



**FIELDS AT ROWSTON**  
Draft Ecology Report

**KITE ECOLOGY**

January 2023

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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 |
|----------------|---------------|-----------------|---------------|
| 2099           | 002           | Draft           | 15012023      |
| 2099           | 002           |                 |               |

## 1 Executive Summary

1.1 Kite Ecology was commissioned by the Hean Castle Estate to undertake an extended phase 1 and protected species surveys of fields at Rowston, New Hedges, Pembrokeshire. Under the proposals the site, hereafter referred to as the 'Proposed Development', will be developed as a caravan site. The proposed development is within 2km of Beech Cottage Waterwynch Site of Special Scientific Interest (SSSI). Beech Cottage Waterwynch SSSI is part of the Pembrokeshire Bat Sites and Bosherton Lakes Special Area of Conservation (SAC). The presence of these roosts meant the proposed development falls within the Core Sustainance Zone for bats. In line with best practice survey guidelines for medium suitability habitat for bats, bat transect surveys were completed monthly between July – October 2021 and May – June 2022 to record bat activity across the Site. In combination with the walked transect surveys, additional bat activity data was gathered using automated (static) bat detectors. Three static bat detectors were installed on Site in pre-determined locations during each of the survey months (July – October 2021 and May – June 2022). Dormouse tube surveys were also completed between July – November 2021.

### 1.2 Habitats

Any planting should utilise locally sourced, native species in all landscaping. The existing vegetation along the northern boundary is to be thickened to provide a natural screen between the site and surrounding land. This will utilise locally sourced native species.

### 1.3 Bats

At least 7 bat species were recorded during the survey period. However, records were relatively low during both the transect and static surveys. Common and soprano pipistrelle bats were the most commonly recorded species, with greater and lesser horseshoe bats only recorded during the static survey and limited to very occasional passes. There are no trees or building on site to support roosting bats, so no direct impacts are envisaged. Boundary habitat is to be retained and improved around the site to ensure foraging and commuting corridors are maintained. A sensitive lighting strategy will be designed which will avoid shining lighting directly onto retained the surrounding and minimises light spill onto retained habitat.

### 1.4 Birds

Any required vegetation clearance takes place outside of the breeding bird season (considered March to August inclusive) to avoid disturbance/destruction of any active nests.

### 1.5 Dormice

Dormice have been recorded on site. As a protected species, prior to any works which would impact on the dormouse habitat it will be necessary to obtain a dormouse development licence from Natural Resources Wales. Such licenses can only be applied for once full planning permission has been granted and all conditions relating to dormice have been discharged. As part of a Natural Resources Wales development licence, a method statement must be written which sets out how the scheme will proceed, while allowing the dormice to continue to utilise the site post development. The scheme includes large areas of new planting which will more than adequately compensate for the loss of any hedgerows, so retaining the favourable conservation status of the species on site.

1.6 **Reptiles**

Grass snake and slow worm have also been recorded within a 2km radius of the site so are also likely to be found on site. The presence of common species of reptiles will be assumed on site and work completed under a working brief.

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## 2 Introduction and site description

### 2.1 Introduction

An Extended Phase 1 and Protected Species survey of land to the north east of Rowston, New Hedges, Pembrokeshire was commissioned in relation to proposals to develop the site as a caravan park.

### 2.2 Site description

The survey relates to five agricultural fields which cover an area of approximately 9 hectares. The site is located to the west of the village of New Hedges, immediately to the north east of an existing caravan site (Rowston). The land has most recently been used to graze sheep. The extent of the survey area is shown in Figure 1.

