

kite ecology

Extended Phase 1 and Protected Species Survey

**Land to the south of Cleggars Park, Lamphey,
Pembrokeshire**

Millbay Homes Ltd

Final Report

December 2022

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This report, and the information contained in it, is intended to be valid for a maximum of 12 months from the date of the survey, providing no significant baseline changes have occurred.

Project number	Report number	Revision number	Date of issue
1927	002	Draft	28072022
1927	002	Final based on feedback	09122022

1 Executive Summary

- 1.1 An extended phase 1 and protected species survey of land to the south of Cleggars Park, Lamphey, Pembrokeshire were commissioned by Millbay Homes Ltd in relation to a planning application. Under the current proposals, the land would be developed for housing.
- 1.2 A walkover survey of the site was carried out on 8th July 2022 when it was surveyed for evidence of use by protected species including badgers, bats, dormice, birds and reptiles as these were considered the species most likely to utilise the site. Habitats on site were also recorded. All surveys were completed by a suitably licensed and experienced ecologist.
- 1.3 No evidence of protected species was found on site. The site comprises an improved agricultural field which has recently been cut. The hedgerows surrounding the site are species rich, but are well maintained as boundary features.
- 1.4 While there was no evidence of protected species on site, the development should be used as an opportunity to improve the biodiversity of the site. It is considered unlikely that the development would impact on the biodiversity of the area.

2 Introduction and site description

- 2.1 An extended phase 1 and protected species survey of land to the south of Cleggars Park, Lamphey, Pembrokeshire were commissioned by Millbay Homes Ltd in relation to a planning application. Under the current proposals, the land would be developed for housing. The centre of the site is located at OSGR SS01519998.
- 2.2 The survey relates to a section of an agricultural field located to the south of Cleggars Park (Figure 1). The field is accessed via an existing gateway between two existing properties on the western boundary. The extent of the survey is shown in Figure 1 with a panoramic view of the site in Figure 2.



Figure 1. Survey area.



Figure 2. Panoramic photograph of the site taken from the south western corner facing north eastwards.

2.3 Unless the client indicates otherwise, all species records will be submitted to the relevant biological records centre.

3 Desk study and survey methodology

3.1 General

A walkover survey of the site was carried out on 8th July 2022 when it was surveyed for evidence of use by protected species including badgers, bats, dormice, birds and reptiles as these were considered the species most likely to utilise the site. Habitats on site were also recorded. The weather during the surveys was clear (100% cover), with south westerly winds of Force 1 and average temperature of 24°C. All surveys were undertaken by a suitably licensed ecologist who is a full member of the Chartered Institute of Ecology and Environmental Management and a Chartered Environmentalist. Surveys and reports have been completed following accepted guidelines and in accordance with

CIEEM Guidelines for Ecological Report Writing (2015) and BS 42020:2013 *Biodiversity. Code of practice for planning and development.* (2013).

3.2 Desk study

3.2.1 A data search for a radius of 2km was commissioned from the West Wales Biological Information Centre, with dormouse records searched for a radius of 5km.

3.2.2 Aerial photographs

Google Earth was used to identify any important landscape features surrounding the site.

3.2.3 Designated sites

The Multi-Agency Geographic Information website (www.magic.gov.uk) was used to identify the presence of any protected sites within 2km of the survey area.

3.3 On site surveys

3.3.1 Phase 1

A Phase 1 habitat survey was carried out following the standard field methodology set out in the *Handbook for Phase 1 Habitat Survey – A Technique for Environmental Audit*, Joint Nature Conservation Committee 1990 (2003 edition).

3.3.2 Badgers

The site, and where possible, a radius of 30 metres from the site boundary was searched for badger setts. Sett entrances are recognised by entrances c.300mm wide and c.200mm high and tend to have large accumulations of earth outside. Other signs searched for included 'snuffle holes' (holes dug by badgers when searching for invertebrates), 'dung pits' (small pits in which badgers deposit their faeces) and 'day nests' (nests of bedding material made by badgers for sleeping above ground).

3.3.3 Bats

3.3.3.1 Trees

Any trees were assessed for their potential use by roosting bats. Features such as peeling bark, woodpecker holes, splits and cracks were recorded. Trees were classed as being of low, medium or high bat potential depending on their suitability.

