Land at Hollins Lane, Market Drayton
Preliminary Ecological Appraisal

Prepared for Berrys

April 2020

Revision 01

TURNSTONE ECOLOGY LIMITED

Project Number	TT2268
Title	Land at Hollins Lane, Market Drayton
Document Number	R02-Preliminary Ecological Appraisal-Rev01
Client	Berrys
Issue Date	24th April 2020

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SURVEY AND REPORT VALIDITY

It is important that planning decisions are based on up-to-date ecological reports and survey data. However, it is difficult to set a specific timeframe over which reports or survey data should be considered valid, as this will vary in different circumstances. In some cases there will be specific guidance on this (such as for the age of data which may be used to support an EPS licence application) but in circumstances where such advice does not already exist, the Chartered Institute of Ecology and Environmental Management (CIEEM) has provided the general advice set out below.

Age of Data / Survey / Report	*Validity*
Less than 12 months	Likely to be valid in most cases.
12-18 months	Likely to be valid in most cases with the following exceptions: • Where a site may offer existing or new features which could be utilised by a mobile species within a short timeframe; • Where a mobile species is present on site or in the wider area, and can create new features of relevance to the assessment; • Where country-specific or species-specific guidance dictates otherwise.
18 months to 3 years	A professional ecologist will need to undertake a site visit and then review the validity of the report. Some or all of the other ecological surveys updated.
Protected Species Licensing	Licence applications usually only possible using data less than 2 years old

The likelihood of surveys needing to be updated increases with time and is greater for mobile species or in circumstances where the habitat or its management has changed significantly since the surveys were undertaken. Factors to be considered include (but are not limited to):

- Whether the site supports, or may support, a mobile species which could have moved on to site, or changed its distribution within a site;
- Whether there have been significant changes to the habitats present (and/or the ecological conditions/functions/ecosystem functioning upon which they are dependent) since the surveys were undertaken, including through changes to site management;
- Whether the local distribution of a species in the wider area around a site has changed (or knowledge of it increased), increasing the likelihood of its presence.

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1 INTRODUCTION

1.1 Purpose of Report

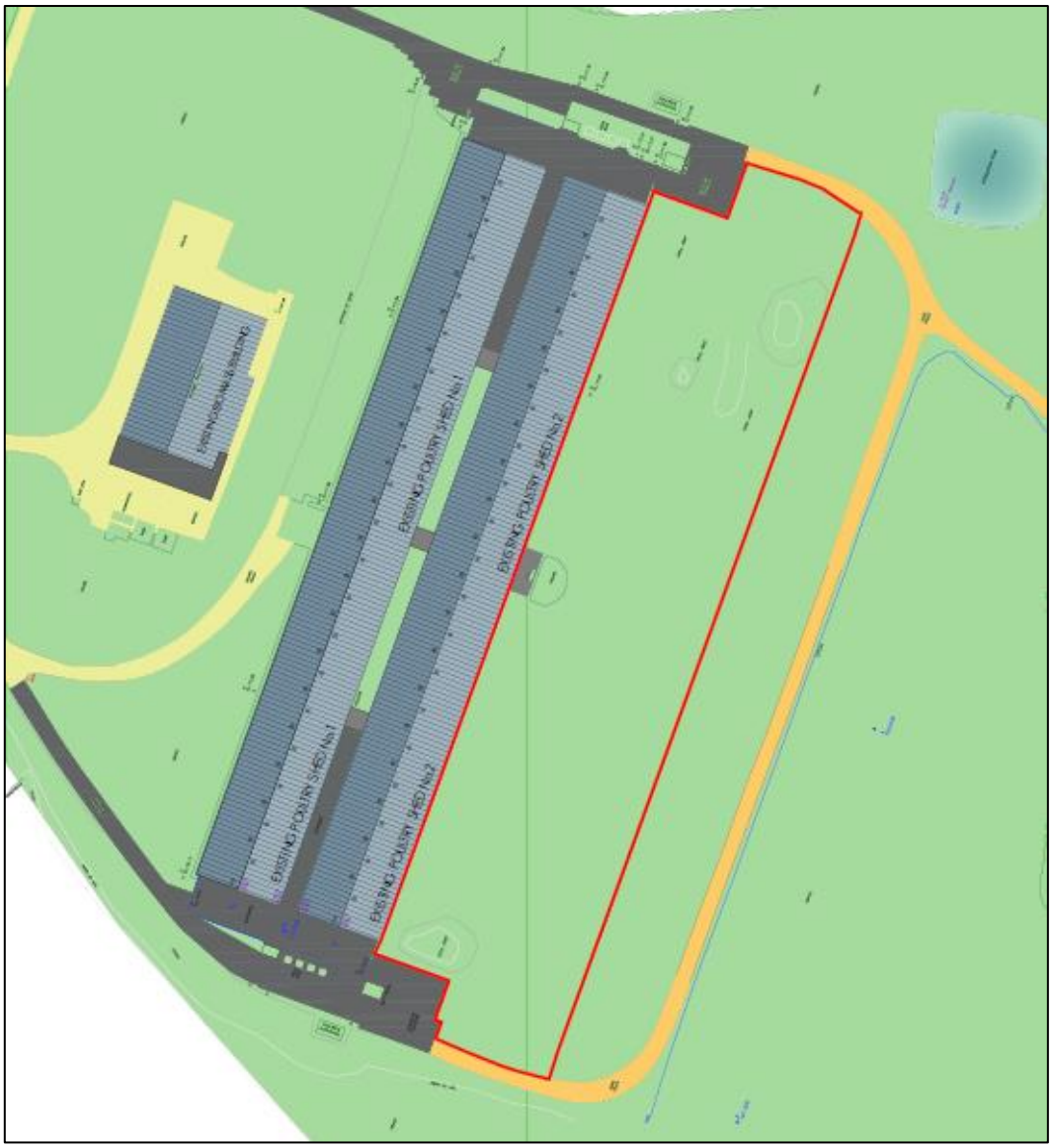
This Preliminary Ecological Appraisal (PEA) has been completed in connection with a proposed development of two additional poultry units at an existing poultry development on land south of Hollins Lane, near Market Drayton, Shropshire (OS Grid Reference SJ 691 315). The location of the proposed development site is shown in *Figures 1* and *2* and the proposed development plans are fully detailed in *Section 4*.

The site survey was originally carried out by Greenscape Environmental Ltd on 6th January 2015 and consisted of an Extended Phase 1 Ecological Appraisal. A further survey was carried out on 10th July 2017 by Turnstone Ecology Ltd and consisted of a walkover survey of the proposed development site and adjacent farmland and also a survey of the stretch of Tyrley Spoil Banks, Shropshire Union Canal Local Wildlife Site (LWS) to inform potential impacts from ammonia on the LWS. The site was revisited on 28th June 2019 to ensure survey information and assessment within this report is still relevant and up to date and to complete an updated Phase 1 Habitat Survey and a Protected Fauna Survey and Habitat Suitability Assessment of the proposed development site.

This report details survey and assessment methodology and the results of a desk based study and on-site surveys. It also provides an assessment of potential ecological impacts and in particular potential impacts on the Tyrley Spoil Banks, Shropshire Union Canal Local Wildlife Site LWS from ammonia pollution. Appropriate mitigation measures to offset any ecological impacts associated with the proposal are also provided.

Figure 1. Location of proposed development

Figure 2. Location of existing poultry units and proposed development area (red line boundary)



