland, patches of tall ruderal vegetation develop into mature scrub along the south-eastern boundary. Species within the grassland included abundant cock's-foot and perennial ryegrass, frequent broad leaved dock *Rumex obtusifolius*, dandelion *Taraxacum officinale*, creeping thistle *Cirsium arvense*, hogweed *Heracleum sphondylium* and colt's-foot *Tussilago farfara*, locally frequent cow parsley *Anthriscus sylvestris* and rosebay willowherb *Chamerion angustifolium*. Yarrow *Achillea millefolium* and meadow vetchling *Lathyrus pratensis* were rare.

Running Water

A stream forms the southern boundary of the Site, which is culverted at its eastern and western extent (Photograph 2). At the time of survey stream depth was less than 5 cm. The stream banks were heavily vegetated with hawthorn dominating at the eastern end with more mature trees, including sycamore and ash, towards the western extent. A 2m strip of neutral grassland separates the stream bank vegetation from the

main ploughed field, which then extends along the western site boundary which is bounded by a defunct post and wire fence.

Arable

The main body of the Site has recently been ploughed and was devoid of vegetation (Photograph 3).

Building

Wooden stables and a small storage container which had been used as a stable were located in the north-west corner of the Site (Photographs 4 and 5). The buildings had partially collapsed along the southern edge.

Hard Standing

Concrete hard standing surrounded the stables in the north-west corner of the Site.

Fence

There were short sections of defunct post and rail fence on the Site.

4.2.2 Habitats immediately surrounding the Site

Residential housing lies to the south of the Site with arable fields to the north. Easington Road borders the western edge of the Site, with the Hart to Haswell Walkway running along the eastern boundary, immediately beyond which is the east coast mainline railway line. In the wider area habitats are a mixture of arable farmland and residential housing with the coast lying further to the east.

4.3 Notable and Protected Species Assessment Relevant to the Site

Birds

The data centre holds a range of bird species records, many of which are associated with the coast. The following species included within the data search could utilise the Site in its current state: Yellow hammer *Emberiza citronella*, linnet *Carduelis cannabina*, grey partridge *perdix perdix*, song thrush *Turdus philomelos*, lapwing *Vanellus vanellus* dunnoek *Prunella modularis* and willow warbler *Phylloscopus trochilus*, all of which are listed on the Red List of BoCC (Eaton et al., 2015), apart from willow warbler which is Amber listed. In addition, barn owl *Tyto alba*, listed on Schedule 1 of the WCA (1981 as amended) has been recorded in the search area. Bird species recorded on-Site at the time of the survey included three lapwing *Vanellus vanellus* which were showing breeding behaviour within the ploughed field. In addition, nesting behaviour was noted by robin *Erithacus rubecula*, chaffinch *Fringilla coelebs*, and goldfinch *Carduelis carduelis* within the hedgerows and scrub. Starling *Sturnus vulgaris* and carrion crow *Corvus corone* were observed overflying the Site. Of these species lapwing and starling are listed on the Red List of BoCC. No birds listed on Schedule 1 of the WCA (1981 as amended) were recorded. It should be noted that this is not a comprehensive inventory of the bird species which may be present at the Site.

Great Crested Newts

There were no records for GCN within 2 km of the Site and only one historic record of GCN was identified within the 2km search area; this was a 1989 record 1.65 km SSE of the Site.

A review of aerial photographs and OS maps revealed that there are no waterbodies on-Site or within 500 m of the Site to support breeding amphibians. There is limited suitable terrestrial habitat on-Site restricted to the Site boundary lengths of scrub, plantation woodland, and hedgerow. GCN are not considered to be a constraint at this Site and are not considered further within this Report.

Reptiles

There are two recent records of common lizard within 1 km of the Site, 348 m and 894 m to the north, from Crimdon Dunes and the Hart to Haswell Railway Walk. There are further historic records of lizard, as well as grass snake records from Thorpe Bulmer Dene 1.3 km to the north, and slow worm within Nesbitt Dene 1.3 km to the north. Suitable habitat on Site is restricted to the boundaries with the main body of the Site considered

unsuitable for reptiles as it is lacking the structural diversity required by this group. Reptiles are not considered to be a constraint at this Site and are not considered further within this Report.

Bats

There are no records of bat roosts within 1 km of the Site. 1.2 km from the Site there are records for a roost of common pipistrelle *Pipistrellus pipistrellus* and brown long-eared *Plecotus auritus* bats. 1 km to the north on the Hart to Haswell Railway Walk there are records for several species hibernating within the brickwork of an old railway line tunnel. The roost has been monitored by Durham Bat Group for a number of years' and species recorded include brown long-eared, Natterer's *Myotis Nattereri* and pipistrelle *Pipistrellus* species of bat. Foraging bats recorded within 2 km include noctule *Nyctalus noctula* and Daubenton's *Myotis Daubentonii* bat from Hart Reservoir.

