

ELM CLOSE FARM, BULL GROUND LANE STURMINSTER NEWTON: PRELIMINARY ECOLOGICAL APPRAISAL

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EXECUTIVE SUMMARY

- RPS Ecology was commissioned by Taylor Wimpey to undertake a Preliminary Ecological Appraisal of land surrounding Elm Close Farm, Bull Ground Lane, Sturminster Newton, to help inform the proposed re-development of the site.
- The site predominantly consisted of large arable fields with smaller areas of semi-improved grassland bordered by mature species-rich and species-poor hedgerows and treelines. Scattered broadleaved trees, small areas of dense scrub and ruderal vegetation and unused and/or derelict agricultural buildings were also present on site.
- The mature species-rich and species-poor hedgerows and treelines and some of the buildings offer suitable habitat for common species of nesting birds. It is recommended that any vegetation clearance or building demolition be carried out outside of the breeding bird season. If this is not possible, any vegetation or buildings to be removed should be checked for nesting birds by a suitably qualified ecologist immediately prior to removal. If any nests are found, they would have to be left undisturbed until the chicks had fledged (usually around six weeks).
- The mature species-rich hedgerows and treelines also offer suitable habitat for dormice Muscardinus avellanarius, a species known to occur in the hedgerows around Sturminster Newton. Therefore, further survey work to confirm the presence or absence of this species should be conducted in order to ascertain whether dormice represent a constraint to the proposed development.
- Two trees within the site boundary and all the large mature trees within the species-rich hedgerow with trees at the east of the site (hedgerow number H10) were classified as Category 2 trees under Bat Conservation Trust guidance (Hundt 2012) in terms of their potential to support roosting bats. If these trees are directly or indirectly impacted as a consequence of the proposed development then further surveys work is recommended to ascertain whether bats utilise these trees for roosting and, as such, are a constraint to the proposed re-development of the site. Such surveys will need be undertaken between May and September when bats are active. If bats found to be present, the removal of the trees would need to be carried out under licence from Natural England.
- It is recommended that the buildings which could not be accessed at the time of survey are surveyed to assess for their potential to support roosting bats.
- The site was considered to have moderate potential to support foraging/commuting bats. Further surveys to monitor bat activity on site should therefore be undertaken to evaluate the importance of the site for foraging and / or commuting bats.
- No active badger setts were present at the time of survey. However, two holes potentially dug by badgers were identified on site. Therefore, the site should be monitored for badger activity during January/February, the optimum time to survey for badgers when the vegetation is at its least overgrown and evidence of badger activity is more visible.

- The site contains suitable habitat to support great crested newt. A Habitat Suitability Index assessment of ponds within 500 m of the site boundary should be conducted to assess the potential of any ponds within the area to support breeding great crested newts.
- The site has habitat which has the potential to support reptiles including mature hedgerows, dense scrub and semi-improved grassland. Therefore further presence / absence surveys should be conducted to check for reptile presence.

1 INTRODUCTION

Background to the Study

1.1 RPS was commissioned by Taylor Wimpey to undertake a Preliminary Ecological Appraisal of land surrounding Elm Close Farm, Bull Ground Lane, Sturminster Newton, Dorset (Ordnance Survey grid reference ST 793 142) to help inform the proposed development of the site.

Site Description

- 1.2 The area surveyed is situated adjacent to the eastern edge of the town of Sturminster Newton in the county of Dorset. The site covers an area of approximately 6.85 ha, and predominantly comprises large arable fields with smaller areas of semi-improved grassland bordered by mature species rich and species poor hedgerows. Scattered broadleaved trees, small areas of dense scrub and ruderal vegetation and unused and/or derelict agricultural buildings were also present on site.
- 1.3 The site is situated on the eastern outskirts of the town and is surrounded by agricultural pasture and arable fields to the east and south which are bordered by mature hedgerows. The River Stour lies within 500 m to the east and south of the site.
- 1.4 The wider area comprises mostly open countryside interspersed with small towns and villages.

Aims and Objectives

- 1.5 The purpose of the Preliminary Ecological Appraisal was to identify the habitats currently present within and around the site (to Phase 1 standard) in order to obtain baseline ecological information for the site. The Appraisal also assessed the potential for the site and adjoining habitats to be used by species that receive legal protection (at a UK and / or European level) and species that are otherwise notable including Species of Principal Importance and Birds of Conservation Concern.
- 1.6 This report presents the Preliminary Ecological Appraisal information and provides ecological baseline information for the site. It provides an evaluation of the results, recommendations for further survey if required and, also, recommendations for protecting and enhancing the biodiversity of the site.