3.3.4 Dormice

The hedges, scrub and woodland were assessed for their potential use by dormice and any areas of fruiting hazel were searched for hazel nuts opened in the characteristic way. As there was no hazel present, a nut search was not possible, but a fingertip search of the hedgerows was conducted on 27th October 2020 (as part of a previous survey) and again on 8th July 2022. During this, all five hedgerows surrounding the site (including H1 and H2 which appear to be of very limited suitability) were searched for dormouse nests. During the search, the surveyor checked all vegetation for the presence of dormouse nests. Dormouse nests are distinctive in that nest material is characteristically woven together and often includes green material. Completing the survey in late October meant that much of the vegetation had begun to die back, so making searching easier, while conducting it again in July meant the search also

included summer nests. Both surveys lasted for over 2 hours with all sections of hedgerow carefully searched. No sections of hedgerow were inaccessible.

3.3.5 Birds

Any birds seen or heard on site during the survey were recorded.

3.3.6 Reptiles

The habitat was assessed for its potential use by reptiles with any suitable habitat or features also being recorded.

3.3.7 Other species

Incidental records of any other species seen or heard on site during the survey were also recorded.

4 Results

4.1 Data search

There are over 17,000 individual species records within a 2km radius of the site. The most relevant of these relate to bat roosts 180m to the north and include common pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle *Pipistrellus pygmaeus* and brown long eared *Plecotus auritus*. Further bat records for Whiskered/Brandt's *Myotis mystacinus/brandtii*, greater horseshoe *Rhinolophus ferrumequinum* and lesser horseshoe *Rhinolophus hipposideros* existing within 2km of the site. Over 16000 of the records relate to *Lepidoptera* records at three sites within 2km of the site. The species records are summarised on Figure 3. There are also a number of ancient woodland sites within the 2km radius, as shown on Figure 4.