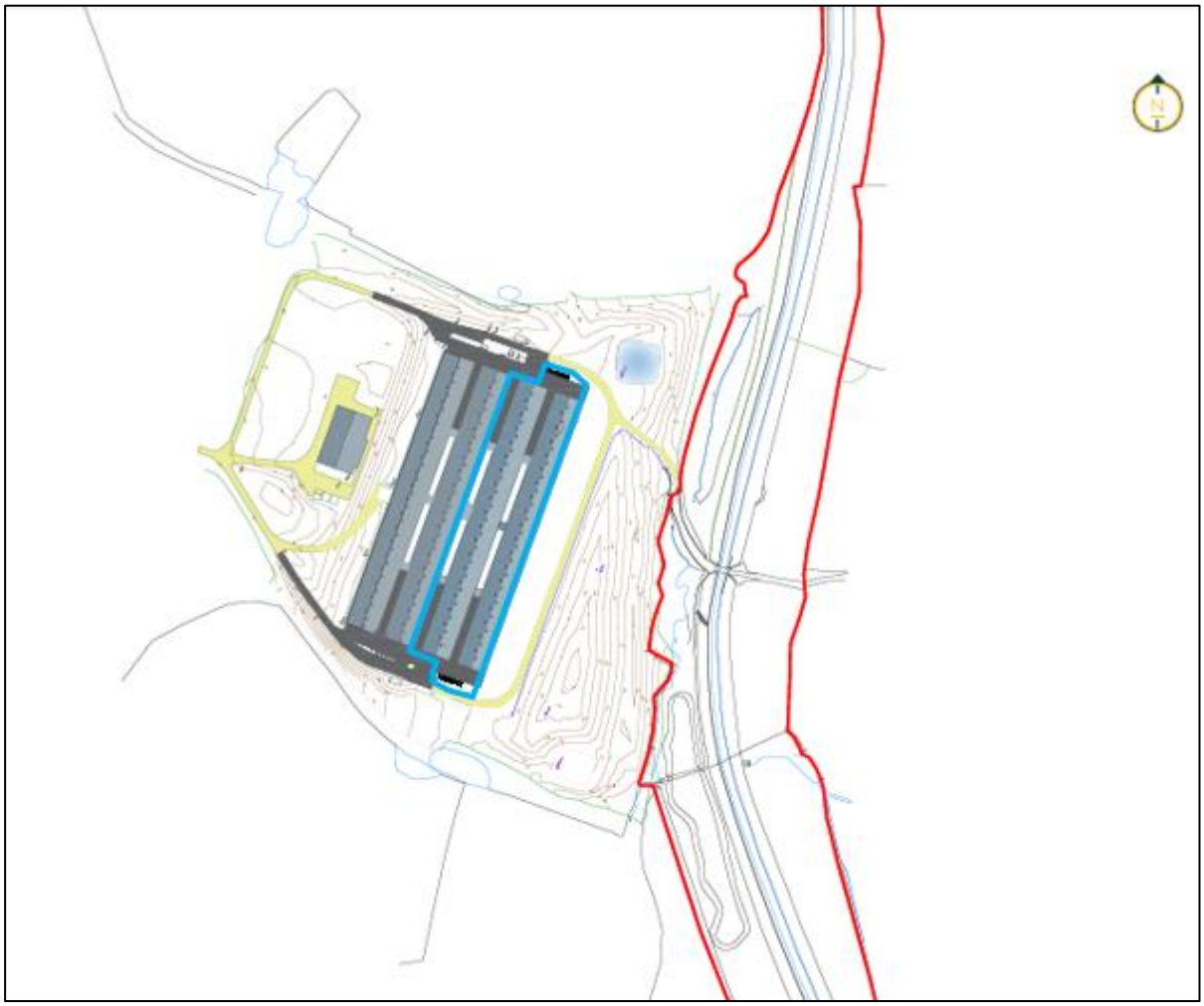
1.2 Ecological Context

The proposed development site is located approximately 2.5 km south-east of Market Drayton and consists of the construction of an additional two poultry units immediately adjacent to two existing units that were constructed in 2015 (*Figures 2 and 3*). The arable field where the poultry units will be constructed is bordered by another arable field to the north, outgrown hedgerow and mature trees to the east and hedgerow and scattered trees along the southern and western boundaries. Access to the site will utilise an existing hardstanding track that is known as Hollins Lane, which leads from the A529 to the west of site. The lane continues through site and passes over a bridge over the Shropshire Union Canal and to land under the same ownership as the development site.

The outgrown hedgerow and mature trees along the eastern boundary of the arable field form the western boundary of the Tyrley Spoil Banks, Shropshire Union Canal LWS, which is designated for its botanical interest (*Figure 3*). The LWS includes a 2 km stretch of the Shropshire Union Canal and adjacent habitats.

Extensive agricultural fields (arable and grassland) extend away from site to the north, south, west and beyond the canal to the east. To the south-west of site there are the buildings and infrastructure associated with the village of Woodseaves. The wider landscape is dominated by agricultural fields bordered by hedgerows, scattered ponds and scattered woodlands.

Figure 3. Proposed site plan (within blue lines) and location of nearest parts of Tyrley Spoil Banks LWS (within red lines)



2 METHODS

2.1 Desk-based Study

Information relating to designated sites, sites where European Protected Species (EPS) Licences have been granted between 2009 and 2018 (only available in England) and historic records of protected species within 2 km of the proposed development site were obtained from Magic (www.magic.gov.uk) and other freely available information on the internet, such as planning portals.

Any species-specific historic records are detailed within the relevant species accounts in the *Results* section.

2.1.1 Tyrley Spoil Banks LWS

The Ecological Site Report for Tyrley Spoil Banks, Shropshire Union Canal LWS has been obtained from Staffordshire Ecological Record, which details botanical interest of the LWS and condition of the LWS as of 2008. Information within this report has been used to assess potential impacts of ammonia pollution on habitats and species found within the LWS and based on the 2017, and updated 2019 walkover surveys of the section of LWS closest to the proposals, establish where the main areas of botanical interest are within the LWS and assess whether there has been any significant changes in the condition of the LWS since 2008.

2.1.2 Ammonia

An ammonia modelling report completed by AS Modelling & Data Ltd (2015) has been used to identify predicted levels of ammonia emissions and in particular potential impacts on the LWS. Scientific papers in relation to the potential ecological impacts of ammonia pollution have also been obtained through freely available information on the internet and used to assess possible impacts and provide appropriate mitigation measures to minimise and/or offset any impacts. Details of these papers can be found in the References section.

2.2 Phase 1 Habitat Survey

The survey methods were based on the Phase 1 Habitat Survey approach (Joint Nature Conservation Committee 2010), which is a standardised method to survey main habitat types. Plant nomenclature in this report follows Rose (*Revised Edition 2006*) for native, naturalised and garden varieties of vascular plant. Introduced species and garden varieties are not always identified.

2.3 Protected Fauna Survey and Assessment

The habitats on site were assessed for suitability for protected fauna that occur in the region and obvious signs and incidental sightings of protected species were noted where present. Taking into consideration

the geographical region and habitat types on and adjacent to site, the protected species and species groups that could be encountered are listed below.

- Badger
- Bats
- Dormouse
- Nesting birds
- Great Crested Newt
- Reptiles

Details of initial survey methods for each relevant species are given below.

2.3.1 Badger

Where access allowed, a comprehensive assessment was carried out to identify areas that are used by Badgers (*Meles meles*) for foraging and sett digging. Signs of Badgers including setts, foraging signs, paths and latrines were recorded where present.

2.3.2 Bats

Any buildings and trees on or adjacent to the site were visually surveyed to assess them for their potential to support roosting bats, although a thorough inspection of all potential roosting features would not be undertaken as part of the Phase 1 survey.

Habitats were assessed for their suitability for use by foraging or commuting bats. Areas of particular interest vary between species, but generally include sheltered areas and those habitats with good numbers of insects, such as woodland, scrub, hedges, watercourses, ponds, lakes and more species-rich or rough grassland.

2.3.3 Dormouse

Habitats were assessed for their general suitability for use by Dormouse (*Muscardinus avellanarius*), which generally use areas of dense woody vegetation cover. Dormice are most likely to be found where there is a wide diversity of woody species contributing to three-dimensional habitat complexity, a number of food sources, plants suitable for nest-building material and good connectivity to other areas of suitable habitat. A search for hazelnuts opened by Dormouse was also completed on and adjacent to site.

2.3.4 Nesting birds

Habitat that might be used by nesting birds was identified and actively nesting birds or evidence of nesting birds noted where present. Special consideration was given to the potential presence of Barn Owl (*Tyto alba*), which is a Schedule 1 protected bird species.

2.3.5 Great Crested Newt

The suitability of any aquatic and terrestrial habitat on the site, and in the immediate vicinity, was assessed for suitability for use by Great Crested Newts (*Triturus cristatus*). Great Crested Newts are known to travel up to 500 m between breeding ponds and suitable terrestrial habitat, so a desk-based search was undertaken for any ponds up to 500 m from the site using OS maps and aerial imagery. The terrestrial habitat between the site and these ponds, and therefore connectivity to the site, was also considered.

2.3.6 Reptiles

The site was assessed for suitability for use by widespread species of reptiles, with particular attention paid to those features that could be used as basking areas (*e.g.* south-facing slopes), hibernation sites (*e.g.* banks, walls, piles of hardcore) and opportunities for foraging (*e.g.* rough grassland and scrub). The site was assessed for its suitability for the commoner reptile species which have broadly similar habitat requirements but more specific requirements include those shown below (Beebee & Griffiths 2000).

- Common Lizards (*Zootoca vivipara*) use a variety of habitats from woodland glades to walls and pastures, although one habitat they use is brownfield sites
- Slow-worms (*Anguis fragilis*) use similar habitats to Common Lizards, and are often found in rank grassland, gardens and derelict land
- Grass Snakes (*Natrix natrix*) have broadly similar requirements to Common Lizards but with a greater reliance on ponds and wetlands, where they prey on amphibians
- Adder *(Vipera berus*) use a range of fairly open habitats with some cover, but are most often found in dry heath

2.4 Constraints

June is an ideal time to undertake Phase 1 surveys, as the majority of plants are visible and identifiable and animal signs are easier to detect. However, steep terrain and dense vegetation can inhibit searches for early flowering plants. For a site of this size, location and habitat composition it is considered that certain plants may have been under recorded along the LWS due to some of the steep banks and woodland being inaccessible however this will not have had a significant effect on the survey results or assessment of the site.