The stables on Site are considered to have a negligible risk of providing suitable roosting opportunities for local bats. They are single skinned structures, part wood, part corrugated sheet with roofs clad with a mix of corrugated sheeting and bitumen felt. There are no voids with open doors to the east, north and west.

The trees on Site are mostly immature or semi-mature with no opportunities present for roosting bats. There is one standing dead tree on the southern bank of the stream with loose and flaking bark and a hazard beam along the northern edge of the central stem which could provide opportunities for individual roosting bats (Target Note (TN) 1). This tree was assessed as having low BRP.

Foraging habitat on Site is generally of low quality, with sheltered foraging habitat along the woodland edge, along the stream and along the hedgerow to the east, which provides connectivity to the Hart to Haswell Walk and on to higher quality habitat within the local area.

Badgers

There are no badger records relevant to the Site, with the closest record over 500 m to the south. The Site did not support any evidence to indicate that badgers were using or inhabiting it. There were no sett entrances, latrines, snuffle holes, mammal runs or badger dung found within the survey area. Badgers are not considered to be a constraint at this Site and are not considered further in this Report.

Otters

There are no records of otter within 2 km of the Site. No sign of otter was observed during the survey and the watercourse on Site is ecologically isolated from other suitable habitat in the area, being culverted at either end on-Site, furthermore, it would offer at most a commuting corridor. Otter are not considered to be a constraint at this Site and are not considered further in this Report.

Water Voles

There are no recent records of water vole within 1 km of the Site although there are several historic records from 1998 from the Warren Burn 900 m east of the Site. The watercourse on Site is culverted at either end and is densely vegetated with scrub, lacking suitable foraging opportunities for this species. At the time of survey water depth was less than 5 cm. As such the watercourse on Site is not considered suitable for this species. Water vole are not considered to be a constraint at this Site and are not considered further in this Report.

Other Protected Species

Hedgehog have been recorded within 500 m to the south of the Site on Easington Road, and the Site edge habitats offer suitable shelter, hibernation opportunities and foraging if this species is still present in the local area.

The northern brown argus *Aricia Artaxerxes* has been recorded from the Hart to Warren golf course and the Hart to Haswell railway, immediately east of the Site. Dingy skipper, wall and small heath have also been recorded from the Hart to Haswell Railway.

Northern Brown Argus is found on sheltered south-facing slopes, or in hollows. Alkaline ground, such as limestone, is preferred since this favours the growth of the larval foodplant, common rock-rose *Helianthemum*

nummularium. This butterfly can be found on limestone grassland, coastal valleys and quarries, limestone pavement and outcrops. No common rock-rose was identified on-Site and the habitat on site is not considered suitable for this species.

Dingy skipper *Erynnis tages* occur where the larval foodplants (common Bird's-foot-trefoil *Lotus corniculatus* is the usual foodplant but also horseshoe vetch *Hippocrepis comosa* and greater bird's-foot-trefoil *L. pedunculatus*) grow in a sparse sward, often with patches of bare ground in a sunny, sheltered situation. Taller vegetation is also required for shelter and roosting. No foodplants were identified on-Site and the habitat on Site is not considered suitable for this species.

Invasive Species

No invasive species were recorded during the Site survey.

5.0 Evaluation

Designated sites- Statutory and non-Statutory

The Site falls within 460 m of the Durham Coast SAC, NNR and SSSI, as the only example of vegetated sea cliffs on magnesian limestone exposures in the UK. It falls within 595 m of the Teesmouth and Cleveland Coast Ramsar and SPA, designated for breeding little terns, as well as wintering knot, redshank and sandwich tern and ringed plover on passage. The Northumbria Coast SPA lies 1.14 km to the north-east and is designated for wintering populations of turnstone and purple sandpiper and breeding little tern. Tees and Hartlepool Foreshore & Wetlands SSSI is situated 1.2 km to the east, and supports an internationally important population of wildfowl and waders on the Tees Estuary. Habitats on-Site are not considered suitable to support any of the species for which the sites are designated, apart from lapwing, which has moved onto the Site to breed since it was ploughed. However, given the small area of suitable habitat for this species, any direct impacts through habitat loss are considered to be limited. The proposed development could, however, result in indirect impacts on the internationally important sites (SPA and SAC, known as Natura 2000 sites), through recreation, such that further assessment will be necessary to determine the extent of any impact and, where necessary, associated mitigation.

