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8 February, 2018

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Transmission by email only to: developmentplans@southlakeland.gov.uk

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South Lakeland District Council
South Lakeland House
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Cumbria
LA9 4DQ

Dear Sirs

South Lakeland Local Plan: Supplementary Planning Document
Draft Development Brief – site East of Milnthorpe Road, Holme

I am writing on behalf of my client, Russell Armer Limited.

Firstly, thank you for the opportunity to provide comments upon the Development Brief and we have been pleased to be part of the process of terms of attending the workshop that took place in Holme.

As with our other responses on Development Briefs, the first point I would make is that the central purpose of the document is to deliver a significant allocation on the site, which flows from the housing targets set out through the approval of the Core Strategy and the subsequent Land Allocations Document. The Brief may have been streamlined from previous Development Briefs but the 'wish' lists are significant and the tensions between these aspirations and delivering viable housing on the site has not been resolved.

South Lakeland District Council relies on the allocations as part of their housing land supply calculation, but if they are to be relied upon it is important that such sites realise a viable yield in relation to the overall figures. It is noted that the site is considered appropriate for something in the order of 73 dwellings. As with others, we assume that this is based upon a net density of 35 dwellings per hectare, which in itself is not in the high density range. However, when dealing with Officers' aspirations 25-30 dwellings per hectare is more realistic.

The document sets out a number of requirements and I will turn to some of these in more detail later in this letter. However, we are concerned that again there seems to be an imbalance between the amount of development anticipated by the Land Allocations Document and that which may

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actually be deliverable based upon the constraints identified by the Brief. Some of the constraints are clear, for instance the high voltage line, but others are imposed by the Brief itself.

In particular we note that a significant amount of land is given over to open space at the eastern end of the development site. The land allocations policy required 25% of the eastern part of the site, whereas what is proposed equates to 25% of the whole of the site, which is much more significant and has a knock on effect on the ability to yield the number of dwellings set out by the land allocations policy itself. This creates an inconsistency between the plans and the text of the document. It seems to be the case that while the Land Allocation Document considers that the site can accommodate around 73 dwellings, at paragraph 4.3 of the Brief the first sentence notes that around 73 dwellings is not a fixed target. Development Brief documents, as supplementary planning documents, cannot change the terms of a Land Allocation and particular, given the reliance of the housing land supply delivering around 73 dwellings on the site, we have concerns that while the percentage of open space appears to be considered as a fixed target, the number of 73 dwellings is not. Consequently, it is imperative that this reference is removed from paragraph 4.3.

We have fundamental concerns about the amount of open space at 40% on the edge of a rural village. The Brief has come about as a result of a committed land allocation. There must be a specific reason and justification for this amount of space. There appears to be a vague reliance on biodiversity and 'local aspirations' but there is no specific justification for this. The tension between the amount and purpose of open space and developable land needs to be addressed at this stage.

To turn in more detail to the Brief, in terms of paragraph 1.2 and the primary purpose of delivering the vision for the site, this should include a bullet point referring to the delivery of around 73 houses as part of the land allocation and commitment from the Core Strategy Land Allocations Document to deliver housing in line with requirements.

Again, at 2.0 a bullet point should make reference to the delivery of around 73 houses.

With regard to the opportunities under section 3.0 and landscape in particular, it is important that the retention of a natural features does not hamper the ability to provide housing. For instance, predominantly single sided development would not be considered a sensible approach as it threatens viability.

With regard to section 4.0, Development Brief Requirements, and paragraph 4.1 the comment that the map is not intended to be prescriptive is welcomed, as is the comment that the detail and site layout will be determined at planning application stage. However, the document should be more specific about aspirations for strategic developable areas and open spaces.

The red box after 4.3 states that the most appropriate housing mix will be determined at application stage. This implies that SLDC will determine the mix. Viability must be taken into account with regard to mix, therefore this reference should be removed or state that this will be determined by the developer.

At paragraph 4.5 mention is made of self-build properties, housing for older people and also reference to extra care provision. While we realise that this is not set in stone, we think that the encouragement gives some false hope to third parties reading the brief. As we will set out elsewhere, the yield from the site is affected by the number of constraints that are both evident

and imposed by elements of the Brief itself. In addition, as we have mentioned previously in terms of extra care housing, this is generally not viable unless in a single block and approaching 40-50 rooms. The site could not accommodate this form of development.

In terms of the traffic and movement framework requirements set out under paragraph 4.10 this must be carefully considered in terms of viability as access from the eastern end of the site would appear to require considerable investment without yield from property sales. Any requirements in relation to this must be kept as flexible as possible in the light of the above.

Below paragraph 4.11 reference is made to a main residential street and the way in which it must be designed. There is also reference to this feature being a green corridor and potential for footpath/cycleway being separated at least in part from the carriageway by a verge that may include landscaping or a sustainable drainage system. With regard to this concerns are raised that any wide carriageway with landscaping would severely affect the amount of housing that could be accommodated on the site, in particular given the number of other constraints prevalent within the Brief.

Paragraph 4.16 appears to be giving up a large proportion of the existing kick-about area and we would ask why SLDC seek to give up much of this existing asset? The kick-about pitch already exists but it would appear that it is not appropriately maintained by SLDC to serve this function, therefore this should not be treated by the Brief as a new facility.

In the box under paragraph 4.17 point C. refers to a central, multi-functional corridor and again concern is raised about the degree of land take. It also states this should explore landscape, biodiversity enhancement and a sustainable drainage system function. Again, we would have concerns about the practicality of this and delivering the number of dwellings anticipated for the site. Private driveways would also cross an ecological corridor, calling its usefulness into question.

Point F. within this box talks about an area for play in relation to a large equipped play area and a children's kick-about area. We understand that this is effectively extending the existing area into the site and with regard to the reference to a large equipped play area, as well as the kick-about area, we would question the justification. We would also ask whether this extended kick-about area is to be adopted by the Council and the same with the equipped play area, given the significant amount of space that seems to be given over to it. Again there is a fundamental tension between open space and delivering housing and we need clarity on this issue.

Page 15 considers the biodiversity of the site. In response to this I attach a report from Envirotech.

With particular regard to the character areas and paragraph 4.23 and how it refers to the proposals map, we note that the housing area is located as shown in a circle and the remainder of the eastern area is green. We have some concerns about how that would be seen publicly in that the green area on the map may be viewed as sacrosanct from development. It is considered that a different colour for the whole of the site, indicating that this area is for a mix of open space and housing, would be more appropriate. The Brief avoids perhaps the more challenging question of how should the eastern end of the site be developed, though it does show a road through this space.

There is some concern about the character areas in terms of neighbourhoods as it appears that some of them may relate to areas potentially with less than 5 houses, making the approach meaningless. Reference is also made to development not breaking the skyline; this is unavoidable.

If it were such a fundamental issue the housing areas should be at the east end of the site where it is lower.

In terms of paragraph 4.43, Environmental Sustainability, and the bullet points below it we would have concerns about expectations being raised in relation to renewable or low carbon energy. One of the options includes exploring the potential for a district heating system. However, we are of the view that this would simply not be appropriate given the limited scale of the site. It will also require a fixed resource on the site which would further eat into the potential to provide housing in line with the allocations policy. We would point out that SLDC cannot demand any standard higher than the current Building Regulations.