2.5 Criteria for Assessment

The scientific value of habitats for nature conservation is assessed according to widely accepted criteria of which the most important are naturalness, extent, rarity, and diversity.

The assessment of impacts is based on the principles within Chartered Institute of Ecology and Environmental Management (CIEEM) Environmental Impact Assessment (EIA) Guidance (2016)

which assesses the impacts of the proposal on ecological receptors taking in to consideration extent, duration, reversibility, timing, frequency and certainty.

Mitigation and enhancement is designed to reduce the level of impact upon receptors and provide ecological enhancement in order to meet current legislation and planning policy. The information below has therefore been considered during assessment.

- Criteria that have been developed to assist in the identification of statutory Sites of Special Scientific Interest (SSSIs) (JNCC 2013)
- Habitats and species of Principal Importance included under Section 41 (England) and Section 42 (Wales) of the Natural Environment and Rural Communities (NERC) Act 2006
- The legal status of habitats and species according to the EU 'Habitats' Directive 1992
- CIEEM Guidelines (2018) for assessing the value of ecological receptors within a defined geographical context using the following categories: international (*i.e.* Europe); UK and national (England); regional; county; Unitary Authority; local or parish; and zone of influence. Receptors are identified as 'important' at these levels, or as 'not important
- Species protected by European directives
- Species protected by the *Wildlife and Countryside Act 1981* (as amended)
- Other species listed as scarce or notable in literature issued by conservation organisations or learned societies *e.g.* vascular plant species listed in Stewart *et al.* (1994) and Red and Amber List Birds of Conservation Concern (Eaton et al. 2015)
- Local Wildlife Site selection criteria
- National Policy Planning Framework (NPPF), 2018
- BS42020:2013 – Biodiversity Code of practice for planning and development
- Protected species handbooks and best practice guidelines
- The Shropshire Local Biodiversity Action Plan (BAP), which identifies and prioritises local habitats and species of conservation importance. These habitats and species are stated as
    - Habitats: Field margins, floodplain grazing marsh, hedgerows, lowland dry acid grassland, lowland heathland, lowland wood pasture, parkland and veteran trees, peat bogs, reed beds, rivers and streams, semi-improved upland rough grazing, semi-natural broadleaved woodlands, species rich grassland, standing open water, upland heathland and urban areas.
    - Species: Farmland birds, Argent and Sable Moth (*Rheumaptera hastata*), Great Crested Newt, Barn Owl (*Tyto alba*), Lapwing (*Vanellus vanellus*), Song Thrush (*Turdus philomelos*), Common Snipe (*Gallinago gallinago*), Brown Hare (*Lepus europaeus*), Club-tailed Dragonfly (*Gomphus vulgatissimus*), Curlew (*Numenius arquata*), Dingy Skipper (*Erynnis tages*), Dipper (*Cinclus cinclus*), Dormouse, Water Vole (*Arvicola amphibius*), Floating Water Plantain (*Luronium natans*), Marsh Flapwort (*Jamesoniella undulifolia*) and Grayling (*Hipparchia semele*).

3 RESULTS

3.1 Desk Study

3.1.1 Designated Sites

There are no internationally designated sites within 10 km of the proposed development site and two Sites of Special Scientific Interest (SSSI) within 5 km of site.

Tyrley Canal Cutting SSSI is located approximately 350m south-east of the proposed development site however this is designated for its geological interest and will therefore not be discussed further within this report.

Burnt Wood SSSI is located approximately 5 km north-east of the proposed development site. The site consists of four blocks of semi natural woodland which are the least-modified remnants of a formerly extensive tract of ancient broadleaved woodland. It contains representative examples of three types of oakwood on acidic soils derived from rocks of the Upper Coal Measures (Carboniferous) and Bunter Sandstone (Triassic). The site supports an outstanding terrestrial and freshwater fauna, with Butterflies and Moths (*Lepidoptera*) and Caddis Flies (*Trichoptera*) especially well represented. Almost four hundred species of *Lepidoptera* are recorded from Burnt Wood including the nationally restricted Light Orange Underwing (*Archiearis notha*), Golden Rod Brindle (*Lithomoia solidaginis*), Bilberry Pug (*Chloroclystis debiliata*) and Beautiful Snout (*Hypena crassalis*). Also present is a colony of Small Pearl-bordered Fritillary (*Clossiana selene*) – a species scarce in the Midlands – whose larva feeds on the abundance of Marsh Violet (*Viola palustris*). The presence of some fifty species of Caddis Fly, including the nationally endangered *Oligotricha clathrata*, along with over thirty species of Lacewing (*Neuroptera*) and the nationally rare Alder Wood Hoverfly *Xylota abiens* demonstrate the value of the site for a wide range of invertebrates. Of the other fauna Adder (*Vipera berus*) are a noteworthy occurrence.

Non-statutory designated sites

Tyrley Spoil Banks, Shropshire Union Canal Local Wildlife Site (LWS) is located approximately 155m east of the proposed development site at its nearest point. For further details see *Section 3.2.1*.

3.1.2 European Protected Species Licence Sites

No EPS licences have been issued within 2 km of the proposed development site (*2009-2018*).

3.2 Desk Study

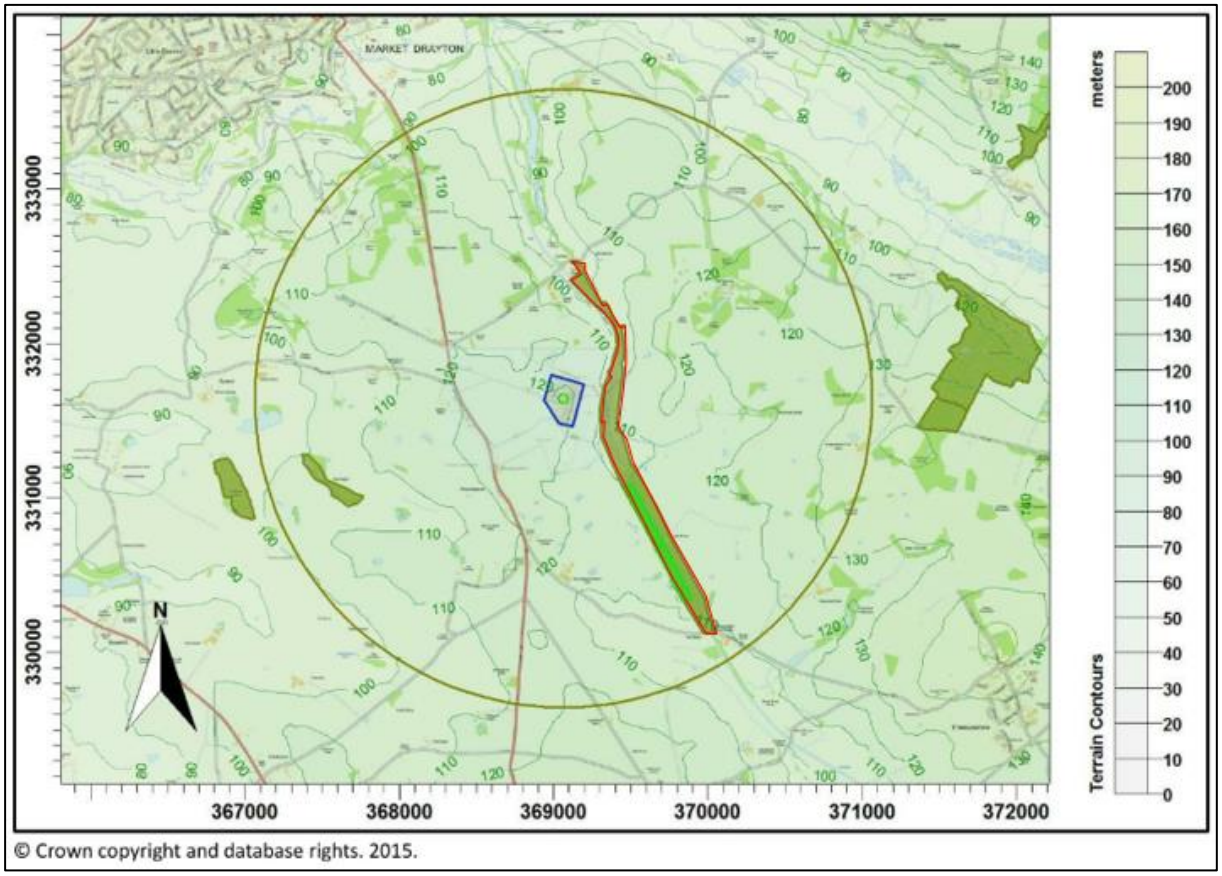
3.2.1 Tyrley Spoil Banks LWS

General

The Tyrley Spoil Banks, Shropshire Union Canal LWS was first designated for its botanical interest in 1980, with subsequent monitoring surveys and assessment completed in 1993, 2000 and 2008 (*Ecological Site Report, 2015*). The site includes species-rich grassland along the tow path of the Shropshire Union Canal, marginal vegetation found growing along the canal edge and woodland parcels located either side of the canal for the length of the site. It supports a rich-diversity of plant species, some of which are not particularly common within the County, across a range of habitats. Management of parts of the site owned by British Waterways (i.e. canal and adjacent tow paths) has been for the most sympathetic to the site enabling the assemblage of plants to flourish. This site is important both in terms of the quality of habitats present and the diversity of species which is relatively unique for canal sites which tend to be heavily managed to the detriment of the site. This has led to its designation as a Site of Biological Importance.

