Extended Phase 1 Habitat Survey & Baseline Ecological Impact Assessment

Land at Spout Farm, Longridge

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Executive Summary

1. A baseline ecological survey and ecological impact assessment were carried out in respect of land at Spout Farm, Preston Road, Longridge, with regard to the proposals development of the site to housing

2. There is little semi-natural habitat of *significant importance* within the site boundaries and there are no important habitats or vegetation communities occurring on site or within the site boundaries *that will be adversely affected by proposals*

3. There are no specifically protected or otherwise important species such as roosting bats or great crested newts occurring on site although there is a Biological Heritage Site (BHS), designated partly in respect of importance for birds, partly in respect of its botanical interest, which bounds the site immediately to the north and east

4. Whilst there is potential for disturbance of any birds that occur on the adjacent site, this will be negated by the provision of an adequate buffer, comprising trees, shrubs and other habitat, to be situated between the proposed houses and the BHS

5. As a result of the standoff between the proposed housing estate and the BHS, there will be no direct impact upon the adjacent site and therefore and no direct impact upon any vegetation of importance

6. It is reasonable therefore to conclude that, with adequate mitigation, there will be no negative ecological impact resulting from proposals to develop the site

Contextual Statement

This report ***must be read in conjunction with the documentation and drawings prepared and submitted to the Local Planning Authority in respect of current development proposals (as shown in Figure 9 of this report)***. The author of this report will accept no responsibility for any misunderstanding resulting from a failure to consult all relevant planning documentation or through any lack of information where responsibility for the provision of such is beyond the control of Cameron S Crook & Associates.

This report is not intended as a natural history text or scientific paper. Rather, its purpose is to inform the site owner, developer and local planning authority in accordance with current local and national planning guidance, in as clear and succinct a manner as possible. To that end, all survey and assessment works carried out in respect of current proposals are proportionate to the site and situation, and only the minimum level of information necessary has been provided. Detailed information on the respective life cycles of protected species such as the bat, badger or great crested newt, or detailed descriptions of sundry ecological scenarios that have no relevance to the site or development in question have therefore been omitted.

This report provides no planning or legal advice and no attempt has been made to interpret any respective planning or environmental laws that may apply to this case. Any such interpretation must be obtained from an appropriately qualified Planning Consultant, Planning Officer or Lawyer.

All survey works detailed within the methodology section below have been either carried out personally by the author or by appropriately qualified, licenced and/or experienced surveyors working under the direct supervision of the author. The author of this report takes full responsibility for the quality of data collected and any subsequent interpretation. Raw survey data and names of individual surveyors may be provided for *bone fide* reasons, upon request, but only where this is strictly necessary and does not otherwise conflict with client, landowner or surveyor confidentiality and privacy, in accordance with the General Data Protection Regulations 2018 (GDPR).

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10th March 2020

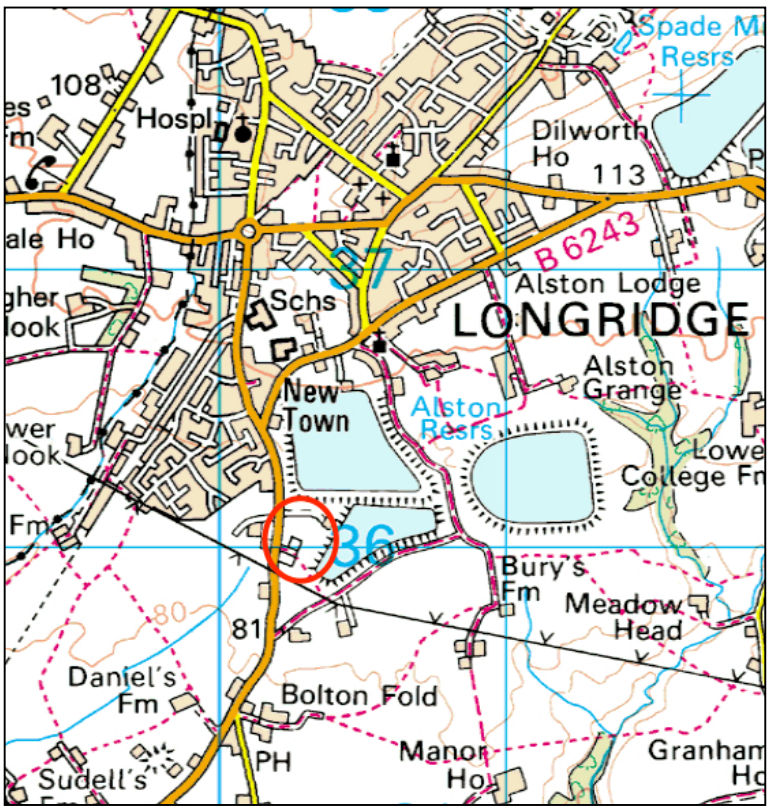
1.0 Introduction

1.1 An ecological survey, site appraisal and impact assessment were carried out in respect of land at Spout Farm, Preston Road, Longridge, with the following aims:

1. To establish the presence or absence of protected species and evaluate the overall nature conservation status of the site
2. To assess the likely impact of proposed site development works upon any protected species that may occur on or adjacent to the area of land concerned, and the integrity of nature conservation interest of any other sites of ecological or nature conservation importance within the vicinity
3. To provide mitigation, management and aftercare proposals, as appropriate

1.2 The term *site* will be used in this report to refer to the area of land proposed for development in accordance with the 'red line' planning boundary (at the location shown within *Figure 1*) and proposed site layout (*Figure 9)* unless otherwise indicated within the text. In that respect, it is assumed that this report will be read in conjunction with all relevant documentation supplied as part of the respective planning application.

