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Land to the rear of The Junipers and White Lodge Stonham Aspal

Preliminary Ecological Appraisal

Prepared by Glaven Ecology

on behalf of Howe and Boosey Architectural Services

> February 2024 Reference: 022-2400-GE-HB

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Version	Status	Changes	Date	Author
1.1	Draft	-	19/02/2024	Sally McColl MCIEEM
1.2	Issued	Reviewed	21/02/2024	Carolyn Smith MCIEEM

The data contained within the report are accurate to the best of our knowledge and have been prepared and provided in accordance with the Chartered Institute of Ecology and Environmental Management's Code of Professional Conduct.

The report conforms to the British Standard 42020:2013 Biodiversity – Code of practice for planning and development.

We confirm that any opinions expressed are our best and professional true opinions. This report has been prepared by an ecology specialist and does not purport to provide legal advice.



1 Summary

- 1.1 Glaven Ecology was commissioned to undertake a Preliminary Ecological Assessment on land to the rear of The Junipers and White Lodge, The Street, Stonham Aspal, IP14 6AL. The survey work was completed by Sally McColl MCIEEM on 13th February 2024.
- 1.2 Planning is sought to construct five dwellings with garages and gardens using the current access for The Junipers. It appears that boundary hedgerows will be retained.
- 1.3 The Site was a 0.35ha plot which was the current gardens of The Junipers and White Lodge, predominately laid to lawn with scattered trees and shrubs and boundary hedgerows.
- 1.4 The Site was within SSSI Impact Risk Zones for Lingwood Meadows, Earl Stonham SSSI (2.4km south-west) and Gosbeck Wood SSSI (3km south). However, the proposal does not fall within the categories requiring further consultation with Natural England.
- 1.5 No further surveys for protected species are deemed necessary.
- 1.6 A precautionary method of working in relation to great crested newts is recommended, including keeping grass short prior to works, sensitive timing of groundworks and demarcation of works areas from boundary hedgerows.
- 1.7 To mitigate for lawn lost, new areas of grassland will be planted using diverse species mix, and any trees removed should be replaced at a rate of 1:2 with native species suitable for small sites. To avoid impacts on retained boundary trees and hedgerows, no works or storage of materials within root protection zones.
- 1.8 Any external lighting should be warm white, at low light levels and pointing away from boundaries.
- 1.9 Any vegetation clearance and removal of the brash pile should be undertaken outside of the bird breeding season of March-August.
- 1.10 Further enhancements recommended for the Site include installation of a reptile hibernacula, swift bricks, bat boxes and planting for pollinators.



2 Introduction

2.1 Background

- 2.1.1 Glaven Ecology was commissioned to undertake a Preliminary Ecological Assessment on grounds at The Junipers, The Street, Stonham Aspal, IP14 6AL. The survey work was completed by Sally McColl MCIEEM on 13th February 2024.
- 2.1.2 Outline planning permission was previously granted for a similar scheme within a different red line boundary 30 January 2023 DC/22/06038.
- 2.1.3 This survey and report aim to establish the baseline ecology of the site and its suitability to support any protected species. It assesses potential impacts on these features as a result of the works and advises on the need for further surveys. It sets out the mitigation measures required to ensure compliance with nature conservation legislation and to address any potentially significant ecological effects.

2.2 Site Location and Description

- 2.2.1 The Site was located at OS Grid Reference TM 139 593 (Appendix 1) and was a 0.35ha plot which comprised the current gardens of The Junipers and White Lodge. The Site was predominately laid to lawn with scattered trees and shrubs and boundary hedgerows.
- 2.2.2 The Site was situated within the centre of Stonham Aspal and bordered the road to the south, residential properties to the east and west and grassland to the north. The wider environment was arable farmland with scattered villages.

2.3 **Project Overview**

- 2.3.1 Planning is sought to construct five dwellings with garages and gardens within the current gardens at The Junipers and White Lodge, using the current access for The Junipers. It is understood that boundary hedgerows will be retained, although a small section of the hedgerow adjacent to the road will be removed for a visibility splay.
- 2.3.2 A proposed plan in shown in Appendix 2.