Two further statutory designated sites fall within the 2 km search area, these are Hart to Haswell Walkway Local Nature Reserve LNR (and Local Wildlife Site (LWS)) which runs parallel to the eastern boundary of the Site, whilst Hart Warren LNR is situated at a distance of 765 m to the east of the Site. Mitigation will be required to ensure that there are no significant adverse impacts through anthropogenic disturbance on the adjacent LNR. Given the distance of Hart Warren LNR from the Site, there are not considered to be any significant adverse impacts upon this Site as a result of the proposals.

In addition to the aforementioned LWS, there are three further LWS within the search area. The Site comprises Hartsville Meadow LWS, previously designated for its neutral grassland, which has been lost as a result of the recent works. It is understood that this LWS designation is to be removed by the Local Planning Authority (LPA). Hart Warren Railway Embankment and Thorne Bulmer Dene LWS are both over 770 m from the Site, such that there are not considered to be any significant adverse impacts to result from the proposals due to their distance from the Site.

Habitats

The Site comprises a ploughed field surrounded by a margin of semi-improved neutral grassland to the west and south, beyond which a wide strip of dense scrub lined the southern boundary, and plantation woodland along the western boundary. To the north and east were hedgerow boundaries, whilst a stream flowed along much of the southern boundary. Derelict stables were present in the north-western corner of the Site surrounded by hard standing. In its current state, the Site edge habitats are considered to be of local ecological value supporting habitats that are widespread in the local area, since whilst the semi-improved neutral grassland supported a number of species that are not widespread within the local area, its small area limits its value.

Protected and Notable Species

The woodland, hedgerow and scrub habitats offer ideal nesting habitat for small passerine bird species, whilst the recently ploughed land offers opportunities for a range of ground nesting bird species. Appropriate mitigation will need to be put in place to ensure no bird nests are disturbed as a result of the proposals, and compensatory nest sites will be required as it is anticipated that the scrub habitat to the south will be lost to facilitate the proposals.

A single dead tree on Site was assessed to offer low BRP. Should this tree require felling to facilitate the proposals then it will need further assessment to inform the requirement for any mitigation. The Site offers foraging and commuting opportunities along the edges and mitigation will be required to ensure that there is no light spill onto any vegetation to be retained nor onto off-Site habitats, in particular onto the Haswell Walkway LNR, which also offers foraging and commuting opportunities for bats.

The Site offers habitat for hedgehog and, therefore, a precautionary approach should be taken during vegetation clearance. Connectivity across the Site should be retained following completion of the proposed development.

6.0 Recommendations

6.1 Further Survey Requirement

The findings of the initial Site assessment have identified no further requirement for protected species survey works at the Site unless the dead tree on the southern boundary of the Site requires felling to facilitate the proposals, in which case the following will be required:

Bats

- ▲ A licensed bat ecologist will complete a dawn return survey of the tree the morning that it is due to be felled, and if no bats are recorded to return to the tree it will be felled under supervision of the ecologist; and
- ▲ As a precaution, the felling works must avoid the bat hibernation season (November-March, inclusive).

Habitat Regulations Assessment (HRA)

It is anticipated that a screening opinion will need to be prepared to inform an HRA. The Report will be used to assist the LPA in determining whether there will be a likely significant effect on the Natura sites that have been identified through the desk study for the Site.

6.2 Site Protection/ Enhancements

Nesting Birds

- ▲ If any woodland, hedgerow or scrub clearance is to be undertaken, or works be due to commence on the ploughed land, these works should be performed either before early March or after late August to avoid the main bird nesting season. Conflict with the development can be avoided by clearing the Site of any suitable nesting habitat outside of the breeding period in advance of any proposed works; and
- ▲ If, however, Site clearance works are deemed necessary during the nesting period an experienced ecologist will be required to check the Site habitats immediately prior to works commencing to confirm that no nesting birds will be affected by the proposed works.

Site Protection

All works on Site should follow an appropriate working methodology to avoid inadvertent damage to any habitats and associated fauna retained on, or surrounding, the Site. This includes the following:

- ▲ All works should be undertaken to current Pollution Prevention Guidance (PPG) in order the prevent pollution seeping into the stream that runs along the southern Site boundary. Although formally withdrawn, the Environment Agency PPG 5 remains the industry best practice until replaced;
- ▲ A vegetated buffer should be planted along the eastern Site boundary in order to limit any anthropogenic disturbance resulting from the proposed development onto the adjacent LNR. This should comprise a combination of native scattered trees and shrub species.