***Figure 1**. Site location (within red circle)*



2.0 Methodology

Desktop Survey

2.1 Prior to undertaking any site survey works, a data search was carried out to check for any known protected or otherwise important species or habitats occurring within or closely adjacent to the site boundaries. Data sources include the following:

- NBN Gateway
- MAGIC
- LERN

Any *significant* results are provided within the relevant sections below or within the appendix, as appropriate.

General Ecological and Botanical Survey

2.2 For this part of the survey, an appropriately cut down version of Extended Phase 1 Habitat Survey methodology covering the site proposed for development was carried out in January 2013 with any evidence of birds, mammals or other species of importance noted. The survey methodology comprised a modified version of that described in NCC (1990) and IEA (1995). Repeat surveys were carried out in May 2016 and March 2020 and any significant changes noted.

2.3 The habitat survey was supplemented by a vascular plant species survey using the 'walkabout method' as described in Kirkby (1988) and a generalized assessment of the site for suitability of habitat for animals, in particular protected species such as badger, bats, barn owls and breeding birds in general, and great crested newts. Only those species or species groups considered reasonably likely to occur on site or be otherwise affected by proposals to develop the site (in this case badgers, bats and breeding birds) were included in the more detailed survey and assessment.

Badgers

2.4 This part of the survey was carried out concurrently with the Phase 1 Habitat surveys in both 2013, 2016 and 2020 using a scaled down version of the standard badger survey methodology as described in Harris et al (1989). In practice, this comprised a generalized search of the whole site where suitable habitat was found to a distance of 30m from the site boundaries, in an attempt to identify any feeding signs, habitual runs and footprints, hairs, droppings and latrines, scratching posts and actual setts.

Bats

2.5 This part of the survey followed the recommendations of the Bat Workers' Manual (Mitchell-Jones & McLeish, 2004), the *Bat Mitigation Guidelines* (Mitchell Jones, 2004) and the Bat Conservation Trust's Best Practice Bat Survey Guidelines (Hundt, 2012), and comprised a daytime inspection carried out on in January 2013 and May 2016 and March 2020 to examine the trees and other habitat on site in relation to the potential for bat roosting, commuting and foraging.

2.6 From the results of the daytime survey, it was deemed that no nighttime survey was necessary, nor was one carried out, due to the general lack of suitable roosting, commuting or foraging habitat and the overall level of disturbance on site. Further details are provided below.

Birds

2.7 The survey was carried out concurrently with the Phase 1 Surveys in both 2013 and 2016 and followed a modified, much scaled-down version of the methodology described in Bibby *et al* (1992), reflecting the quality and extent of suitable breeding habitat. The results of the survey have been tabulated (within the Appendix) according to the breeding potential of each species recorded within or closely

adjacent to the site. A repeat site inspection in relation to bird breeding potential and any incidental records noted was carried out on the 10th March 2020.

Amphibian & Reptiles

2.8 During the initial Phase 1 survey and subsequent visits in 2016 and 2020, no water bodies were found on site. A number of water bodies occur beyond the site boundaries and at least one of these is known to support great crested newts. However, as the site in question is enclosed by amphibian-proof fencing and has been so for some considerable time, due to the very limited likelihood of great crested newts accessing the site a full specification survey was considered unnecessary and none was carried out.

2.9 The survey was therefore confined to a visual inspection of the site with any potential refugia such as metal, wooden or plastic sheeting or any potential egg-laying sites with respect to reptiles such as piles of sawdust on or closely adjacent to the site boundaries were inspected for signs of sloughed skins (reptiles) or actual sightings.

3.0 Existing Situation

General Site Description

3.1 The site in question comprises an area of land used formerly for the growing of Christmas trees and other nursery crops, and the storage and maintenance of vehicles, plant and materials associated with the forestry and arboricultural industry. The latter part of the site accounts for approximately 30% of the total site area and is the most disturbed part of the site comprising mainly bare ground with ruderal vegetation colonizing the margins.

Figure 2 *Existing site layout (within dashed red line boundary)*

3.2 Section A, the main body of the site (as shown within the aerial photograph above) comprises an extensive area of disturbed ground. The vegetation is dominated by a mosaic of tall-ruderal, low-growing bramble scrub and rank grassland, along with some extensive areas of bare or sparsely vegetated ground (see photographs below), where disturbance has been greatest. There are also occasional trees and clumps of scrub as well as a hedge of Leyland cypress, which screens the existing compound (section C), but no semi-natural vegetation of particular ecological significance or importance occurs on site.