Comments are also made about green roofs and walls, and also roof gardens to help soften the visual impact of the scheme. However, if the development is designed in character with the materials used in the area we do not understand why such features should be used to effectively screen what should be an appropriate development in design terms and would suggest that this comment, as well as the one in relation to renewables, is removed from this section. The NHBC will not currently provide warranties for green-roofed houses so no matter how desirable, it cannot be delivered and should not feature in the Brief.

With regard to the ecological value of the site I attach as part of this consultation response a full appraisal of the site from Envirotech. A data search and desk study of the site and its surroundings were carried out as well as two visits.

Great emphasis seems to be given to the ecological value of the site and a number of requirements are set out, with some of them being reinforced by the view of the Cumbria Wildlife Trust. However, we would question the weight that should be attached to the ecological issues given the attached report. Our ecologists have surveyed the site and while there are opportunities for enhancement, the amount of the Brief given over to ecology and biodiversity, as well as landscape, seems to outweigh significantly the elements that involve the positive provision of housing and an appropriately designed development.

The plant species found at the site were all common to the local area and a proposal with landscaped open areas and domestic gardens would be likely to offer equal or greater habitat value.

A hedgerow that intersects the site north to south is noted in the draft Development Brief as the principle hedge on the site. However, it is species poor and dominated by blackthorn. It is considered that the loss of the hedge could be compensated for in a landscaping scheme. Consequently, we consider there to be no justified reasoning for placing a significant emphasis upon it within the Brief. Less emphasis would allow more flexibility in terms of housing delivery and also in terms of providing a structured landscape proposal.

Proposed habitat corridors B and C do not connect with high quality habitat in the open countryside to the North, nor do they connect with notable habitat to the south. They are insufficient width to provide continuous cover or significant linkage, therefore their ecological functionality will be low. These could be better dealt with by making gardens permeable (hedgehog highways etc.) rather than by dedicated corridors which reduce density and create issues for maintenance and security. Area D on the plan needs to be fundamentally considered, its current form reduces surveillance from the proposed housing areas, is of limited value for biodiversity and could be mitigated for elsewhere.

In paragraph 5.3, on implementation and delivery, mention is made of the adoption process. We would ask the question in relation to this about the significant amount of open space that is proposed, including the kick-about pitch, in terms of whether the Council would adopt. This should be made clear in the Brief, as the ongoing and future maintenance would have an impact on viability if it has to be carried out by a Management Company, the costs of which would fall on to the homes.

Drainage in the Brief largely replicates the SLDC validation guide so is unnecessary replication. The only site specific comments seek to pre-judge the engineering solution without sufficient evidence to do so. Fundamentally, mention should not be made of how the existing soakaways are to be dealt with, only that they need to be considered by the proposals.

I trust that you will take these comments into account when considering the Brief. I can confirm that we would be happy to meet again before the Brief is finalised if this would be of assistance.

Yours faithfully

Andrew Tait - BA (Hons) MA MRTPI

Enc: Envirotech Report.

envirotech

Ecological Consultants
Environmental and Rural Chartered Surveyors

Ecological Appraisal

Land East of Milnthorpe Road
Holme

Green at Heart
BEN
GOLD

RICS
The mark of
property professionalism worldwide

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ACCURACY OF REPORT

This report has been compiled based on the methodology as detailed and the professional experience of the surveyor. Whilst the report reflects the situation found as accurately as possible, all of the protected species this survey covers are wild and can move freely from site to site. Their presence or absence detailed in this report does not entirely preclude the possibility of a different past, current or future use of the site surveyed.

We would ask all clients acting upon the contents of this report to show due diligence when undertaking work on their site and/or in their interaction with protected species. If protected species are found during a work programme, and continuing the work programme could result in their disturbance, injury or death, either directly or indirectly an offence may be committed.

If in doubt, stop work and seek further professional advice.

Quality and Environmental Assurance

This report has been printed on recycled paper as part of our commitment to achieving both the ISO 9001 Quality Assurance and ISO 14001 Environmental Assurance standards. Envirotech have been awarded the Gold standard by the Cumbria Business Environmental Network for its Environmental management systems.

Author	Emma Wainwright	Date	02/01/2018
Checked by	Andrew Gardner	Date	04/01/2018
Report Version	2		
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1. EXECUTIVE SUMMARY

1.1.1 Envirotech NW Ltd were commissioned in December 2017 by Russell Armer Ltd. to carry out an ecological appraisal of land off Land East of Milnthorpe Road, Holme. It is proposed that new houses are constructed on the site.

1.1.2 A data search and desk study of the site and an area within 2km of the site were undertaken to establish the presence of protected species and notable habitats.

1.1.3 The site was then visited by Envirotech NW Ltd on the 24th November 2017 and 2nd January 2018. A botanical survey of the site was initially undertaken and this was followed by surveys to establish the presence or absence of bats, amphibians, nesting birds, brown hares and badgers at the site or in proximity such that they may be affected by the proposed development.

1.1.4 The plant species assemblages recorded at the site are all common in the local area. Domestic gardens and sympathetically landscaped open space is considered to offer habitat of equal or greater ecological value.

1.1.5 None of the hedgerows around the site perimeter were considered important under the Hedgerow Regulations (1997).

1.1.6 A hedgerow which intersects the site North to South and is noted in the draft development brief as the principal hedge on site, is species poor and dominated by blackthorn. It is considered that loss of this hedgerow can be compensated for in a landscaping scheme. Vegetative structure and species diversity across the site can be improved post development.

1.1.7 Creation of a pond on site and associated vegetative planting would greatly increase the ecological value of the site.

1.1.8 Birds are likely to utilise hedgerows on site for nesting between March and September. Any vegetation clearance should therefore be undertaken outside of this period.

1.1.9 No other notable or protected species were recorded on the site.

2. INTRODUCTION

2.1 Background

2.1.1 In December 2017 Envirotech NW Ltd were commissioned by Russell Armer Ltd to carry out an Ecological Appraisal of land off at Holme, Cumbria, central grid reference SD 52107 79160 (Figure 1). A site investigation was undertaken and a report compiled which includes recommendations for any future actions and or mitigation required.