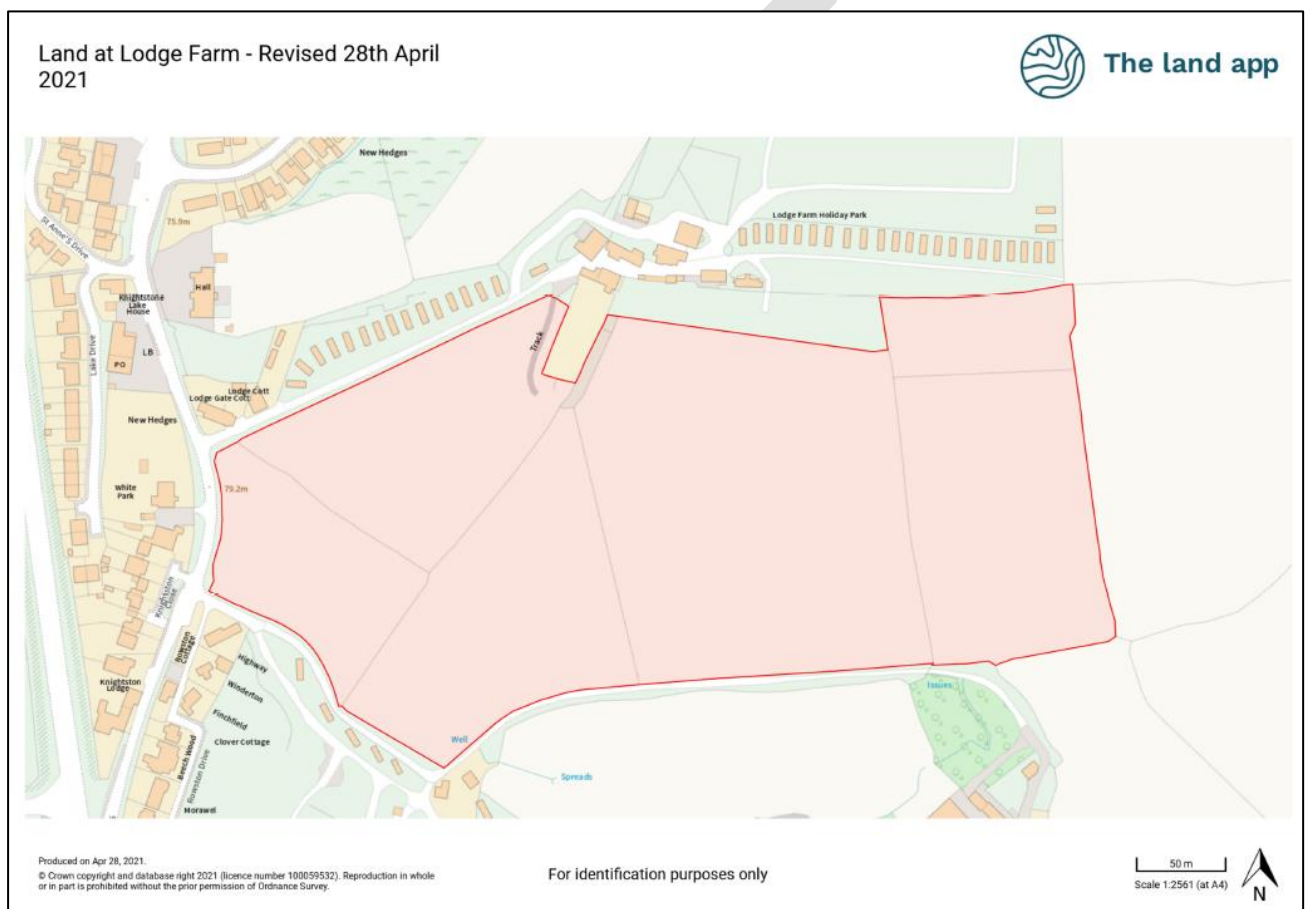


Figure 1. Survey area shown in red.

### 2.3 Summary of proposed development

Under the proposals, the site would be developed as a caravan site.

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

### 3 Desk study

#### 3.1 General

3.1.1 An initial site walkover of the site on 26<sup>th</sup> June 2021 determined it to be of medium suitability habitat for bats so bat transect surveys were completed on a monthly basis between July to October 2021 and May and June 2022 to record bat activity across the site. In combination with the walked transect surveys, additional bat activity data was gathered using three automated (static) bat detector. The detectors were placed in the same three locations for five consecutive nights over the same survey period as the transect surveys. Targeted long-term bat surveys are required to determine potential impacts on bats, their roosts and Core Sustenance Zones (CSZ). A CSZ refers to the area surrounding a communal bat roost within which habitat availability and quality will have a significant influence on the resilience and conservation status of the colony using the roost. With reference to development, the CSZ could be used to indicate:

- The area surrounding a communal roost within which development work may impact the commuting and foraging habitat of bats using that roost.
- The area within which it may be necessary to ensure no net reduction in the quality and availability of foraging habitat for the colony.

3.1.2 All surveys were undertaken by, or under the supervision of, a suitably licensed ecologist who is a full member of the Chartered Institute of Ecology and Environmental Management and a Chartered Environmentalist.

3.1.3 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

##### 3.2.1.1 Local Records Centre

The West Wales Biodiversity Information Centre (WWBIC) was contacted for known species records within a 2km radius. Details of designated sites within a 2km radius were also provided.