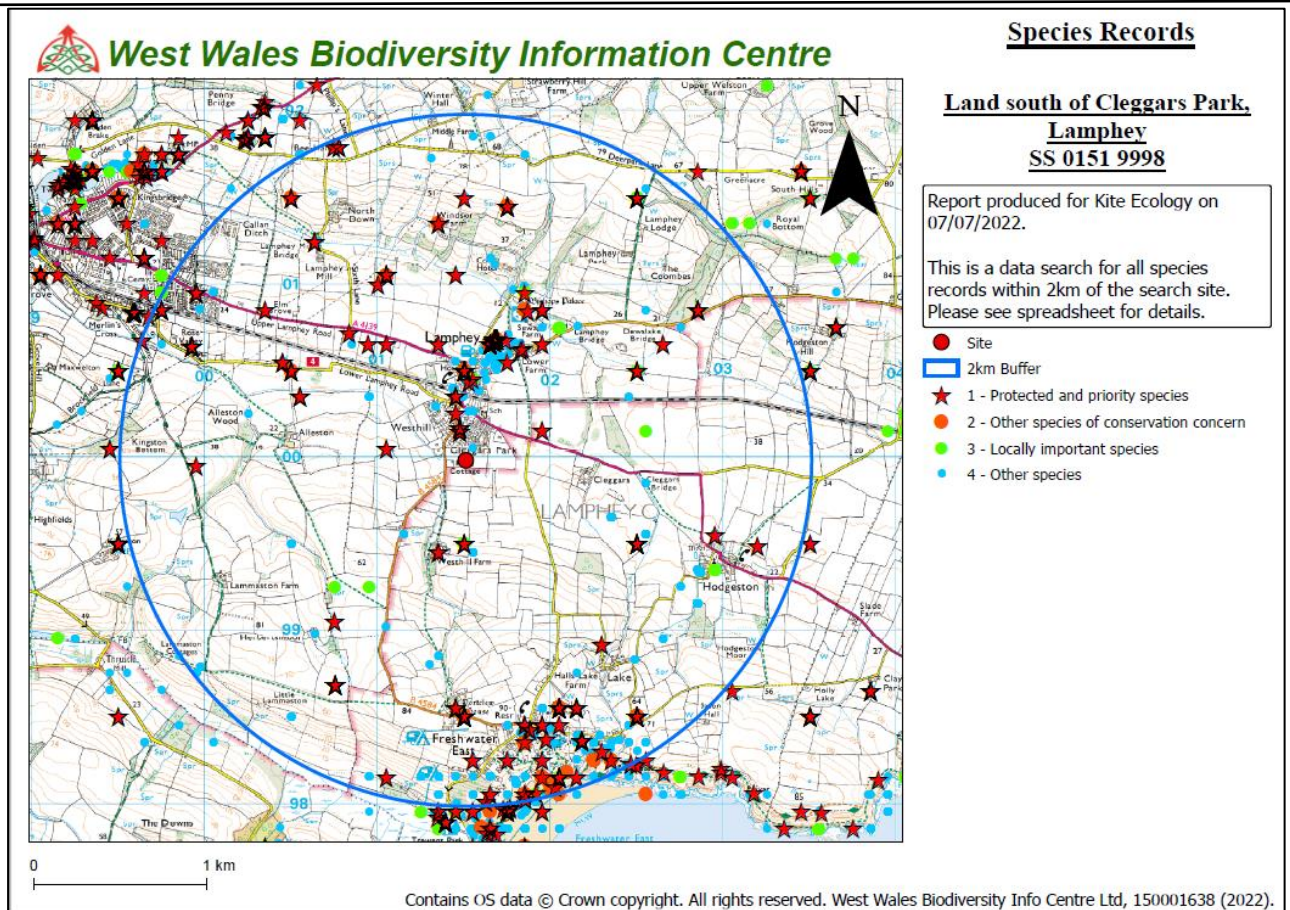


Figure 3. Summary of species records within a 5km radius of the site.

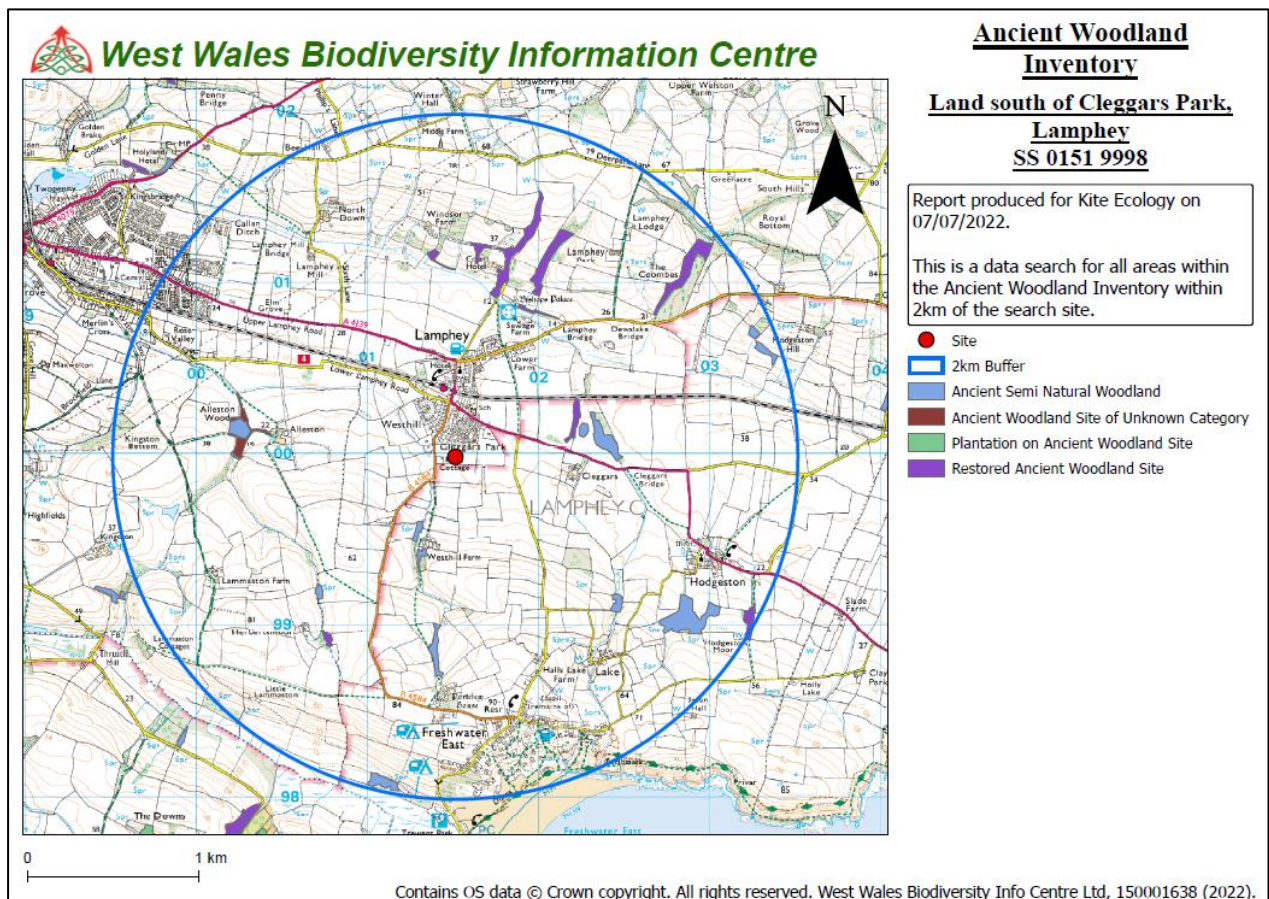


Figure 4. Ancient woodland sites within a 2km radius of the site.

