

Preliminary Ecological Appraisal

Survey site:

Plot 5700, North Wales Business Park, Abergele, Conwy, LL22 8LJ

Client:

Grosvenor Care

Survey date:

17/08/2026

Project:

This report is prepared to inform a planning application with Conwy County Borough Council. The proposed development can be described as proposed 61 bed care home.

On the assumption that site conditions and habitats remain unchanged, the results of this assessment will remain valid for 18 months from the date of this survey i.e. until February 2028, in accordance with CIEEM guidance in the lifespan of Ecological Reports and Surveys. This survey and report should be updated if a planning application has not been submitted within this timeframe.

EXECUTIVE SUMMARY

The following is work you will need to commission to obtain planning permission and to comply with legislation. Further information, along with opportunities for biodiversity enhancement, are outlined in the proceeding sections of this report.

Table 1: Summary of key findings arising from this survey.

Key Findings
• Green Infrastructure Assessment Planning Policy Wales (2024) requires all developments within Wales to conduct a Green Infrastructure Assessment to deliver Net Biodiversity Benefit and maintain biodiversity during development. Therefore, the planning application must be accompanied by a Green Infrastructure Statement to detail how the site is maintaining biodiversity and include recommendations to further enhance the site biodiversity. • A Construction Environmental Management Plan (CEMP) may be requested by the LPA via condition. • A low impact lighting strategy will be adopted for the site during and post-development, which will be designed to incorporate the measures laid out in the latest (2023) bat lighting guide Guidance Note 8 Bats and Artificial Lighting¹. • Environmental DNA (eDNA) surveys will be required on P1 and P2 to determine the presence or absence of great crested newts (GCNs). This is because the site currently generates a Amber risk score. • Various precautionary working methods have been recommended which have been fully detailed within the fauna section of this report.

1. INTRODUCTION

The aim of the PEA was to obtain data on existing ecological conditions, and to conduct a preliminary assessment of the likely significance of ecological impacts on the proposed development.

No previous ecology reports have been produced for this site by Arbtech Consulting Ltd or, to the author’s knowledge, by any other consultancy.

Methodology

PEA survey methodology and legislation can be found in the Arbtech Supplement: [PEA Methodology and Legislation - 2025](#).

Survey Details

The site survey was undertaken on 17/08/2026 by Kayleigh Davies BSc (Hons), MSc, Consultant Ecologist accredited on Natural Resource Wales License (S094455/2) and holder of Level 1 GCN NRW license (S094823/1).

Table 2: The weather conditions during the survey.

Temperature (°C)	Humidity (%)	Cloud Cover (%)	Wind (km/h)	Rain
18.1	92.0	100	6.4	None

Survey Limitations

It should be noted that whilst every effort has been made to describe the baseline conditions within the survey area, and evaluate these features, this report does not provide a complete characterisation of the site. This assessment provides a preliminary view of the likelihood of protected species being present. This is based on suitability of the habitats on the site and in the wider landscape, the ecology and biology of species as currently understood.

There were no specific limitations to the survey.

2. SITE LOCATION AND LANDSCAPE CONTEXT

2.1 Summary of Survey Findings

Site Location & Context

The site is centred at National Grid reference SH 93700 78092 and has an area of approximately 0.38ha.

The site is located in a suburban setting, surrounded by a mix of residential housing and green spaces. The local wider landscape consists of further residential housing to the south and east of the site, with scattered arable fields to the west.

There are no ponds or water bodies on site or directly adjacent to site. MAGIC shows a ditch on site to the each, but this was observed to be dry during the site visit. The nearest pond is a SUDS pond located 60m west. Medium, loamy but locally light, silt-rich, or sometimes heavy clay-rich soil and subsoil. Unknown.

Priority Habitats

There are six priority habitats within 2km of the site. These comprise ancient semi natural woodland, lowland fens and reedbeds, restored ancient woodland site, plantation on ancient woodland site, traditional orchards and lowland calcareous grassland. The closest priority habitat comprises ancient semi natural woodland, located 25m S from the site.

The site is well-connected to nearby habitats via field tree lines and onsite woodland..

Designated Sites

Statutory Designations within 2km

There are four statutory designations within 2km of the site, as detailed below:

Table 3: The statutory designated sites within 2km of the site boundary.

Designation	Reason	Distance from Site
Traeth Pensarn Site of Special Scientific Interest (SSSI)	Designated for its nationally important vegetated shingle beach plant communities. The site supports both pioneer and stabilised shingle	245m N

	vegetation, including a range of specialised coastal plant species adapted to the dynamic, drought-prone and saline conditions of the shingle beach.	
Coed Y Gopa Site of Special Scientific Interest (SSSI)	Designated for its biologically important limestone woodland and associated habitats, including ancient woodland, broadleaved woodland and limestone grassland. The site also supports important bat hibernation roosts within its limestone caves and former mine workings, particularly for lesser horseshoe bats.	785m S
Llanddulas Limestone And Gwrych Castle Wood Site of Special Scientific Interest (SSSI)	Designated for its nationally important limestone habitats, including species-rich limestone grassland, rocky limestone features and associated broadleaved woodland. The site supports a diverse flora, including important bryophyte communities, and contains a range of geological and woodland features associated with the limestone landscape.	1020m SW
Bae Lerpwl (Wales) Special Protection Area (SPA)	Designated for its internationally important populations of red-throated diver, common scoter and little gull during the non-breeding season, together with breeding common tern and little tern and an internationally important waterbird assemblage. The spa provides important marine wintering habitat and foraging areas for these species, including for little terns breeding at Gronant beach.	560m NW

Statutory Designations within 10km

There is one additional national network site (SAC, SPA, Ramsar) located within 10km, as detailed below:

Table 4: The additional national network sites within 10km of the site boundary.