2.1.2 The survey was requested in connection with the proposed construction of new houses.

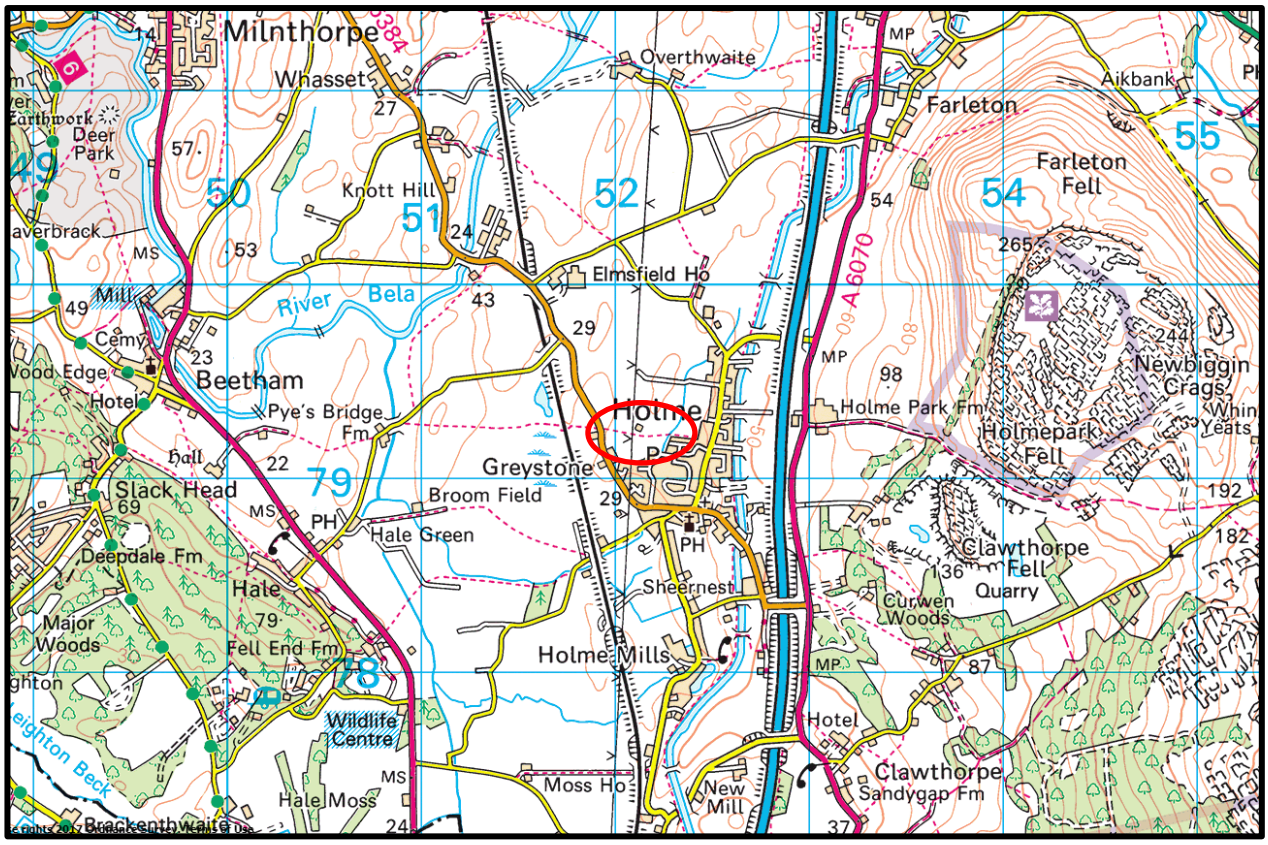

Figure 1 *OS map with site location circled red*

2.2 Objectives

2.2.1 The main objectives of the study were:

- The completion of a Phase 1 Habitat Survey including the preparation of a vegetation and habitat map of the site and the immediate surrounding area.
- The survey and assessment of all habitats for statutorily protected species.
- An evaluation of the ecological significance of the site.
- The identification of any potential development constraints and the specification of the scope of mitigation and enhancement required in accordance with wildlife legislation, planning policy and other relevant guidance, and;
- The identification of any further surveys or precautionary assessments that may be required prior to the commencement of any development activities.

3. METHODOLOGY AND SOURCES OF INFORMATION

3.1 Data Search

3.1.1 The Envirotech dataset and the Multi-Agency Geographic Information for the Countryside (MAGIC) were searched to establish the presence of any records of statutorily protected, notable or rare species, and any designated sites of international, or national importance within a 2km radius of the site boundary.

3.1.2 The Envirotech dataset is compiled from extensive field surveys from the period 2004-present, as well as records obtained from third parties during this time.

3.1.3 Google Earth and Google Street View were consulted to establish the presence of any features of ecological importance within the local area.

3.2 Vegetation and Habitats

3.2.1 A vegetation and habitat map was produced for the site and the immediate surrounding area. The mapping is based on the Joint Nature Conservation Committee Phase 1 Habitat Survey methodology (JNCC 2003).

3.2.2 Searches were made for uncommon, rare and statutorily protected plant species, those species listed as protected in the Wildlife and Countryside Act (1981) and indicators of important and uncommon plant communities. All plant nomenclature follows Stace (1991).

3.2.3 Searches were carried out for the presence of invasive species, including those listed on Schedule 9 of the Wildlife and Countryside Act (1981), namely Japanese knotweed (*Fallopia japonica*), Himalayan balsam (*Impatiens glandulifera*) and giant hogweed (*Heracleum mantegazzianum*) on terrestrial habitat and aquatic species such as floating pennywort (*Hydrocotyle ranunculoides*), water hyacinth (*Eichhornia crassipes*) and New Zealand pygmyweed (*Crassula helmsii*).

3.3 Timing and Personnel

3.3.1 During the visit, weather conditions were suitable for the survey types undertaken.

3.3.2 The site and surrounding land was visited on the 24th November 2017 by

- (AG) Mr Andrew Gardner BSc (Hons), MSc, MCIEEM, MRICS, Cenv
  Natural England Bat Class Licence (Level 2)
  Natural England Great Crested Newt Licence (Level 1)
  Natural England Barn Owl Licence
  Natural England White clawed crayfish Licence (Level 1)

- (HG) Mrs Hannah Gardner BSc (Hons), MSc, MRICS, Cenv

3.3.3 The site and surrounding land was visited on the 2nd January 2018 by

- (EW) Miss Emma Wainwright BSc (Hons) GradCIEEM

Natural England Bat Class Licence (Level 1)
Natural England Great Crested Newt Licence (Level 1)

4. SPECIES SURVEY METHODOLOGY

4.1 Amphibian

4.1.1 Great crested newts (*Triturus cristatus*) are listed on Annexes II and IV of the EC Habitats Directive and Appendix II of the Bern Convention. It is protected under Schedule 2 of the Conservation (Natural Habitats) Regulations (2017) and Schedule 5 of the Wildlife & Countryside Act (1981).

4.1.2 Water-bodies located within or adjacent to the study area were identified and where access was possible were assessed for their potential to support great crested newts.

4.1.3 The criteria used in the assessment are based on those contained in the Herpetofauna Workers Manual and Oldham et al, 2000, and in applying these criteria a precautionary approach was adopted. Following the criteria developed by Oldham et al (2000), the HSI tool developed for use with great crested newts and forming part of Natural England's EPS Licensing process was used to determine the suitability of ponds for great crested newts.

4.1.4 The pond assessment was undertaken in order to determine which water-bodies, based on their potential to support great crested newts, should be subject to presence/absence surveys.

4.2 Badger

4.2.1 Badgers (*Meles meles*) and their setts are protected under the Protection of Badgers Act (1992). This legislation arises from animal welfare issues (rather than on the basis of nature conservation grounds) and protects badgers from being killed, injured or disturbed whilst occupying a sett.

4.2.2 A disturbance to badgers in their setts may occur as a result of construction operations. Natural England recommends that the use of heavy machinery in proximity of a sett entrance should be avoided, with a 'disturbance free-zone' being established.

4.2.3 The degree of disturbance attributed to construction activity is a function of the background level of activity badgers are accustomed to and that which will be attributed to a proposed activity. The "disturbance free zone" is therefore site specific.

4.2.4 The survey for badgers comprised an assessment of all suitable habitat within and outside the study area boundary (where this was possible) to a distance of 30m for indications of use by badgers.