##### 3.2.1.2 Results of the local records centre

There are over 4300 individual species records within a 2km radius of the site. Approximately 50% of the records relate to several very well recorded location. Of particular relevance are the records for common pipistrelle *Pipistrellus pipistrellus*, noctule *Nyctalus noctula*, soprano pipistrelle *Pipistrellus pygmaeus*, brown long eared *Plecotus auritus* within 500m of the site. There is also a well recorded and monitored lesser horseshoe *Rhinolophus hipposideros* maternity roost 500m to the south east. The species records are summarised on Figure 3. There are patches of woodland to the north, south and west as shown on Figure 4. The woodland to the north is also classed as plantation on ancient woodland and is also identified as a priority habitat by Natural Resources Wales, as shown on Figure 5 and 6. The site is within 2km of several designated sites, including Tenby Cliffs and St Catherine's Island Site of Special Scientific Interest, Waterwynch Bay to Saundersfoot Harbour Site of Special Scientific Interest, Carmarthen Bay Special Protection Area, Carmarthen Bay and Estuaries Special Area of Conservation and Bristol Channel Approaches candidate Special Area of Conservation. The site is also within the Pembrokeshire Coast National Park. The lesser horseshoe bat roost to the south east is designated a Site of Special Scientific Interest (Beech Cottage

and is also included in the Pembrokeshire Bat Sites and Bosherton Lakes Special Area of Conservation. As a mobile primary feature of the designation, greater and lesser horseshoe bats are included in the designation even when away from the roost itself. The designated sites are shown on Figure 7.

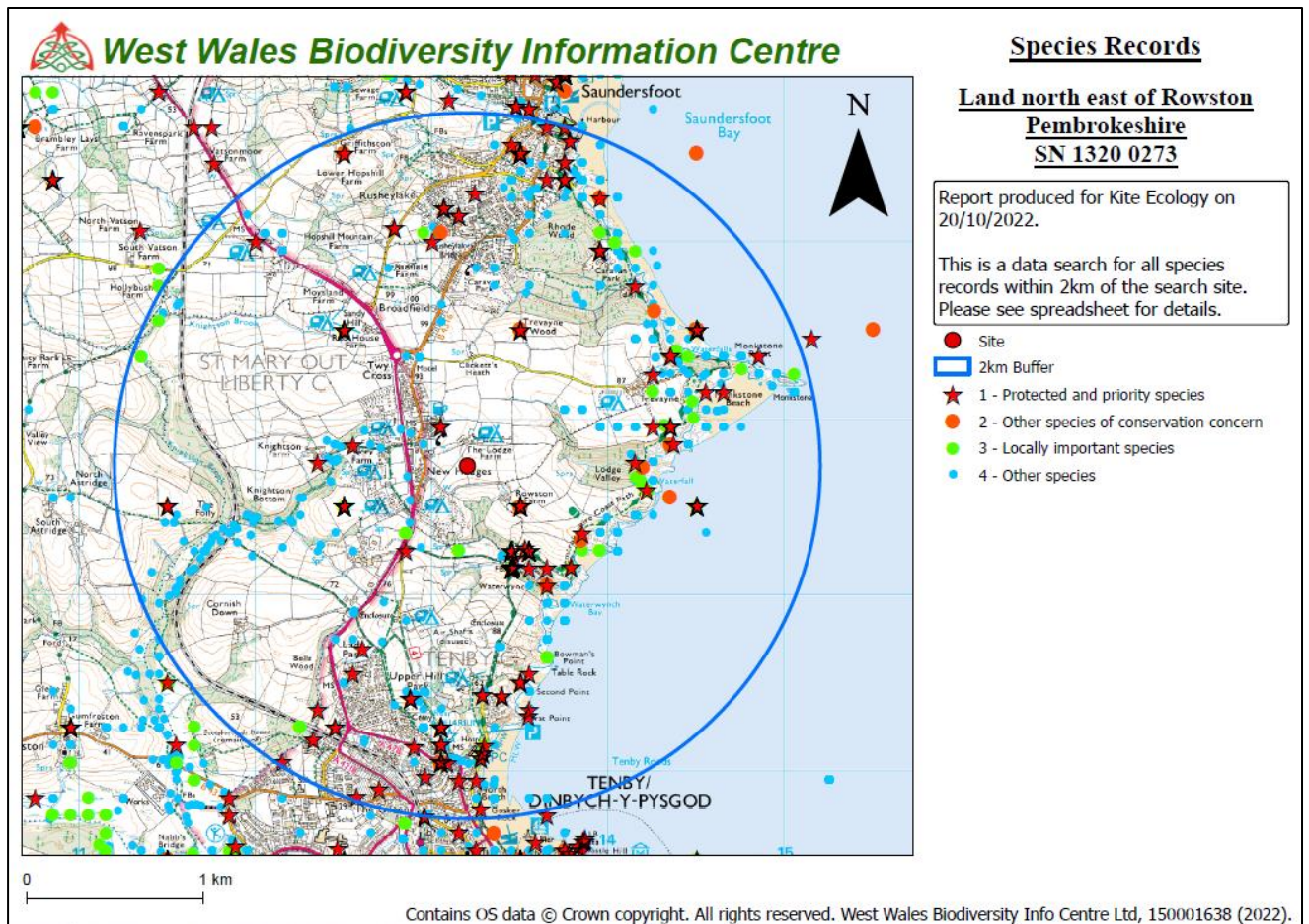


Figure 3. Summary of species records within a 2km radius of the site.