4.2 Aerial photographs

Situated to the south of the village of Lamphey, there are existing properties along the northern and western boundaries, with additional agricultural fields to the south and west. The hedgerows surrounding the fields continuous as boundary features, linking the site with the surrounding habitat of mixed agriculture. The surrounding habitats are visible in Figure 5.

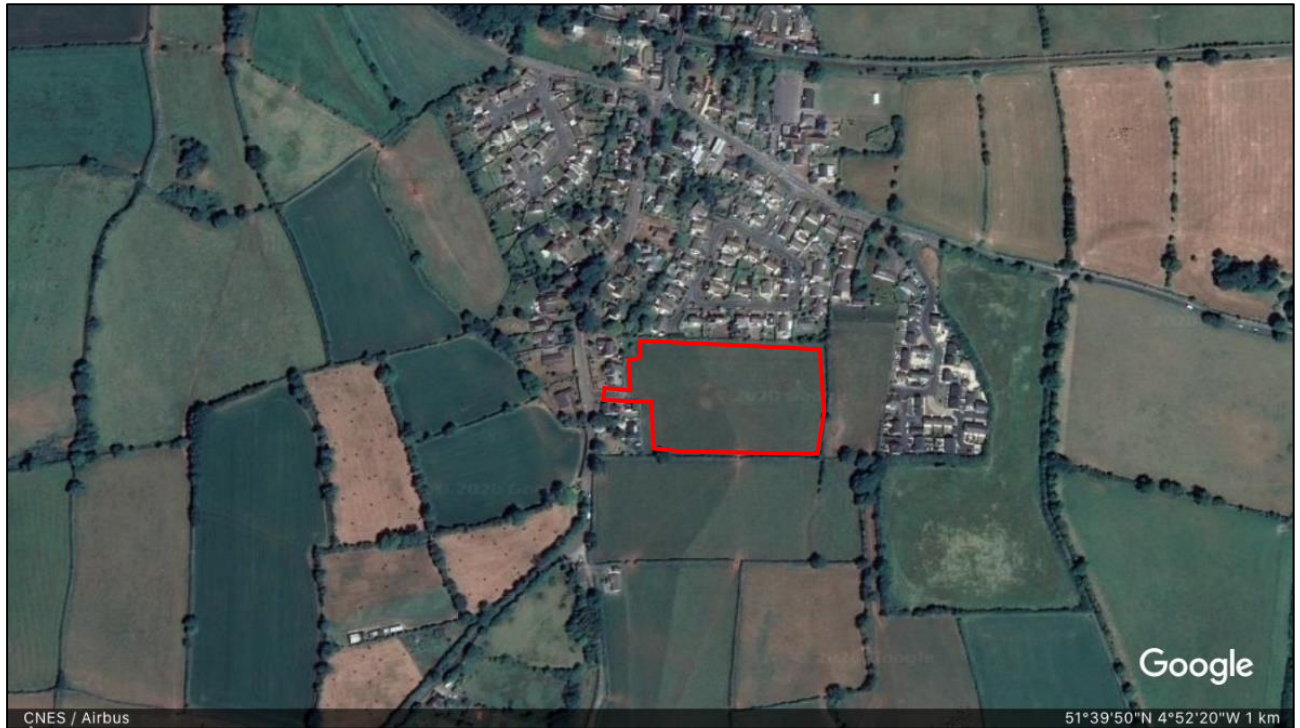


Figure 5. Aerial photograph of the site in relation to the surrounding habitats.

4.3 Designated sites

The site is 1.2km to the north of Freshwater East Cliffs to Skrinkle Haven Site of Special Scientific Interest which also forms part of the Pembrokeshire Marine SAC. It is also 1.2km to the north of Freshwater East Local Nature Reserve and the small section of field to the south west, is located within the Pembrokeshire Coast National Park. The designated sites are summarised in Figure 6.