3.3 The site is bounded to the north and east by a high stone wall along with a belt of semi-mature to early-mature trees and shrubs (section D). The trees comprise a mixture of native broadleaved species, non-native species, and conifers. The shrubs

are primarily native species, the dominant species being hawthorn. Further along the western boundary, the boundary is formed by a mature hawthorn hedge, which runs the full length of this section as well as partially along the southern boundary until it meets the entrance to the compound (section C). The hedge is mostly dense and intact, to a height of at least 6-7m in parts, but is relatively species-poor and does not qualify as an Important Hedgerow in respect of the Hedgerow Regulations 1997.

Figure 3 *The main part of the site (Section A) as viewed from the southwest corner*

3.4 To the west of the site (section B) is another block of trees comprising a mixture of broadleaved and occasional coniferous species including a small number of specimens grown as part of a Christmas tree crop (the main crop having been removed in the interim.

3.5 There are three buildings within the site boundaries, all within the southern part of section C, all constructed of corrugated sheet metal and other materials, and all used for the storage of materials and equipment. In addition there are a number of containers of various shapes and sizes at various points across the side in general, though mainly to the east, within the existing compound.

Figure 4 *The existing machinery yard, Section C, two of the existing buildings visible to the left*

Figure 5 *The existing buildings within Section C*

Figure 6 *A typical internal view of one of the existing buildings*

3.6 To the south of the site (beyond the site boundaries) is the car park of a plant nursery and garden center, along with a number of other buildings that are associated with the garden center or Spout Farm. The latter buildings do not form part of the proposed development site and will not be affected.

3.7 There are no water bodies on site or closely adjacent to the site boundaries. However, beyond the site boundaries are several large reservoirs, as well as a pond to the southeast (see LERN Ecology Map rear of this report).

Habitats and Flora

3.8 The semi-natural habitats and vegetation communities recorded during the Phase 1 Habitat Survey are summarized below.

Table 1

NCC/RSNC[1] Habitat	NVC[2] Communities
Woodland: broadleaved	No discernible vegetation communities
Scrub: dense continuous Scrub: scattered	W21 *Crataegus monogyna-Hedera helix* scrub W24 *Rubus fruticosus-Holcus lanatus* underscrub community
Grassland: neutral, semi-improved (naturally seeded)	MG1 *Arrhenatherum elatius* grassland MG11 *Festuca rubra-Agrostis stolonifera-Potentilla anserina* grassland OV23 *Lolium perenne-Dactylis glomeratus* community
Improved Grassland	MG7 *Lolium perenne* leys and related grasslands
Marsh/Marshy Grassland	MG10 *Holcus lanatus-Juncus effusus* rush pasture (fragmentary)
Tall herb and fern: tall ruderal	OV24 *Urtica dioica-Galium aparine* community OV25 *Urtica dioica-Cirsium arvense* community OV26 *Epilobium hirsutum* community OV27 *Epilobium angustifolium* community
Cultivated/disturbed land: ephemeral/short perennial	OV10 *Poa annua-Senecio vulgaris* community OV21 *Poa annua-Plantago major* community OV22 *Poa annua-Taraxacum officinale* community OV28 *Agrostis stolonifera-Ranunculus repens* community

[1] Nature Conservancy Council and Royal Society for Nature Conservation habitat classification (NCC, 1990)

[2] National Vegetation Classification communities (Rodwell, 1991)

3.9 A full list of vascular plant species recorded in the habitat listed above is provided within the Appendix to this report.

Significance of Habitats and Flora

3.10 The plants and habitats recorded on site (within the proposed development footprint) are all relatively common and widespread in both Lancashire and Great Britain. With respect to Biodiversity Action Plan (BAP) species and habitats, broadleaved woodland is listed as local BAP habitats. However, the woodland recorded on site comprises mostly semi-mature trees does not represent semi-natural woodland in the context of the Lancashire or UK BAP. Similarly, the hedges on site are ether predominantly coniferous, species-poor and/or semi-defunct so do not qualify as Important Hedgerows in respect of the Hedgerow Regulations. Otherwise, no plant species or habitats were recorded that are listed as BAP species or habitats either nationally or regionally.

Mammals (General)

3.11 The site is well used by grey squirrel and there was some evidence of small mammal activity such as that of field vole, bank vole and wood mouse. However, considering the quality of habitat overall, the presence of extensive hard-standing and debris, and that the site is bounded by an impenetrable fence, the site is likely to be sub-optimal or inaccessible to most of the mammal species that would be expected to occur on semi-natural habitat within the urban fringe or semi-rural areas such as this.

Mammals (Badgers)

3.12 A detailed inspection of all suitable habitat within the site boundaries, to a distance of 30m, found no conclusive signs of badger activity such as feeding signs, runs, latrines or setts. Whilst there is habitat on site suitable for foraging and the establishment of setts, no conclusive evidence was found. It is reasonable to assume therefore that badgers do not currently occur on site and will not be impacted by proposals for development.