2 METHODS

Desk study

- 2.1 Records of protected and notable species and information on designated sites within 2 km of the proposal site were requested from the local biological records centre, the Dorset Environmental Records Centre (DERC).
- 2.2 Records were screened for relevance and age with only those from the last 10 years and of species that could occur on site considered further.
- 2.3 Aerial photos of the site (Google 2013) were examined to determine habitats surrounding the site and hence species likely to be present in order to make appropriate recommendations in the wider landscape context.

Field Survey

- 2.4 The survey was conducted in accordance with The Handbook for Phase 1 Habitat Survey (JNCC 2003), and included searches for signs of protected species, as described in the Guidelines for Preliminary Ecological Assessment (IEEM, 2012).
- 2.5 A walkover of the application site and surrounding area was undertaken on the 23rd September 2014 by an experienced ecologist, Mr Nicholas Deykin GradCIEEM. Habitats within the site were classified, mapped and described, with respect to their structure and floristic composition.
- In addition, the habitats within the survey area were assessed for their potential to support legally protected or otherwise notable flora and fauna. Where suitable habitat was identified on site, a search was conducted for signs indicating the presence of protected species such as droppings, burrows, tracks and evidence of feeding. Where species are not specifically evaluated, this indicates that no habitat of potential value for these species was identified during the survey.
- 2.7 Trees were then categorised for their value to roosting bats using BCT's system of categorisation (see Table 2.1 below).

Table 2.1: Categorisation of trees for bat roost potential (Hundt, 2012)

Category	Description
Known or confirmed roost	Trees confirmed to be used by roosting bats
1*	Trees with multiple, highly suitable features capable of supporting large roosts
1	Trees with definite bat roost potential, supporting fewer suitable features than category 1* trees or with potential for use by single bats
2	Trees with no obvious potential, although the tree is of a size and age that elevated surveys may result in roost features being found; or the tree exhibits some features which may have limited potential to support roosting bats
3	Trees with no obvious potential to support roosting bats

- 2.8 Consideration was also given to habitats outside the site, in order to evaluate the ecological context of the site within the wider landscape. Adjacent habitats were also considered with respect to their own ecological value and their potential to enhance the ecological value of habitats within the site.
- 2.9 Searches were made for invasive non-native plant species focusing on those species currently listed in the revised Schedule 9 of the Wildlife and Countryside Act 1981 (as amended).
- 2.10 The plant species nomenclature follows that of Stace (1997). Plant species observed within each habitat type were recorded using the DAFOR system which stands for Dominant, Abundant, Frequent, Occasional or Rare.

Constraints

- 2.11 Due to seasonal behaviour of animals and the seasonal growth patterns of plants, ecological surveys may be limited by the time of year in which they are undertaken. This survey was undertaken in September and, as such, it may not provide a complete list of the plants and animals that may be present, or which may seasonally utilise the site.
- 2.12 However, the information gathered for this ecological survey has facilitated an evaluation of the habitats on site and the likely use of the site by legally protected and notable species. This survey has also given appropriate baseline data for the determination of the requirement for further surveys and/or mitigation and enhancement works.

3 RESULTS

Desk Study

Designated Sites

3.1 There are two statutory designated sites for nature conservation within 2 km of the site including a Local Nature Reserve (LNR) and Site of Special Scientific Interest (SSSI). These are detailed in Table 3.1.

Table 3.1 Statutory sites within 2 km of the site.

Site Name	Size / length	Designation
Butts Pond Meadows Sturminster		
Newton	1.5ha	LNR
Piddles Wood	62.2ha	SSSI

3.2 There are no non-statutory designated sites within 2 km of the site.

Protected, rare, threatened and BAP species

3.3 The results of the species of conservation concern records received in the desk study are detailed below.

Amphibians

3.4 Great crested newt *Triturus crristatus*, smooth newt *Lissotritono vulgaris*, palmate newt *Lissotriton helveticus*, common frog *Rana temporaria* and common toad *Bufo bufo* have been recorded within 2 km of the site within the last ten years.