Designation	Reason	Distance from Site
Elwy Valley Woods Special Area of Conservation (SAC)	Designated for its high-quality Tilio-Acerion woodland, comprising mixed broadleaved woodland occurring on steep limestone valley sides, slopes and ravines. The woodland supports a diverse calcicolous ground flora and an	9715m SE

	outstanding assemblage of lower plants, including several rare bryophytes. The steep valley sides and ravines also contain important cave systems and <i>Pleistocene</i> fossil deposits.	
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SSSI Risk Zone

The site does fall within the impact risk zone for Traeth Pensarn SSSI however, the proposed development type is not listed as possible high risk with regard to this designation.

Non-Designated Sites

The presence of non-statutory designated sites within 2km of the site are summarised below (all wildlife sites):

1. Hen Wrych Pond – 0.060 km
2. Pensarn Reedbed – 0.153 km
3. Abergele Golf Course 3 – 0.480 km
4. Abergele Golf Course 1 – 0.389 km
5. Abergele Golf Course 2 – 0.711 km
6. Pentre Mawr Park Pools & Reedbed – 0.597 km
7. Abergele Golf Course 4 – 0.884 km
8. Abergele Grazing Marsh – 1.352 km
9. Coed y Gopa Extension – 1.517 km
10. Coed Betws Lodge – 1.531 km
11. Berthglyd Pond – 1.581 km
12. Afon Gele – 1.701 km
13. North Wales Holiday Camp – 1.706 km
14. Tan-yr-ogof Farm – 1.718 km
15. Llyn Tyddyn Uchaf – 1.817 km

2.2 Foreseen Impacts

No direct impacts to any designated sites will occur as a result of the proposed development. However, due to the proximity of the site to Hen Wrych Pond (Wildlife site) 60m, and the possible presence of non-statutory designations in the vicinity, indirect effects such as pollution during construction, or increased recreational pressure, could occur.

2.3 Recommendations

Best practice measures to minimise the possibility of pollution, damage to adjacent habitats must be implemented during construction. A Construction Environmental Management Plan (CEMP) may be requested by the LPA via condition. This should include the following measures:

- Retained trees adjacent to the site will be protected in line with the measures outlined in the British Standard 'Trees in Relation to Design, Demolition and Construction to Construction - Recommendations' (BS 5837) (2012).
- Appropriate buffering between the development zone and retained habitats (e.g. 15m for ancient woodland)
- Use of Heras or other appropriate fencing to prevent encroachment by contractors onto adjacent habitats.

3. ONSITE HABITATS

This section may include further work you will need to commission (if any) to obtain planning permission or comply with legislation for other consent. All clients are expected to read and understand this section, or to contact the lead surveyor for advice.

3.1 Summary of Survey Findings

Grassland - Other neutral grassland (g3c)

The site is covered with grassland comprised of a variety of common grassland species. The grass has a varied sward length and no signs of compaction or damage are present, resulting in areas of bare ground totalling <10% of the site.

Table 5a: Species abundance for other neutral grassland.

Abundance	Species
Dominant	Cock's-foot (<i>Dactylis glomerata</i>)
Abundant	Broad-leaved Dock (<i>Rumex obtusifolius</i>), Yorkshire fog (<i>Holcus lanatus</i>)
Frequent	Common Sorrel (<i>Rumex acetosa</i>), Common Bent (<i>Agrostis capillaris</i>)
Occasional	Broad-leaved Ragwort (<i>Senecio sarracenicus</i>), Dandelion (<i>Taraxacum</i>)
Rare	Soft-rush (<i>Juncus effusus</i>), Common Knapweed (<i>Centaurea nigra</i>), Red Clover (<i>Trifolium pratense</i>)

Heathland and shrub - Bramble scrub (h3d)

There are sections of bramble scrub to the west, east and south of the site. The scrub consists of dense brambles.

Table 5b: Species abundance for bramble scrub.

Abundance	Species
Dominant	Bramble (<i>Rubus fruticosus</i>)
Abundant	-
Frequent	-
Occasional	-
Rare	-

Woodland and forest - Other woodland; broadleaved (w1g)

There is a patch of woodland onsite to the northeastern corner. The woodland is further connected to woodland offsite to the north and south. The southern section of the offsite woodland is listed as ancient woodland. The woodland that is onsite is semi mature, with scrub undergrowth. This woodland is referred to as 6G in BS8537 Tree report conducted by Arbtech 2026.

Table 5c: Species abundance for other woodland; broadleaved.

Abundance	Species
Dominant	English Oak (<i>Quercus robur</i>)
Abundant	Turkey Oak (<i>Quercus cerris</i>), Scots Pine (<i>Pinus sylvestris</i>)
Frequent	Rowan (<i>Sorbus aucuparia</i>)
Occasional	Goat Willow (<i>Salix caprea</i>), Wild Cherry (<i>Prunus avium</i>)
Rare	Field Maple (<i>Acer campestre</i>)

Hedgerows and lines of trees - Native hedgerow (h2a)

The site is enclosed by native hedgerow along sections of the northern site boundary. The hedgerow is actively maintained at ~1m (h) and ~1.5m(w). The hedgerow appears densely vegetated at canopy level, though the understorey is relatively open and sparsely vegetated.

Table 5d: Species abundance for native hedgerow.

Abundance	Species
Dominant	Hazel (<i>Corylus avellana</i>)
Abundant	-
Frequent	Dog roses (<i>Rosa canina</i>)
Occasional	Blackthorn (<i>Prunus spinosa</i>)
Rare	-

3.2 Foreseen Impacts

No direct impacts to any notable habitats will occur as a result of the proposed development. However, indirect effects such as pollution or habitat damage could occur during construction, whilst encroachment on the grassland by contractors and machinery could result in plants and biodiversity value being dug up or trampled on.