4.2.5 Signs of badgers which were searched for included:

- Setts - 'D' shaped entrances at least 25cms wide and wider than they are high with large spoil mounds
- Discarded bedding at sett entrances (this includes grass and leaves)
- Scratching posts on shrubs and trees close to a sett entrance

- The presence of badger hairs which are coarse, up to 100mm long with a long black section and a white tip
- Dung pit latrines and footprints
- Habitual runs through vegetation and beneath fences
- Hedgehog carcases

4.3 Bats

4.3.1 All British bat species are fully protected under Schedule 5 of the Wildlife and Countryside Act (1981), and are included on Schedule 2 of the Conservation (of Natural Habitats) Regulations (2017), as European Protected Species. Taken together, these pieces of legislation make it an offence to:

- Intentionally or recklessly kill, injure or capture bats;
- Deliberately or recklessly disturb bats (whether in a roost or not);
- Damage, destroy or obstruct access to bat roosts.

4.3.2 The Bat Conservation Trust (Hundt (2012) and Collins, J. (ed) (2016) issued guidelines on bat survey methodology, a key feature of their recommendation is for the undertaking of a pre-survey assessment – an initial desk-study and a walkover assessment of the survey area and its surrounding area to identify the relative value of the habitats present for bats and likely commuting routes. This is to be followed by a survey program that is appropriate to the likely level of bat activity within the survey area to be determined by and based on the experience of the surveyor.

4.3.3 The potential value of the survey area for foraging bats was assessed through consideration of two main factors: professional knowledge of bat ecology and foraging behaviour in combination with the geographical location, topography and habitats present within the survey area and surrounds. This resulted in the production of a map showing habitat quality both on and adjacent to the site.

4.3.4 Trees were assessed in accordance with Collins, J. (ed) (2016) for their potential to support roosting or hibernating bats. This comprised a close inspection of all trees and an assessment of their potential to be used by bats made by a licensed surveyor.

4.4 Birds

4.4.1 All breeding birds, other than pest species, are protected under the Wildlife and Countryside Act of 1981 when building a nest, rearing young or sitting on eggs. Some bird species, such as barn owl (*Tyto alba*), are protected when near an active nest site. Several birds are listed as UK and or County BAP species.

4.4.2 Bird species and behaviour was noted during the other field surveys. All areas are covered equally, in order to avoid the subjective survey of better quality 'bird habitat'.

4.5 Brown Hare

4.5.1 The brown hare (*Lepus europaeus*) is a UK BAP species.

4.5.2 The survey method involved walking boundaries and surveying with binoculars. The survey was conducted at a suitable distance to ensure that the hares were not disturbed. Generally, surveys were undertaken throughout the early afternoon and evening when hares are thought to be most active and feeding.

4.5.3 Where present the number of brown hares in each field or hedgerow was recorded, together with the nature and use of the field, climatic conditions and time of day. The presence of forms and faeces where present were also recorded.

4.6 Invertebrates

4.6.1 A general assessment was made of the study area's suitability for supporting invertebrates during the phase 1 survey. The study area's lack of habitat diversity, species-poor composition and uniformity of vegetation structure (i.e., lack of variation in height and microtopography) resulted in our belief that a low diversity of invertebrates would be likely to occur across the site.

4.6.2 The presence of invertebrates was noted during the other surveys which were undertaken. The extent of sampling was limited in that it could be confirmed that no priority or BAP species would be likely to be affected by the proposal.

4.7 Reptiles

4.7.1 All native reptiles are protected in Britain under the Wildlife and Countryside Act of 1981. It is an offence to intentionally kill, injure, sell or advertise to sell any of the six native species.

4.7.2 The survey for these species was based on assessing the habitat type and suitability of the site. This comprised an assessment of satellite imagery for the site and surrounding area as well as comparison of the results from the records searches with habitat types. The general habitat at the site was evaluated in terms of its suitability to reptiles for foraging or breeding.

4.7.3 Reptile surveys comprising visual encounter surveys were undertaken. Habitat at the site was not considered sufficiently suitable for a full presence/ absence survey to be warranted.

4.8 Survey limitations

4.8.1 The survey was undertaken in winter. At this time of year plant species are less easily identified and the activity of some species is reduced.

4.8.2 Due to the habitats present on site there were no significant constraints in respect of identifying the botanical interest of the site.

4.8.3 The duration, extent and scope of the surveys were considered sufficient to plan appropriate mitigation and recommend additional precautionary survey work required prior to the commencement of work.

4.8.4 No significant survey limitations were encountered.

5. RESULTS

5.1 Data Search

5.1.1 Envirotech hold no records of protected or notable species for the site. There are however records of protected or notable species within 2km (Figure 2). These are discussed in the relevant sections below.

5.1.2 There are several statutory designated sites within 2km, the nearest being Farleton Knott Site of Special Scientific Interest (SSSI), c.1300m to the East (Figure 3). This is part of the Morecambe Bay Pavements Special Area of Conservation (SAC).