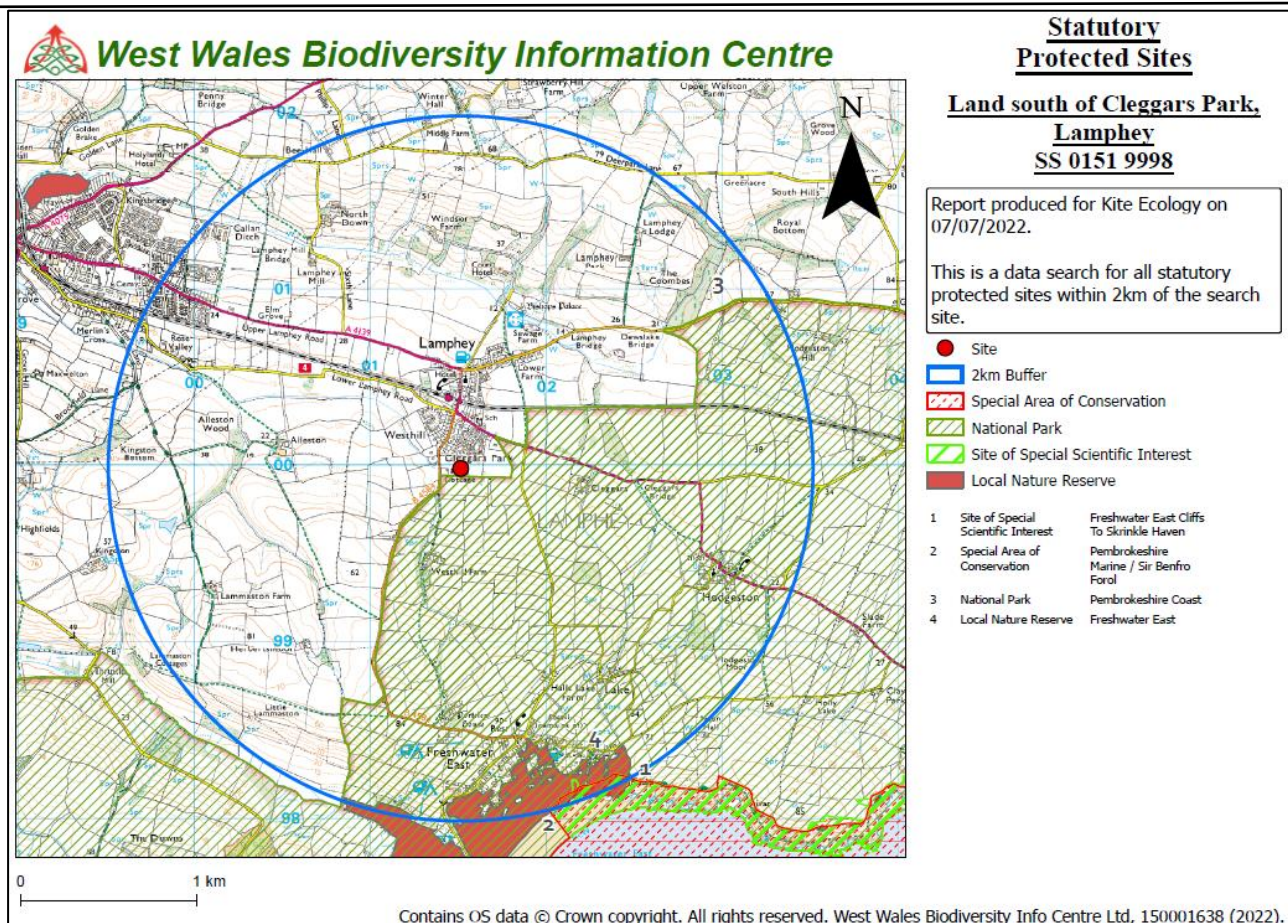


Figure 6. Designated sites in relation to the site.

4.4 On site surveys

4.4.1 Phase 1

4.3.1.1 H1 – western boundary of northern field

A retaining wall dividing the houses to the west from the agricultural field (Figure 7). There were occasional patches of bramble *Rubus fruticosus agg.* along the boundary walls.



Figure 7. H1 - western boundary of northern field.

4.3.1.2 H2 – northern boundary

A hedgerow c.2.5m high and 1.5m wide, which includes hawthorn *Crataegus monogyna*, blackthorn *Prunus spinosa*, sycamore *Acer pseudoplatanus*, elder *Sambucus nigra* and holly *Ilex aquifolium*. There hedgerow also includes bramble, ivy *Hedra helix*, nettle *Urtica dioica*, red campion *Silene dioica*. As a boundary feature, the hedgerow has been well maintained on the southern (field) side. The hedgerow is shown in Figure 8.



Figure 8. H2 – northern boundary hedgerow.

4.3.1.3 H3 – eastern boundary

A hedgerow c.3m high and 2.5m wide, which includes hawthorn, blackthorn, ash *Fraxinus excelsior*, sycamore, elder and holly. There hedgerow also includes bramble, ivy, nettle, red campion. As a boundary feature, the hedgerow has been well maintained on the western side. The hedgerow is shown in Figure 9.



Figure 9. H3. Eastern boundary hedgerow.