Mammals (Bats)

3.13 During the initial site inspection, the only habitat where bat roosting was found to be in any way possible was an early-mature tree (a sycamore) situated along the northern boundary (see *Figure 4* below). On close inspection, the tree was found to have a number of cavities of a size suitable for use by bats, though no conclusive evidence of roosting such as staining around holes or droppings was found. Otherwise, the site is likely to be used to some extent for foraging and commuting though this activity will be confined to the margins of the site.

3.14 There are three buildings on site that will be affected by proposals but on close inspection, these were found to be of negligible importance to bats. The buildings in question are constructed of sheet materials and are used for the storage of equipment and materials and provide no suitable niches for bat roosting.

Figure 7 *Mature sycamore to the north of the site, at least marginally suitable for bat roosting*

Birds

3.15 A small number of common bird species were recorded on site or close by (i.e. seen flying over or in adjacent habitat, or heard calling). These are listed within the table below. Those that are considered likely to breed on site are highlighted in bold type within the table below with a qualifier in the third column as to certainty.

Table 2

Species Name	Common Name	Qualifier
Accipiter nisus	Sparrowhawk	PrNB
Aegithalos caudatus	Long-tailed tit	PoB
Anas platyrhynchos	Mallard	NoB
Carduelis chloris	**Greenfinch**	**CoB**
Columba livia (domest.)	**Feral Pigeon**	**PrB**
Columba palumbus	**Wood Pigeon**	**CoB**
Corvus corone	**Carrion Crow**	**PrB**
Erithacus rubecula	**Robin**	**PrB**
Falco tinnunculus	Kestrel	PrNB
Fringilla coelebs	**Chaffinch**	**PrB**
Hirundo rustica	Swallow	NoB
Garrulus glandarius	**Jay**	**PrB**
Motacilla alba	**Pied Wagtail**	**PoB**
Parus caeruleus	**Blue tit**	**CoB**
Parus major	**Great Tit**	**CoB**
Passer domesticus	**House Sparrow**	**PoB**
Pica pica	**Magpie**	**CoB**
Sturnus vulgaris	Starling	PrNB
Troglodytes troglodytes	**Wren**	**PrB**
Turdus merula	**Blackbird**	**CoB**
Turdus viscivorus	**Mistle Thrush**	**PoB**
Key to Breeding Qualifiers: CoBr - Confirmed Breeding; NoB – Not Breeding; PrNB – Probably Not Breeding; PrB – Probably Breeding; PoB – Possibly Breeding		

3.16 The site provides a wide number of niches suitable for breeding birds, the most important areas being the mature scrub, tall coniferous hedges, and the semi- to early-mature trees. The pre-fabricated buildings are of very limited use to birds. However, overall, the type, quality, location, and level or recent disturbance would suggest that only common, more urbanised species would be likely to use the site and this was borne out by the results and the lack of historic records of important or uncommon species having been previously record on site. For the same reason, no Schedule 1 species such as barn owl were recorded or are considered likely to breed or roost on site.

Great Crested Newts

3.17 No specific amphibian survey was carried out due to there being no standing water bodies on site. Whilst there are a number of water bodies within 250m with optimal intervening terrestrial habitat, the presence of a permanent amphibian-proof fence (see *Figure 8* below) that surrounds the site has rendered it impenetrable to great crested newts and other amphibia. It is therefore reasonable to assume that great crested newts (*Triturus cristatus*) do not occur on site and so there is unlikely to be any impact upon this species.

Figure 8 The existing amphibian-proof fence that surrounds the site

Reptiles

3.18 Very little habitat was found on site that is considered suitable for reptiles. Therefore, since this group of species is relatively unknown in this locality, that the site is enclosed in an impenetrable boundary fence, and considering that a detailed inspection of any suitable habitat that was present revealed no signs of sloughed skins and no sightings were made, it is reasonable to conclude that reptiles do not occur on this site.

Invertebrates

3.19 Due to the sub-optimal nature of the site, no specific invertebrate survey was carried out. However, no uncommon or otherwise important species are expected to occur due to the disturbed, cultivated nature or relatively recent succession of the habitat on site. The exception is moths for which there is an extensive record going back many years, almost all of which having been collected by the current site owner, and many of which are Biodiversity Action Plan (BAP) species.

Significance of Fauna

3.20 With the exception of breeding birds, no protected or otherwise important species were recorded during any of the surveys and for the reasons outlined above none are reasonably expected to occur on site.

3.21 Whilst no bird species listed under Schedule 1 of the Wildlife & Countryside act were recorded breeding or roosting within or are exclusively confined to any specific habitat on site, since all breeding birds (with a small few exceptions) are protected in general terms under the Wildlife & Countryside act., site design, mitigation and the programme of site operations, must take this into account. The most important habitats for bird breeding at this site are the trees and shrubs, particularly those along the site boundaries, and most of which will be retained.