3.3 Recommendations

Best practice measures to minimise the possibility of pollution must be implemented during construction. This should include the following measures:

- Remove only the minimum of habitat required to facilitate the development
- Use of Heras or other appropriate fencing to prevent encroachment by contractors onto retained habitats.
- Protect retained turf and soil resource from destruction and compaction using plastic matting and wooden boarding. Do not store skips and other heavy materials on retained turf.
- Grasscrete, cell web or any other porous surface treatment facilitating recovery of vegetation is preferred to hard standing.

A Construction Ecological Management Plan (CEMP) may be required due to nearby ancient woodland and nearby wildlife site, outlining best practice measures delineate the construction zone and to minimise the possibility of pollution and habitat damage during construction.

Green Infrastructure Assessment

Planning Policy Wales (2024) requires all developments within Wales to conduct a Green Infrastructure Assessment to deliver Net Biodiversity Benefit and maintain biodiversity during development. Therefore, the planning application must be accompanied by a Green Infrastructure Statement to detail how the site is maintaining biodiversity and include recommendations to further enhance the site biodiversity.

4. INVASIVE SPECIES

This section may include further work you will need to commission (if any) to obtain planning permission or comply with legislation for other consent. All clients are expected to read and understand this section, or to contact the lead surveyor for advice.

4.1 Summary of Survey Findings

No non-native invasive or otherwise problematic plants were recorded on site or are considered likely to be on site, but, given seasonal limitations and the sites wider context, may be visible at other times of year.

4.2 Foreseen Impacts

None.

4.3 Recommendations

No further surveys but remain vigilant.

5. FAUNA: BATS

This section may include further work you will need to commission (if any) to obtain planning permission or comply with legislation for other consent. All clients are expected to read and understand this section, or to contact the lead surveyor for advice.

5.1 Summary of Survey Findings

EPSL data and local records

The following records have been returned from COFNOD within 2km of the site:

Lesser Horseshoe Bat – 4 records; closest 620m from the site.

Brown Long-eared Bat – 3 records; 620m from the site.

Pipistrelle Bat species – 2 records; 1.046km from the site.

Myotis Bat species – 2 records; 1,058km from the site.

Noctule – 1 record; 1.058km from the site.

Bat – 1 record; 1.773km from the site.

Long-eared Bat species – 1 record; 1.96km from the site.

The site is not within the zone of influence of a bat-designated SAC.

Foraging and commuting habitat

Habitats recorded on site are assessed to provide foraging and commuting opportunities for bats in the form of other neutral grassland, bramble scrub, other woodland; broadleaved and native hedgerow, and offsite within 2km including ancient semi natural woodland, lowland fens and reedbeds, restored ancient woodland site, plantation on ancient woodland site, traditional orchards and lowland calcareous grassland. These habitats are likely to provide micro-climatic conditions that support invertebrates that will in turn provide foraging opportunities for local bat populations.

Roosting habitat

There are no buildings on the site to provide suitable roosting habitat.

All trees within the woodland section that encroaches within the red line boundary were assessed to be NONE. This is due to the good condition of the trees, with no observed knot holes or crevices on the trees present.



Figure 1 - trees within RLB.

Furthermore T1 is located to the west of the site. The tree is observed to be densely vegetated , with access to the trunk obscured. Therefore, the tree is assessed to be NONE, due the vegetation clutter preventing flight paths to the tree.



Figure 2 T1

There are trees noted offsite, but within the adjacent woodland to the east of the site, such as an oak tree (GR: SH 93744 78125) which is located 5m from the boundary that has lifted bark and limb damage that offers suitable habitat for low numbers of roosting bats and is identified as PRF-I. However, as this is offsite, this is not anticipated to be directly impacted by the proposed works.

5.2 Foreseen Impacts

Roosting habitat [Buildings]

There are no buildings on site, therefore no impacts are foreseen.

Roosting habitat [Trees]

Trees within red line boundary are observed to have no suitable features to support roosting bats. Therefore, the felling or pruning of these trees are not observed to have an impact on roosting bats. However, the use of lighting onsite may impact roosting bats if utilising the trees within the retained woodland.

Foraging and commuting habitat

The proposed development will result in the loss of small areas of grassland and scrub but given their low value and the presence of more extensive areas of foraging and commuting habitat in the locality, this is likely to be inconsequential for bats.

Artificial lighting

The proposed development may lead to an increase in the amount of current lighting of surrounding habitats or the retained building without mitigation. This may disturb commuting bats.

5.3 Recommendations

Roosting habitat [Buildings]

None.

Roosting habitat [Trees]

In the unlikely event a bat is found during the works, all works must cease and a suitably experienced ecologist is contacted.

Foraging and commuting habitat

No further surveys are required.

Artificial lighting

A low impact lighting strategy will be adopted for the site during post-development which outlines the areas of the site that will be retained as dark corridors. Parameters can be found on the Bat Conservation Trust website: <https://www.bats.org.uk/news/2023/08/bats-and-artificial-lighting-at-night-ilp-guidance-note-update-released>

Suggested biodiversity enhancements

The installation of three bat boxes at the site will provide additional roosting habitat for bats.

The bat boxes will be incorporated into the fabric of the care home. Suitable bat boxes include Habibat Bat Box, Ibstock Enclosed Bat Box or similar alternative brand.

Bat boxes should be positioned 3-5m above ground level facing in a south or south-westerly direction with a clear flight path to and from the entrance, away from artificial light.

6. FAUNA: BIRDS

This section may include further work you will need to commission (if any) to obtain planning permission or comply with legislation for other consent. All clients are expected to read and understand this section, or to contact the lead surveyor for advice.

6.1 Summary of Survey Findings

Records

Over 100+ records of birds were returned from COFNOD within 2km and are summarised in appendix 6 of the report.