Birds

3.5 Eighteen birds of conservation concern have been recorded within 2 km of the site within the last ten years. These are detailed in Appendix 1.

Fungi

3.6 No fungi of conservation interest have been recorded within 2 km of the site within the last ten years.

Mammals

3.7 Fourteen mammals of conservation concern have been recorded within 2 km of the site within the last ten years including brown long-eared bat *Plecotus auritus*, common pipistrelle *Pipistrellus pipistrellus*, Daubenton's bat *Myotis daubentonii*, Eurasian badger *Meles meles*, European otter *Lutra lutra*, European water vole *Arvicola amphibious*, hazel dormouse *Muscardinus avellanarius*, long-eared bat species *Plecotus sp.*, Natterer's bat *Myotis nattereri*, noctule bat *Nyctalus noctula*, pipistrelle bat species *Pipistrellus sp.*, serotine bat *Eptesicus serotinus*, soprano pipistrelle *Pipistrellus pygmaeus*, and West European hedgehog *Erinaceus europaeus*.

Invertebrates

3.8 Sixteen invertebrates of conservation concern have previously been recorded within 2 km of the site including scarce chaser *Libellula fulva*, white admiral *Limenitis Camilla*, marsh fritillary *Euphydryas aurinia*, wall brown *Lasiommata megera*, garden tiger *Arctia caja*, buff ermine *Spilosoma luteum*, shoulder-striped wainscot *Mythimna comma*, rustic *Hoplodrina blanda*, *Volucella inanis*, mottled rustic *Caradrina Morpheus*, blood-vein *Timandra comae*, grey dagger *Acronicta psi*, lackey *Malacosoma neustria*, pretty chalk carpet *Melanthia procellata*, small phoenix *Ecliptopera silaceata* and white ermine *Limenitis Camilla*.

Plants

3.9 Fifteen plants of conservation concern have previously been recorded within 2 km of the site including fountain lattic-moss *Cinclidotus riparius*, midland hawthorn *Crataegus laevigata*, pignut *Conopodium majus*, tubular water-dropwort *Oenanthe fistulosa*, common broomrape *Orobanche minor*, Small Teasel *Dipsacus pilosus*, Cornflower *Centaurea cyanus*, corn chamomile *Anthemis arvensis*, corn marigold *Glebionis segetum*, bluebell *Hyacinthoides non-scripta*, violet Helleborine *Epipactis purpurata*, and bird's-nest orchid *Neottia nidus-avis*, grove earwort *Scapania nemorea*, short-beaked wood-moss *Hylocomium brevirostre*, and silky forklet-moss *Dicranella heteromalla*.

Reptiles

3.10 One reptile species of conservation concern has previously been recorded within 2 km of the site within the last ten years which is the Grass Snake *Natrix natrix*.

Other protected/notable species

3.11 Two lichen species of conservation concern have been recorded within 2 km of the site within the last ten years including *Arthonia anombrophila* and *Chaenotheca hispidula*.

Phase 1 Habitat Survey

3.12 The results of the field survey are shown in Figure 3.1, Phase 1 Habitat Survey Map. The habitats present on the site are described below broadly in the order of their extent.

Arable fields

3.13 The site was dominated by two large arable fields comprising approximately 6 ha of the site. Both fields had recently been harvested with wheat or barley stalks remaining. Narrow species-poor field margins were present dominated by Yorkshire fog *Holcus lanatus*, ribwort plantain *Plantago lanceolata* and creeping buttercup *Ranunculus repens*.

Hedgerows

3.14 Mature hedgerows are present within the site boundary and bordering much of the site boundary. The hedgerows comprised of frequent hawthorn *Crataegus monogyna*, bramble *Rubus fruticosus* agg., blackthorn *Prunus spinosa* elder *Sambucus nigra* and English elm *Ulmus procera* with occasional hazel *Corylus avellana* and field maple *Acer campestre*. The hedgerows had a species-poor ground flora comprising of frequent common nettle *Urtica dioica* and broad-leaved dock *Rumex obtusifolius* with occasional ground-ivy *Glechoma hederacea* and scentless mayweed *Tripleurospermum inodorum*. The hedgerow at the southeast of the site boundary

contained a large proportion trees comprising of occasional ash *Fraxinus excelsior*, apple *Malus pumila* and field maple. The hedgerows are summarised in Table 3.1 below. Figure 3.1 shows the locations of the hedgerows.