3.22 No bat roosts were confirmed or considered likely to occur on site although the mature vegetation around the margins of the site and some of the larger clumps of

trees and shrubs do provide potential for foraging purpose and will be used to some extent as commuting route. The mature sycamore to the north does have some potential for bat roosting but there were no conclusive signs of roosting and the tree *will not be affected by development proposals*.

3.23 With regard to the BAP moth species recorded, these were mostly collected in a light-trap whereby most of the species recorded will have been attracted from some distance away. As the light-trap was located within the owner's land, which will not be affected by development proposals, there is unlikely to be any adverse impact on the moth population.

4.0 Potential Impacts

4.1 Likely Impact

4.1.1 The likely impact of the proposed site works is evaluated against the criteria laid out in the table below which is based on NATA (New Approach to Appraisal) as described in Byron H. (2000). This evaluation is based on the assumption that no mitigation works will be implemented.

Table 3 *Impact Assessment Table*

Impact Magnitude	**Nature Conservation Importance**				
	Negligible	Local	County	National	European
Beneficial Effects	Non Significant	Non Significant	Non Significant	Non Significant	Non Significant
Nil Effect	Non Significant	Non Significant	Non Significant	Non Significant	Non Significant
Minor (short term or reversible effects)	Non Significant	Non Significant	Slight	Moderate	Moderate
Moderate (deterioration of feature	Non Significant	Slight	Moderate	Severe	Severe
High (loss of feature)	Non Significant	Slight	Moderate	Severe	Severe

4.1.2 The evaluation criteria for nature conservation importance are as follows:

European

Habitats that are listed in Annexe 1 of the Habitats Directive and are included as candidate or proposed Special Areas of Conservation (cSAC, pSAC).

Species that are listed under Schedule 2 of the Habitats Directive and form a population which would qualify the site for consideration as a Special Protection Area (SPA) or Special Area of Conservation.

National

Habitats that would meet the criteria for inclusion, or, are located within, a Site of Special Scientific Interest (SSSI)

Species that are protected under national wildlife legislation such as the Wildlife & Countryside act, are listed in a national Red Data Book, or form part of a population or assemblage of species that would meet the criteria for the site being designated a site of Special Scientific Interest (SSSI).

County

Habitats that are rare or uncommon in the County, would meet the criteria for inclusion or are included within a second tier nature conservation site (SINC), or which form part of a local Biodiversity Action Plan (BAP) or Habitat Action Plan (HAP)

Species which are rare or uncommon within the County, form part of a population or assemblage of species which would meet the criteria for

inclusion or are included as part of a Site of Importance for Nature Conservation (SINC)

Local

Habitats that are uncommon or threatened within the Longridge area

S*pecies* that are uncommon or threatened within the Longridge area

Negligible

Habitats or *Species* that fit into none of the above categories

4.2 The current ecological impacts resulting from the proposed sites development works (see proposed layout, *Figure 9* below), based on the criteria outlined above, are summarized within *Table 4* below.

Figure 9 *Proposed site layout (see detailed drawings prepared by MCK Associates)*

Table 4 *Summary of Impacts*

Ecological Issues (Receptors)	Details and Impact Magnitude	Impact without Mitigation
Habitats, Vegetation Communities and Flora	The proposals will result in the loss or modification of some areas of semi-natural habitat including rough grassland, tall-ruderal vegetation. A small section of hedgerow will also be lost at the southern end of the site, adjacent to the compound though this does not qualify as an Important Hedgerow. However, the majority of the habitat that will be lost is of relatively low nature conservation importance comprising mostly disturbed or cultivated ground or that of low species-diversity. Therefore, the impact magnitude is considered to be: **Moderate: Local**	**Slight**
Mammals (Badger)	No signs of badger activity or setts were recorded on site or within at least 30m of site boundaries. Therefore the impact magnitude of the proposed development is considered to be: **Nil Effect: National**	**Non Significant**
Mammals (Bats)	No conclusive signs of roosting were found within the existing buildings and no other built structures or mature trees suitable for use as bat roosts occur on site *or will be otherwise affected*. The habitat on site, whilst likely to be used by bats to some extent for commuting and foraging, is likely to be of little overall importance to the local bat population as only a relatively small proportion of this vegetation will be lost to the development. The remainder, which occurs along the site boundaries, and the only mature tree on site capable of supporting roosting bats, will be retained as part of the proposed buffer zone (see figure 5.). The impact magnitude is therefore considered to be: **Nil effect: European**	**Non Significant**
Amphibians (Great Crested newts)	There are no ponds on site and whilst there is a known great crested newt population within 250m of the site boundaries, there is no direct habitat linkage due to the presence of an amphibian-proof fence that surrounds the site entirely. Based on current evidence therefore, the impact magnitude of the proposed development is considered to be: **Nil Effect: European**	**Non Significant**
Reptiles	No signs of any reptiles were found anywhere on site and their presence is considered to be unlikely in the general area. Therefore the impact magnitude resulting from the proposed development is considered to be: **Nil Effect: National**	**Non Significant**