The proposed development site is located approximately 155m from the nearest part of Tyrley Spoil Banks LWS (*Figure 4*). The LWS stretches from Tyrley Wharf (OS Grid Reference SJ 690 324 and approximately 800m north of site) and runs south for approximately 2 km to Cheswardine Road Bridge (OS Grid Reference SJ 700 301 and approximately 1.6 km east of site).

Figure 4. Locations of Tyrley Spoil Banks LWS (red line boundary) and the proposed development site (blue line boundary)



Habitats and species

The linear LWS covers 6 ha in total and is dominated by Semi-natural broadleaved woodland that occurs on the banks both sides of the canal. The main habitats found along the LWS and their areas are detailed below with descriptions taken from the 2015 Ecological Site Report:

- Woodland: broadleaved, semi-natural (3.69 ha)
- Cultivated/disturbed land: ephemeral/short perennial (0.49 ha)
- Grassland: neutral, semi-improved (0.31 ha)
- Tall herb and fern: other, tall ruderal (0.25 ha)
- Woodland: coniferous, plantation (0.14 ha)
- Rock exposure and waste (0.07 ha)
- Scrub: dense/continuous (0.03 ha)

The northern section of the LWS site comprises of the towpath and an adjacent embankment along the west side of the canal with Semi-natural broadleaved woodland present along the eastern side of the canal. A Hawthorn (*Crataegus monogyna*) hedgerow runs along the majority of the embankment to the west of the towpath and separates from neighbouring agricultural fields, including the arable fields within and to the north of the proposed development site. Mature trees are interspersed along the hedgerow and these are mainly Ash (*Fraxinus excelsior*) and English Oak (*Quercus robur*). A Crack

Willow (*Salix fragilis*) and a Scot's Pine (*Pinus sylvestris*) are present and Holly (*Ilex aquifolium*), Elder (*Sambucus nigra*) and Dog Rose (*Rosa canina* agg.) are occasional throughout the hedge. Red Campion (*Silene dioica*) and Dog's Mercury (*Mercurialis perennis*) are frequent at the base of the hedge. Along the towpath frequent species include Common Nettle (*Urtica dioica*), Cleavers (*Galium aparine*), Cow Parsley (*Anthriscus sylvestris*), Bracken (*Pteridium aquilinum*), Garlic Mustard (*Alliaria petiolata*), Cock's-foot (*Dactylis glomerata*) and Yorkshire Fog (*Holcus lanatus*). Occasional species are Creeping Cinquefoil (*Potentilla reptans*), Lords and Ladies (*Arum maculatum*), Herb Robert (*Geranium robertianum*) and Broad-leaved Dock (*Rumex obtusifolius*). Bluebell (*Hyacinthoides non-scripta*) and Bush Vetch (*Vicia sepium*) are also present. In places along the towpath Common Yellow Sedge (*Carex demissa*) is abundant forming sedge lawns in a tight low growing grassland sward, with Remote (*Carex remota*) and Hairy Sedge (*Carex hirta*) also conspicuous. More occasional in their presence are the aquatic macrophytes Wild Angelica (*Angelica sylvestris*), Common Figwort (*Scrophularia nodosa*), Common Valerian (*Valeriana officinalis*) and Reed Canary-grass (*Phalaris arundinacea*), along with Watercress (*Nasturtium officinale*). These species are all interspersed with more common herbs and ruderal species, in particular small stands of Common Nettle are frequent along the length of the site. The tow path is actively managed and at the time of the survey (2008) the grassland had been mown up to the edge of the canal, however many of the species had begun to regenerate and the grasslands diversity was still in evidence.

The woodland on the eastern bank of the canal has a canopy dominated by Sycamore (*Acer pseudoplatanus*) to the north which is replaced by more frequent Ash to the south, with some English Oak. A well-developed understorey prevails comprising of a mixture of shrubs including Holly, Hawthorn, Hazel (*Corylus avellana*), Elder and Rowan (*Sorbus aucuparia*). Cherry (*Prunus avium*) is also frequent in places, with Guelder Rose (*Viburnum opulus*) frequenting the damper soils. The shrub layer supports abundant stands of Bramble (*Rubus fruticosus* agg.) and occasional Currant and Gooseberry (*Ribes* sp.) amongst which are swathes of the ancient woodland indicators Dog's Mercury, Yellow Archangel (*Lamium galeobdolon*), Wood Anemone (*Anemone nemorosa*), Enchanter's Nightshade (*Circaea lutetiana*), Wood Melick (*Melica uniflora*), Bluebell and Hart's-tongue Fern (*Asplenium scolopendrium*) (uncommon in Staffordshire) along with a small amount of Wild Garlic (*Allium ursinum*), Soft Shield Fern (*Polystichum setiferum*) and Pendulous Sedge (*Carex pendula*). Sandstone outcrops on the steep bank through which a small stream of water has carved a route through, Polypody (*Polypodium vulgare*) (uncommon to Staffordshire) grows in abundance out of the outcrop leading down to the canal.

The woodland occupying the westerly bank of the canal (starting from adjacent to the north-east corner of the arable field where the development is proposed) is not so diverse in character as the eastern bank woodland, with ancient woodland indicators though present, at a lower cover. Ash and English Oak co-dominate the canopy with some Silver Birch (*Betula pendula*) present within the canopy in places. The understorey is represented by a mixture of Hazel and Rowan and dead standing and fallen wood litters the woodland providing an important habitat. Access into and through the woodland is made difficult in places by impenetrable stands of Bramble scrub and Common Nettle. Throughout the woodland small stands of Dog's Mercury, Yellow Archangel and Enchanter's Nightshade frequent the ground

flora. Carpets of Bluebells also occur, with Male Fern (*Dryopteris filix-mas*) a frequent associate. Within the vicinity of a small stream (adjacent to Hollins Lane bridge) which flows through the wood Opposite-leaved Golden Saxifrage (*Chrysosplenium oppositifolium*) also forms carpets, with a little Moschatel (*Adoxa moschatellina*) present in the wet soils. A small proportion of the woodland occupies a very steep slope leading down to the canal either side of the Hollins Lane Bridge, it's here that Hart's-tongue Fern grows in abundance.