Table 3.1: Summary of hedgerows present within the site boundary and bordering the site boundary

Hedgerow	Approximate	proximate Condition Species Composition		Hedgerow
	length (m)			Assessment
H1	40	Intensively managed	Bramble, field maple,	Species poor
		shrubby hedgerow,	blackthorn, ivy	
		continuous - good		
H2	20	Untrimmed shrubby	Bramble, elm,	Species poor
		hedgerow with	blackthorn, hazel	
		outgrowth, gappy -		
		poor		
H3	90	Double untrimmed	Bramble, field maple,	Species rich
		shrubby hedgerow.	blackthorn, ivy, elm,	
		continuous - good	elder, hazel	
H4	120	Untrimmed shrubby	Bramble, field maple,	Species rich
		hedgerow. continuous	blackthorn, elm, elder,	
		- good	hazel	
H5	120	Untrimmed shrubby	Bramble, elm, elder	Species poor
		hedgerow. continuous		
		- good		
H6	50	Intensively managed	Garden privet	Species poor
		shrubby hedgerow,		
		continuous - good		
H7	70	Intensively managed Garden privet		Species poor
		shrubby hedgerow,		
		continuous - good		
H8	60	Untrimmed shrubby	Blackthorn, elder, hazel	Species poor
		hedgerow, continuous		
		- good		
H9	120	Untrimmed shrubby	Hawthorn, bramble,	Species rich
		hedgerow, continuous	willow species, elder,	
		- good	hazel, dogwood	
H10	150	Untrimmed shrubby	Ash, apple, bramble,	Species rich
		hedgerow with line of	blackthorn, hawthorn,	
		trees, continuous -	field maple	

		good		
H11	100	Untrimmed shrubby hedgerow, continuous - good	Hawthorn, blackthorn, field maple	Species poor
H12	110	Untrimmed shrubby hedgerow, continuous - good	Bramble, elm	Species poor

Ruderal vegetation

3.15 A small area of ruderal vegetation was present to the south of the farmyard. This area comprised abundant common ragwort *Senecio jacobaea* with frequent common nettle and creeping thistle *Cirsium arvense* with occasional bramble also present in some areas.

Semi-improved grassland

3.16 Small areas of semi-improved grassland were present to the south of the stables and to the east of the farmyard main entrance driveway. These areas comprised frequent perennial rye-grass *Lolium perenne* and meadow foxtail *Alopecurus pratensis* with occasional common nettle and bramble.

Dense scrub

3.17 Areas of dense scrub were present around the derelict farm buildings and comprised of frequent blackthorn, hawthorn, bramble and ivy *Hedera helix*.

Scattered broadleaved trees

3.18 Scattered broadleaved trees within the site boundary consisted of a large ash adjacent to the area of ruderal vegetation and a small oak within the area of semi-improved grassland to the south of the stables.

Buildings

3.19 A wooden stable block and workshops were present at the north of the main farmyard. Other agricultural buildings were present within the main farmyard but this area was locked and access could not be gained at the time of survey. The majority of the buildings appear to be semi-derelict and are unused.

Protected Species Scoping

Breeding birds

3.20 The hedgerows, trees and dense scrub on site provide good foraging and nesting habitat for common species of birds. The wooden stable block had several swallow *Hirundo rustica* nests within it. None of the nests were occupied at the time of survey.

Mammals

- 3.21 The hedgerows on site are considered suitable habitat to support dormice *Muscardinus* avellanarius. The hedgerows provide moderately good connectivity to the wider landscape for this species but limited connectivity to woodland. The habitat is therefore considered marginally optimal.
- 3.22 Two mammal holes were present within the site with the characteristic 'D' cross-section profile of Eurasion badger under a mature hedgerow within the site boundary. However, no evidence was found to suggest that these were currently active. Fresh spoil heaps from recent digging activity was not present at the time of survey and a moderate amount of leaf litter was present within the entrances. Some old animal bones were recorded within one of the entrance holes. A number of mammal runs were also identified in hedgerows within the site and on the site boundary.
- 3.23 The majority of trees on site and within the hedgerows were of small stature and had no bat roost potential, lacking suitable features. However, all the large mature trees within the species rich hedgerow with trees at the east of the site (hedgerow number H10) were classified as Category 2 trees.
- 3.24 The mature hedgerows and treelines (within and bordering the site) were considered to have potential to support commuting and foraging bats and provide good connectivity for bats to navigate within the wider landscape.
- 3.25 The buildings to which access was gained on site were considered to have low/negligible potential to support roosting bats and no evidence of bats was discovered during the surveys within these buildings.
- 3.26 Several otter sightings have been recorded to the south and east of the site at the River Stour. However, no evidence of otters, or suitable otter habitat, was discovered within the site boundary during the survey.