Table 4 *Continued*

Ecological Issues (Receptors)	Details and Impact Magnitude	Impact without Mitigation
Breeding Birds (general)	Whilst the presence of an adequate buffer between the new houses and the adjacent BHS has been proposed, breeding and foraging activity of a number of bird species is still likely within the trees, shrubs and other rough vegetation within or closely adjacent to the site. Removal or management of vegetation or other habitat such as the existing pre-fabricated buildings *during the breeding season* is likely to result in disturbance and temporary loss of breeding habitat. The impact magnitude, without mitigation, is therefore considered to be: **Moderate: National**	**Severe**
Barn Owls	The current survey suggests that barn owl does not breed or roost on site. Therefore, the impact magnitude is considered to be: **Nil Effect: National**	**Non Significant**
Invertebrates	With the possible exception of moths, no rare, uncommon or otherwise important invertebrates were recorded or are considered likely to occur on site. The impact magnitude is therefore considered to be: **Nil Effect: Negligible**	**Non Significant**

5.0 Mitigation Proposals

5.1 Taking the survey results and impacts above into consideration, the implications for the proposed site works and required mitigation are summarized below.

Table 5 *Summary of Mitigation Proposals*

Ecological Issues	Implications/Mitigation
Botanical/Habitat	1. The loss of limited areas of semi-natural habitat on the development site, including a small section of species-poor hawthorn hedgerow, to be compensated for by a sensitive landscaping scheme comprising mainly native tree and shrub planting (see submitted Landscape drawings)
Breeding Birds	1. A significant area of the remaining *mature* vegetation along the site margins, in particular that to the north and east adjacent to the BHS, to be retained to act as a buffer and to provide breeding habitat for birds (see submitted Landscape master plan). 2. No vegetation (or other habitat) to be removed or disturbed during the bird breeding season (February to July inclusive) until or unless this has been first checked for breeding birds by an ecologist 3. Appropriate landscaping with native trees, shrubs to be used to provide alternative or additional breeding sites and structural diversity as well as species diversity will be allowed for in planting mixtures. This to include the fitting of bird boxes of various designs to trees.
Mammals (Badger)	1. No signs of badger were found within 30m of the site boundaries. However, as a precautionary measure, in the unlikely event that any signs of badger activity are subsequently found or if there is any reason to believe that badger setts have been established within 30m, all site works should cease and further ecological advice should be sought with a view to a set of appropriate mitigation measures being prepared and implemented.
Mammals (Bats)	1. With respect to current proposals, there will be no significant impact upon bats therefore no specific mitigation will be required 2. However, should it be later necessary to remove the early-mature tree situated along the northern boundary, a specific bat survey will be required to determine presence of absence of roosting bats
Amphibians	1. There is unlikely to be any impact upon great crested newts or common toad. Therefore, no specific mitigation necessary 2. However, as a precautionary measure, as great crested newts and other amphibia are known to occur in the wider area, all loose material on site should be checked by a licenced herpetologist for hibernating or sheltering amphibians, in advance of any site works taking place. The existing metal fence to the north and east of the site should be retained and maintained as required throughout the duration of development works. Should great crested newts, common toad or significant numbers of other amphibia be found, all work should cease and appropriate action taken

Table 5 *Continued*

Ecological Issues	Implications/Mitigation
Reptiles	1. No specific mitigation is necessary
Invertebrates	1. No specific mitigation is necessary although adequate structural and species diversity as well as a high proportion of locally native species to be allowed for in all planting and seeding schemes to encourage re-colonization wide diversity of invertebrate species