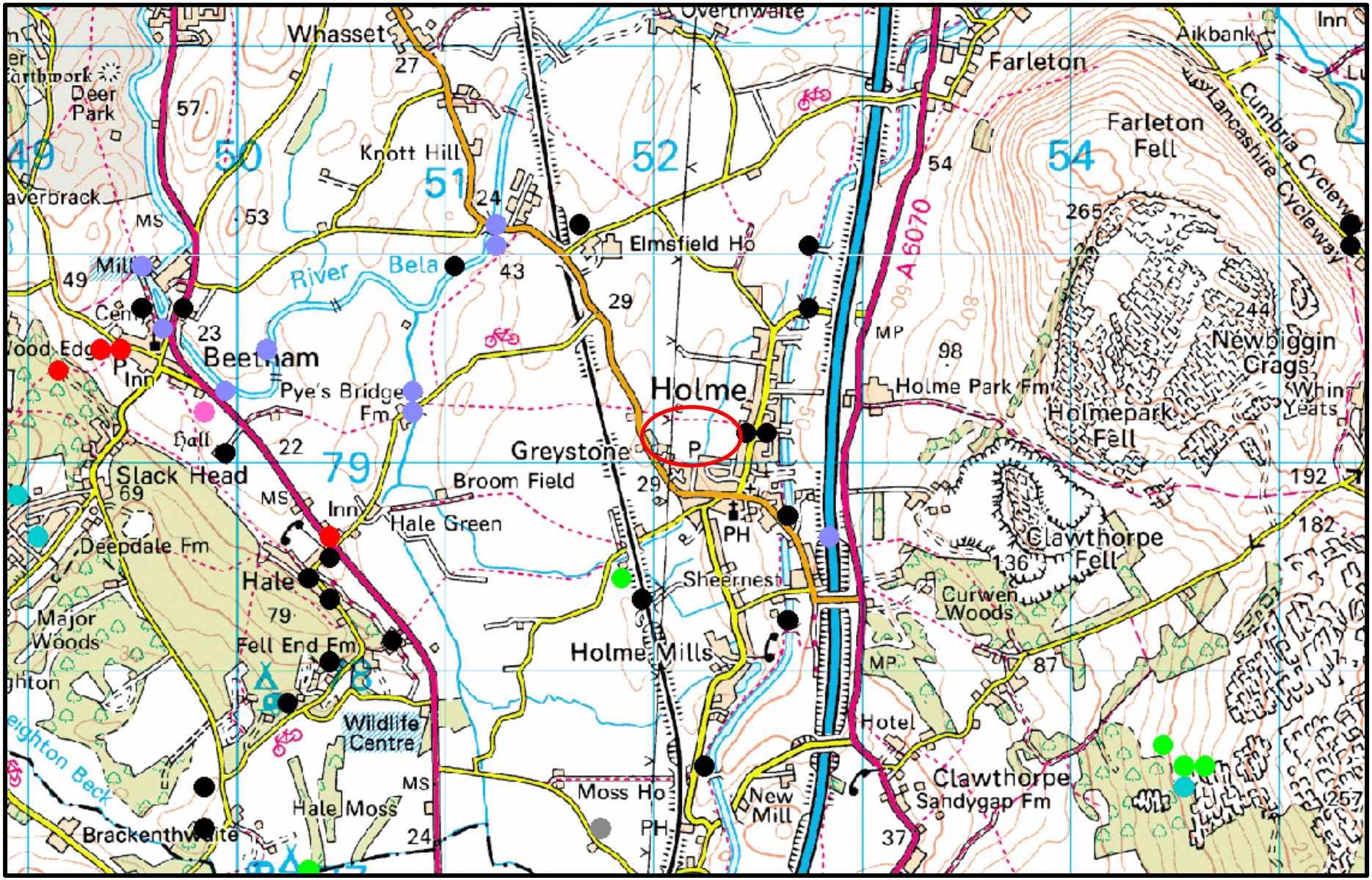

Figure 2 *Notable species records, site location circled red*

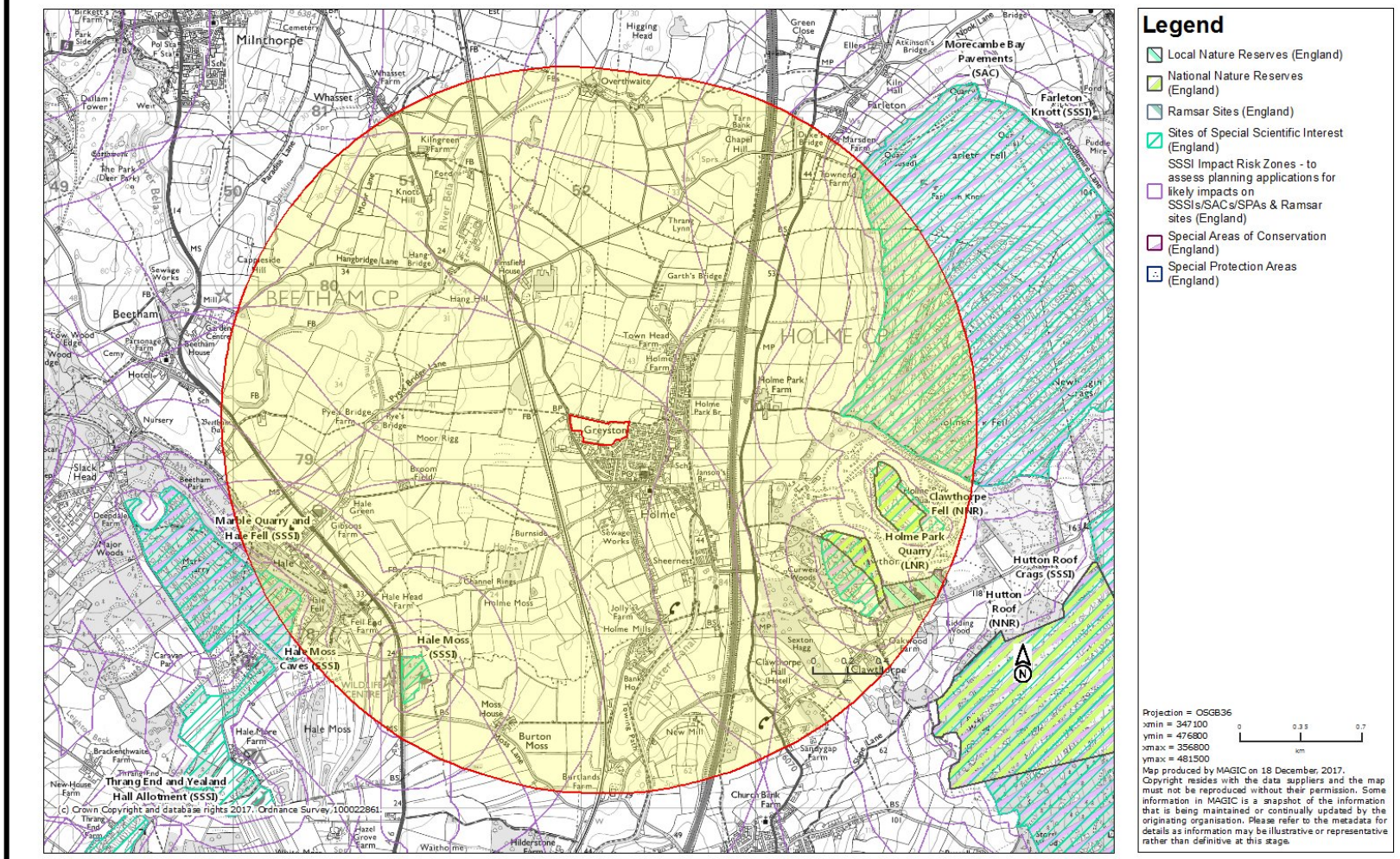

Figure 4 *Statutory designated sites 2km buffer*

6. PHASE 1 SURVEY RESULTS

6.1 Habitat Results

6.1.1 The site comprises a series of species poor grassland fields bound and intersected by hedgerows. Gardens occur in the South.

6.1.2 See Figure 4 for the Phase 1 Habitat Plan and Table 1 for the descriptive Botanical and Faunal Target Notes, hereafter referred to as BTN and FTN.

Target Note	Description	Comment
BTN1	Poor semi-improved grassland	Grassland in the West of the site is heavily grazed by sheep. The sward is extremely short and species poor. Species present are indicative of high disturbance levels and include Yorkshire fog (*Holcus lanatus*), perennial ryegrass (*Lolium perenne*), creeping buttercup (*Ranunculus repens*) and chickweed (*Stellaria media*).
BTN2	Poor semi-improved grassland	Grassland in the East of the site remains species poor. Disturbance levels in this area of the site have however been reduced in recent times and the sward is taller and rank as a result. Species present in this grassland are Yorkshire fog, cocksfoot (*Dactylis glomerata*), creeping buttercup, common sorrel (*Rumex acetosa*), lesser celandine *(Ranunculus ficaria*), ribwort plantain (*Plantago lanceolate*) and broadleaved dock (*Rumex obtusifolia*).
BTN3	Marshy grassland	Areas of marshy grassland, dominated by soft rush (*Juncus effusus*) are present in the West of the site.
BTN4	Intact hedgerow species poor – Hedgerow 1	An intact hedgerow bounds the site to the North. A small bank and remnants of a wall occur at its base. Woody species present in the length of the hedgerow are blackthorn (*Prunus spinosa*), hawthorn (*Crataegus monogyna*), ash (*Fraxinus excelsior*) and elder (*Sambucus nigra*). The base of the hedgerow is impacted on by grazing and shows evidence of use by burrowing rabbit.
BTN5	Intact hedgerow species poor – Hedgerow 2	A hedgerow intersects grazed grassland in the West of the site, Regularly cut, this hedge has a relatively dense structure and as with Hedgerow 1 there are some remnants of a wall at its base. Woody species present in its length include hazel (*Coryllus avellara*) and hawthorn. Bracken (*Pteridium aquilinum*) was present in some sections but no notable species listed on the hedgerow regulations assessment were present at the base of the hedge at the time of the survey.
BTN6	Intact hedgerow species poor – Hedgerow 3	Hedgerow 3 divides the site and separates the grazed grassland in the West from the rank grassland in the East. This hedgerow is wide, unmanaged and dominated by blackthorn. Additional to blackthorn, alder (*Alnus glutinosa*) grows at the North and South of the hedge. Willow (*Salix* spp.) extend South, past the node where Hedgerow 2 and Hedgerow 3 adjoin. Although dense in structure, the hedgerow is species poor. At the time of the survey, a small amount of standing water was present at the base of this hedgerow. This water is considered to be ephemeral. No notable species were present at the base of the hedge nor were macrophytic species at the time of the survey.