4.3.1.4 H4 – southern boundary

A hedgerow c.2m high and 1.5m wide, which includes hawthorn, blackthorn, ash *Fraxinus excelsior*, sycamore, elder and holly. There hedgerow also includes bramble, ivy, nettle, red campion. As a boundary feature, the hedgerow has been well maintained on both elevations. The hedgerow is shown in Figure 10.



Figure 10. H4. Southern boundary hedgerow.

4.3.1.6 Grassland

The main section of the field (Figure 11) is improved grassland which has recently been cut. The grass appears to have been dominated by perennial rye grass *Lolium perenne*, but also included Timothy *Phleum pratense*, rough meadow grass *Poa trivialis*, crested dogs tail *Cynosurus cristatus*, clover *Trifolium sp.*, broad leaved dock *Rumex obtusifolius* and common sorrel *Rumex acetosa*.



Figure 11. Overview of the northern field facing north eastwards.

The habitats are summarised in Figure 12.

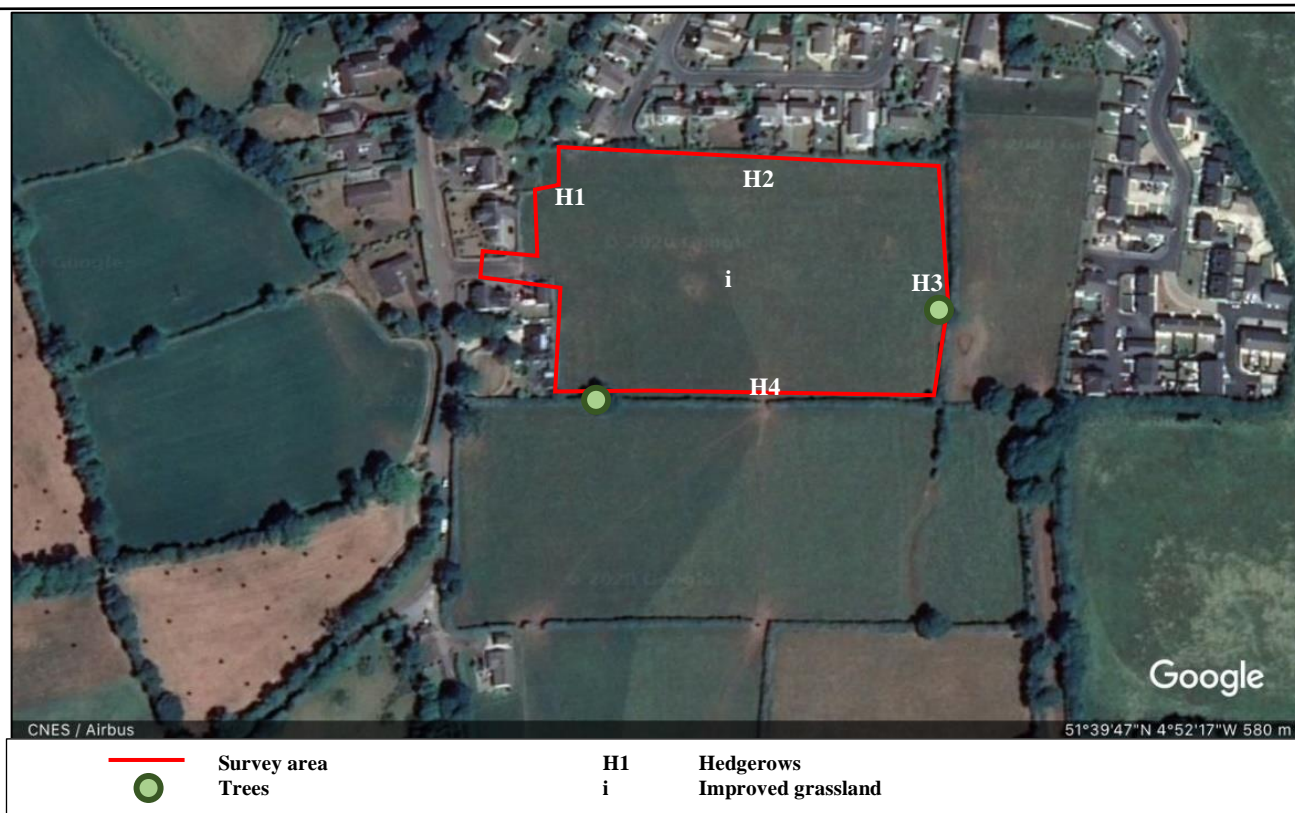


Figure 12. Phase 1 habitat map.

4.3.2 Badgers

There was no evidence of badgers on site, or within a 30m radius of the boundary.