3.2.2 Ammonia

General

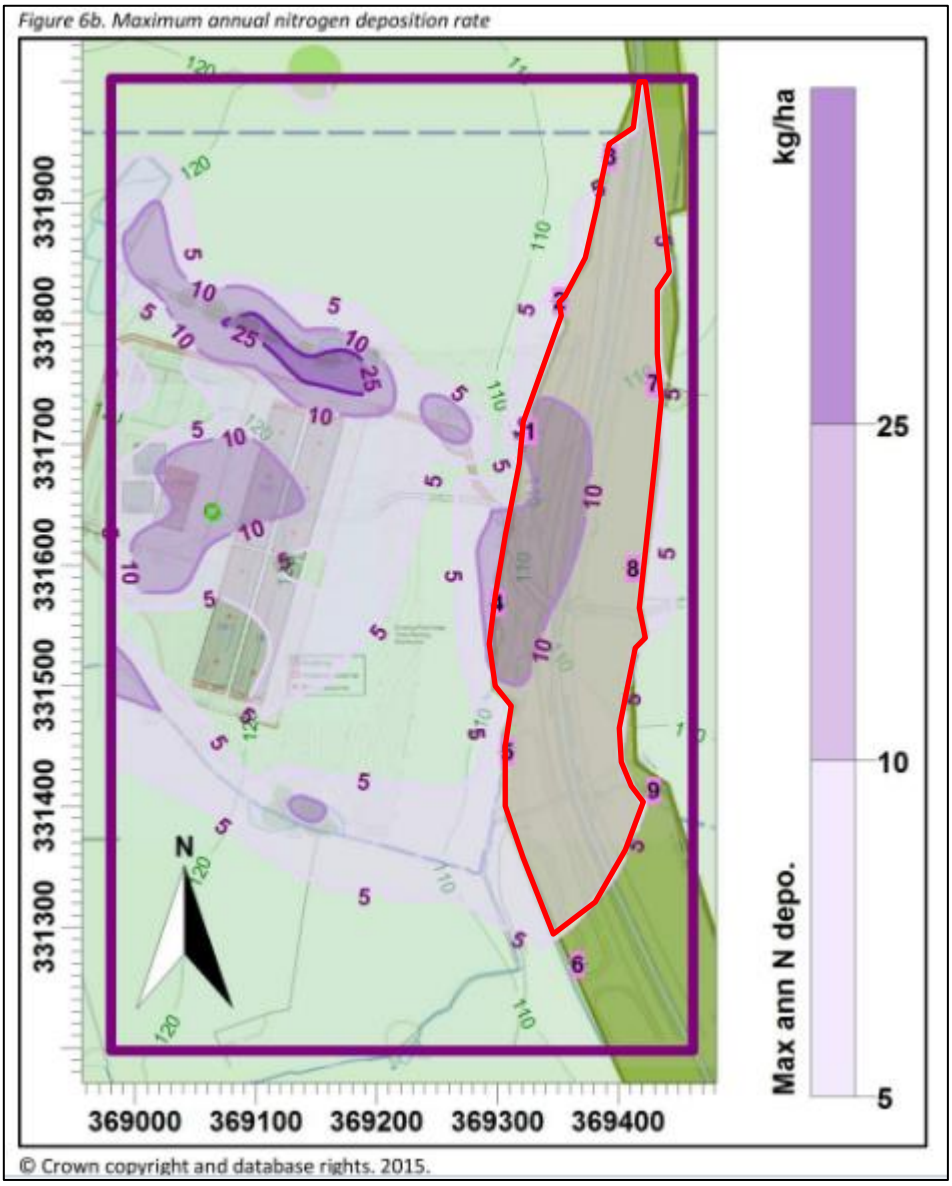
Ammonia pollution causes eutrophication of the ecosystem, acidification of soils, a decrease in the richness of plant species and loss of biodiversity, in particular oligotrophic plants which are sensitive to increased levels of Ammonia, such as Wood Sorrel (*Oxalis acetosella),* Woodruff (*Galium odoratum),* mosses and ferns.

Since most of the deposition occurs within a few kilometres of the source, problems arise where there is a sensitive semi-natural habitat near to an intensively farmed area (*Theobold et al, 2001*). Extensive research has been carried out on the efficacy of vegetative environmental buffer zone creation to intercept ammonia pollution from poultry farms (*Cadman & Weightman, 2008; Dragosits U. 2006; Theobold et al. 2001; Townsend, M. & Atkinson, S. 2012*). Research shows that planting of tree belts around sensitive habitats is the most successful strategy to intercept and capture Ammonia pollution from poultry farms (*Dragosits et al, 2006*) with the majority captured by the tree canopy. The most effective tree belts comprise of an intake zone containing low level vegetation (e.g. Birch, Hawthorn and Willow) to recapture the Ammonia close to source, a recapture zone containing larger trees (e.g. Ash, Sycamore, Poplar, Pine and Spruce) and a backstop zone consisting of denser vegetation (e.g. Hawthorn and Holly) to reduce the losses of Ammonia passing through the downwind edge of the tree belt (*Theobold et al, 2004*). Tree belts as narrow as 10m have been shown to reduce ammonia in emissions by approximately 53% and dust by 56% (*Frazer, 2008*). Tree belts of 15-20m, however, will provide a more effective barrier with studies of wider belts suggesting ammonia capture of 67% (*Atia, 2008*).

Site Modelling and Analysis

Modelling and analysis of the predicted ammonia output from the proposed additional poultry units at Hollins Lane shows that for 93.75% of Tyrley Spoil Banks LWS ammonia levels will be below the permitted critical load prior to any mitigation (*AS Modelling & Data Ltd (2015 updated 2017)*). An approximate 125m section of the LWS, which accounts for 6.25% of the total area of the LWS, will potentially however, have ammonia input that is above the critical load with a maximum annual mean ammonia concentration of 4.668 ug/m3 prior to mitigation (*Figure 5*).

Figure 5. Approximate area of LWS (red line boundary) where ammonia emissions likely to be above the critical load without any mitigation (actual modelling data shown from 2015 assessment but affected area based on updated modelling in 2017)



3.3 Ecological Surveys

Phase 1 habitat types recorded within the proposed development site are listed below and shown in *Figure 6*.

- Bare ground and ruderal
- Hardstanding

Habitats adjacent to the development site include:

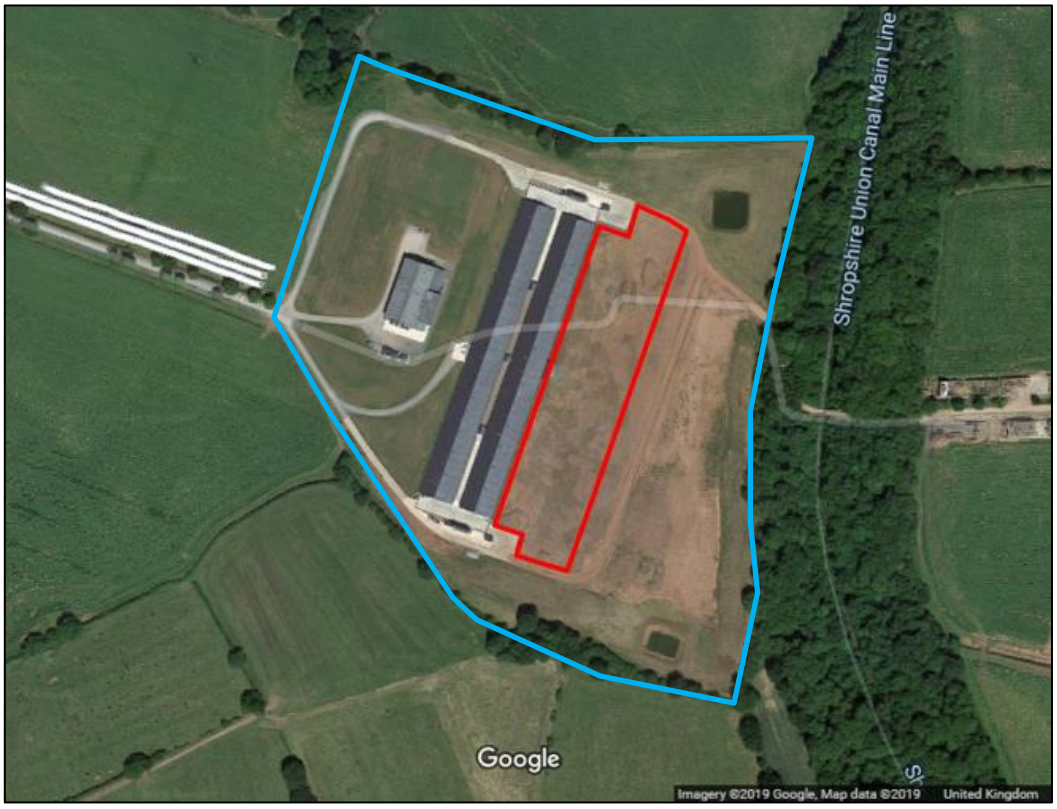
- Improved grassland
- Hedgerows and trees

The site or immediately adjacent areas contain habitat suitable for the protected species listed below.

- Badger
- Bats
- Dormouse
- Nesting birds
- Great Crested Newt
- Reptiles

3.4 Phase 1 Habitat Survey

Figure 6. Aerial view of proposed development site



3.4.1 Bare ground and ruderal

The proposed development site is located at the south-eastern end of an existing poultry site within an area of previously cleared ground now comprising bare ground and patchy ruderal vegetation (*Plates 1 and 2*). Species include Yorkshire Fog, Rosebay Willowherb (*Chamerion angustifolium*), Smooth Sow Thistle (*Sonchus oleraceus*), Scentless Mayweed (*Tripleurospermum inodorum*), Groundsel (*Senecio vulgaris*), White Clover (*Trifolium repens*), Spear Thistle (*Cirsium vulgare*), Hawkweed (*Hieracium* sp.), Ribwort Plantain (*Plantago lanceolata*), Creeping Buttercup (*Ranunculus repens*), Nipplewort (*Lapsana communis*), Redshank (*Persicaria maculosa*), Common Ragwort (*Jacobaea vulgaris*), Black Medick (*Medicago lupulina*), Selfheal (*Prunella vulgaris*), Brooklime (*Veronica beccabunga*), Pineappleweed (*Matricaria discoidea*), Broadleaf Plantain (*Plantago major*), Common Poppy (*Papaver*

rhoeas), Opium Poppy (*Papaver somniferum*) and Goat Willow (*Salix caprea*) saplings. A pile of stone and some small spoil piles are located at the northern end of the development footprint (*Plate 2*).