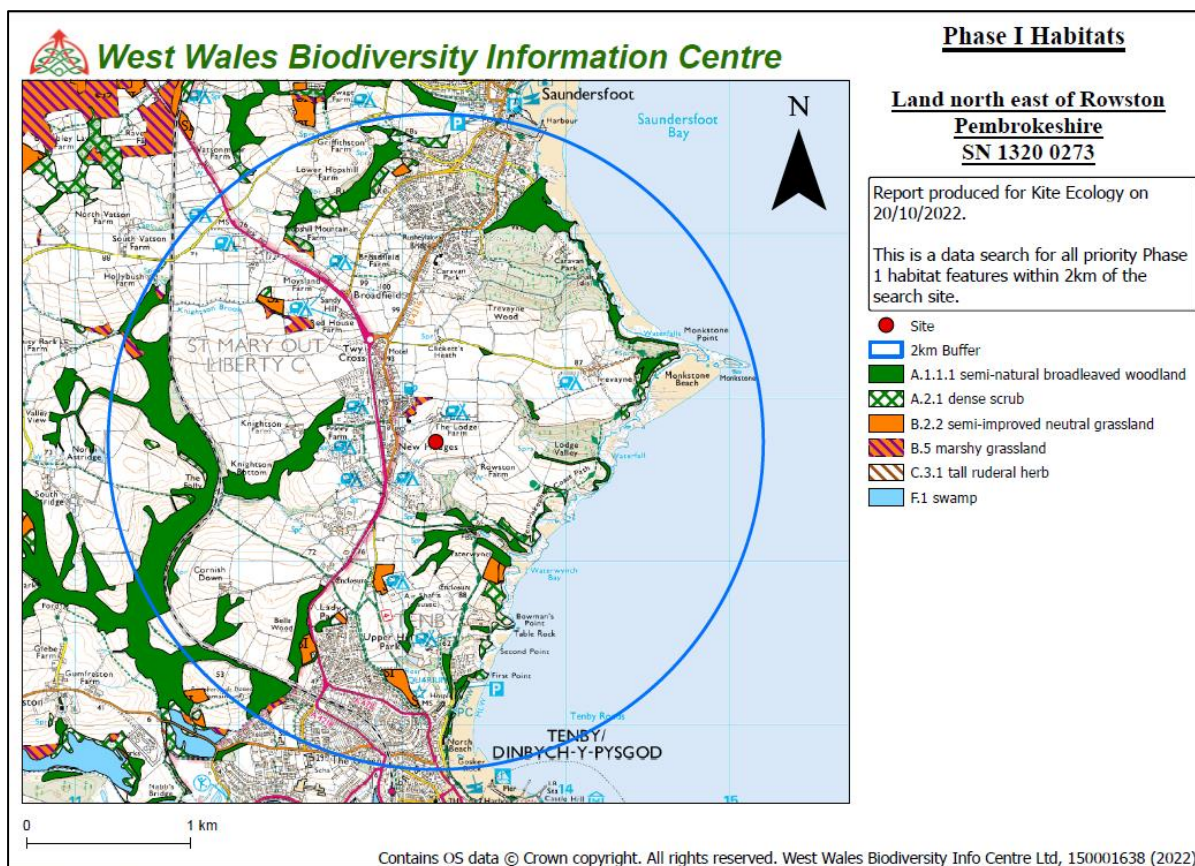


Figure 4. Summary of known habitats within a 2km radius of the site.