3 Legislation

- 3.1.1 The main piece of legislation relating to nature conservation in Great Britain is The Wildlife and Countryside Act 1981 (as amended). This Act is supplemented by provision in The Countryside and Rights of Way (CRoW) Act 2000 and The Natural Environment and Rural Communities Act 2006 (in England and Wales). This act provides varying degrees of protection for the listed species of flora and fauna, including comprehensive protection of wild birds and their nests and eggs.
- 3.1.2 UK wildlife is also protected under The Conservation (Natural Habitats &c.) Regulations 1994 (which were issued under the European Communities Act 1972), through inclusion on Schedule 2. In 2010, these Regulations, together with subsequent amendments, were consolidated into The Conservation of Habitats and Species Regulations 2010.

3.2 Badgers

3.2.1 Badgers are protected under the Protection of Badgers Act 1992. Under the Act, it is a serious offence to kill, injure, interfere or take a badger. It is also an offence to damage or interfere with an actively used sett unless a licence is obtained.

3.3 **Bats**

3.3.1 All UK bat species are protected under The Conservation of Habitats and Species Regulations 2017 and the Wildlife and Countryside Act 1981 (as amended). This legislation fully protects bats and their breeding sites or resting places, making it an offence to deliberately capture, injure or kill bats, deliberately disturb bats, damage or destroy a bat breeding or resting place.

3.4 **Birds**

- 3.4.1 All birds, their nests and eggs are protected by law under Part 1 of the Wildlife and Countryside Act 1981 (as amended).
- 3.4.2 Certain species (including barn owl *Tyto alba*) are also listed under Schedule 1 of the Wildlife and Countryside Act 1981, which prevents disturbance of the species or its nest and/or eggs at any time with protection by special penalties.



3.5 Great Crested Newt

- 3.5.1 Great crested newts Triturus cristatus and their habitat (aquatic and terrestrial) are afforded full protection by The Wildlife and Countryside Act 1981 (Section 9, Schedule 5 and as amended) and The Conservation (Natural Habitats & c.) Regulations 1994. It is an offence to:
 - 1) Disturb, injure or kill recklessly a great crested newt.
 - 2) Disturb or destroy recklessly great crested newt habitat (a breeding site or place of shelter).

3.6 Reptiles

3.6.1 Reptiles are all given limited legal protection under part of Section 9 (1) and all of Section 9 (5) of the Wildlife and Countryside Act 1981 (as amended). This means that it is an offence to intentionally kill, injure and offer for sale.

3.7 Statutory Designated Conservation Sites

3.7.1 National designations such as Sites of Special Scientific Interest (SSSI) and National Nature Reserves (NNR), are afforded statutory protection. SSSIs are notified and protected under the Wildlife and Countryside Act 1981 as amended. SSSIs are notified based on specific criteria, including the general representativeness and rarity of the site and of the species or habitats supported by it.



4 Survey Methods

4.1 Desk Study

- 4.1.1 Records held on Magic.gov.uk on Designated Sites and granted European Protected Species Licences were reviewed in February 2024.
- 4.1.2 A data search with a 2km zone of influence was requested from Suffolk Biodiversity Information Services (SBIS) was conducted in February 2024 to inform baseline ecology of the site and surrounding area.
- 4.1.3 The types of features considered within the desk study includes designated sites, habitats and species of principal importance for conservation of biodiversity and protected species.

4.2 Field Survey

- 4.2.1 The survey was undertaken on 13th February 2024by Sally McColl MCIEEM (Natural England Level 1 Licence for bats [reference 2019-39376-CLS-CLS] and Great Crested Newts [reference 2017-32812-CLS-CLS]). Sally has over 15 years' experience of working the ecology and conservation sectors.
- 4.2.2 A UKHab Survey of the site was undertaken following the UKHab method and classification system (UKHab, 2023), with the methods being 'extended' to include an evaluation of potential habitats for any protected or valued species. Photographs were taken to record key features/views.
- 4.2.3 The weather was dry with 80% cloud cover and a light breeze at the time of the survey, 6°C.