Reptiles and amphibians

- 3.27 A check of the relevant 1:25,000 OS map revealed two water bodies to the south of the site boundary and within a 500 m extent of the site boundary that could potentially support GCN. With the exception of the two large arable fields, the habitat within the site has potential to provide good terrestrial habitat for GCN.
- 3.28 With the exception of the two large arable fields, the habitat within the site has the potential to support common species of reptiles. Several large log piles were present within the small area of semi-improved grassland north of the farmyard.

Other protected/notable species

3.1 No other habitat that could support protect or otherwise notable species was noted on site.

4 EVALUATION

Habitats

- 4.1 The majority of habitats on site comprised locally-common species and were not legally protected.
- 4.2 The habitats on site comprised of arable fields with smaller areas of semi-improved grassland bordered by mature species rich and species poor hedgerows (within and bordering the site). Scattered broadleaved trees, small areas of dense scrub and unused and/or derelict agricultural buildings were also present on site.
- 4.3 Hedgerows are listed on both the Dorset Local BAP and Section 41 of the NERC Act. Four species-rich hedgerows were identified during the survey. Further survey work is recommended in Section 5 to determine whether these are considered 'important' under the Hedgerow Regulations 1997.

Breeding Birds

- 4.4 Breeding birds are protected by the Wildlife and Countryside Act 1981 (as amended). Under this legislation it is an offence to intentionally kill, injure or take the birds or their eggs, or to intentionally destroy or disturb a nest, when it is in use or being built.
- 4.5 The mature hedgerows and treelines (within and bordering the site), dense scrub and scattered broadleaved trees provide good cover and suitable nesting opportunities for a range of common bird species and will provide a resource for nesting birds in the wider area. Furthermore, the species rich hedges and arable land provide potential breeding and foraging habitat for assemblages of breeding farmland birds. Recommendations are therefore made in Section 5 should any vegetation clearance be necessary.
- 4.6 Swallows nests were discovered within the wooden stable block at the north of the site. Recommendations are therefore made in Section 5 should any building demolition be necessary.

Dormice

- 4.7 Dormice receive full protection under The Conservation of Habitats and Species Regulations 2010, and the Wildlife and Countryside Act 1981 (as amended). They are also listed in Section 41 of the NERC Act 2006.
- 4.8 The mature hedgerows and treelines (within and bordering the site) and dense scrub were considered suitable, although marginally optimal, for this species. The data search revealed that there are records for this species within 2 km of the site. Further survey work is therefore recommended in Section 5.

Bats

4.9 All species of bat present in the UK receive full protection under The Conservation of Habitats and Species Regulations 2010, and the Wildlife and Countryside Act 1981 (as amended). A number of bat species are also listed in Section 41 of the NERC Act 2006. These include the

widespread species soprano pipistrelle *Pipistrellus pygmaeus* and brown long-eared bat *Plecotus auritus*, and the rarer woodland species such as Bechstein's *Myotis bechsteinii* and barbastelle *Barbastella barbastellus*.

- 4.10 The majority of trees on site were not considered suitable for roosting bats. However, two trees within the site boundary and all the large mature trees within Hedgerow H10 were considered to have some potential (Category 2 Hundt 2012). If these trees are directly or indirectly impacted as a consequence of the proposed development then further surveys work is recommended to ascertain whether bats utilise these trees for roosting and, as such, are a constraint to the proposed re-development of the site. Such surveys will need be undertaken between May and September when bats are active. If bats around found to be present, the removal of the trees would need to be carried out under licence from Natural England.
- 4.11 The mature hedgerows and treelines (within and bordering the site) were considered to have potential to support commuting and foraging bats and provide good connectivity for bats to the wider landscape. Therefore, further survey work is recommended in Section 5.
- 4.12 The buildings on site which could be accessed at the time of survey were considered to have low/negligible potential to support roosting bats. It is recommended that the other buildings which could not be accessed at the time of survey are surveyed to assess them for their potential to support roosting bats. The buildings surveyed and the buildings not surveyed are shown in Figure 3.1.