6.0 Appendix

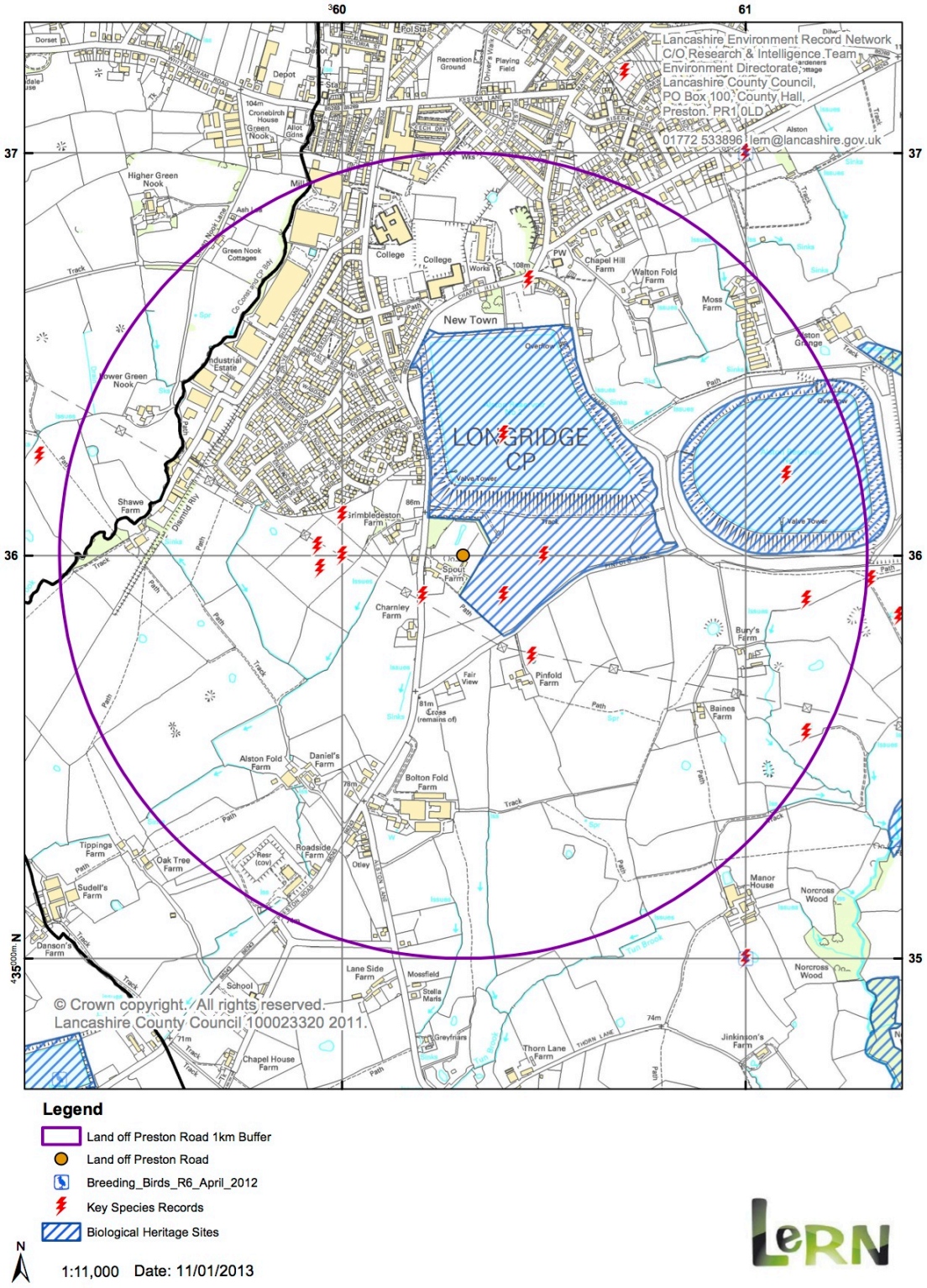
6.1 Vascular Plant Records

Scientific Name	Common Name	Relative Abundance*
Acer pseudoplatanus	Sycamore	O(LA)
Achillea millefolium	Yarrow	R
Aegopodium podagraria	Ground Elder	O(LF)
Agrostis capillaris	Common Bent	O(LF)
Agrostis stolonifera	Creeping Bent	F(LA)
Anthriscus sylvestris	Cow Parsley	O
Alnus glutinosa	Alder	O(LA)
Alopecurus pratensis	Meadow Fox-tail	O(LF)
Arrhenatherum elatius	False Oat-Grass	F(LD)
Artemisia vulgaris	Mugwort	O
Bellis perennis	Daisy	O(LF)
Brachythecium rutabalum	moss	F(LD)
Calystegia sepium	Bindweed	O(LF)
Cerastium fontanum	Common Mouse-ear	O(LF)
Chamerion angustifolium	Rosebay Willow-herb	F(LA)
Cirsium arvense	Creeping Thistle	F
Cirsium vulgare	Spear Thistle	F
Crataegus monogyna	Hawthorn	F(LD)
Cupresscyparis leylandii	Leyland Cypress	F(LD) P
Dactylis glomeratus	Cock's-foot	F(LA)
Dryopteris dilatata	Broad Buckler-fern	O
Dryopteris filix-mas	Common Male Fern	O
Epilobium hirsutum	Great Willow-herb	F(LA)
Epilobium parviflorum	Willow-herb	O
Equisetum arvense	Field Horsetail	O
Eurrhynchium praelongum	Moss	F(LD)
Festuca rubra agg.	Red Fescue	F(LA)
Fraxinus excelsior	Ash	F(LA)
Gallium aparine	Cleavers	F(LA)
Geranium robertianum	Herb-Robert	O(LF)
Hedera helix	Ivy	F(LA)
Heracleum sphondylium	Hogweed	O(LF)
Holcus lanatus	Yorkshire Fog	F(LA)
Holcus mollis	Creeping Soft-grass	O(LF)
Juncus effusus	Soft Rush	F(LA)
Juncus inflexus	Hard Rush	F(LA)