4.3 **Protected Species**

Amphibians and Reptiles

- 4.3.1 The habitat was assessed for reptiles and amphibians and suitable materials were lifted to check for signs of reptiles.
- 4.3.2 One pond was appraised for its suitability for great crested newts using the Habitat Suitability Index (HSI). The HSI is an indicative tool used to rate the suitability of waterbodies for great crested newts. A total of ten characteristics and features of



waterbodies, such as their size, water quality, shading and vegetation cover are assessed and classified according to prescribed criteria. These scores allow the HSI to categorise waterbodies into one of five ratings which indicate their suitability for occupation by great crested newts. The five categories are excellent, good, average, below average and poor

<u>Badger</u>

- 4.3.3 The habitats on Site and in the immediate surrounding area were assessed for their potential to support badgers.
- 4.3.4 Evidence of badger activity (including setts, footprints, latrines, trails, scratching posts, guard hairs and foraging activity) was searched for within the Site.

<u>Bats</u>

- 4.3.5 A general assessment was made of the suitability of site features for roosting, commuting and foraging bats and the likely presence of bats within the Site area.
- 4.3.6 A Preliminary Roost Assessment was completed on any trees present in accordance with the Bat Conservation Trust's "Bat Surveys for Professional Ecologists" (Collins, 2023). A scoring system was applied to the trees using the criteria shown in Table 1.

Table 1: Assessing the potential suitability of trees for bats (Collins, 2023)

Suitability	Description of roosting habitats in trees	
NONE	Either no potential roost features in the tree or highly unlikely to be any.	
FAR	Further assessment required to establish if potential roost features are present in the tree.	
PRF	A tree with at least one potential roost feature present.	

Birds

- 4.3.7 Evidence of nesting birds was searched for and the Site was assessed as to its potential to support nesting birds.
- 4.3.8 Table 2 shows the criteria used when assessing the likelihood of a protected species being present within the survey area.

Table 2: Criteria considered when assessing the likelihood of occurrence of protected species

Assessment Category	Criteria		
Present	Species are confirmed as present from the current survey or historical confirmed records.		
High	Habitat and features of high quality for species/species assemblage. Species known to be present in wider landscape. Good quality surrounding habitat and good connectivity.		
Moderate	Habitat and features of moderate quality. The site in combination with surrounding land provides all habitat/ecological conditions required by the species/assemblage. Within known national distribution of species and local records in desk study area. Limiting factors to suitability, including small area of suitable habitat, some severance/poor connectivity with wider landscape, poor to moderate habitat suitability in local area.		
Low	Habitats within the survey area poor quality or small in size. Few or no records from data search. Despite above, presence cannot be discounted as within national range, all required features/conditions present on site and in surrounding landscape. Limiting factors could include isolation, poor quality landscape, or disturbance.		
Negligible	Very limited poor quality habitats and features. No local records from desk study; site on edge of, or outside, national range. Surrounding habitats considered unlikely to support species/species assemblage.		

4.4 Evaluation and Assessment

- 4.4.1 Ecological features are evaluated and assessed with due consideration for the Chartered Institute of Ecology and Environmental Management (CIEEM) 2019 Guidelines for Ecological Impact Assessment (EcIA).
- 4.4.2 The following the impact magnitude categories and criteria will be used:
 - Major negative effect that which has a harmful impact on the integrity of a site or the conservation status of a population of a species within a defined geographical area (e.g. fundamentally reduces the capacity to support wildlife for the entirety of a conservation site or compromises the persistence of a species' population).
 - Intermediate negative effect that which has no adverse impact on the integrity of
 a conservation site or the conservation status of a species' population but does
 have an important adverse impact in terms of achieving certain ecological
 objectives (e.g. sustaining target habitat conditions and levels of wildlife for a
 conservation site or maintaining population growth for a species).
 - Minor negative effect some minor detrimental effect is evident, but not to the extent that it has an adverse impact in terms of achieving ecological objectives.
 - Neutral effect that which has no predictable or measurable impact.
 - Positive effect that which has a net positive impact on an ecological receptor.



4.5 **Survey Limitations**

- 4.5.1 The desk study is not an exhaustive record of species within the area. However, when assessed in conjunction with a field survey, they can contribute to a robust ecological assessment of a site.
- 4.5.2 Five ponds within 250m of the site were within private landownership and were not accessible or visible from the road edge at the time of survey.