Plate 1. Bare ground and ruderal (looking north-east from the southern end of site)

Plate 2. Pile of stone at northern end of proposed development footprint

3.4.2 Hardstanding

A hardstanding track and yard associated with the existing poultry units to the north-east borders the site immediately to the north-east (*Plate 3*).

Plate 3. Hardstanding bordering proposed development area (looking south-west from north-eastern end of site)

3.4.3 Improved grassland

Improved grassland borders the development footprint to the south-west (*Plate 4*) and north-east (*Plate 5*). At the time of survey these areas were uncut and species were dominated by common grasses including Yorkshire Fog, Perennial Ryegrass (*Lolium perenne*), Timothy (*Phleum pratense*), Crested Dog's-tail (*Cynosurus cristatus*), Cock's-foot with occasional forbs including Creeping Thistle, White Clover, Broadleaved Dock, Soft Rush (*Juncus effusus*), Common Hogweed (*Heracleum sphondylium*), Hairy Tare (*Vicia hirsuta*), Common Dandelion (*Taraxacum officinale agg.*), Common Centaury (*Centaurium erythraea*), Tufted Vetch (*Vicia cracca*), Cut-leaved Cranesbill (*Geranium dissectum*) and Foxes and Cubs (*Pilosella aurantiaca*).

Plate 4. Improved grassland to south-west of proposed development footprint (looking north-west from south-western end of poultry site)

Plate 5. Improved grassland to north-east of proposed development footprint (looking west from north-eastern end of poultry site)

3.4.4 Hedgerows and trees

Outgrown hedgerow and trees are located along the wider site boundaries to the south-west and east, away from the development footprint (*Plates 6-7*). Species within the outgrown hedgerows and trees

include Hawthorn, Blackthorn (*Prunus spinosa*), Ash, Hazel, Elder, Holly, Sycamore, Oak with Ivy (*Hedera* sp.), Bramble and Dog Rose along the hedgerows.

Plate 6. Outgrown hedgerow and trees along south-western site boundary (looking north-west)

Plate 7. Mature trees along eastern site boundary associated with Tyrley Spoil Banks LWS (looking north from south-east corner of poultry site)

3.5 Protected Fauna

3.5.1 Badger

No evidence of Badger was recorded within the proposed development footprint and the hardstanding, bare ground and ruderal affected by the proposals is of limited suitability for foraging Badger and sett creation.

Evidence of Badger (tracks and prints) was recorded within the grassland and along the track immediately east and north-east of the proposed development footprint.

The hedgerow bases around the boundaries of the poultry site and grassland adjacent to site provide suitable habitat for foraging and sett creation and the woodland to the east of site provides extensive optimal habitat for foraging Badger and sett creation.

3.5.2 Bats

There is no suitable roosting habitat within the proposed development footprint although features suitable for roosting bats (frost cracks, knot holes etc) were noted on the mature and semi-mature trees along the wider site boundaries and within the LWS to the east of site.

The boundary hedgerows and trees around the edges of the poultry site and Tyrley Spoil Banks and associated canal to the east of site provide optimal foraging and commuting habitat for bats however the hardstanding, bare ground and ruderal within the development footprint is unlikely to be of importance for bats.

3.5.3 Dormouse

There are no apparent records of Dormouse within 2 km of the proposed development site and the hardstanding, bare ground and ruderal affected by the proposals is unsuitable for Dormouse.

The hedgerows and trees around the wider site boundaries provide some suitable foodplants for Dormouse and are well linked to the broadleaved woodland to the east of site along Tyrley Spoil Banks SSSI which provides more extensive Dormouse suitable habitat.

3.5.4 Birds

Three Little Ringed Plover (*Charadrius dubius*), a Schedule 1 species, were noted on site during the survey. The sparsely vegetated bare ground within the proposed development footprint provides ideal habitat for nesting Little Ringed Plover and it is thought likely that they bred within the proposed development area during spring 2019. A disused nest (possible Whitethroat) was also noted within the tall herb and ruderal adjacent to Pond 1 to the south-west of the proposed development footprint.

The hedgerows and trees around the wider site boundaries and the broadleaved woodland to the east of site provide optimal habitat for breeding birds.

There is no suitable habitat for nesting Barn Owl (*Tyto alba*) on or adjacent to the proposed site. The grassland around the edges of site provide suitable habitat for hunting Barn Owl and there are historic records of this species in the area (*Shropshire Ornithological Society, 2013; NBN*).

3.5.5 Great Crested Newt

There are no apparent records of Great Crested Newt within 2 km of the proposed development site and two ponds within 250m of the proposed development footprint.

Pond 1 is a shallow field pond within a small wooded area along the southern boundary of the poultry site approximately 45m south-west of the proposed development footprint (*Plate 8*). The pond was very shallow at the time of survey and surrounded by tall herbs and ruderal vegetation dominated by Common Nettle, Broadleaved Dock, Rosebay Willowherb and Bramble. The pond is fully shaded by the surrounding overhanging trees and sparse vegetation is present within the pond including Lesser Spearwort (*Ranunculus flammula*) and Common Water-starwort (*Callitriche stagnalis*). Invertebrates noted within the pond included Water Boatman (*Corixa punctata*) and Lesser Diving Beetle (*Acilius sulcatus*).

The macrophytes present in Pond 1 indicate that the ground remains damp in this area throughout most of the year. At the time of survey very shallow water was present within Pond 1 but this was likely to only be short term due to recent extreme heavy rainfall. Previous surveys by Greenscape in 2012 confirmed that the pond was dry on two out of three surveys and only held water following heavy rainfall, in line with the current findings.

Pond 1 has an HSI Assessment Score of 0.47 confirming *Poor* suitability for Great Crested Newt (*Plate 5 and Table 1*).

Pond 2 is a recently created attenuation pond within improved grassland approximately 25m north-east of the proposed development footprint (*Plate 9*). The pond has an HSI Assessment score of 0.69 confirming *Average* suitability for Great Crested Newt *(Plate 6 and Table 1).*

Plate 8. Pond 1 within wooded area along southern boundary of poultry site

Plate 9. Pond 2 attenuation pond (looking north)

Table 1. HSI Assessment of Ponds 1 and 2

Suitability Index (SI) Factor	Category	Pond 1	Pond 2
SI1	Location	1	1

SI2	Pond Area	0.2	1
SI3	Pond Drying	0.1	0.9
SI4	Water Quality	0.33	0.33
SI5	Shade	0.2	1
SI6	Fowl	1	0.67
SI7	Fish	1	1
SI8	Ponds	1	1
SI9	Terrestrial Habitat	1	0.33
SI10	Macrophytes	0.4	0.4
	HSI Index Value	0.47	0.69
	GCN Suitability	**Poor**	**Average**

The hardstanding, bare ground and ruderal affected by the proposals are unsuitable for Great Crested Newt due to the lack of cover and the small spoil pile and rubble pile are isolated from any suitable Great Crested Newt habitat.

Suitable Great Crested Newt terrestrial habitat adjacent to site is limited to the hedgerow bases and broadleaf woodland to the east of site, which provide suitable habitat for foraging, commuting and hibernating Great Crested Newt. The improved grassland is suitable for foraging and dispersing Great Crested Newt when uncut but unsuitable for hibernation due to the lack of dense cover.

3.5.6 Reptiles

There are no apparent records of common reptile species within 2 km of the proposed development site.

Suitable habitat for reptiles is limited to the hedgerow bases around the wider site boundaries and broadleaved woodland to the east of site which are suitable for foraging, dispersing and hibernating reptiles. The improved grassland adjacent to the development footprint is suitable for foraging and dispersing reptiles but is unsuitable for hibernation due to the lack of dense cover and the ponds provide suitable habitat for foraging Grass Snake (*Natrix natrix*).

The hardstanding, bare ground and ruderals within the proposed development footprint are only of limited suitability for dispersing reptiles and unsuitable for hibernating and foraging due to the lack of cover. The small pile of stone provides some cover for reptiles but is poorly linked to any further reptile suitable habitat.

4 EVALUATION

4.1 Summary of Proposals

The proposals include the construction of two poultry units within an area of previously cleared land at an existing poultry farm (*Figure 7*). Works will directly affect ecologically poor hardstanding, bare ground and ruderal but there is the potential for impacts on the Tyrley Spoil Banks Shropshire Union Canal LWS due to ammonia emissions. Appropriate mitigation will therefore need to be put in place to reduce the impact of ammonia pollution on the botanical value of the site.

Figure 7. Proposed development plan

The Shropshire BAP lists 16 Habitat Action Plans however none of these will be affected by the proposed development. The Shropshire BAP also lists 17 Species Action Plans, including Great Crested Newt. This species could be directly or indirectly affected by the proposed development and appropriate project design and mitigation will need to be adhered to ensure there will be no negative impacts on them as a result of the proposals. Ecological enhancements are also recommended to ensure the proposals result in a positive ecological gain which is in accordance with the National Planning Policy Framework.