Buildings

There are no buildings on site.

Trees and vegetation

No bird nests were identified within the vegetation on-site, however bramble scrub offers nesting opportunities and nest-building resources for birds, other neutral grassland offers foraging opportunities, and other woodland; broadleaved and native hedgerow offer both nesting and foraging opportunities.

Due to the small size of the site and the extent and type of the habitats recorded, the site is not considered suitable to support a significant assemblage of protected and/or notable birds.

Barn Owls

The site does not appear to provide any suitable nesting sites for barn owls.

6.2 Foreseen Impacts

Trees

The proposed development could result in the destruction or the disturbance and subsequent abandonment of active bird nests.

Trees and vegetation

None foreseen.

Barn Owls

None foreseen.

6.3 Recommendations

Trees – nesting birds

Any vegetation removal should be undertaken outside the period 1st March to 31st August. If this timeframe cannot be avoided, a close inspection of the vegetation should be undertaken immediately, by a qualified ecologist, prior to the commencement of work. All active nests will need to be retained until the young have fledged or an ecologist has confirmed the nesting attempt has concluded.

Precautions should be taken with machinery and noise levels when working close to any retained nests so as not to disturb any nearby nesting birds during construction works. At least a 3-5m buffer should be created between any machinery and active nests until the young have fledged or an ecologist has confirmed the nesting attempt has concluded.

Breeding birds

No additional surveys required.

Barn Owls

No further barn owl surveys required.

Suggested biodiversity enhancements

The installation of a minimum of two bird boxes on mature trees around the site boundaries or integrated bird boxes on the new care home will provide additional nesting habitat for birds e.g. Schwegler No 17 Swift Nest Box (buildings), Schwegler 1SP Sparrow Terrace (buildings), Schwegler 1B Nest Boxes (trees), Schwegler 2H Robin Boxes (trees), Woodstone Nest Box (buildings or trees) or a similar alternative brand.

Tree boxes should be positioned approximately 3m above ground level where they will be sheltered from prevailing wind, rain and strong sunlight. Small-hole boxes are best placed approximately 1-3m above ground on an area of the tree trunk where foliage will not obscure the entrance hole.

Swift and sparrow boxes should be positioned at the eaves of a building and can be incorporated into the fabric of the building during construction.

7. FAUNA: REPTILES

This section may include further work you will need to commission (if any) to obtain planning permission or comply with legislation for other consent. All clients are expected to read and understand this section, or to contact the lead surveyor for advice.

7.1 Summary of Survey Findings

EPSL data and local records

COFNOD returned no records of reptiles within 2km of the site.

Habitat suitability

Habitats recorded on site are assessed to provide foraging, commuting, basking and refuge opportunities for reptiles. The hedgerow and scrub provide elevated value for reptiles as these habitats provide a suitable structure for refuge, whilst also providing foraging and commuting opportunities. However, it is important to note that the site is dominated by frequently managed grassland, introduced shrubs, buildings, and hardstanding of limited value to reptiles. These habitats are suboptimal due to an absence of notable habitat structure and diversity, which significantly limits refuge, foraging, and commuting opportunities, albeit they do provide some basking opportunities when located adjacent to potential refugia. The site has good connectivity to further suitable reptile habitat in the wider landscape via woodland. The presence of reptiles on site cannot be discounted, albeit likely limited to low numbers within peripheral scrub.

Wider landscape

The adjacent sections of woodland are of elevated ecological value within the wider landscape and may represent important resources for local reptile populations. These adjacent habitats provide optimal foraging, commuting, and refuge opportunities for reptiles and are well connected to further suitable habitat in the wider landscape. The presence of reptiles utilising these adjacent habitats cannot be discounted.

7.2 Foreseen Impacts

Although a small area of suitable habitat is being removed as part of the development, there is a low risk that a low number of reptiles could be present in the vicinity of the works. These could be injured or killed without mitigation.

7.3 Recommendations

A precautionary working method will be implemented for widespread reptiles during construction, including the following measures:

- Grassland will be subject to a two-stage cut (if sward is >10cm) prior to removal in a directional manner, the first cut at 10cm and the second to ground level and maintained as a short sward (5cm) or bare ground throughout construction.
- Removal of any root systems / refugia will be undertaken outside the reptile hibernation season (November – February).
- Any excavations will be covered overnight, or a ramp will be installed to enable any trapped animals to escape.
- Best practice pollution prevention measures will be implemented to minimise impacts to nearby habitats.
- Any chemicals or pollutants used or created by the development should be stored and disposed of correctly according to COSHH regulations.
- If any reptiles are found in the working area these should be allowed to disperse of their own accord or, if at immediate risk, should be moved by hand to a sheltered, vegetated area away from disturbance.
- In the unlikely event that a reptile is identified, works must cease and advice must be sought from a suitably qualified ecologist.

8. FAUNA: AMPHIBIANS

This section may include further work you will need to commission (if any) to obtain planning permission or comply with legislation for other consent. All clients are expected to read and understand this section, or to contact the lead surveyor for advice.

8.1 Summary of Survey Findings

EPSL and survey data

The following are records from COFNOD within 2km of the site:

Common Frog – 2 records – 1.147 km

Great Crested Newt – 1 record – 1.861 km

Palmate Newt – 1 record – 1.555 km

Smooth Newt – 1 record – 1.512 km

Aquatic habitat suitability (including ponds within 500m)

Great crested newts (GCN) exist in metapopulations and are known to utilise ponds and their connecting terrestrial habitat during their life cycle; great crested newts are typically found within terrestrial habitats up to 500m from breeding ponds (Langton et al. 2001).

There are no ponds on the site, but a review of aerial imagery (MAGIC and OS Maps) indicates the presence of ten ponds within 500m. The closest pond is located 25m E.