5 Baseline Ecological Conditions

5.1 Desk Study

- 5.1.1 No Statutory Designated Sites were identified within 2km of the site.
- 5.1.2 The Site sits within SSSI Impact Risk Zones for Lingwood Meadows, Earl Stonham SSSI (2.4km south-west) and Gosbeck Wood SSSI (3km south). However, the proposal does not fall within the categories requiring further consultation with Natural England.
- 5.1.3 Two non-Statutory Designated Sites, both County Wildlife Sites (CWS), were identified within 2km of the Site (Table 3, Appendix 3).

Table 3: Designated Sites within 2km of development site

Site	Designation	Closet point to site
Crowfield Churchyard - CWS 49	County Wildlife Site	1,500m south
Crowfield Wood - CWS 50	County Wildlife Site	1,900m south-west

5.2 Habitats

Notable flora

5.2.1 There were no notable plants or non-native invasive species noted on the survey.

Habitats

- 5.2.2 The Site was the end of two adjacent gardens separated by a predominantly dry ditch and hedgerow.
- 5.2.3 The easterly plot was predominately lawn mown short with a tight sward. Despite being regularly mown there was a good amount of forbs present. Grass species included cockfoot *Dactylis glomerata*, false oat grass *Arrhenatherum elatius*, meadow grass *poa spp.*, fescue *Festuca spp.* and field woodrush *Luzula campestre*. Herbaceous plants included daisy *Bellis perennis*, yarrow *Achillea millefolium*, cats ear *Hypochaeris radicata*, doves foot crane's bill *Geranium molle*, self-heal *Prunella vulgaris* and ground ivy *Glechoma hederacea*.



- 5.2.4 There was an ornamental cypress *Cupressaceae spp.* hedgerow (Figure 1) along the eastern boundary with a close boarded fence behind.
- 5.2.5 There was a pear *Pyrus spp.* tree in the north-eastern corner.
- 5.2.6 The western hedgerow was also cypress with some bramble *Rubus fruticosa* and ivy *Helix hedera* along the northern half then a mixture of ornamental shrubs.
- 5.2.7 There was a narrow ditch (Figure 2) along the northern boundary with shallow vegetated banks which held about 3cm of static water in places. There was dense leaf litter at the bottom with no macrophytes visible which corroborated with the owners account that the ditch only holds water occasionally in exceptional periods of rainfall.



Figure 1: Eastern plot looking north



Figure 2: Northern boundary of eastern plot looking

- 5.2.8 There was a native hedgerow adjacent to the northern boundary (Figure 3). This hedgerow extended the length of both properties. This was unmanaged with a stock proof fence adjacent and included species such as field maple *Acer campestre*, hawthorn *Crataegus monogyna*, bramble, ivy with a mature horse chestnut *Aesculus hippocastanum* and ash *Fraxinus excelsior* trees.
- 5.2.9 The westerly plot was a mix of shortly mown lawn and shrubs (Figure 4). There was a group of three trees near to the northern boundary a Scot's pine *Pinus sylvestris*, cypress and cedar *Cedrus spp*.
- 5.2.10 There was a disused vegetable area and large brash/compost pile to the west (Figure 5).
- 5.2.11 The western boundary (Figure 6) had a close boarded fence, a drainage ditch with banks covered in nettles *Urtica dioica* and brambles with some buried logs and bricks then a hedgerow of predominately ornamental trees and shrubs.



- 5.2.12 Access to the Site will be through the current concrete driveway to the Junipers (Figure 7). There is an ornamental cypress hedge bordering the properties adjacent to the road.
- 5.2.13 A Habitat Map can be found in Appendix 3.