Badgers

- 4.13 Badgers and their setts are protected by the Protection of Badgers Act 1992. This legislation effectively prevents development on a site where Badger activity occurs without mitigation being agreed and carried out prior to construction works. If a sett is likely to be disturbed or destroyed a licence will be required from Natural England and options to minimise impact to the species should be considered.
- 4.14 Two potential badger sett entrances were identified under a mature hedgerow within the site boundary. Fresh spoil heaps from recent digging activity was not present at the time of survey and a moderate amount of leaf litter was present within the entrances indicating that the holes are not regularly used. Some old animal bones were recorded within one of the entrance holes. A number of mammal runs were also identified in hedgerows within the site and on the site boundary which may have been caused by badgers. Therefore, further survey work is recommended in Section 5.

Otters

4.15 Several otter sightings have been recorded to the south and east of the site at the River Stour. However, the habitat within the site boundary is not considered to have the potential to support otters and therefore no further surveys are deemed necessary.

Great Crested Newt

4.16 There are habitats within the site boundary, such as the hedgerows and scrub have the potential to provide terrestrial habitat to support GCN. The desk study revealed that there are two ponds to the south. The data search revealed the presence of GCN within 2 km of the proposed

development site boundary. It is recommended that the two ponds within 500 metres of the proposed development site are assessed for their potential to support GCN. If suitable, then presence/absence surveys will be required to ascertain whether GCN are present and, as such, are a constraint to the proposed re-development of the site. Therefore, further survey work is recommended in Section 5.

Reptiles

4.17 There are habitats present within the site boundary with potential to support reptiles including mature hedgerows, dense scrub and semi-improved grassland. Therefore, further presence/absence survey work is recommended in Section 5.

5 RECOMMENDATIONS AND CONCLUSIONS

- 5.1 The site predominantly consisted of large arable fields with smaller areas of semi-improved grassland bordered by mature species-rich hedgerows and treelines. Scattered broadleaved trees, small areas of dense scrub and ruderal vegetation and unused and/or derelict agricultural buildings were also present on site.
- The species-rich hedgerows on site should be subject to a suitable survey to determine whether any qualify as 'important' under the Hedgerow Regulations 1997. Such a survey would need to map the hedgerows according to the Regulations requirements (the number of woody species within a defined proportion of the length of the hedgerow) and the number of associated features (ditches, public rights of way etc.). This is ideally undertaken in May to June but can be undertaken anytime between April and September.
- The species-rich hedges and arable land provide potential breeding and foraging habitat for assemblages of breeding farmland birds. Furthermore, the size of the site increases the potential for the habitats to support larger assemblages of breeding farmland birds. Therefore, breeding bird surveys are recommended to ascertain which species are using the site. Surveys should follow British Trust for Ornithology (BTO) Breeding Bird Survey methodology with the site being visited a minimum of four occasions between March to August at dawn to record the numbers and species present. The appropriate level of mitigation for breeding birds using the site can then be based on the results of the breeding bird surveys.
- In order to protect bird nests and comply with the law protecting them, any hedgerow, tree or scrub removal will take place outside of the breeding bird season, which is generally considered to be from March to August inclusive. If this is not possible, prior to removal, such vegetation should first be checked for the presence of nesting birds by an experienced ecologist. If any nests are found, they will be left undisturbed until the chicks had fledged (usually around six weeks).
- The hedgerows on site are considered suitable to support dormice and given that records for this species within 2 km further surveys should be conducted. This will comprise of the setting out of artificial dormouse nest tubes within the hedgerows, treelines and dense scrub during April/early May. These are then checked on a monthly basis between May and September with the presence of any dormice (or other small mammals) recorded. If dormice are identified on site, then habitat clearance would need to be undertaken under licence from Natural England. In order to secure such a licence, the development would need to provide sufficient mitigation for the loss of the habitat.
- 5.6 Two trees within the site boundary and all the large mature trees within the species rich hedgerow with trees at the east of the site (Hedgerow H10) were classified as Category 2 trees under Bat Conservation Trust guidance (Hundt 2012) in terms of their potential to support roosting bats. If these trees are directly or indirectly impacted as a consequence of the proposed development then further survey work is recommended to ascertain whether bats utilise these trees for roosting and, as such, are a constraint to the proposed re-development of the site. Such surveys will need be undertaken between May and September when bats are active. If bats

around found to be present, the removal of the trees would need to be carried out under licence from Natural England.