General Site Enhancement

Following the issue of the NPPF (2012), by the Department for Communities and Local Government (DCLG), “*The planning system should contribute to and enhance the natural and local environment by: 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...*”; and, therefore, we recommend the following principles of design should be followed:

- ▲ Planting should aim to enhance retained or adjacent vegetation and be of native species, or those of known value to wildlife, sourced from local nurseries to enhance foraging opportunities for local birds and bats, by increasing the invertebrate diversity on-Site. It is recommended that where trees are planted, they have a functional understorey. A species list of recommended trees and shrubs is provided in Appendix F.

- ▲ Installation of bird nest boxes and bat boxes on trees to be retained around the Site boundaries. Delta Simons can provide further advice on the type and locations of bird and bat boxes for the Site once the final development plans are known.
- ▲ The detailed lighting design on Site should be functional and directional and in line with current guidance BCT, 2009; BCT, 2014; Stone, E.L. (2013). It should avoid excessive up-lighting and light spill. The vegetation retained or planted on Site should be unlit.
- ▲ All fencing within the development should allow access and egress for hedgehogs. This requires 13 cm² access to be left in a coordinated network to enable access and egress between suitable foraging habitats throughout the Site, and to the wider landscape. Hedgehogs require territories of up to 1 km and, as such, it is important large feeding areas are made available. Hedgehogs do not generally damage domestic gardens and this size of hole is not large enough for most household pets, or rabbits, to use.

7.0 Disclaimer

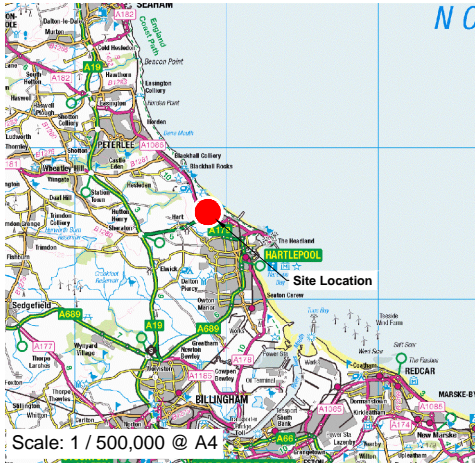
The recommendations contained in this Report represent Delta-Simons' professional opinions, based upon the information referred to in Section 1.0 of this Report, exercising the duty of care required of an experienced Ecology Consultant. Delta-Simons does not warrant or guarantee that the Site is free of Bats or other protected species.

The behaviour of animals can be unpredictable and may not conform to characteristics recorded in current scientific literature. This Report, therefore, cannot predict with absolute certainty that animal species will or will not occur in apparently suitable locations or habitats or that they will not occur in locations or habitats that appear unsuitable.


No part of the survey included an assessment of the materials and conditions of any buildings. No part of the survey included an asbestos assessment, nor did it represent an appraisal of other deleterious materials or hazardous substances.

This Report was prepared by Delta-Simons for the sole and exclusive use of the Client and for the specific purpose for which Delta-Simons was instructed as defined in Section 1.0 of this Report. Nothing contained in this Report shall be construed to give any rights or benefits to anyone other than the Client and Delta-Simons, and all duties and responsibilities undertaken are for the sole and exclusive benefit of the Client and not for the benefit of any other party. In particular, Delta-Simons does not intend, without its written consent, for this Report to be disseminated to anyone other than the Client or to be used or relied upon by anyone other than the Client. Use of the Report by any other person is unauthorised and such use is at the sole risk of the user. Anyone using or relying upon this Report, other than the Client, agrees by virtue of its use to indemnify and hold harmless Delta-Simons from and against all claims, losses and damages (of whatsoever nature and howsoever or whensoever arising), arising out of or resulting from the performance of the work by the Consultant.

Figure 1 – Site Location Map



LEGEND

 Site Boundary



Scale: 1 / 10,000 @ A4

Contains OS data ©, Crown Copyright and Database Right (2016)



TITLE:
Site Location Map
Land off Easington Road
Hartlepool

DRAWN BY:	EN	SCALE:	To Scale @ A4
CHECKED BY:	CS	REVISION:	1
DATE:	11 May 2017		

PROJECT NO:	17-0153.01
FIGURE NO:	1

Figure 2 - Extended Phase 1 Habitat Plan



LEGEND	
	Site Boundary
	Broadleaved Plantation Woodland
	Dense Scrub
	Semi - Improved Neutral Grassland
	Running Water
	Arable
	Intact Species - Poor Hedgerow
	Defunct Species - Poor Hedgerow
	Fence
	Building
	Hardstanding
	Target Note

Site Plan Provided by Client



TITLE:
Extended Phase 1 Habitat Plan
Land off Easington Road
Hartlepool

DRAWN BY: EN	SCALE: Not to Scale	PROJECT NO: 17-0153.01
CHECKED BY: CS	REVISION: 1	FIGURE NO: 2
DATE: 11 May 2017		

Appendix A – Relevant Legislation

Relevant Legislation

National Planning Policy Framework

The National Planning Policy Framework (NPPF), advises that ecological surveys are undertaken before planning permission is determined. It sets out, amongst other points, how at an overview level the 'planning system should contribute to and enhance the national and local environment by:

...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...'