4.3.3 Bats

4.3.3.1 Trees

There are two mature ash trees in H3 and H4 (shown on Figure 12). Neither of the trees had features suitable for roosting bats. Both were classed as being of low Bat Roosting Feature potential. It is however likely that the site would be used by foraging and commuting bats.

4.3.4 Dormice

There are no known records for dormice within a 5km radius of the site. H1 and H2 back on to houses and are well maintained by the previous owner, making them unlikely to be utilised by dormice. H3 and H4 are internal and roadside hedgerows, all of which are very well maintained. As there was no hazel present, a nut search was not possible, but a fingertip search of the hedgerows was conducted on 27th October 2020. During this, all four hedgerows surrounding the site (including H1 and H2 which appear to be of very limited suitability) were searched for dormouse nests. Completing the survey in late October meant that much of the vegetation had begun to die back, so making searching easier. The survey lasted for over 2 hours with all sections of hedgerow carefully searched by hand. No sections of hedgerow were inaccessible. No nests were found in any of the hedgerows. The fingertip search was repeated in July 2022. While the vegetation is denser at this time of year, due to the maintenance of the hedgerows, a fingertip search was still possible and no nests were found.

4.3.5 Birds

House sparrow *Passer domesticus*, collared dove *Streptopelia decaocto*, blackbird *Turdus merula*, woodpigeon *Columba palumbus* and crow *Corvus corone* were all seen or heard on site during the survey. It is likely that the hedgerows are used by nesting birds at appropriate times of year.

4.3.6 Reptiles

The uniformly short sward height of the vegetation on site makes it very unlikely to be used by reptiles.

4.3.7 Other species

No other species were recorded.

5 Limitations to surveys

5.1 While full dormouse surveys have not been completed, in the opinion of the surveyor, fingertip searches are sufficient in this instance as the hedgerows were of relatively low suitability for use by dormice and there are no known records within a 5km radius of the site. The survey effort completed to date is considered sufficient in this instance.

5.2 No bat transect or static detector surveys have taken place as while there are a number of known roosts to the north of the site, there is existing housing to the north, east and west so foraging and commuting is most likely restricted to the southern boundary which is to remain in place as part of the scheme. In the opinion of the surveyor, transect and static detector surveys would not have provided any additional information as the site layout already includes features to allow any bats to continue to forage and commute around the site.

5.3 The results and recommendations of the report are based on findings as they were at the time of the survey. Kite Ecology cannot be held responsible for any base line changes to the site that have occurred since the survey was carried out that may have any effect on the results and recommendations.

6 Legislation and planning policy

6.1 Designated sites

Special Areas of Conservation and Sites of Special Scientific Interest are strictly protected through both European Directives and UK legislation including the conservation and Habitats and Species Regulations 2010.

6.2 Bats

All species of bat and their breeding sites or resting places (roosts) are protected under the Conservation and Habitats and Species Regulations 2010 and Section 9 of the Wildlife and Countryside Act 1981 (as amended). It is an offence for anyone intentionally to kill, injure or handle a bat, to possess a bat (whether live or dead), disturb a roosting bat, or sell or offer a bat for sale without a licence. It is also an offence to damage, destroy or obstruct access to any place used by bats for shelter, whether they are present or not.

6.3 Dormice

The dormouse is strictly protected under the Wildlife and Countryside Act 1981 (as amended) and the Conservation and Habitats and Species Regulations 2010. The deliberate and reckless capturing, disturbing, injuring and killing of dormice is prohibited, as is damaging or destroying their breeding site or resting places. Licences are available from Natural Resources Wales to allow actions that would otherwise be unlawful.

6.4 Birds

All birds, their nests and eggs are protected under Part 1 of the Wildlife and Countryside Act 1981 (as amended).

6.5 Reptiles

Common lizard, slow-worm, adder and grass snake are protected under the Wildlife and Countryside Act 1981 (as amended) which makes it illegal to intentionally kill or injure these animals.

6.6 Natural Environment and Rural Communities Act 2006

Section 40 of the NERC Act places a 'Biodiversity Duty' on local planning authorities as far as is consistent with the proper exercise of their functions. This replaces Section 74 of the Countryside and Rights of Way Act.

6.7 Technical Advice Notes 5

TAN 5 gives advice to local authorities on development control issues for Special Protection Areas (SPAs), Special Areas of Conservation (SACs), and Sites of Special Scientific Interest (SSSIs). It also covers the selection and designation of non-statutory nature conservation sites, such as local nature reserves, and the protection of species, commons and greens.