A pond map showing approximate pond locations is provided in Appendix 6.

Terrestrial habitat suitability

The site provides limited suitable terrestrial habitat for amphibians given the lack of optimal habitat (i.e. scrub, rank grassland). The areas of hard standing and grass offer sub-optimal habitat for terrestrial amphibians. The hedgerows may offer refuge for these species, however given the urban nature of the surrounding landscape (i.e. dominated by roads and hard standing which are sub-optimal for amphibians) it is unlikely that amphibians will migrate on to site.

8.2 Foreseen Impacts

When georeferencing the proposed development plans over scaled mapping of the site, it is noted that the development area is likely to result in the loss or significant disturbance of other neutral grassland. If great crested newts are present within pond 1 and 2, when completing the rapid risk assessment published by Natural England (Natural England 2015), the proposed development produces an amber risk score, which states: Offence likely. Without appropriate mitigation the proposed development would likely result in impacts to great crested newts.

8.3 Recommendations

Environmental DNA (eDNA) surveys will be required of ponds 1&2 (where accessible) to determine the presence or absence of great crested newts. This will comprise collecting water samples and sending them off for laboratory analysis and such surveys must be undertaken between mid-April and June, in accordance with current survey guidelines (Biggs et al, 2014).

The surveys are likely to be required before planning permission can be granted.

9. FAUNA: RIPARIAN ANIMALS

This section may include further work you will need to commission (if any) to obtain planning permission or comply with legislation for other consent. All clients are expected to read and understand this section, or to contact the lead surveyor for advice.

9.1 Summary of Survey Findings

The following records have been returned from COFNOD within 2km of the site:

Otter – 1 record; 1.245 km from the site.

Water Vole – 1 record; 1.391 km from the site.

Habitat suitability

There are no water courses on or connected to the site. There are also no riparian habitats present on site or within an influencing distance. From the review of MAGIC and Google Maps, there appears to be a wet ditch. However, the ditch is observed to be dry at the time of survey.

9.2 Foreseen Impacts

No impacts are anticipated on riparian animals as a result of the proposed development.

9.3 Recommendations

No further surveys for riparian animals required.

10. FAUNA: HAZEL DORMOUSE

This section may include further work you will need to commission (if any) to obtain planning permission or comply with legislation for other consent. All clients are expected to read and understand this section, or to contact the lead surveyor for advice.

10.1 Summary of Survey Findings

EPSL data and local records

No records of hazel dormice have been returned from COFNOD.

Habitat suitability

Dormice typically utilise a three-dimensional habitat structure as to commute between feeding and breeding sites whilst avoiding predation. As such habitats on site are considered unsuitable for hazel dormice and therefore the likelihood of this species being present on site is considered acceptably low.

Furthermore, for isolated habitats in the UK, research indicates that dormice require 20ha of woodland habitat to support a viable population (Bright et al. 1994). Although 20ha of woodland is not present on or directly adjacent to the sites, the hedgerows present are connected to an extensive hedgerow network within the wider landscape, which in turn, are connected to multiple woodland pockets.

10.2 Foreseen Impacts

Grassland and scrub will be removed during construction. The loss of such habitats is likely to be inconsequential to local dormouse populations owing to their low value and the presence of more extensive habitat locally. However, site clearance could result in the death or injury of dormice, if present.

10.3 Recommendations

No further hazel dormouse surveys required.

11. FAUNA: BADGERS

This section may include further work you will need to commission (if any) to obtain planning permission or comply with legislation for other consent. All clients are expected to read and understand this section, or to contact the lead surveyor for advice.

11.1 Summary of Survey Findings

The following is a summary of records of badger within 2km of the site:

Badger – 32 records; 443–2,000 m from the site, with the closest sett 720m away from site.

No badger setts were noted on site or within a 30m radius of the site. Further, no evidence of foraging badgers was noted within the development area. However, the site was considered suitable for badger sett excavation and foraging habitat.

11.2 Foreseen Impacts

No works will be undertaken within 30m of a badger sett. Grassland will be removed during construction. The loss of such habitats is likely to be inconsequential to local badger populations owing to their low value and the presence of more extensive habitat locally. However, construction activities could result in the death or injury of badgers, if present.

11.3 Recommendations

Owing to the nature of the proposed development and the low potential for impacts to badgers, further badger surveys are considered to be disproportionate. A precautionary working method will be implemented during construction, including the following measures:

- A pre-commencement inspection of the site will be undertaken for any new badger activity if works do not commence within three months.
- Any excavations will be covered overnight, or a ramp will be installed to enable any trapped animals to escape.
- The use of night-time lighting will be avoided, or sensitive lighting design will be implemented to avoid light spill on to retained habitats which badgers could use.
- Any chemicals or pollutants used or created by the development should be stored and disposed of correctly according to COSHH regulations.
- In the unlikely event that a badger sett is identified, works must cease and advice must be sought from a suitably qualified ecologist.

12. FAUNA: INVERTEBRATES

This section may include further work you will need to commission (if any) to obtain planning permission or comply with legislation for other consent. All clients are expected to read and understand this section, or to contact the lead surveyor for advice.

12.1 Summary of Survey Findings

The habitats present on-site, including grassland, woodland and scrub, likely provide common invertebrates with opportunities to forage and shelter. The site contains no further notable habitats which may provide niches for specialised or protected invertebrates.

12.2 Foreseen Impacts

None foreseen.

12.3 Recommendations

No further surveys.

13. FAUNA: OTHER NOTABLE SPECIES

This section may include further work you will need to commission (if any) to obtain planning permission or comply with legislation for other consent. All clients are expected to read and understand this section, or to contact the lead surveyor for advice.