The NPPF states that this should be achieved through local planning development frameworks and gives recommendations for criteria based policies which recognise the hierarchy of designated sites which range from internationally important habitat, to sites of importance at a local level and ensure that protection is 'commensurate with their status and gives appropriate weight to their importance and the contribution that they make to wider ecological networks.'

A list of principles which local planning authorities should follow when determining planning applications is included in the NPPF which includes the following:

'if significant harm resulting from a development cannot be avoided...adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;

...opportunities to incorporate biodiversity in and around developments should be encouraged;

planning permission should be refused for development resulting in the loss or deterioration of irreplaceable habitats, including ancient woodland...unless the need for, and benefits of, the development in that location clearly outweighs the loss...'

In addition, the Office of the Deputy Prime Minister circular 06/ 2005 remains current; this states that 'The presence of a protected species is a material consideration when a planning authority is considering a development proposal'. The circular advises that local authorities should consult Natural England before granting planning permission if the proposals could adversely affect a protected species.'

The Conservation of Habitats and Species Regulations 2010 (as amended)

The Conservation of Habitats and Species Regulations 2010 (as amended) are the British response to the Habitats & Species Directive 1992, and consolidate all the various amendments made to the Conservation (Natural Habitats, &c.) Regulations 1994 in respect of England and Wales. The 1994 Regulations transposed Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (EC Habitats Directive) into national law.

The Regulations for the protection of European Protected Species (EPS) have been amended and consolidated with key changes including the removal of most of the defences from Regulation 40 and Regulation 43 including the removal of the 'incidental result of an otherwise lawful operation' defence, and the increase in the threshold for the offence of deliberately disturbing a EPS. Proposals that will affect European protected species may require a licence from Natural England to allow an otherwise unlawful act. In the 2009 a new offence of 'breaching condition of an EPS licence' was added to the regulations. The licensing process is separate from and planning process. European protected species include all species of bats, great crested newt *Triturus cristatus*, dormouse *Muscardinus avellanarius*, and European otter *Lutra lutra*, amongst others.

The Wildlife and Countryside Act (WCA) 1981 (as amended)

This is the primary legislation covering endangered species in England and sets out the framework for the designation of Sites of Special Scientific Interest (SSSIs). It confers differing levels of protection on species themselves, their habitats or both depending on their conservation status. Species offered protection by the Act are listed in a series of schedules. These Schedules are subject to a rolling review every five years. Protected species are listed under Section 1 (birds), Schedule 5 (animals other than birds and invertebrates) and Schedule 8 (plants).

The Countryside and Rights of Way (CRoW) Act 2000

The CROW Act, introduced in England and Wales in 2000, amends and strengthens existing wildlife legislation detailed in the WCA. It places a duty on government departments and the National Assembly for Wales to have regard for biodiversity, and provides increased powers for the protection and maintenance of SSSIs.

The Act also contains lists of habitats and species (Section 74) for which conservation measures should be promoted, in accordance with the recommendations of the Convention on Biological Diversity (Rio Earth Summit) 1992.

The Natural Environment and Rural Communities (NERC) Act 2006

Section 40 of the NERC Act places a duty upon all local authorities and public bodies in England and Wales to promote and enhance biodiversity in all of their functions. Section 41 (England) list habitats and species of principal importance to the conservation of biodiversity in England. These species and habitats are a material consideration in the planning process.

The Hedgerow Regulations 1997

Under the Hedgerow Regulations 1997, it is against the law to remove or destroy certain hedgerows without permission from the local authority.

Local planning authority permission is required before removing hedges that are at least 20 metres (66 feet) in length more than 30 years old and contain certain species of plant. The authority will assess the importance of the hedgerow using criteria set out in the regulations.

Species

Birds

All wild birds are protected under Section 1 of the WCA 1981 (as amended). Subsection 1(1) makes it an offence to intentionally kill, injure, or take any wild bird; take, damage or destroy the nest of any such bird whilst it is in use or being built; or take or destroy an egg of any such wild bird. It is, furthermore, an offence to either intentionally, or recklessly, disturb any wild bird listed on Schedule 1 while it is nest building, or at a nest containing eggs or young, or disturb the dependent young of such a bird. The law covers all species of wild birds including common, pest or opportunistic species.