Figure 3: Northern boundary of western plot looking east



Figure 4: Looking north-west across the western plot



Figure 5: Looking west towards western boundary



Figure 6: Western boundary ditch looking south



Figure 7: Looking north up the driveway

5.1 **Amphibians**

- 5.1.1 SBIS returned 163 records of great crested newt over nine locations within 2km of the Site since 2010. The nearest record was from 230m south-east (2019). All of these records were within ponds south of A1120 and west of Debenham Road, both considered a significant barrier to the dispersal of this species due to the heavy use by vehicles.
- 5.1.2 There were six waterbodies within 250m the Site (Appendix 1). There was no access to these ponds, at the time of survey. The majority of these had been assessed in March/April 2019 by another ecological consultancy.
- 5.1.3 Pond 1 was a small garden pond situated 40m east of the development at Fir Tree House. MHE Consulting Ltd (April 2019) assessed this pond as 0.46 "poor" suitability for breeding great crested newts. Although on the same side of the road as the Site, this pond is separated from the Site by a close boarded fence and would not be considered functionally linked and it seems unlikely that there will have been a big change in condition with it being a garden pond.
- 5.1.4 Pond 2 (70m to the west of the Site) was within a garden boundary but formed part of drainage ditch system from the adjacent farm. The pond was visible through the hedgerow and was holding water with several ducks present. Given the drainage from the farm it is likely to have poor water quality when wet, however as this couldn't be fully assessed a moderate score was allocated. When subjected to the Habitat Suitability Index (HSI) Pond 2 came out as Poor suitability with a score of 0.43 (Table 3).

Table 3: habitat suitability Index score for Pond 1

SI Description		Pond 2
Geographic location	Optimal	1
Pond area	820m²	0.95
Pond permanence	Dries annually	0.1
Water quality	Moderate	0.67
Shade	50%	1
Waterfowl effect	Major	0.01
Fish presence	Absent	1
Pond Density	(16) 5	1
Terrestrial habitat	Moderate	0.67
Macrophyte cover (estimate)	20%	0.5
		HSI Score 0.43 - Poor



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- 5.1.5 Pond 3 was a linear garden pond 220m east of the Site. MHE Consulting Ltd (April 2019) assessed this pond, their Pond 19, as 0.30 "poor" suitability for breeding great crested newts.
- 5.1.6 Pond 4 was a farm pond 230m south-east of the Site. A previous eDNA and subsequent population surveys carried out MHE Consulting Ltd (November, 2019) found this pond, their Pond 1, to contain a medium population of great crested newts. This was south of A1120 and west of Debenham Road, both considered a significant barrier to the dispersal of this species due to the heavy use by vehicles.
- 5.1.7 Pond 5 was in the corner of the sports ground 240m south of the Site. MHE Consulting Ltd (April 2019) assessed this pond, their Pond 2, as 0.61 "average" suitability for breeding great crested newts, although no further surveys were undertaken, presumably as it had dried up. This was south of A1120 and west of Debenham Road, both considered a significant barrier to the dispersal of this species due to the heavy use by vehicles.
- 5.1.8 Pond 6 was a small garden pond situated 15m south of the entrance to the Site on the opposite side of The Street. This pond is not functionally linked to the Site with the road proving a significant barrier of dispersal of great crested newts. Despite the large number of developments in the village in recent years, this pond has never been assessed.
- 5.1.9 No ponds are present on the application site.
- 5.1.10 The boundary ditches and hedgerows provided limited shelter and foraging opportunities for amphibians. The Site was regularly disturbed through its use as gardens and the lawns were mown short. It was therefore considered unlikely that populations of amphibians would be found within these areas. However the presence of transient individuals could not be ruled out.
- 5.1.11 Therefore, it was considered that the Site had **low potential** to support amphibians.

5.2 **Badgers**

- 5.2.1 SBIS returned two records of badger within 2km.
- 5.2.2 There was no evidence of badger immediately surrounding the Site. The wider farmland and areas of dry woodland and grassland provided good habitat for badger.



- 5.2.3 The gardens provided foraging habitat for badger, although being fenced and with a northerly hedgerow separating the plots from the arable land beyond it was concluded that badger are very unlikely to be within the Site.
- 5.2.4 Therefore it was concluded that badger have **negligible potential** to be within the Site.

5.3 **Bats**

- 5.3.1 There were no records of granted European Protected Species Mitigation Licences for bats within 2km of the Site.
- 5.3.2 There were three records for bats within 2km, a brown-long eared and Natterer's bat roosts and a record of a noctule bat.

Foraging and Commuting

5.3.3 The Site was considered to have **moderate potential** to support foraging and commuting bats and with grassland, mature trees and boundary hedgerows.