Ligustrum ovalifolium	Garden Privet	O(LF)
Lolium perenne	Perennial Ryegrass	F(LD)
Matricaria discoides	Scented Mayweed	O
Phalaris arundinacea	Reed Canary-grass	O
Polygonum aviculare agg.	Knot-grass (agg.)	O
Phelum pratense	Timothy	O
Plantago lancolata	Ribwort Plantain	F
Plantago major	Broadleaved Plantain	F
Poa annua	Annual Meadow-grass	F(LA)
Poa trivialis	Rough Meadow-grass	F(LA)
Potentilla anserina	Silverweed	O
Psuedoscleropodium purum	moss	F(LD)
Prunella vulgaris	Selfheal	O
Quercus robur	Common Oak	O(LF)
Ranunculus acris	Meadow Buttercup	O
Ranunculus repens	Creeping Buttercup	F
Rosa ceasia	Northern Dog-rose	O
Rubus fruticosus agg.	Bramble	F(LD)
Rumex acetosa	Common Sorrell	F
Rumex cristatus	Curly Dock	F
Rumex obtusifolius	Broad-leaved Dock	F(LA)
Salix caprea	Goat Willow	F(LA)
Salix cinerea	Grey Willow	F(LA)
Sambucus nigra	Elder	F
Senecio jacobaea	Common Ragwort	O
Silene dioica	Red Campion	O
Sonchus oleraceus	Perennial Sow-thistle	O
Trifolium pratense	Red Clover	F
Trifolium repens	White Clover	F
Urtica dioica	Common Nettle	F(LD)
Veronica persica	Field Speedwell	O
*D – Dominant; A – Abundant; F – Frequent; O – Occasional; R – Rare; L – Locally; P-Planted		

6.2 Desktop Survey Ecology Map and Data

6.2.1 LERN Ecology Map



6.2.2 Protected, BAP or otherwise important species occurring within 1km of the site

Hyacinthoides non-scripta	Bluebell
Jasione montana	Sheep's-Bit
Rana temporaria	Common Frog
Actitis hypoleucos	Common Sandpiper
Anas acuta	Pintail
Anas penelope	Wigeon
Anthus pratensis	Meadow Pipit
Aythya ferina	Pochard
Calidris alpina	Dunlin
Charadrius dubius	Little Ringed Plover
Charadrius hiaticula	Ringed Plover
Delichon urbica	House Martin
Falco tinnunculus	Kestrel
Gallinago gallinago	Snipe
Haematopus ostralegus	Oystercatcher
Hirundo rustica	Swallow
Larus argentatus	Herring Gull
Larus fuscus	Lesser Black-Backed Gull
Larus marinus	Great Black-Backed Gull
Larus ridibundus	Black-Headed Gull
Philomachus pugnax	Ruff
Phylloscopus trochilus	Willow Warbler
Prunella modularis	Dunnock
Sturnus vulgaris	Starling
Tringa totanus	Redshank
Potamogeton pusillus	Lesser Pondweed
Aporophyla lueneburgensis	Northern Deep-Brown Dart
Cerura vinula	Puss Moth
Deltote uncula	Silver Hook
Euclidia glyphica	Burnet Companion
Eupithecia venosata	Netted Pug
Odezia atrata	Chimney Sweep
Thera juniperata	Juniper Carpet
Blindia acuta	Blindia acuta
Grimmia trichophylla var. trichophylla	Hair-pointed Grimmia
Bufo bufo	Common Toad
Bufo bufo	Common Toad
Triturus cristatus	Great Crested Newt
Alauda arvensis	Skylark
Numenius arquata	Curlew
Numenius arquata	Curlew
Passer domesticus	House Sparrow
Vanellus vanellus	Lapwing
Arctia caja	Garden Tiger

Diloba caeruleocephala	Figure of Eight
Lycia hirtaria	Brindled Beauty
Mythimna comma	Shoulder-striped Wainscot
Erinaceus europaeus	Hedgehog

6.2.3 BHS Schedule

Lancashire County Heritage Sites

Biological Heritage Site

Biological Heritage Sites Partnership:

Site Name: **Alston Reservoirs**

Site Ref: **63NW01** **Approved:** 08 September 1993

Area (ha): 48.22 **Date written/last updated:** 03 December 2010

Grid Ref: SD606362 **Owner/Occupier:** Private

Districts: Ribble Valley

Parishes: Longridge

Description:

The site comprises two neighbouring reservoirs located on the south-eastern side of Longridge. Both the reservoirs themselves and their embankments are included in the site. The site is of both ornithological and botanical importance.

The reservoirs support a high diversity and good numbers of wintering wildfowl. Wildfowl species include mallard, pochard, tufted duck, goldeneye and goosander. Non-wildfowl species include lapwing, black-headed, lesser black-headed and common gulls. Birds use these reservoirs in conjunction with the nearby Spade Mill Reservoirs (BHS 63NW03).

The steeply sloping grass embankments surrounding the reservoirs support species-rich grassland. The grassland includes the following plant species: common knapweed, oxeye daisy, great burnet, greater burnet-saxifrage, selfheal, lady's mantle, cat's-ear, meadow vetchling, common bird's-foot-trefoil, bugle, rough hawkbit, eyebright, primrose, early-purple orchid, common twayblade, adder's tongue, quaking-grass, meadowsweet, glaucous sedge and rushes.

Guideline(s) for Site Selection:

Grassland	(Gr3)
Birds	(Bi8)
	(Av3)

Other Information/Comments:

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