Amphibians

All native amphibians are protected under the WCA 1981 (as amended), with some species also protected under the European Habitats Directive (92/43/EC), transposed in England and Wales through the Conservation of Habitats and Species Regulations 2010 (as amended). All amphibians are protected from keeping, transporting, selling or exchanging. This means that in practice reasonable measures must be taken to avoid their incidental mortality.

The Great Crested Newt (GCN) is protected under the Conservation of Habitats and Species Regulations 2010 and Schedule 5 / 9(4)(b) and (c) of the WCA 1981 (as amended). It is an offence to deliberately kill, injure, capture GCN or to deliberately disturb this species, or to intentionally or recklessly obstruct access to their places of shelter or protection, to damage or destroy their breeding sites or resting places, or to intentionally or recklessly disturb a GCN whilst in a place of shelter or protection. The legislation applies to all stages of the life cycle including eggs, larvae and juveniles. It should be noted that GCNs spend the majority of their lives on land, venturing up to 500 m (but more usually 250 m) from their breeding ponds and as such any ground works within 500 m of a breeding pond could potentially have an adverse effect on GCNs.

Reptiles

All six native species of reptiles are protected under the 1981 WCA (as amended), from intentional killing or injury. As such, all reasonable steps must be taken to avoid their incidental mortality when carrying out works.

Bats

All bats and their resting places are protected under Section 9(4)(b) and (c) of the WCA 1981 (as amended) and by the Conservation of Habitats and Species Regulations 2010 (as amended).

It is an offence to destroy or damage a breeding site or resting place of a bat, to intentionally or recklessly obstruct access to any place of shelter or protection for bats, to deliberately disturb bat species, to intentionally or recklessly disturb a bat whilst in its place of shelter or protection, or deliberately capture, injure or kill a bat. It should be noted that a breeding site or resting place of a bat is protected whether or not bats are present, as long as it is likely that they will return, and any activity or works damaging or destroying such a breeding site or resting place are likely to require a Natural England European Protected Species Licence (EPSL).

Badgers

Badgers *Meles meles* and their setts are protected under the 1992 Protection of Badgers Act. Under this Act it is an offence to wilfully kill, injure, take, possess or cruelly ill-treat badgers, or to attempt to do so. It is also an offence to intentionally or recklessly damage, destroy, or obstruct access to any part of a sett, or to disturb an occupied sett, either by intent or negligence. When interpreting the Act, Natural England defines a sett as any structure within an area used by badgers that shows signs of having been occupied by badgers within the last 12 months.

Otters

Otter *Lutra lutra* is afforded strict protection under Section 9 of the WCA 1981 (as amended) on Schedule 5 of the WCA 1981 (as amended) and Annex IV of the Conservation of Habitats and Species Regulations (2010). They also receive protection through their inclusion in Schedule 5 of the WCA 1981 (as amended).

Under the legislation, it is an offence to intentionally capture; injure or kill an otter; intentionally or recklessly damage or destroy a breeding site or resting place of an otter; intentionally or recklessly disturb an otter while it is occupying a structure or place which it uses for shelter or protection; obstruct access to any structure or place which it uses for that purpose; possess or control a live or dead animal, or part of; sell, offer for sale, possess or transport for the purpose of sale, a live or dead animal or part of one.

Water Voles

The water vole *Arvicola amphibius* received limited legal protection up until April 1998 through its inclusion in Schedule 5 of the WCA 1981 (as amended) for some offences. This protection was extended on 6th April 2008, so the water vole is now fully protected under Section 9, which includes protection of their resting places.

Legal protection makes it an offence to:

- ▲ Intentionally kill, injure or take (capture) a water vole;
- ▲ Possess or control a live or dead water vole, or any part of a water vole;
- ▲ Intentionally or recklessly damage, destroy or obstruct access to any structure or place which water voles use for shelter or protection; or intentionally or recklessly disturb water voles while they are using such a place; and
- ▲ Sell, offer for sale or advertise for live or dead water voles.

Invasive Species

Invasive species are plant species which are prohibited from release into the wild. There is an extensive list (currently 42) which are set out in section 14(2) of the WCA 1981 (as amended) which states that 'if any person plants or otherwise causes to grow in the wild any plant which is included in Part II of Schedule 9, he shall be guilty of an offence.'

The most widespread of these are Japanese knotweed *Fallopia japonica* and giant hogweed *Heracleum mantegazzianum* which are also covered by several pieces of legislation. The Environmental Protection Act 1990 (as amended) is a broad ranging piece of legislation that singles out Japanese knotweed and giant hogweed for special mention. The Act places a 'Duty of Care' on the producer and anyone they employ to dispose of soil or other material contaminated with Japanese knotweed or giant hogweed, such material becomes a controlled waste, which can only be taken to licensed landfill and must be dealt with in an appropriate way.