Trees

- 5.3.4 One maple tree adjacent to the northern boundary of the eastern plot had a knot hole about 5m high on the trunk. This feature from a ground level inspection was considered suitable to be used by roosting bats, likely only individuals due to the built up nature of the area and lack of other suitable features in nearby trees. This was considered as having suitability for bats as PRF-I.
- 5.3.5 All other trees were assessed as having no potential roost features for bats, **NONE**.





Figure 8: Maple - knot hole

5.4 Birds

- 5.4.1 There were no features within the Site that would be used by nesting barn owl. Trees, shrubs, hedgerows and brash pile/compost heap provided nesting habitat for birds.
- 5.4.2 Birds were considered to have **high** potential to be within the Site.

5.5 Reptiles

- 5.5.1 There were no records of reptiles recorded within 2km of the Site.
- 5.5.2 The lawns provided basking and the boundary ditches, hedgerows, shrubs and brash piles provided shelter and foraging opportunities for reptiles. Surrounding grassland, hedgerows and gardens provided wider connected habitat for reptiles.
- 5.5.3 The Site was regularly disturbed through its use as gardens and the lawns were mown short. It was therefore considered unlikely that populations of reptiles would be found within these areas. However the presence of transient individuals could not be ruled out.
- 5.5.4 Therefore, it was considered that the Site had **low potential** to support reptiles.

5.6 Water voles

- 5.6.1 No signs of water voles were found during the survey.
- 5.6.2 The ditches adjacent to the boundaries of the Site provided habitat suitable for water voles with sloping vegetated banks providing shelter and food for this species.



- 5.6.3 As the ditches were typically dry and only held water at times of prolonged rainfall (usually the autumn/winter when this species is less active) this would make them less suitable.
- 5.6.4 It was considered highly unlikely that water voles would be within the boundary ditches and assessed that the Site had **negligible** potential to support water voles.

5.7 Other Species

- 5.7.1 SBIS returned 62 records for hedgehogs within 2km of the Site since 2010.
- 5.7.2 The Site provided foraging habitat for hedgehogs with cover within brash piles and under hedgerows. Surrounding farmland provided connecting habitat for these species, and although the Site was fenced it was considered possible that hedgehogs may occasionally pass through the Site whilst foraging within the surrounding area.
- 5.7.3 The Site had **low potential** to support hedgehogs.



6 Assessments of Effects

6.1 **Designated Sites**

6.1.1 No potential pathways of impact are anticipated on any Designated Sites given the scale of the development and the distance to the Designated Sites.

6.2 Habitats

- 6.2.1 The ornamental central hedgerow and a small section of the road hedgerow, non-boundary trees and shrubs and lawn will lost to the works.
- 6.2.2 Retained trees and hedgerows could be accidentally damaged during works.
- 6.2.3 In the absence of mitigation, a minor adverse effect is predicted at a Local level.

Mitigation

- 6.2.4 Tree protection guidance within BS5837:2012 should be followed with no works or storage of materials within root protection zones of retained trees or hedgerows.
- 6.2.5 Trees removed should be replaced at a rate of 1:2 with native species. Species such as rowan *Sorbus aucuparia*, crab apple *Malus sylvestris*, hawthorn and hazel *Corylus avellana* are suitable for small sites.
- 6.2.6 Any new grass on the developed site will use a diverse species mix, with at least four grass species and eight herb species. This will encourage invertebrates on the developed site which in turn will provide feeding opportunities for bats and birds. Suitable mixes are available online and can be targeted to the desired grassland style, for example Emorsgate offers mixes for flowering lawns (where regular mowing is required) and for wildflower grassland (where infrequent mowing is possible).

6.3 Amphibians

- 6.3.1 Ponds 1, 2 and 3 were considered "poor" suitability for breeding great crested newts.
- 6.3.2 Ponds 4 to 6 were separated from the Site by the busy A1120, considered a significant barrier to the dispersal of any newts present.