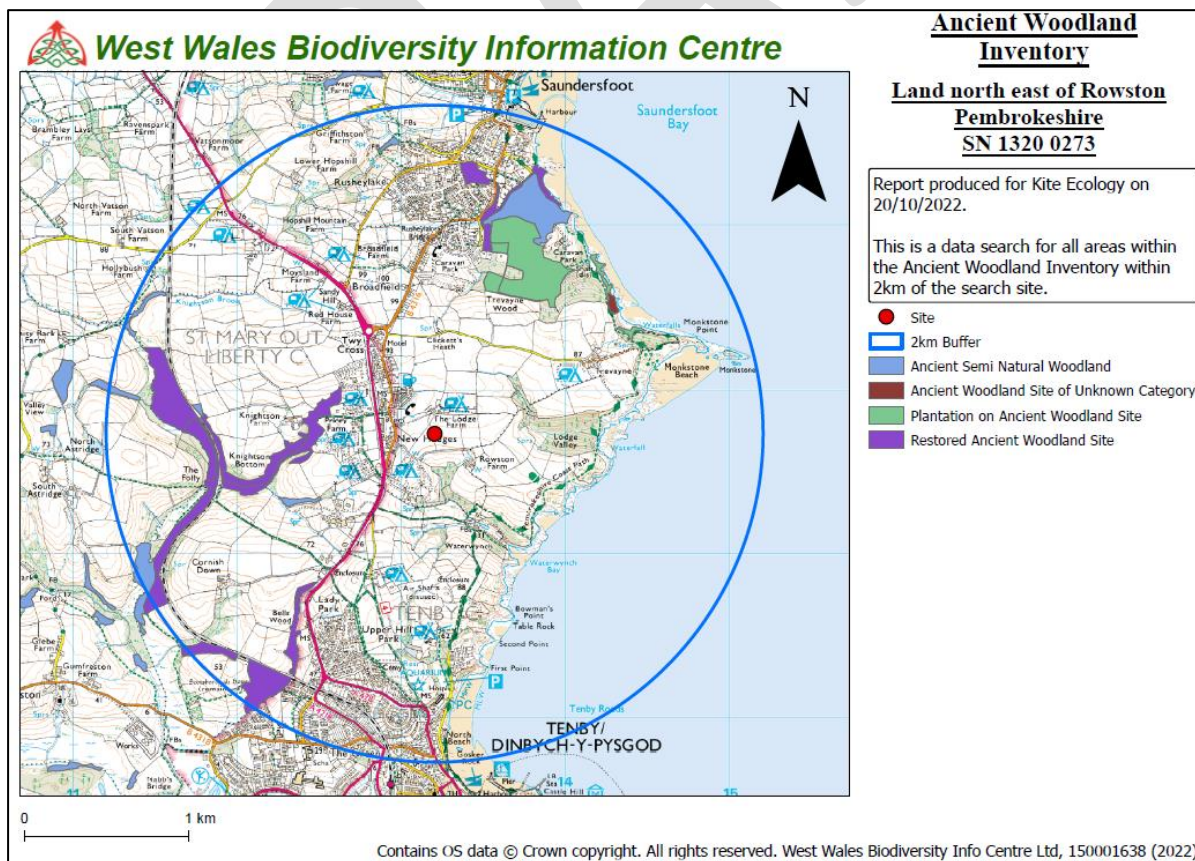


Figure 5. Map highlighting ancient woodland within 2km of the site.