4.2 Designated Sites

4.2.1 General

Burnt Wood SSSI is located approximately 5 km north-east of the proposed development site. Due to the distance between the proposed development site and the SSSI it is considered that the proposals will not negatively impact Burnt Wood SSSI however the recommended tree planting associated with Tyrley Spoil Banks LWS will further reduce the likelihood of negative impacts on the SSSI.

Non-statutory designated sites

Tyrley Spoil Banks LWS is located approximately 155m east of the proposed development site at its nearest point and is designated for its botanical interest.

As a result of ammonia emissions, the proposed development has the potential to negatively affect a 125m length of the Tyrley Spoil Banks LWS adjacent to the development site. The assessment of the affected area of LWS and potential impacts are summarised below:

- The 125m length accounts for just 6.25% of the 2 km length of the LWS and is typical woodland edge habitat dominated by common grasses, common herbs and ruderal species and appeared to be the least botanically diverse area of the LWS.
- Modelling predicts ammonia levels that would be above the critical load limit for ammonia (4.668 ug/m3 maximum annual mean ammonia concentration) prior to any mitigation measures.
- Outside of the 125m length the modelled maximum annual mean ammonia concentration falls consistently below the permitted critical load but could be further reduced by up to 20% by the proposed mitigation measures detailed below.

4.2.2 Mitigation

General

Although the proposed development has the potential to only affect a relatively short section of the LWS and a section where the botanical value is lower than the more extensive woodlands to the south, there are a number of mitigation measures that will be incorporated into the proposals that will further reduce the possible impacts of ammonia emissions on the LWS (*Figure 8*). These include:

- A combined horizontal and vertical flow shallow reedbed system;
- Tree planting between the poultry units and LWS; and/or
- Appropriate management and monitoring of the LWS.

Figure 8. Proposed mitigation plan (red line indicates 125 m length of LWS where critical load is exceeded)

Reedbed system

A combined horizontal and vertical flow shallow reedbed system will be created to the south-east of the proposed poultry units and will be densely planted with Norfolk Reed (*Phragmites australis*) (*Figure 8*). The reedbed system will provide a natural way to intercept and treat any ground level ammonia in run-off water prior to reaching the LWS and capture air-borne ammonia within the plant tissue. The reedbed system will also aid site biodiversity with a variety of invertebrates attracted along with predators such as amphibians, small mammals and birds.

Tree planting

The reedbed system can be immediately followed by tree planting of a minimum of 30m x 375m between the proposed development site and Tyrley Spoil Banks Shropshire Union Canal LWS (*Figure 8*). The tree planting would create an extensive vegetative buffer zone between site and the LWS and capture air-borne Ammonia within the plant tissue.

The vegetative buffer should comprise a minimum 12m intake zone of Willow (*Salix* sp.), Hawthorn and Silver Birch nearest to the proposed poultry sheds, followed by a minimum 10m recapture zone of Norway Spruce (*Picea abies*), Leyland Cypress (*Cupressus × leylandii*), Sycamore, Ash and Poplar (*Populus* sp.) and then a minimum 8m backstop zone of dense Hawthorn, Hazel and Holly abutting the LWS. Willow and Poplar are quick to establish and rapidly provide a filtering and stabilising effect (*Townsend & Atkinson, S., 2012*) whilst Norway Spruce and Leyland Cypress will provide year-round pollutant scrubbing and their complex leaf shape is effective at capturing particulates emitted by the poultry shed fans (*Malone, G., VanWicklen, G., and Collier, S., 2011*). Towards the southern end of the area of tree planting it is recommended that planted tree species are dominated by native species that occur within the LWS, such as Oak, Hazel, Elder and Scot's Pine.

Adrizal et al (*2008*) showed that a 30m buffer of trees of similar species composition as outlined above, can significantly decrease Ammonia with their study recording a reduction from 12.01ppm at source to 0.31ppm 30m from source through a vegetative tree buffer.

The proposed newly planted areas would create approximately 1.65 hectares of additional habitat that would extend the habitat associated with the Tyrley Spoil Banks LWS and provide extensive additional habitat for a variety of plant and animal species, including species occurring within the LWS.

Management and monitoring of Tyrley Spoil Banks LWS

Current management of the LWS is limited to regular maintenance of the canal towpath by British Waterways and monitoring surveys of the site are infrequent. During the walkover survey in 2017, Bramble scrub and dense stands of Common Nettle appear to be becoming more dominant within the LWS woodland, particularly at its northern end and nearest the development site. Uncontrolled these species are likely to become more dominant throughout the woodland and result in shading of ground flora and a reduction in a variety of species the LWS is designated for.

It is proposed that a 10 year habitat management scheme is produced for the LWS woodland and newly created habitat between the LWS and proposed development site. The management plan should be discussed and agreed with the Staffordshire and Shropshire Councils and also British Waterways with regards to areas along and adjacent to the towpath. Sensitive management of the site could include clearance of encroaching scrub and nettles to allow species to grow that would otherwise be outcompeted by scrub and ruderals and increase the botanical interest and value of the overall site. Management would also ensure newly created habitats become established and species diversity is maintained at the highest levels and any increases in grasses and ruderal species as a result of any ammonia emissions controlled.

Monitoring of the proposed development site's ammonia emissions may be required and this monitoring should extend to regular survey and assessment of the LWS to establish whether there are any significant impacts on the species composition and diversity of the LWS with appropriate management implemented if significant changes evident.

4.3 Habitats

4.3.1 General

There are no specific mitigation measures required for the loss of habitats directly affected by the proposals but in order to protect adjacent habitats, notably the LWS, and maintain and increase biodiversity of the site, mitigation measures and safe working methods will need to be incorporated into the proposals.

4.3.2 Mitigation

The construction works will affect ecologically poor hardstanding, bare ground and ruderal and the loss of these areas are unlikely to have a significant negative impact and specific mitigation measures for this loss are not considered necessary.

The proposed areas of groundworks will need to be confined to areas that will not impact on the root systems of the existing and retained boundary trees. An appropriate buffer (as detailed in BS5837:2012) will need to be established.

The proposed tree planting and reedbed system, as detailed within *Section 4.2.2* will increase the biodiversity and ecological value of the site for a wide range of wildlife.

4.4 Protected Fauna

4.4.1 General

No evidence of protected species was confirmed within the proposed development footprint however evidence of nesting birds and Badger were recorded within the wider site boundaries. There are habitats with suitability for Badger, bats, nesting birds, Great Crested Newt and reptiles within or adjacent to the proposed development area.

4.4.2 Badger

No evidence of Badger was recorded within the proposed development footprint however Badger tracks were recorded to the east and north-east of the proposed development footprint.

The hardstanding, bare ground and ruderals within the development footprint are unlikely to be of importance for foraging Badger and the close proximity to buildings, exposed nature of the development footprint and lack of evidence of Badger suggests the potential for setts to be dug prior to works is unlikely. Due to the relatively small size of suitable foraging habitat affected it is also considered unlikely to be a significant habitat loss for any local Badger populations.

Although significant negative impacts on Badgers are not predicted as a result of the construction of the poultry units and associated access, a pre-works check will be required to ensure no setts have been created within close proximity to the works. Mitigation measures will also be required to ensure foraging Badgers do not become trapped within any excavation works associated with construction works. Excavations should either not be left uncovered overnight or ways of escape for Badgers provided (wooden planks or graded earth banks).

The proposed tree planting will ultimately enhance the site for foraging Badger and sett creation.

4.4.3 Bats

No suitable roosting habitat is located within the footprint of the development and the hardstanding, bare ground and ruderal affected by the proposals is unlikely to be of importance for foraging bats. The wider site boundary hedgerows and trees, ponds and woodland and canal to the east of site provide optimal habitat for foraging and commuting bats and features suitable for roosting bats were noted within the boundary trees and woodland.

A lighting plan showing the location and specification for any proposed lights on the site will be produced and will reflect the Bat Conservation Trust Bats and Lighting in the UK guidance (2018). The lighting plan will include directing lighting away from the retained boundary hedgerows and trees and away from any new roosting provision.

Long term bat roosting provision should be incorporated into the proposals and should include a minimum of two Schwegler 2F bat boxes and one Schwegler 1FS, or equivalent, installed on retained mature trees around the field boundaries.

The planting of additional trees around site and creation of a reedbed will improve the quality of foraging habitats as well as connectivity with the wider landscape.

4.4.4 Nesting Birds

The boundary hedgerows and trees around the wider site boundaries are suitable habitats for nesting birds and an old nest was noted within tall herb and ruderal approximately 45m south-west of the proposed development footprint.