- 6.3.3 It is thought unlikely that amphibians would be present within the main footprint of the site (mown lawn area) and that the only suitable habitat would be within the boundary hedgerows which are being retained.
- 6.3.4 It is considered that the risk of potential impact of the proposals upon the conservation status of great crested newt is negligible. The risk of potential impact of the proposals upon great crested newt is also negligible. The following mitigation measures will further minimise any risk to amphibians.

Mitigation Measures

6.3.5 Following Natural England (2021) guidelines it is assessed as proportionate to allow the works to proceed under a precautionary working method:

Many potentially licensable activities can be avoided by careful planning of the development combined with simple precautionary measures. In many cases, adopting such an approach may mean that no licence is required (as no offence would be committed).

- 6.3.6 The grasslands will be kept short, prior to and during construction to discourage animals from entering this area.
- 6.3.7 Restricting ground works to lawn area to the winter period when newts are rarely active above ground.
- 6.3.8 Works will be restricted to the designated development area and the impact of works on adjacent habitats avoided by the clear demarcation of the works area, e.g. a construction exclusion zone should be maintained around the boundary hedgerows (which would already be in place using BS5837:2012).
- 6.3.9 Any construction materials shall be stored on pallets off the ground and on areas of hard standing so potential refuge areas for amphibians are not created.
- 6.3.10 All excavations (i.e. footings) should be covered / back filled each evening to prevent amphibians from falling in and becoming trapped. If this is not possible then an escape ramp made from earth or wooden sticks will need to be placed within each excavation.

6.4 Badgers

6.4.1 Badgers are considered unlikely to be within the Site.



6.4.2 No significant adverse effects or legal infringements are predicted.

6.5 **Bats**

- 6.5.1 Foraging habitat may be adversely impacted by any increase in post-development lighting.
- 6.5.2 In the absence of mitigation, a minor adverse effect is predicted at a Local level.

Mitigation Measures

- 6.5.3 External lights associated with the development should be of a low light level to further minimise impacts on bats that might forage and commute in the vicinity.
- 6.5.4 Warm white lights should be used at <2700k and point away from boundaries. This reduces the ultraviolet component or that has high attraction effects on insects which can lead to a reduction in prey availability for some light sensitive bat species.
- 6.5.5 Lights should be designed to prevent horizontal spill e.g. cowls, hoods, reflector skirts or shields and the provision of motion sensors or timers will help to limit the amount of 'littime' of any proposed lighting.

6.6 **Birds**

- 6.6.1 There is the risk of killing and injuring nesting birds during the removal of shrubs, hedgerows, trees and compost heaps/brash pile.
- 6.6.2 In the absence of mitigation, a minor adverse effect is predicted at a Local level.

Mitigation Measures

6.6.3 To avoid committing an offence under the Wildlife and Countryside Act 1981 (as amended) any vegetation clearance and removal of the brash pile will take place outside of the bird nesting period (i.e. outside of March to August).

6.7 **Reptiles**

- 6.7.1 It was thought unlikely that reptiles would be in site but transient individuals could cross the site whilst foraging.
- 6.7.2 Neutral effects are predicted.



Mitigation Measures

6.7.3 The grasslands will be kept short, prior to and during construction to discourage animals from entering this area.

6.7.4 The compost heap/brash pile should be dismantled carefully by hand avoiding the reptile hibernation period of 1 November to 28 February.

6.7.5 Any construction materials shall be stored on pallets off the ground and on areas of hard standing so potential refuge areas for reptiles are not created.

6.7.6 All excavations (i.e. footings) should be covered / back filled each evening to prevent transient reptiles from falling in and becoming trapped. If this is not possible then an escape ramp – made from earth or wooden sticks – will need to be placed within each excavation.

6.8 Water voles

6.8.1 Water voles are considered unlikely to be within the Site. No significant adverse effects or legal infringements are predicted.

6.9 Other Species

- 6.9.1 Hedgehogs could become trapped in footings dug during construction or could become injured if they get within stored construction materials.
- 6.9.2 Without mitigation, a minor effect is predicted at a Local level.

Mitigation Measures

- 6.9.3 Any construction materials shall be stored on pallets off the ground and on areas of hard standing so potential refuge areas for hedgehogs are not created.
- 6.9.4 All excavations (i.e. footings) should be covered / back filled each evening to prevent commuting hedgehogs from falling in and becoming trapped. If this is not possible then an escape ramp made from earth or wooden sticks will need to be placed within each excavation.