BTN7	Intact hedgerow species poor – Hedgerow 4	An intact hedgerow bounds the rank grassland to the North. Similar in structure to Hedgerow 1 and Hedgerow 2, Hedgerow 4 is regularly cut. Blackthorn is frequent in its length and dog rose (*Rosa canina*) is also present.
BTN8	Scattered scrub	Scattered immature cherry (Prunus sp.) trees grow at the North-west of Hedgerow 3.
BTN9	Scattered broadleaf trees	Two standard ash trees occur in the Hedgerow 1; one at either end. These trees are semi-mature to mature and did not show and signs of potential bat roost sites.
BTN10	Intact hedgerow – species poor Hedgerow 5	A hedgerow bounds the site with Milnthorpe Road to the West. Regularly cut, this hedgerow contains the woody species hazel, hawthorn and blackthorn in its length. Ivy (*Hedera helix*), cow parsley (*Anthriscus sylvestris*) and notably Lords and ladies *(Arum maculatum*) grow in its ground flora.
FTN1	Amphibians	Standing water at the base of Hedgerow 3 is ephemeral and unlikely to be present in summer months when amphibians are in their aquatic phase. It is therefore unlikely this area would be attractive to amphibians.
FTN2	Birds	Hedgerows around the site are of sufficient density that they may be used by low numbers of nesting birds.

Table 1 *Details of Botanical and Faunal Target Notes*

Figure 4
Results* of Extended
Phase 1 Habitat Survey

SCALE: NTS REV 01

*Habitats outside the site boundary are indicative only
and have been mapped from within the site boundary or from publicly accessible land

	Grassland in the East of the site is heavily grazed and disturbed.
	A hedgerow bounds the grazed grassland to the North. Two ash trees are present in its length.
	Hedgerow 2 intersects the West of the site East to West.

	Scattered immature cherry trees occur at the North-west of Hedgerow 3.
	Hedgerow 3 is dominated by dense blackthorn growth.
	Rank grassland grow in the East of the site. Areas of marsh grassland are also present here.

Table 2 *Photographs*

6.2 Vegetation

6.2.1 Details of the plant species found on site are included in the target notes. Species recorded are all commonly occurring and undoubtedly occur elsewhere in similar habitats in the local area.

6.2.2 The poor semi-improved grassland has a very low species diversity and ecological value. Whilst the assemblage of species within it is higher than improved pasture, the species are all indicative of regular grazing and disturbance, this habitat does not constitute a BAP habitat.

6.2.3 The intact hedges bounding the site are species poor and contain a low diversity of woody plant species but all hedgerows are a UK BAP habitat.

6.2.4 None of the hedgerows are classified as important under the Hedgerow Regulations (1997) (See Appendix 1).

6.2.5 **Hedgerows which intersect the site, notably Hedgerow 3 which is recommended for retention in the draft development brief, is species poor. Blackthorn which is the dominant species is a fast growing species and it is considered that its loss could be easily compensated for.**

6.2.6 Trees within the site boundary comprise small cherry trees and ash trees in Hedgerow 1. They do not form woodland and their immaturity makes them easy to replace via new tree planting.

6.2.7 There is no evidence of Japanese knotweed, giant hogweed or Himalayan balsam on the site. No other invasive or notable weed species listed on Schedule 9 (Section 14) of the Wildlife and Countryside Act (1981) (as amended) was identified within the site or adjacent land.

6.3 Amphibian

6.3.1 There are eight records for amphibians within 2km of the site, comprising seven records of common toad (*Bufo bufo*) and one record of palmate newt (*Lissotriton helveticus*).

6.3.2 There are no records of great crested newt within 2km on the dataset searched.

6.3.3 A single body of water occurs c.110m to the West of the site (Figure 5). This is the only waterbody within 250m which can be identified on OS mapping or aerial photography.

6.3.4 Standing water was present on site at the time of the survey. This is considered due to high levels of rain fall prior to the survey and is unlikely to be present in summer months. It is therefore unlikely to be attractive to amphibians.

6.3.5 Full access to this waterbody was not taken due to it being in separate ownership. The lake is however known to be stocked with fish and used for recreational fly fishing. Predatory pressure on amphibians would therefore very high, and this is judged sufficient to preclude the occurrence of great crested newts.

Key

Site Boundary

Pond Reference

envirotech

Figure 5
Pond Location Map*
250m Radius in Yellow

SCALE: NTS | REV 01

*Habitats outside the site boundary are indicative only
and have been mapped from within the site boundary or from publicly accessible land

6.3.6 The core development area has a low value to amphibians being open and exposed. The boundary hedgerows could be utilised as refuges and/or hibernacula but there are no breeding ponds in proximity to the site.

6.3.7 Structural diversity at ground level across the site is very poor. There are no areas with log, rubble piles or compost heaps which would be particularly favourable to amphibians.

6.3.8 Amphibians would be unlikely to attempt to cross the site as it comprises an area that is mostly open with uniform length grass. Whilst not a physical barrier to the dispersal of amphibians, the site is regarded as being a potentially hostile environment to them.

6.3.9 Common toad are UK BAP species, whilst these are not known to occur in the waterbody to the West, the potential presence of this or other species, which are less prone to fish predation than great crested newt, should be considered. As such precautionary mitigation would be appropriate in respect of construction activities.

6.4 Badger

6.4.1 Two records of badgers occur within 2km of the site on the dataset searched.

6.4.2 Badger setts do not occur on site and a lack of feeding signs or runs across the site would suggest that they do not occur within 30m of site boundaries.

6.4.3 The proposed development will not impact on any existing badger runs or setts. The porosity of the surrounding fields to the passage of badgers will not be affected.

6.5 Bats

6.5.1 There are 30 records of four species of bat within 2km of the site on the dataset searched. Common pipistrelle (*Pipistrellus pipistrellus*), soprano pipistrelle (*P. pygameus*), noctule (*Nyctalus noctula*) and Daubenton's (*Myotis daubentonii*) bats are known to occur locally.

6.5.2 The foraging habitat at the site is very poor for bat species being open and exposed. The poor semi-improved grassland offers negligible foraging opportunities for bats. The hedge and tree lines are poor in terms of their species diversity and interconnectivity.

6.5.3 Despite being poor, the trees and hedgerows on the site offer the best foraging habitat for bats on the site as the remainder of it comprises open and exposed pasture. Whilst these areas of the site are the most structurally diverse but they are not considered exceptional in the local area. More extensive areas of medium and high quality habitat occur locally, including the gardens, woodland and existing residential dwellings adjacent (Figure 6).