- 5.7 The site was considered to have moderate potential to support foraging/commuting bats. Further surveys to monitor bat activity on site should therefore be undertaken. This would comprise of transect surveys and automated surveys. In line with BCT guidelines (Hundt, 2012) for medium quality bat habitat, one transect survey should be conducted per month from April to October (to include at least one dusk and pre-dawn survey within a 24 hour period) combined with automated surveys (static automated ultrasound bat detectors left in specific locations) in two locations for three night consecutive periods each month from April to October.
- 5.8 It is recommended that the buildings which could not be accessed at the time of survey are surveyed to assess them for their potential to support roosting bats. The buildings not surveyed are shown in Figure 3.1.
- No active badger setts were present at the time of survey. However, two holes potentially dug by badgers were identified on site. Therefore, the site should be monitored for badger activity during January/February, the optimum time to survey for badgers when the vegetation is at its least overgrown and evidence of badger activity is more visible.
- 5.10 The site has habitat which could potentially provide terrestrial habitat for GCN. The two ponds identified to the south of the site should be assessed and a Habitat Suitability Index survey conducted to assess the potential of the ponds to support great crested newt. If the ponds are assessed to have high potential to support great crested newts, further presence / absence surveys will be necessary.
- 5.11 The site has habitat which has the potential to support common species of reptile. Therefore further surveys should be conducted to check for reptile presence. Surveys will involve setting out reptile refugia (square metre sheets of bituminous roofing felt) in areas with highest potential to support reptiles (rough tall grassland, bottom of hedgerows) during April/early-May. The refugia will then be subsequently checked on a monthly basis between May and September with the presence of any reptiles recorded. If reptiles are identified on site, any habitat clearance would need to be undertaken under the direct supervision of a suitably qualified ecologist and implemented under a reptile mitigation strategy. The development would need to provide sufficient mitigation for the loss of the habitat.