7 Enhancements

7.1 Habitats

- 7.1.1 Native trees, shrubs and night-scented climbers such as jasmine and honeysuckle to encourage pollinators could be incorporated into the landscaping scheme.
- 7.1.2 A hibernacula could be created near to the boundary hedgerow in the north-western corner adjacent to the boundary ditches for amphibians and reptiles. https://www.froglife.org/wp-content/uploads/2015/09/Hibernacula.pdf
- 7.1.3 Any fences are to be fitted with gaps at ground level (each gap with dimensions of approx. 13cm wide x 13cm high), located at corners of boundaries and with at least one gap in each side of the garden fenced. These gaps will allow amphibians and small mammals such as hedgehogs to move through the site.

7.2 **Bats**

- 7.2.1 One integrated bat box to be installed on the eastern, eastern or southern aspect of each new house.
- 7.2.2 The <u>Integrated Eco Bat Box</u> or <u>Vivara Pro Build in Bat box</u> are suitable examples for where the design allows for built-in boxes to be used. These boxes make it ideal for situations where you wish the box to be discrete as only the entrance hole will be visible.

7.3 Birds

- 7.3.1 As per BS: 42021:2022 install one swift box/brick into each new build. Boxes intended for swifts are well used by other species of conservation concern and can be considered a 'universal' nest chamber (Newall, 2021).
- 7.3.2 The northern aspect would be preferrable and in general, bird boxes should be sited in or on gable ends, or under overhanging eaves, overlooking gardens or other green spaces, and with a clear/unobstructed flight line for easier access and egress.
- 7.3.3 Swift nest boxes are commercially available and will be provided with instructions for appropriate installation.



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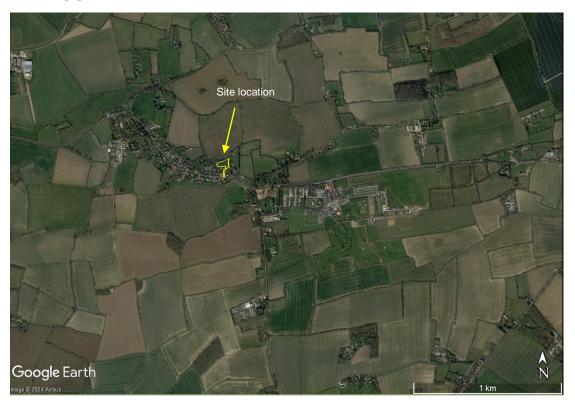
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Appendix 1 – Site Location





Source Google Earth Pro, 2024

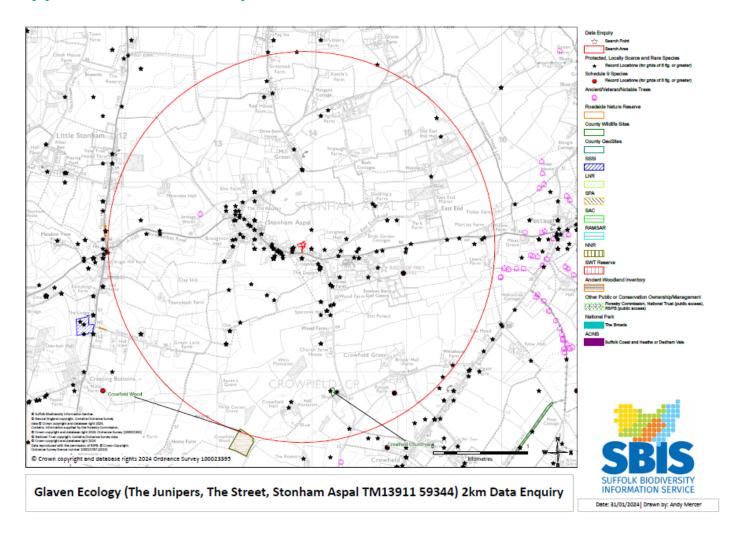


Appendix 2 – Indicative Site Plan





Appendix 3 – SBIS Map





Appendix 4 – Habitat Map



Source Google Earth Pro, 2024