Appendix B – References

References

BS 42020:2013 Biodiversity. Code of Practice for Planning and Development

Chartered Institute of Ecology and Environmental Management (2013). Guidelines for Preliminary Ecological Appraisal. CIEEM, Winchester

Collins, J. (ed.) (2016) Bat surveys for Professional Ecologists: Good practice Guidelines (3rd edition). The Bat Conservation Trust, London

Department for Communities and Local Government (2012). National Planning Policy Framework

Eaton MA, Aebischer NJ, Brown AF, Hearn RD, Lock L, Musgrove AJ, Noble DG, Stroud DA and Gregory RD (2015) Birds of Conservation Concern 4: the population status of birds in the United Kingdom, Channel Islands and Isle of Man. *British Birds* 108, p 708–746

Environment Agency (n.d.). Pollution Prevention Guideline 5: Works In, Near or Liable to affect Watercourses [online]. Available from <http://www.environment-agency.gov.uk/commondata/acrobat/ppmwater.pdf>

Joint Nature Conservation Committee (2010). Phase 1 habitat classification and mapping methodology. JNCC, UK

Multi-Agency Geographic Information for the Countryside (MAGIC) [online]. Available at: www.magic.gov.uk

Stace, C. (2010). *New Flora of the British Isles* 3rd edition. University Press, Cambridge

The Conservation of Habitats and Species Regulations 2010 (as amended). HMSO

The Countryside and Rights of Way Act 2000. HMSO

The Natural Environment and Rural Communities Act 2006. HMSO

The Hedgerow Regulations 1997. HMSO

The Protection of Badgers Act 1992. HMSO

Wildlife and Countryside Act 1981 (as amended). HMSO

Appendix C – Assessment of Structures, Trees and Habitats for Bats

Assessment of Structures, Trees and Habitats for Bats

Guidance on Assessing the Potential Suitability of Development Sites to Support Bats (adapted from Collins, J. (ed)).

Suitability	Description	
	Roosting	Commuting and Foraging
Negligible	<p>An inspected structure or tree which is considered to have no features of importance for roosting bats.</p> <p>No further constraints apply to the method or timing of proposed works.</p>	<p>Negligible habitat features on-Site to support commuting or foraging bats.</p>
Low	<p>A structure with at least one or more features suitable to support opportunistic individual bats. However, inadequate space, shelter, protection and conditions, and the low suitability of surrounding habitats means that it is unlikely to be used as a maternity or hibernation roost site.</p> <p>A tree of adequate age and stature to support potential roosting features, however, either no features, or only features of limited potential recorded from the ground.</p>	<p>Habitat with potential to support low numbers of commuting bats due to its quality and connectivity. For example, a gappy hedgerow or unvegetated stream that is isolated from the surrounding landscape.</p> <p>Alternatively, suitable but isolated habitats suitable to support low numbers of foraging bats such as a lone tree or a patch of scrub.</p>
Moderate	<p>A structure or tree with one or more potential roost sites that are of adequate size, shelter and protection, with suitable conditions and surrounding habitat to support a bat roost not of high conservation status (with respect to roost type not individual species conservation status).</p>	<p>Linear habitat continuity connecting to the wider landscape offering potential to support commuting bats, such as rows of trees and scrub or linked back gardens.</p> <p>Habitat such as trees, scrub, grassland or a waterbody with connectivity to the wider landscape offering foraging opportunities for bats.</p>
High	<p>A structure or tree with one or more potential roost sites that are suitable for use by large numbers of bats on a regular basis and for long periods of time due to their size, shelter, protection, conditions and the surrounding habitat.</p>	<p>Continuous high-quality habitat with strong connectivity to the wider landscape that is likely to be used by commuting bats on a regular basis, such as flowing waterbodies, hedgerows, rows of trees and woodland edges.</p> <p>High quality habitat with strong connectivity to the wider landscape that is likely to be regularly used by foraging bats, such as broadleaved woodland, tree-lined watercourses and grazed parkland.</p> <p>Site is close to, and connected to, known roost sites.</p>

Appendix D – Target Notes

Target Note 1 One standing dead tree on the southern bank of the stream with loose and flaking bark and a hazard beam along the northern edge of the central stem assessed as having low BRP.