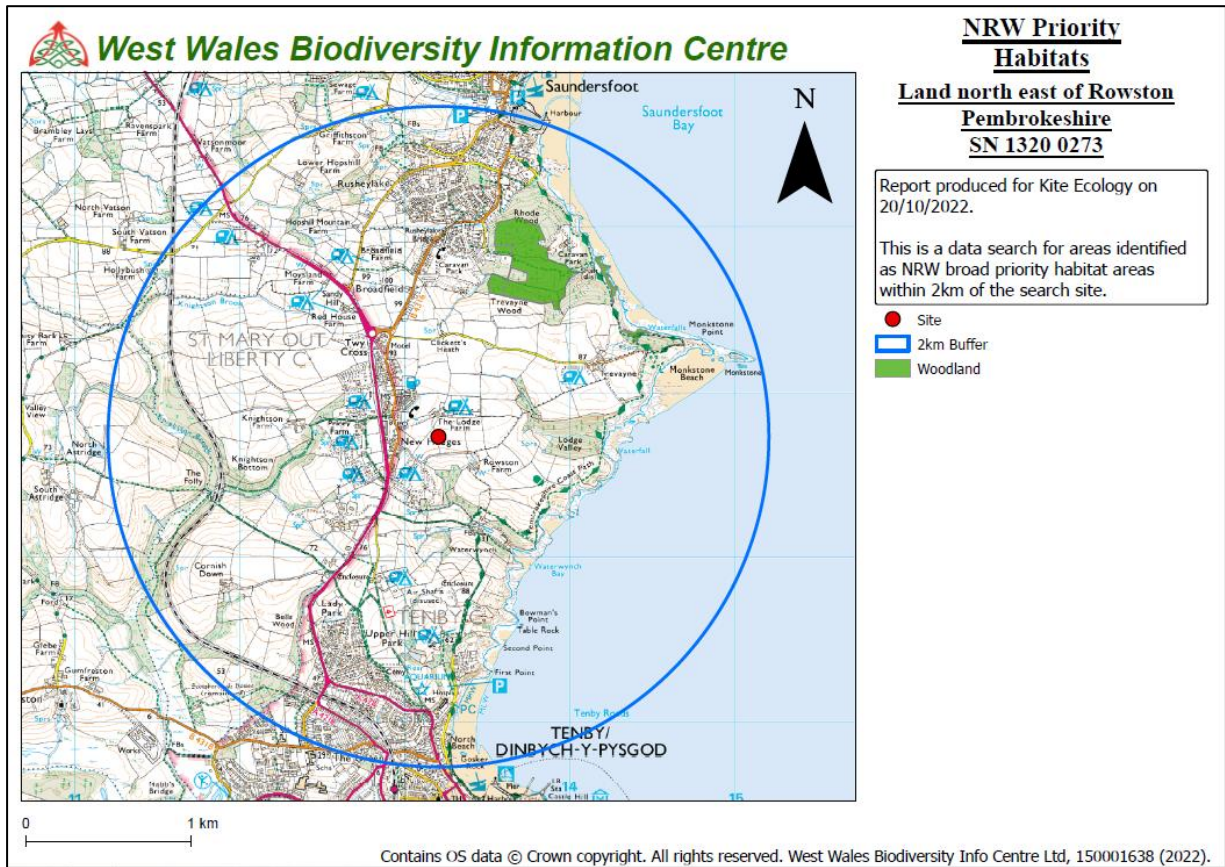


Figure 6. Natural Resources Wales broad priority habitat areas within 2km of the site.

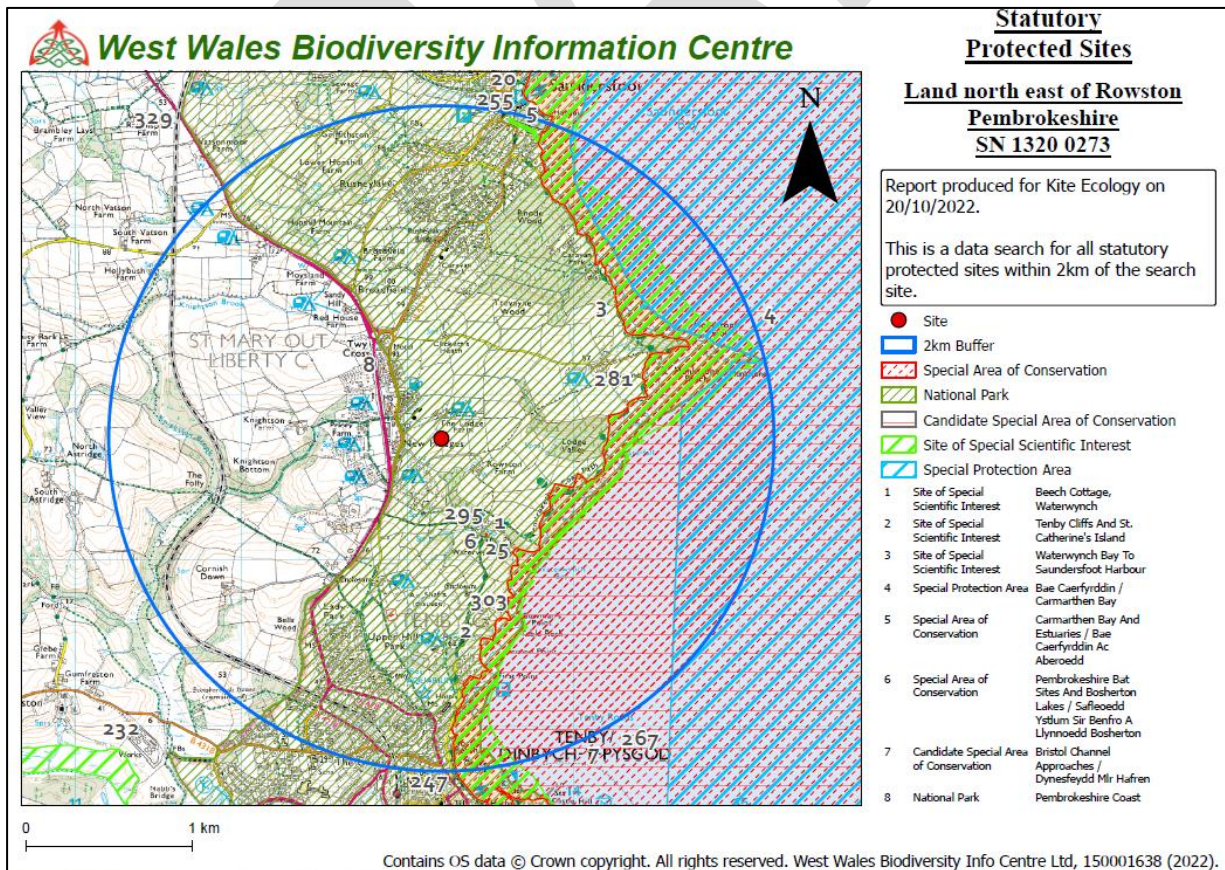


Figure 7. Map highlighting the designated sites in relation to the survey area.

### 3.2.2 Aerial photographs

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

3.2.2.2 The site is set to the east of the small village of New Hedges. There are existing caravan sites to the north and south west, with houses to the west and agricultural land to the east. There is a small patch of plantation woodland immediately to the south. The hedgerows on and around the site link up to hedgerows off site, so providing links to woodland to the north east and south. The site in relation to the surrounding habitat is shown on Figure 8.