6 REFERENCES

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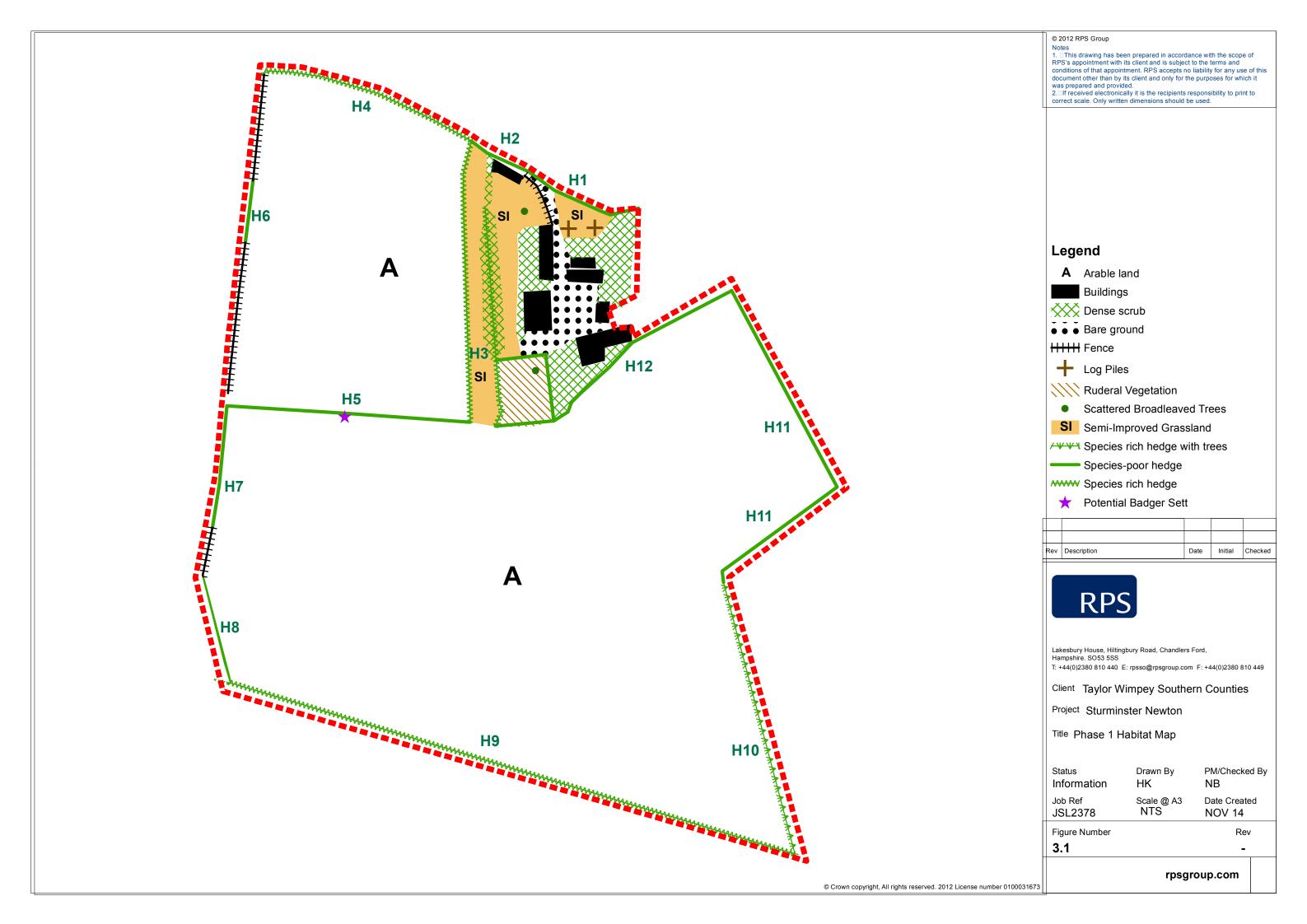
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FIGURE 3.1

Phase 1 Habitat Survey Map



APPENDIX 1

Birds of conservation concern previously recorded within 2 km of the site.

Scientific Name	Common Name	Conservation Status
Egretta garzetta	Little Egret	Birds Dir, Amber
Anas platyrhynchos	Mallard	Amber
Anas clypeata	Shoveler	Amber
Falco tinnunculus	Kestrel	Amber
Falco subbuteo	Hobby	WCA
Falco peregrinus	Peregrine	Birds Dir, WCA
Pluvialis apricaria	Golden Plover	Birds Dir, Amber
Vanellus vanellus	Lapwing	NERC, UK, Red
Scolopax rusticola	Woodcock	Amber
Chroicocephalus ridibundus	Black-headed Gull	Amber
Cuculus canorus	Cuckoo	NERC, UK, Red
Alcedo atthis	Kingfisher	Birds Dir, WCA, Amber
Alauda arvensis	Skylark	NERC, UK, Red
Hirundo rustica	Swallow	Amber
Delichon urbicum	House Martin	Amber
Anthus pratensis	Meadow Pipit	Amber
Motacilla cinerea	Grey Wagtail	Amber
Prunella modularis	Dunnock	NERC, UK, Amber
Turdus pilaris	Fieldfare	WCA, Red
Turdus philomelos	Song Thrush	NERC, UK, Red
Turdus iliacus	Redwing	WCA, Red
Phylloscopus trochilus	Willow Warbler	Amber
Muscicapa striata	Spotted Flycatcher	NERC, UK, Red
Poecile palustris	Marsh Tit	NERC, UK, Red
Sturnus vulgaris	Starling	NERC, UK, Red
Passer domesticus	House Sparrow	NERC, UK, Red
Coccothraustes coccothraustes	Hawfinch	NERC, UK, Red
Emberiza citrinella	Yellowhammer	NERC, UK, Red

Protected Species Status Abbreviations.

Birds Dir: Birds Directive; **Red:** Birds of high conservation concern red list species; **Amber:** Birds of medium conservation concern amber list species; **WCA:** Wildlife and Countryside Act 1981 (as amended); **NERC:** Species of Principle Importance in England, NERC Act (2006), S.41; **UK:** Listed by the UK Steering Group with a UK action plan or species statement