6.5.4 It is not considered there would be significant degradation of foraging habitat as a result of the proposal so long as some of the hedgerows and trees are retained and or their loss is compensated for in any landscaping scheme.

6.5.5 Trees were assessed in accordance with Collins ed. (2016) and assigned a risk category. All of the trees on site were category 2 (low) or category 3 (negligible) risk (Figure 7). No indications of roosting or highly suitable roost sites were located within the trees. All of the trees could be adequately inspected. Risk categories from Hundt (2012) and the requirement for mitigation for each tree category are shown on Figure 8.

6.5.6 We consider bat species are highly unlikely to rely on the site for feeding but may occur in the local area. Roosting by bats will not occur on the site.

envirotech

Figure 6
Results* of
Bat Habitat Survey

SCALE: NTS | REV 01

*Habitats outside the site boundary are indicative only
and have been mapped from within the site boundary or from publicly accessible land

Key

Site Boundary

Tree Risk Category

N

envirotech

Figure 7
Approximate tree
locaiton and corresponding
BCT risk category

SCALE: NTS | REV 01

*Habitats outside the site boundary are indicative only
and have been mapped from within the site boundary or from publicly accessible land

Tree category and description	Stage 1 Initial survey requirements	Stage 2 Further measures to inform proposed mitigation	Stage 3 Likely mitigation
Known or confirmed roost	Follow SNCO guidance and these guidelines wherever possible, to establish the extent to which bats use the site. This is particularly important for roosts of high risk species and/or roosts of district or higher importance and above		The tree can be felled only under EPS licence following the installation of equivalent habitats as a replacement.
Category 1* Trees with multiple, highly suitable features capable of supporting larger roosts	Tree identified on a map and on the ground. Further assessment to provide a best expert judgement on the likely use of the roost, numbers and species of bat, by analysis of droppings or other field evidence. ***A consultant ecologist is required***	Avoid disturbance to trees, where possible. Further dusk and pre-dawn survey to establish more accurately the presence, species, numbers of bats present and the type of roost, and to inform the requirements for mitigation if felling is required.	Felling would be undertaken taking reasonable avoidance measures[3] such as 'soft felling' to minimise the risk of harm to individual bats.
Category 1 Trees with definite bat potential, supporting fewer suitable features that category 1* trees or with potential for use by single bats	Tree identified on a map and on the ground. Further assessed to provide a best expert judgement on the potential use of suitable cavities, based on the habitat preferences of bats. ***A consultant ecologist required***	Avoid disturbance to trees, where possible. More detailed, off the ground visual assessment. Further dusk and pre-dawn survey to establish the presence of bats, and if present, the species and numbers of bats and type of roost, to inform the requirements for mitigation if felling is required.	Trees with confirmed roosts following further survey are upgraded to Category 1* and felled under licence as above. Trees with no confirmed roosts may be downgraded to Category 2 dependent on survey findings
Category 2 Trees with no obvious potential, although the tree is of a size and age that elevated surveys may result in cracks or crevices being found; or the tree supports some features which may have limited potential to support bats.	None. ***A consultant ecologist is unlikely to be required***	Avoid disturbance to trees, where possible. No further surveys.	Trees may be felled taking reasonable avoidance measures. Stop works and seek advice in the event bats are found, in order to comply with relevant legislation.
Category 3 Trees with no potential to support bats	None. ***A consultant ecologist is not required unless new evidence is found***	None.	No mitigation for bats required.

Figure 8 *Tree risk categories from Hundt (2012)*

6.7 Birds

6.7.1 There are numerous records of birds within 2km of the site.

6.7.2 The intact hedgerows offer potential habitat for feeding and nesting birds. The poor semi-improved grassland has a low potential for use by nesting birds as the grassland is grazed and as such is usually short. Trampling risks are also very high within this area of the site.

6.7.3 There were no rot holes or cracks in the trees within the site boundary which would support tree hole nesting species such as woodpeckers.

6.7.4 Potential nest sites were located within the core development area but the surveys were undertaken at a time of year when nesting had been completed. A risk assessment of the site in respect of its future potential for and value to nesting birds could however be adequately made.

6.7.5 The habitat on site is not considered to be of local significance, habitats present are well represented in the local area. The impact on nesting birds is therefore considered likely to be minor.

6.8 Brown Hare

6.8.1 Brown hare are a UK BAP priority species. There are no records of brown hares within 2km of the site on the dataset searched.

6.8.2 No indication of brown hares was recorded on the site or in adjacent fields.

6.8.3 A risk assessment of the site in respect of its future potential for and value to brown hares could be adequately made. We consider the risk to brown hares is very low.

6.9 Invertebrates

6.9.1 Notable invertebrates have been recorded within 2km of the site.

6.9.2 No deadwood or vegetation on site was recorded which would provide an important resource for invertebrates in the local area.

6.9.3 Given the poor quality habitats contained within the site in comparison to the wider area, it is not considered that this site is of any local significance for invertebrates.

6.9.4 Impacts on the species are considered likely to be negligible. With the careful selection of plant species and substrates for the garden areas and landscaping scheme, post development the site could create greater habitat diversity than already exists.

6.10 Reptiles

6.10.1 There are no records for reptiles within 2km of the site on the dataset searched.

6.10.2 No indication of reptiles was recorded at the site.

6.10.3 The majority of the site has a very low value to reptiles being devoid of significant ground cover. There are no areas of the core development area which would be particularly favourable to reptiles.

6.10.4 As a consequence, precautionary mitigation would be appropriate in respect of construction activities so as to ensure reasonable avoidance measures are taken to avoid the killing or injury of these species.

6.11 Other

6.11.1 The boundary hedgerows are species poor and provide little potential for use by hedgehog (*Erinaceus europaeus*). Fragmentation of habitat locally and existing land use do not provide optimal conditions for the free passage of this species across the site and slugs and snails are likely to occur only at very low numbers.

6.11.2 The site may be crossed by species such as fox (*Vulpes vulpes*) and rabbit (*Oryctolagus cuniculus*) are known to occur locally.

6.11.3 The boundary hedgerows may provide suitable habitat for small mammals such as field vole (*Microtus agrestis*) but these areas are small and the sites value to small mammals is limited.

6.12 Statutory Designated Sites

Direct Impacts:

6.12.1 There are no statutory designated sites which are connected to the site such that site development would directly affect the dispersal of species between them or directly impact upon their integrity.

6.12.2 The habitats on site do not represent or are linked to those found in any of the statutory designated sites locally.

Indirect Impacts:

6.12.3 There are no statutory designated sites which are connected to the site such that site development would indirectly affect the dispersal of species between them or indirectly impact upon their integrity.

7. MITIGATION/RECOMMENDATIONS

7.1 Compensatory planting and habitat enhancement

7.1.1 The roots of trees on the site and its boundaries should be adequately protected during work in accordance with industry standards. All trees should as far as possible be retained in the scheme.

7.1.2 The landscaping scheme should utilise plants which are native and wildlife friendly. In particular night flowering species would be beneficial to bats. Wildflower seed could be used to plant verges to enhance the ecological value of the site.

7.1.3 Hedgerows around the site should be retained or improved where possible.

7.1.4 Following site visits Hedgerow 3 was found to be dominated by blackthorn, a fast growing species able to grow up to c.40cm in one year. We do therefore not consider the hedgerow to be of any great age.