Figure 8. Aerial photograph of the site in relation to surrounding land use.

## 4 Habitats

### 4.1 Survey methodology

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 (2010).

### 4.2 Results

#### 4.2.1 Grassland

The site includes five semi improved neutral grassland fields most recently used to graze sheep (Figures 9 – 13). The fields are dominated by swards of Yorkshire fog *Holcus lanatus*, red fescue *Festuca rubra*, false oat-grass *Arrhenatherum elatius*, cock's-foot *Dactylis glomerata* and crested dog's-tail *Cynosurus cristatus*. It has an abundance of herbs such as common knapweed *Centaurea nigra*, red clover *Trifolium pratense*, buttercup *Ranunculus* sp., white clover *T. repens*, common mouse-ear *Cerastium fontanum*, and ribwort plantain *Plantago lanceolata*. There are several small patches of Himalayan balsam in the far south eastern corner of the site.



Figure 9. Aerial photograph of the fields with each field numbered.



Figure 10. Panoramic view of field 2, taken from the western boundary facing eastwards.



Figure 11. Panoramic view of field 4, taken from the south eastern corner facing northwest.



Figure 12. Panoramic view of field 5 taken from the north eastern corner facing southwest.



Figure 13. Himalayan balsam in the far south western corner.

#### 4.2.2 Hedgerows

The hedgerows on site are summarised in Table 1, with their layout shown on Figure 14.

Table 1. Summary of hedgerows on and around the site.

| No.       | Species   | Height | Width | Length | Links to other habitat | Trees           | Other |
|-----------|---|--------|-------|--------|------------------------|-----------------|-------|
| <b>H1</b> | Hawthorn<br>Elder<br>Honeysuckle<br>Blackthorn<br>Holly<br>Sycamore<br>Willow<br>Bramble          | 2m     | 3m    | 211m   | H2<br>H3               | None            |       |
| <b>H2</b> | Hawthorn<br>Elder<br>Honeysuckle<br>Blackthorn<br>Holly<br>Sycamore<br>Willow<br>Gorse<br>Bramble | 2m     | 3m    | 144m   | H1<br>H3<br>H5         | Mature sycamore |       |

|           |  |      |      |      |                       |      |   |
|-----------|--|------|------|------|-----------------------|------|---|
| <b>H3</b> | Hawthorn<br>Blackthorn<br>Sycamore<br>Hazel<br>Bramble                       | 1.5m | 1.5m | 75m  | H1<br>H2<br>H4        | None | Roadside  |
| <b>H4</b> | Hawthorn<br>Blackthorn<br>Sycamore<br>Bracken<br>Willow<br>Bramble<br>Hazel  | 1.5m | 1m   | 100m | H3<br>H5<br>H6        | None | Adjacent to access track  |
| <b>H5</b> | Blackthorn<br>Bracken<br>Ash<br>Hazel<br>Bramble                             | 2m   | 2.5m | 220m | H2<br>H4<br>H6<br>H7  | Ash  |   |
| <b>H6</b> | Blackthorn<br>Hazel<br>Elder<br>Bramble                                      | 1m   | 0.5m | 206m | H4<br>H5<br>H7<br>H8  | None | Very gappy, particularly towards eastern end. Adjacent to track |
| <b>H7</b> | Hawthorn<br>Blackthorn<br>Gorse<br>Holly<br>Willow<br>Honeysuckle<br>Bramble | 2m   | 1.5m | 150m | H5<br>H6<br>H8        | None | Stock proof fencing on either side                              |
| <b>H8</b> | Bramble<br>Elder<br>Hawthorn   | 1m   | 1m   | 70m  | H6<br>H7<br>H9<br>H11 | None | Very gappy. More established at eastern end. Adjacent to track  |
| <b>H9</b> | Elder<br>Hawthorn<br>Blackthorn<br>Himalayan balsam<br>ash                   | 1.5m | 2m   | 100m | H8<br>H10<br>H11      | Ash  |   |

|     |   |    |      |      |          |      |   |
|-----|---|----|------|------|----------|------|---|
| H10 | Hawthorn<br>Blackthorn                                    | 2m | 2.5m | 150m | H9       | None | Stockproof<br>fencing on either<br>side |
| H11 | Hawthorn<br>Blackthorn<br>Gorse<br>Honeysuckle<br>Bracken | 2m | 3m   | 160m | H8<br>H9 | None | Stockproof<br>fencing on either<br>side |



Figure 14. Layout of the hedgerows around the site.