Three Little Ringed Plover, a Schedule 1 species, were recorded on site during the survey and it was considered likely that they had nested on site. This species regularly occurs in heavily disturbed and ever-changing environments and as they're generally opportunistic nesters they often don't nest in the same areas each year. Schedule 1 species have increased protection from other nesting bird species and nesting birds need to be protected from any disturbance that could cause breeding failure. It is recommended pre-works surveys for this species are completed if works are due to commence during the breeding season (March to August inclusive) to confirm presence/absence of nesting birds and if present, measures are put in place to ensure breeding birds are protected.

The wider site boundaries are suitable for hunting Barn Owl however these habitats will not be directly affected by the proposals.

Any habitat creation, enhancement and management, such as the planting of trees and creation of a reedbed system, would only have a positive impact on nesting birds at the site. A combination of two open-fronted nest boxes and two single hole-fronted nest boxes will be erected on the retained mature and semi-mature trees around the wider site boundaries.

4.4.5 Great Crested Newt

There are no apparent records of Great Crested Newt within 2 km of the proposed development site and two ponds within 250m of the proposed development footprint.

Suitable habitat on and adjacent to site is limited to the wider site boundary hedgerows and woodland to the east of site which provide suitable habitat for foraging, commuting and hibernating Great Crested Newt. The two ponds within 250m of site are of *Average* and *Poor* suitability for Great Crested Newt and no evidence of Great Crested Newt or other amphibians was noted within or in the areas surrounding the ponds. The hardstanding, bare ground and ruderal affected by the proposals are not suitable for Great Crested Newt due to the lack of cover but could be crossed during dispersal.

Taking in to consideration the distance between the construction areas and nearest record of Great Crested Newt, the results of the HSI assessment and the area of habitats affected by the proposals, it is considered very unlikely that the proposed development will affect this species and no specific mitigation is required. Due to the presence of suitable reptile habitat around the wider site boundaries and as a precautionary measure, safe working methods for reptiles will be followed (see *Section 4.4.6)*. In the highly unlikely event of a Great Crested Newt being found in the development area during the development works, all work will stop, and Natural England will be contacted.

In order to enhance the biodiversity of the ponds the addition of carefully sourced aquatic plants will be completed. Species will include Marsh Marigold (*Caltha palustris*), Water Starwort (*Callitriche palustris*), Lesser Spearwort (*Ranunculus flammula*), Water Mint (*Mentha aquatica*), Water Forget-me-not (*Myosotis scorpioides*), Water Crowfoot (*Ranunculus aquatilis*) and Fool's Watercress (*Apium nodiflorum*).

4.4.6 Reptiles

There are no apparent records of reptiles within 2 km of the proposed development site and the proposed development footprint is of limited suitability for reptiles due to the lack of cover but could be crossed during dispersal. The small rubble pile within the development site is poorly connected to any reptile suitable habitat and therefore considered unlikely to be used by reptiles.

Suitable foraging and hibernation habitat for reptiles is limited to the wider site boundary hedgerows and woodland to the east of site. The improved grassland could be crossed during dispersal and the ponds provide suitable habitat for foraging Grass Snake.

The presence of reptiles within the proposed works areas is considered unlikely and no suitable habitat will be affected by the proposals however as a precautionary measure it is recommended safe working methods are put in place to ensure no reptiles are harmed. These methods should include maintaining the vegetation at just above ground level prior to works to discourage reptiles from occurring. During construction, any storage of piles of materials and excavated earth on the site should be kept to a minimum and away from the boundaries to deter reptiles from using them for temporary cover.

5 LEGAL PROTECTION

This section briefly describes the legal protection afforded to the protected species referred to in this report. It is for information only and is not intended to be comprehensive or to replace specialised legal advice. It is not intended to replace the text of the legislation, but summarises the salient points.

5.1 Badger

Badger is protected in Britain under the *Protection of Badgers Act 1992* and *Schedule 6* of the *Wildlife and Countryside Act 1981* (as amended).

The legislation affords protection to Badgers and Badger setts, and makes it a criminal offence to:

- wilfully kill, injure, take, possess or cruelly ill-treat a Badger, or to attempt to do so;
- interfere with a sett by damaging or destroying it;
- to obstruct access to, or any entrance of, a Badger sett; or
- to disturb a Badger when it is occupying a sett.

5.2 Bats

All species of British bat are protected by *The Wildlife and Countryside Act 1981* (as amended) extended by the *Countryside and Rights of Way Act 2000*. This legislation makes it an offence to:

- intentionally kill, injure or take a bat;
- possess or control a bat;
- intentionally or recklessly damage, destroy or obstruct access to a bat roost; and
- intentionally or recklessly disturb a bat whilst is occupies a bat roost.

Bats are also European Protected Species listed on *Schedule 2* of the *Conservation of Habitats and Species Regulations 2010 (SI 2010/490)* under *Regulation 41*. This legislation makes it an offence to:

- deliberately capture, injure or kill a bat;
- deliberately disturb bats in such a way as to be likely to (a) impair their ability to: (i) to survive, to breed or reproduce, or to rear or nurture their young, or (ii) in the case of animals of a 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; and
- damage or destroy a breeding site or resting place of a bat; and
- possess, control, transport, sell, exchange a bat, or offer a bat for sale or exchange.

All bat roosting sites receive legal protection even when bats are not present.

Where it is necessary to carry out an action that could result in an offence under the *Conservation of Habitats and Species Regulations 2010 (SI 2010/490)* it is possible to apply for a European Protected

Species (EPS) licence from Natural England (NE). Three tests must be satisfied before this licence (to permit otherwise prohibited acts) can be issued:

- Regulation 53(2)(e) states that licences may be granted to "preserve public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment."
- Regulation 53(9)(a) states that a licence may not be granted unless "there is no satisfactory alternative".
- Regulation 53(9) (b) states that a licence cannot be issued unless the action proposed "will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range".

5.3 Dormouse

The Dormouse is on *Schedule 5* of the *Wildlife and Countryside Act 1981* (as amended), and receives full protection under *Section 9*. This species is also listed as European Protected Species on *Schedule 2* of the *Conservation of Habitats and Species Regulations 2010 (SI 2010/490)* which gives them full protection under *Regulation 41*. Protection was extended by the *Countryside and Rights of Way Act 2000* (the CRoW Act).

Under the above legislation it is an offence to:

- kill, injure or take an individual of such a species;
- possess any part of such species either alive or dead;
- intentionally or recklessly damage, destroy or obstruct access to any place or structure used by such species for shelter, rest, protection or breeding;
- intentionally or recklessly disturb such a species whilst using any place of shelter or protection; or
- sell or attempt to sell any such species.

Dormouse is included as a Priority Species in the UK Biodiversity Action Plan (UKBAP) and also as a species of principal importance for the conservation of biological diversity in England under *Section 74* of the CRoW Act.

5.4 Nesting Birds

All species of bird are protected under *Section 1* of the *Wildlife and Countryside Act 1981* (as amended). The protection was extended by the CRoW Act.

The legislation makes it an offence to intentionally:

- kill, injure or take any wild bird;
- take, damage or destroy the nest of any wild bird while that nest is in use or being built; or
- take or destroy an egg of any wild bird.

Certain species of bird are listed on *Schedule 1* of the *Wildlife and Countryside Act 1981* (as amended) and receive protection under *Sections 1(4)* and *1(5)* of the Act. The protection was extended by the CRoW Act. The legislation confers special penalties where the above-mentioned offences are committed for any such bird and also make it an offence to intentionally or recklessly:

- disturb any such bird, whilst building its nest or it is in or near a nest containing dependant young; or
- disturb the dependant young of such a bird.

5.5 Great Crested Newt

Great Crested Newt is listed on *Schedule 5* of the *Wildlife and Countryside Act 1981* (as amended), and receive full protection under *Section 9*. These species are also listed as European Protected Species on *Schedule 2* of the *Conservation of Habitats and Species Regulations 2010 (SI 2010/490)* which gives them full protection under *Regulation 41*. Protection was extended by the *Countryside and Rights of Way Act 2000* (the CRoW Act).

Under the above legislation it is an offence to:

- kill, injure or take an individual of such a species;
- possess any part of such species either alive or dead;
- intentionally or recklessly damage, destroy or obstruct access to any place or structure used by such species for shelter, rest, protection or breeding;
- intentionally or recklessly disturb such a species whilst using any place of shelter or protection; or
- sell or attempt to sell any such species.

The Great Crested Newt is included as a Priority Species in the UK Biodiversity Action Plan (UKBAP) and also as a species of principal importance for the conservation of biological diversity in England under *Section 74* of the CRoW Act.

5.6 Common Reptile Species

Common Lizard, Grass Snake, Slow-worm and Adder are listed under *Schedule 5* of the *Wildlife and Countryside Act 1981* (as amended), in respect of *Section 9(5)* and part of *Section 9(1)*. This protection was extended by the CRoW Act.

Under the above legislation it is an offence to:

- intentionally or deliberately kill or injure any individual of such a species; or
- sell or attempt to sell any part of the species alive or dead.