6.8 Local Development Plan

Policy GN.37 (Protection and Enhancement of Biodiversity) from the Pembrokeshire Local Development Plan states:

'All development should demonstrate a positive approach to maintaining and, where ever possible, enhancing biodiversity. Development that would disturb or otherwise harm protected species or their habitats, or the integrity of other habitats, sites or features of importance to wildlife and individual species, will only be permitted in exceptional circumstances where the effects are minimised or mitigated through careful design, work scheduling or other appropriate measures.'

7 Discussion and key recommendations

7.1 Designated sites

The proposed development lies adjacent to existing residential developments. However, as the site is adjacent to proposed developments, it is very unlikely to impact on the designations.

7.2 Habitats

7.2.1 The proposed development relates to the construction of new dwellings (shown on Figure 13). This will inevitably lead to the loss of the improved grassland, therefore any planting should utilise locally sourced, native species in all gardens

and landscaping. Sympathetic landscaping utilising locally sourced native species will also be included around the attenuation pond in the south eastern corner of the site.



Figure 13. Proposed development.

7.3 Bats

7.3.1 Trees

The two ash trees on site have been classed as being of low Bat Roost Potential so no further surveys are recommended in this instance.

7.3.2 Habitats

Given that there are a number of known roosts in the area for a variety of species (pers comm.), it is very likely that the habitat would be used by foraging and commuting bats. Of particular importance are the hedgerows. Under the proposals, the existing boundary features are to remain unaffected. All lighting must be hooded and downward facing and positioned to avoid shining directly onto the features such as woodland edges and hedgerows. The lighting should also be PIR sensitive LED type which have a much more directional lighting range. An example is shown in Figure 14.



Figure 14. Example of different PIR LED lighting.

7.4 Dormice

No dormice were recorded on site and there are no records within 5km of the site. While the hedgerows surrounding the site have some plant species known to be used by dormice, there are no records for this species within the immediate area. The hedgerows are well maintained boundaries and a nest survey in October 2020 and July 2022 found no nests. In this instance, the possibility of it being used by dormice is classed as low so no recommendations or enhancements are required for this species.

7.5 Birds

Any scrubby vegetation or tree removal will be restricted to the period between late August and early March in any year to avoid the bird nesting season. If it is necessary to carry out such work during the bird nesting season then initial works will be conducted carefully, and the presence of birds and their active nests checked for immediately before and throughout vegetation removal. If an active nest is discovered, then work in that area will cease and the nest protected until the young have fledged or the nest is no longer active.

8 Additional recommendations

8.1 Enhancements

8.1.1 Birds

Bird boxes should be incorporated into the scheme to enhance the nesting potential of the site. Nest boxes which can be incorporated into the fabric of buildings themselves are recommended (Figure 15), although these should be sited high up on walls (immediately below the wall plates or soffit boxes) and avoid being positioned above windows or doors. These should be included on 20% of all buildings on site.



Figure 15. Example of a bird box which can be built into new buildings.

8.1.2 Bats

Measures to allow bats to utilise the new buildings would enhance the roosting potential of the site. Such measures could include the incorporation of 'bat boxes' (Figure 16). These are prefabricated boxes which are built into the external wall structure. It is recommended that bat tubes are included on 20% of the new buildings (but different ones to the bird boxes). They should be positioned at least 3m above ground, but avoid being positioned above windows or doors.



Figure 16. Example of an integrated bat box.

8.1.3 Insects

To enhance the site for insects, it is recommended that 'bee bricks' be included in the scheme. Bee bricks are used in the place of a standard brick or block to create habitat for solitary bees. The bricks include cavities to allow the solitary bees to lay their eggs. The brick is sealed on the rear so the bees can only utilise the brick itself rather than the building. The bricks are best situated on a south facing wall at a minimum height of 1m. An example is shown in Figure 17.



Figure 17. Example of a bee brick.

8.1.4 Hedgehogs

One of the reasons for a decline in hedgehogs is a loss of habitat and fragmentation of habitat. As hedgehogs have been recorded in the area, it would be beneficial if the boundary hedgerows could be retained as much as possible and new planting included so providing additional corridors around the site and surrounding habitat. Any property fences should include 'hedgehog highways', where a 15cm by 15cm hole is cut in the base of any fences to allow hedgehogs to move between gardens, so increasing their access to foraging and nesting sites. An example of such a 'hedgehog highway' is included in Figure 18.



Figure 18. Hedgehog highway included in base of fence to allow hedgehog movement.

9 Conclusions

While there was no evidence of protected species on site, there are records in the area for a number of mobile species which may on occasion utilise the site. It is considered unlikely that the development would impact on the biodiversity of the area.

10 References

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