13.1 Summary of Survey Findings

Hedgehogs

The following are records of other mammals within 2km from COFNOD:

Hedgehog – 47 records; 206–1,997 m from the site.

The scrub and woodland onsite provides foraging and commuting opportunities for hedgehogs, with further woodland habitat nearby.

13.2 Foreseen Impacts

Hedgehogs

Grassland and scrub will be removed during construction. The loss of such habitats is likely to be inconsequential to local hedgehog populations owing to their low value and the presence of more extensive habitat locally. However, construction activities could result in the death or injury of hedgehogs, if present.

13.3 Recommendations

Hedgehogs

Similar to the badgers, a precautionary working method will be implemented during construction, including the following measures:

- Any excavations will be covered overnight, or a ramp will be installed to enable any trapped animals to escape.
- The use of night-time lighting will be avoided, or sensitive lighting design will be implemented to avoid light spill on to retained habitats which hedgehogs could use.
- Any chemicals or pollutants used or created by the development should be stored and disposed of correctly according to COSHH regulations.

If any hedgehogs are found in the working area these should be allowed to disperse of their own accord or, if at immediate risk, should be moved by hand to a sheltered, vegetated area away from disturbance.

13.4 Suggested Biodiversity Enhancements

Hedgehogs

The following habitat creation and enhancement opportunities could be incorporated into the proposed development which would be beneficial for hedgehogs:

- Planting species-rich grassland to increase foraging opportunities.
- Creation of brash piles or installation of hedgehog houses in shady areas.
- Installation of gaps under boundary fencing to enable hedgehogs to move freely through the site.

APPENDIX 1: SURVEY/HABITAT MAP



APPENDIX 2: LOCATION MAP



APPENDIX 3: PROPOSED PLAN



APPENDIX 4: HABITAT IMAGES



Other neutral grassland



Bramble scrub



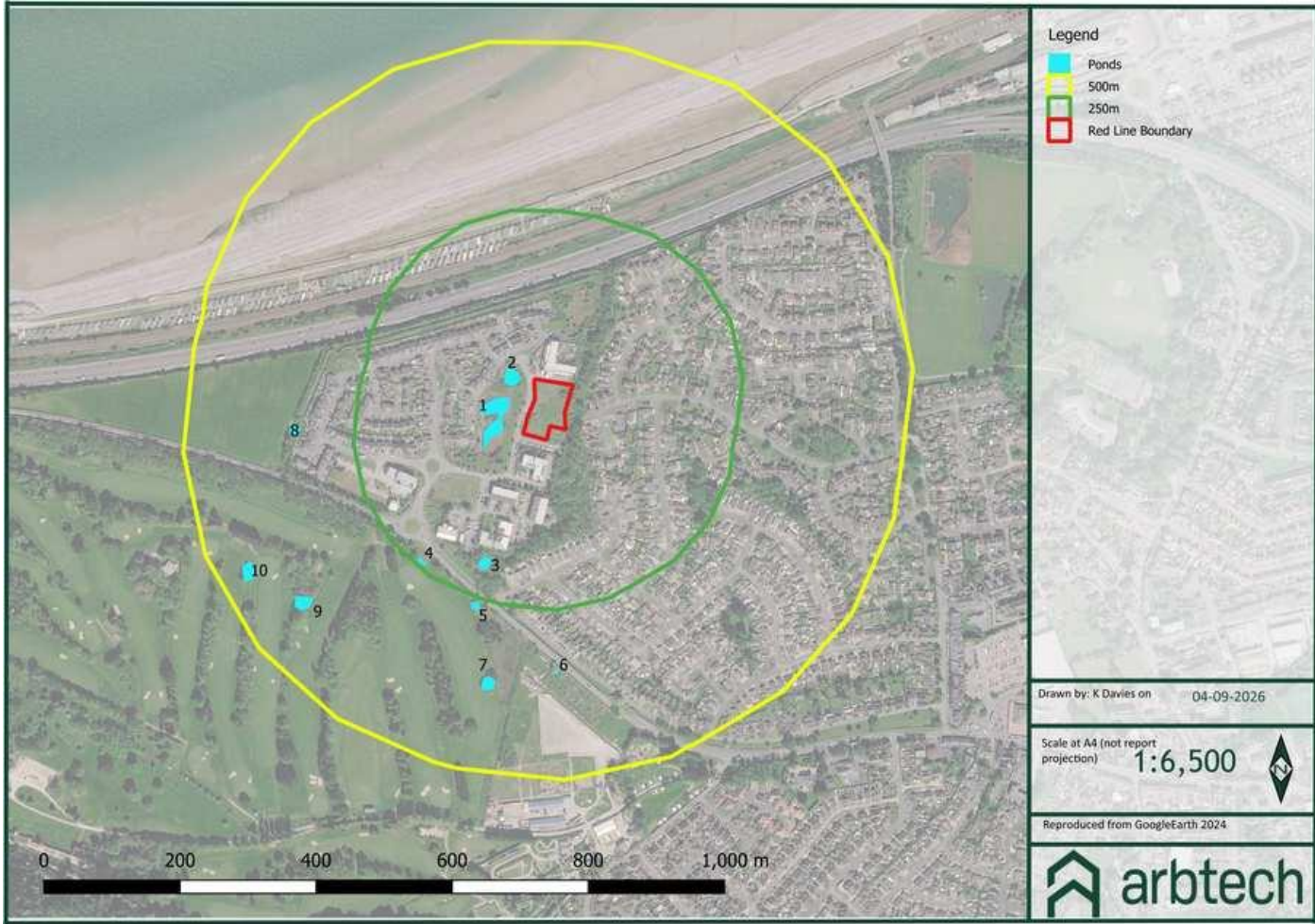
Other woodland; broadleaved



Native hedgerow

APPENDIX 5: PONDS

Pond Map



APPENDIX 6: BIRD RECORDS WITHIN 2KM AS RETURNED FROM COFNOD:

Coot – 10 records – 0.065 km
Moorhen – 5 records – 0.065 km
Starling – 12 records – 0.284 km
Black-headed Gull – 13 records – 0.304 km
Common Gull – 8 records – 0.304 km
Great Black-backed Gull – 10 records – 0.304 km
Herring Gull – 31 records – 0.304 km
Lesser Black-backed Gull – 6 records – 0.304 km
Mallard – 6 records – 0.304 km
Dunnoek – 15 records – 0.297 km
Ringed Plover – 5 records – 0.329 km
House Sparrow – 33 records – 0.326 km
Meadow Pipit – 9 records – 0.344 km
Curlew – 15 records – 0.368 km
Oystercatcher – 14 records – 0.368 km
Bullfinch – 9 records – 0.463 km
Coal Tit – 6 records – 0.463 km
Common Sandpiper – 3 records – 0.463 km
Great White Egret – 3 records – 0.463 km
Greylag Goose – 3 records – 0.463 km
Kingfisher – 3 records – 0.463 km
Lapwing – 1 record – 0.463 km
Leach's Petrel – 3 records – 0.463 km
Shoveler – 2 records – 0.463 km
Whimbrel – 3 records – 0.463 km
Whinchat – 1 record – 0.463 km
Wigeon – 3 records – 0.463 km
Swift – 16 records – 0.487 km

Magpie – 15 records – 0.538 km
Sedge Warbler – 2 records – 0.546 km
Redshank – 7 records – 0.568 km
Great Crested Grebe – 4 records – 0.579 km
House Martin – 10 records – 0.588 km
Snipe – 4 records – 0.620 km
Firecrest – 1 record – 0.620 km
Lesser Redpoll – 1 record – 0.620 km
Linnet – 6 records – 0.620 km
Rook – 7 records – 0.620 km
Stock Dove – 4 records – 0.620 km
Grey Heron – 5 records – 0.648 km
Teal – 4 records – 0.649 km
Grey Wagtail – 5 records – 0.656 km
Chaffinch – 11 records – 0.697 km
Collared Dove – 7 records – 0.697 km
Greenfinch – 12 records – 0.697 km
Redwing – 15 records – 0.697 km
Shelduck – 3 records – 0.697 km
Song Thrush – 12 records – 0.697 km
Water Rail – 1 record – 0.697 km
Mistle Thrush – 13 records – 0.710 km
Sandwich Tern – 4 records – 0.773 km
Wheatear – 5 records – 0.802 km
Snow Bunting – 2 records – 0.857 km
Dunlin – 1 record – 0.857 km
Sanderling – 2 records – 0.857 km
Shag – 2 records – 0.857 km
Turnstone – 3 records – 0.857 km
Black Tern – 2 records – 0.897 km
Barnacle Goose – 2 records – 0.897 km

Bar-tailed Godwit – 1 record – 0.897 km
Black-tailed Godwit – 2 records – 0.897 km
Carbo Cormorant – 1 record – 0.897 km
Eider – 1 record – 0.897 km
Great Skua – 1 record – 0.897 km
Knot – 1 record – 0.897 km
Peregrine – 3 records – 0.897 km
Spotted Flycatcher – 3 records – 0.897 km
Tawny Owl – 4 records – 0.897 km
Cuckoo – 2 records – 0.948 km
Goldcrest – 6 records – 0.948 km
Ring Ouzel – 1 record – 0.948 km
Sparrowhawk – 5 records – 0.948 km
Goshawk – 1 record – 0.987 km
Skylark – 4 records – 0.987 km
Whitethroat – 6 records – 1.020 km
Green Woodpecker – 1 record – 1.061 km
Mediterranean Gull – 2 records – 1.216 km
Kittiwake – 1 record – 1.274 km
Whooper Swan – 1 record – 1.274 km
Gannet – 2 records – 1.295 km
Great Northern Diver – 1 record – 1.436 km
Red Kite – 2 records – 1.477 km
Long-tailed Duck – 2 records – 1.681 km
Fieldfare – 3 records – 1.773 km
Pink-footed Goose – 3 records – 1.825 km
Golden Plover – 2 records – 1.842 km
Reed Bunting – 3 records – 1.842 km
Yellow Wagtail – 1 record – 1.842 km
European White-fronted Goose – 1 record – 1.888 km

Jack Snipe – 1 record – 1.888 km

Ruff – 1 record – 1.888 km

APPENDIX 7: BRD OF FLOWERING PLANTS WITHIN 2KM OF THE SITE AS RETURNED FROM COFNOD:

Rough Hawk's-beard – 2 records – 0.079 km
Common Club-rush – 1 record – 0.104 km
Tall Melilot – 1 record – 0.104 km
Bee Orchid – 11 records – 0.168 km
Common Spotted-orchid – 4 records – 0.168 km
Pyramidal Orchid – 22 records – 0.168 km
Southern Marsh-orchid – 5 records – 0.168 km
Unnamed species – 7 records – 0.171 km
Black-poplar – 1 record – 0.241 km
Bay Willow – 1 record – 0.251 km
Field Maple – 1 record – 0.251 km
Ploughman's-spikenard – 6 records – 0.271 km
Yellow-wort – 5 records – 0.292 km
Pale Flax – 4 records – 0.299 km
Flattened Meadow-grass – 1 record – 0.314 km
Hard Rush – 1 record – 0.327 km
Bloody Crane's-bill – 4 records – 0.368 km
Lesser Chickweed – 1 record – 0.368 km
Sea-holly – 12 records – 0.369 km
English Stonecrop – 2 records – 0.393 km
Knotted Clover – 3 records – 0.393 km
Sea Beet – 8 records – 0.393 km
Sea Radish – 6 records – 0.393 km
Sea Spurge – 2 records – 0.393 km
Sea Champion – 5 records – 0.397 km
White Champion – 11 records – 0.397 km