Appendix E – Photographs

Land off Easington Road
Delta-Simons Project No. 17-0153.01



Photograph 1 – Scrub and grassland to the south of the Site



Photograph 2 – Running water along the south-eastern boundary

Land off Easington Road
Delta-Simons Project No. 17-0153.01



Photograph 3 – Ploughed land at the Site



Photograph 4 – Building within the western corner of the Site

Land off Easington Road
Delta-Simons Project No. 17-0153.01



Photograph 5 – Buildings and surrounding grassland within the western extent of the Site

Appendix F – Native floral species to plant for wildlife enhancement on-site

Native floral species to plant for wildlife enhancement on-site

The following list gives good examples of plants for different conditions which have value for native fauna either as a food source or shelter. To maximise value for wildlife plants should ideally be native, not cultivars, and sourced locally where possible. Planting should look to provide food at all levels, with underplanting of trees with shrubs or species rich grassland to provide maximum value out of an area and add interest to planting schemes.

Note: it is currently generally not advised to plant ash because of ash die back. However, ash is a very valuable plant for wildlife especially as a semi-mature and mature tree. Therefore, if locally sourced trees or self-sets known to be free of the fungus are available then these should be incorporated. Additionally, trees not showing signs of being affected should be retained where possible.

Trees and Shrubs

Large trees

- ▲ Ash *Fraxinus excelsior*;
- ▲ Bird cherry *Prunus padus*;
- ▲ Elm *Ulmus procera*;
- ▲ Oaks *Quercus robur* and *Q. petraea*;
- ▲ Small-leaved lime *Tilia cordata*;
- ▲ White willow *Salix alba*;
- ▲ Field maple *Acer campestre*;
- ▲ Silver birch *Betula pendula*;
- ▲ Rowan *Sorbus aucuparia*;
- ▲ Small-leaved lime *Tilia cordata*; and
- ▲ Walnut *Juglans regia*.

Medium/ Small Trees

- ▲ Alder *Alnus glutinosa*;
- ▲ Apples *Malus* spp. (local varieties can be found);
- ▲ Field maple *Acer campestre*;
- ▲ Holly *Ilex aquifolium*;
- ▲ Pears *Pyrus* spp.;
- ▲ Rowan *Sorbus aucuparia*;
- ▲ Silver birch *Betula pendula*;
- ▲ Yew *Taxus baccata*;
- ▲ Elder *Sambucus nigra*;
- ▲ Hazel *Corylus avellana*;
- ▲ Hawthorn *Crataegus monogyna*;
- ▲ Honeysuckle *Lonicera periclymenum*;
- ▲ Wild privet *Ligustrum vulgare*;
- ▲ Blackthorn *Prunus spinosa*;
- ▲ Guelder-rose *Viburnum opulus*.

Plants for hedgerows and woodland understoreys

A combination of shrubs and climbers can make attractive hedges of great benefit for wildlife, as well as providing a functional boundary. Standard trees should be incorporated in hedgerows, with ash, oak and wayfarer tree three traditional choices, depending on the region. These should be marked so as not to be cut during management works. In addition, undersowing with a suitable shade tolerant wildflower mix is important to maximise value.

Trees and shrubs suitable for hedges and understorey planting

- ▲ Blackthorn *Prunus spinosa*;
- ▲ Buckthorn *Rhamnus catharticus*;
- ▲ Field maple *Acer campestre*;
- ▲ Holly *Ilex aquifolium*;
- ▲ Guelder rose *Viburnum opulus*;
- ▲ Hawthorn *Crataegus monogyna*;
- ▲ Hazel *Corylus avellana*;
- ▲ Privets, including wild privet *Ligustrum vulgare*; and
- ▲ Spindle *Euonymus europaeus*.

Climber and scramblers suitable for hedgerows and understorey planting

- ▲ Dog rose *Rosa canina*;
- ▲ Field rose *Rosa arvensis*;
- ▲ Ivy *Hedera helix*;
- ▲ Honeysuckle *Lonicera periclymenum*;
- ▲ Wild clematis/ old man's beard *Clematis vitalba*; and
- ▲ Hop *Humulus lupulus*.

Understorey flowering plants providing ground cover for shady areas

These species flower early before trees are in full leaf, and will do well in areas that become shady later in the year.

- ▲ Bluebell *Hyacinthoides non-scripta*;
- ▲ Bugle *Ajuga reptans*;
- ▲ Wild daffodil *Narcissus pseudonarcissus*;
- ▲ Foxglove *Digitalis purpurea*;
- ▲ Lords-and-ladies/ cuckoopint *Arum maculatum*;
- ▲ Primrose *Primula vulgaris*;
- ▲ Sweet violet *Viola odorata*; and
- ▲ Wood avens *Geum urbanum*; and
- ▲ Yellow archangel *Lamium galeobdolon*.