7.1.5 Hedgerow 3 is not considered to be a high potential commuting route for species across the local landscape. It does not connect with any high value habitats locally and instead is connected with open pasture land to the North and residential dwellings to the South.

7.1.6 While hedgerows around the site should as far as possible be retained and improved, their loss can be compensated for with careful landscaping. Consider planting new hedgerows or incorporating fruit trees around the site.

7.2 Amphibians

7.2.1 There is no requirement for specific mitigation for these species. There are currently no suitable breeding sites on or near the site. However, as a precautionary measure, in the unlikely event that any signs of any amphibian activity is subsequently found, all site works should cease and further ecological advice should be sought with a view to a detailed method statement and programme of mitigation measures being prepared and implemented.

7.2.2 Consider the use of SUDS on site to provide new aquatic habitat during development. Such areas would be best placed in public open space where connectivity to the site boundaries and wider area is improved.

7.2.3 The creation of a wildlife pond on site would greatly increase the ecological value of the site. New scrub planting around any pond and careful selection of macrophytic plant species would more than compensate for any loss of Hedgerow 3.

7.2.4 In order to further minimise impacts on amphibians the following points should be observed;

- All work must take place during daylight hours as amphibians are more likely to be commuting over night and this will ensure the risk to any amphibians commuting through the site will be minimised.

- During the development, measures should be put in place to discourage amphibians from using the development area, the creation of any piles of earth, materials and rubble which could form potential artificial hibernacula and refuge should be avoided at all times. It is recommended that any spoil or rubble will be removed immediately to skips, or on hard standing or short grass. This will ensure that no potential amphibian hibernation or resting sites are created.

- Should any trenches and excavations be required, an escape route for animals that enter the trench must be provided, especially if left open overnight. Ramps should be no greater than of 45 degrees in angle. Ideally, any holes should be securely covered. This will ensure amphibians are not trapped during work.

- All excavations left open overnight or longer should be checked for animals prior to the continuation of works or infilling.

7.3 Badger

7.3.1 Badger setts are not known to occur within 2km of the site but in order to minimise impacts on badgers passing over the site the following points should be observed;

- All work must take place during daylight hours as badgers are more likely to be commuting over the site at night and this will ensure the risk to any badgers passing through the site will be minimised.

- Should any trenches and excavations be required, an escape route for animals that enter the trench must be provided, especially if left open overnight. Ramps should be no greater than of 45 degrees in angle. Ideally, any holes should be securely covered. This will ensure badgers are not trapped during work.

7.4 Bats

7.4.1 Work at night should be restricted, new planting within the site should enhance structural diversity and light spill onto the boundary should be minimised.

7.4.2 New roosting provision for crevice dwelling bats could be incorporated into the buildings on site or bat boxes could be erected in retained trees.

7.4.3 Overall it is considered there is more than sufficient scope for mitigation and compensation at the site such that there will be no adverse impact on the favourable conservation status of bats affected by the proposal.

7.5 Birds

7.5.1 Any vegetation to be trimmed or cleared should be checked for nesting birds before it is removed. Ideally this should occur outside the bird nesting period March-September. If vegetation clearance is to occur in the March-September period a check for nesting birds should be conducted first by a suitably qualified individual.

7.5.2 New planting within the site and the retention of trees and shrubs on the site boundary will maintain the ecological functionality of the site for breeding birds.

7.5.3 Artificial bird nesting sites for swallow could be incorporated into the new buildings under the eaves in suitable locations.

7.5.4 If nesting birds are found at the site all site works shall cease and further ecological advice shall be sought with a view to a detailed method statement and programme of mitigation measures being prepared and implemented.

7.6 Brown Hares

7.6.1 There is no requirement for specific mitigation for this species. However, as a precautionary measure, in the unlikely event that any signs of any brown hare activity is subsequently found, all site works should cease and further ecological advice should be sought with a view to a detailed method statement and programme of mitigation measures being prepared and implemented.

7.6.2 The points in respect of not working at night and leaving open trenches with means of escape detailed for badgers are also applicable to this species.

7.7 Invertebrates

7.7.1 Landscaping should include native or wildlife friendly species including night flowering plants.

7.7.2 Contaminants should not be allowed to enter soils during work. To effect this, spill kits should be provided on site. Re-fuelling of all plant and machinery should be undertaken away from open drains and water courses. Drip trays should be used under static machinery.

7.8 Reptiles

7.8.1 There is no requirement for specific mitigation for these species. However, as a precautionary measure, in the unlikely event that any signs of any reptile activity is subsequently found, all site works should cease and further ecological advice should be sought with a view to a detailed method statement and programme of mitigation measures being prepared and implemented.

7.8.2 The points in respect of not leaving open trenches without means of escape detailed for badgers are also applicable to these species.

8. CONCLUSION

8.1.1 Ecological surveys, site appraisals and impact assessments were carried out with respect to land East of Milnthorpe Road, Holme. It is proposed new houses will be constructed on the site.

8.1.2 There was no evidence of any specifically protected species regularly occurring on the site or the surrounding areas which would be negatively affected by site development following the mitigation proposed.

8.1.3 Hedgerows around the site will as far as possible be retained or improved. The removal of hedgerows which intersect the site can be compensated for via new habitat creation, scrub and hedgerow planting.

8.1.4 The protection of trees on the site boundary and landscaping will promote structural diversity in both the canopy and at ground level.

8.1.5 Creation of a wildlife pond on site would encourage a wider variety of wildlife to use the site than already occurs.

8.1.6 Contractors will be observant for protected species and all nesting birds. Should any species be found during construction, all site works should cease and further ecological advice should be sought with a view to a detailed method statement and programme of mitigation measures being prepared and implemented.

9. REFERENCES

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10. APPENDIX

Feature / Hedge	Length 20m +	Hedge is not bounding the curtilage of dwelling	Hedge established more than 30years	Hedge boundary of protected or common land or land used for agriculture or forestry	ARCHAEOLOGY AND HISTORY	Archaeological feature which is included in the schedule of monuments	Situated wholly or partly within an archaeological site	Boundary of a pre-1600 AD estate	Integral part of a field system	Protected species records	FEATURES	Bank or wall	Gaps less than 10%	Standard trees	Ditch	Parallel hedge	Footpath/ Bridleway	Connection points	Woody species	Average ground flora species	HEDGE CLASSIFIED AS IMPORTANT
1	Yes	Yes	Yes	Yes		No*	No*	No*	No*	No		Yes	Yes	Yes	No	No	Yes	3	2	0	**No**
2	Yes	No	Yes	Yes		No*	No*	No*	No*	No		Yes	Yes	No	No	No	No	3	2	0	**No**
3	Yes	Yes	Yes	Yes		No*	No*	No*	No*	No		No	No	No	No	No	No	4	1	0	**No**
4	Yes	Yes	Yes	Yes		No*	No*	No*	No*	No		Yes	Yes	No	No	No	Yes	2	2	0	**No**
5	Yes	Yes	Yes	Yes		No*	No*	No*	No*	No		No	Yes	No	No	No	No	2	3	1	**No**
	No = Automatic failure					Yes = Automatic pass						7 woody species or 6 woody species + 3 features or 5 woody species + 4 features or highway + 4 woody species and 2 features									

* Historic and archaeological records have not been checked for this site.