Kidney Vetch – 7 records – 0.400 km
Lyme-grass – 3 records – 0.400 km
Rock Samphire – 3 records – 0.400 km
Rock Whitebeam – 1 record – 0.400 km
Sea-kale – 11 records – 0.400 km
Spotted Medick – 7 records – 0.400 km
Yellow Horned-poppy – 12 records – 0.400 km
Alexanders – 13 records – 0.443 km
Common Restharrow – 9 records – 0.443 km
Field Madder – 3 records – 0.443 km
Little Mouse-ear – 1 record – 0.443 km
Sand Couch – 4 records – 0.443 km
Sea Mouse-ear – 2 records – 0.443 km
Strawberry Clover – 1 record – 0.443 km
Thyme-leaved Sandwort – 5 records – 0.443 km
Charlock – 1 record – 0.463 km
Hare's-foot Clover – 1 record – 0.463 km
Weld – 3 records – 0.463 km
White Ramping-fumitory – 3 records – 0.463 km
Sea Sandwort – 4 records – 0.470 km
Spurge-laurel – 5 records – 0.620 km
Feverfew – 3 records – 0.623 km
Small-flowered Crane's-bill – 1 record – 0.623 km
Knotted Hedge-parsley – 1 record – 0.633 km
Radish – 6 records – 0.639 km
Wild Teasel – 3 records – 0.701 km
Chicory – 5 records – 0.714 km
Great Lettuce – 4 records – 0.716 km
Caper Spurge – 2 records – 0.727 km
Field Bindweed – 3 records – 0.727 km
Annual Pearlwort – 1 record – 0.729 km

Hoary Ragwort – 3 records – 0.729 km
Wild Cabbage – 1 record – 0.729 km
Wild Celery – 1 record – 0.729 km
Bluebell – 7 records – 0.764 km
Crosswort – 2 records – 0.773 km
Scentless Mayweed – 1 record – 0.773 km
Spiked Sedge – 2 records – 0.773 km
Wild Leek – 4 records – 0.773 km
Greater Pond-sedge – 1 record – 0.791 km
Bladder Campion – 3 records – 0.826 km
Hybrid Campion – 2 records – 0.826 km
Water Figwort – 2 records – 0.847 km
Blue Fleabane – 1 record – 0.857 km
Hoary Willowherb – 2 records – 0.857 km
Tall Ramping-fumitory – 2 records – 0.857 km
Common Whitebeam – 1 record – 0.894 km
Welsh Poppy – 4 records – 0.897 km
Goat's-beard – 4 records – 0.904 km
Hairy St John's-wort – 3 records – 0.904 km
Long-headed Poppy – 2 records – 0.908 km
Rough Clover – 1 record – 0.935 km
Daffodil – 1 record – 0.947 km
Stinking Hellebore – 14 records – 0.971 km
Spiny Restharrow – 1 record – 1.023 km
Ivy Broomrape – 4 records – 1.036 km
Babington's Orache – 1 record – 1.176 km
Ray's Knotgrass – 1 record – 1.252 km
Carline Thistle – 1 record – 1.274 km
Rusty Willow – 1 record – 1.274 km
Bird's-nest Orchid – 1 record – 1.342 km
Common Rock-rose – 4 records – 1.363 km

Quaking-grass – 3 records – 1.363 km
Hairy-brome – 1 record – 1.416 km
Wood Millet – 1 record – 1.416 km
Common Gromwell – 1 record – 1.442 km
Cowslip – 5 records – 1.442 km
Downy Oat – 3 records – 1.442 km
Goldenrod – 1 record – 1.442 km
Hairy Violet – 1 record – 1.442 km
Small Scabious – 1 record – 1.442 km
Spring Cinquefoil – 2 records – 1.442 km
Spring-sedge – 1 record – 1.442 km
Wild Madder – 2 records – 1.442 km
Early-purple Orchid – 5 records – 1.443 km
Wild Mignonette – 4 records – 1.461 km
Marram – 2 records – 1.501 km
Water Avens – 1 record – 1.510 km
Bell Heather – 1 record – 1.536 km
Chives – 1 record – 1.555 km
Guelder-rose – 1 record – 1.555 km
Marsh-marigold – 1 record – 1.555 km
Yellow Loosestrife – 1 record – 1.555 km
Red Goosefoot – 1 record – 1.563 km
Pale Persicaria – 1 record – 1.581 km
Goldilocks Buttercup – 2 records – 1.598 km
Black-bindweed – 1 record – 1.679 km
Scented Mayweed – 1 record – 1.679 km
Small Nettle – 1 record – 1.679 km
Narrow-leaved Meadow-grass – 1 record – 1.771 km
Zigzag Clover – 1 record – 1.771 km
Meadow Barley – 1 record – 1.797 km
Grey Sedge – 1 record – 1.819 km

Greater Butterfly-orchid – 1 record – 1.841 km
Lesser Butterfly-orchid – 1 record – 1.841 km
Wood Melick – 2 records – 1.841 km
Burnet-saxifrage – 3 records – 1.845 km
Yellow Oat-grass – 1 record – 1.845 km
False Oxlip – 2 records – 1.851 km
Many-leaved Sedge – 1 record – 1.896 km
Common Milkwort – 1 record – 1.940 km
Wild Basil – 1 record – 1.955 km
Wormwood – 2 records – 1.973 km
Pale St John's-wort – 1 record – 1.993 km
Crested Hair-grass – 1 record – 2.000 km
Early Forget-me-not – 1 record – 2.000 km
Wild Thyme – 1 record – 2.000 km

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