#### 4.4 Legislation

Himalayan balsam is listed as a species of special concern under retained European Union (EU) law. This means it is an offence to plant or cause these plants to grow in the wild, or intentionally release them into the environment. Schedule 4 of the Invasive Alien Species (Enforcement and Permitting) Order 2019 removes plants listed under the EU IAS Regulation from Schedule 9 of The Wildlife and Countryside Act 1981, although the same offence applies. Also, Himalayan balsam plant material (including soil contaminated with seeds) is a 'controlled waste' under the Environmental Protection Act 1990 which means it can only be transported by a registered waste carrier to suitably permitted or exempt sites

4.5 Discussion

4.5.1 Grassland

The clearance of the site will inevitably lead to the loss of the semi-improved grassland. However, where possible grassland is to be retained and included in the scheme. An area of grassland to the north west (Fields 1 and 2 on Figure 9) are to be retained to screen the development from the surrounding landscape (*Landscape Character and Visual Impact Assessment of Proposed Expansion of Rowston Holiday Park report reference TDA/2693/LC&VIA/RhC/07.22*). As well as additional hedgerow planting, the grassland in these fields existing to be retained and enhanced as wildflower meadows with formal pathways cut through them (shown on Figure 15).



Figure 15. Summary of proposed development.

4.5.2 Hedgerows

Under the proposals (Figure 15), all existing hedgerows are to be retained. It will be necessary to cut additional access points in the hedgerows to allow access around the site, but this is discussed further in Section 7 (dormice).

4.6 Recommendations

4.6.1 Any planting should utilise locally sourced, native species in all gardens and landscaping. A new hedgerow is to be planted along the northern boundary to provide a natural screen between the site and surrounding land. This will utilise locally sourced native species.



4.6.2 *Management*

- only cut each hedge every 2 years; this reduces maintenance and labour costs, creates a bushier hedge for wildlife and allows flower and berry production in the intervening years.
- hedges with slow growing species, such as hawthorn, can be cut on a 3 year cycle.
- do not cut back to the same height repeatedly, raising the cutting height each time will avoid placing the hedge under stress and allow it to regenerate more vigorously.
- cut hedges to a variety of shapes and sizes; “A” shaped hedges provide good stock proofing and shelter, create song posts for birds and enable hedgerow trees to develop if left untopped.
- leaving 1-2 metre (or wider) verges of tall grass by hedges provides nesting habitat for birds and protects hedgerows from pesticide or fertiliser spray drift.
- hedges can be trimmed, laid and coppiced from September to February but try and cut as late in the winter as possible so wildlife can take advantage of the nuts and berries produced in the autumn.

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## **5 Badgers**

### **5.1 Survey methodology**

The site, and where possible, a radius of 30 metres from the site boundary were regularly searched for badger setts and other evidence during the survey period between April to October 2021. 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), 'latrines' (small pits in which badgers deposit their faeces) and 'day nests' (nests of bedding material made by badgers for sleeping above ground).

### **5.2 Results**

No evidence of badgers was found on site and no badgers or their activity was encountered during the bat transect surveys.

### **5.3 Legislation**

The Protection of Badgers Act 1992 fully protects badgers and their setts and makes it an offence to either intentionally or recklessly kill, injure or take a badger, to cruelly ill-treat a badger or to interfere with a badger sett. Under section 10(1)(d) of the Protection of Badgers Act 1992, Natural Resources Wales has the authority to issue licences to interfere with a badger sett for the purpose of development, as defined by Section 55(1) of the Town and Country Planning Act 1990.

### **5.4 Limitations**

Badgers can excavate setts within a short time period.

### **5.5 Discussion and recommendations**

A pre-work check for any new badger activity (particularly setts) is recommended due to the ability of badgers to create new setts in a very short period of time. Such checks should be completed at least two weeks in advance of works.

## 6 Bats

### 6.1 Survey methodology

#### 6.1.1 Transects

A transect route was walked monthly for during July to October 2021 and May and June 2022. The route followed the site boundary, as well as the internal hedgerows. The direction of the transect was varied between the surveys to avoid temporal bias. The surveyor used an Echometer Touch Pro detector. The transect route is shown on Figure 16. All surveys were undertaken on days when the weather conditions were well within the acceptable parameters for bat surveying. Where possible, bat calls are identified to species level. However, species of the genus *Myotis* have been grouped together as their calls are similar in structure and have overlapping call parameters making identification to species level problematic.



Figure 16. Transect route around the site.

#### 6.1.2 Static detector surveys

Three Anabat Express detectors was placed at the locations shown on Figure 17. The detectors were deployed between July – October 2021 and May and June 2022. Where possible, bat calls are identified to species level. However, species of the genus *Myotis* have been grouped together as their calls are similar in structure and have overlapping call parameters making identification to species level problematic. Due to the relatively low number of bat calls recorded each night, all calls have been included and graphed to show the number of calls per species per month to directly compare the use of the site by each species over the survey period.



Figure 17. Location of static detector.

## 6.2 Results

### 6.2.1 Transect surveys

Common pipistrelle and soprano pipistrelle bats were most frequently recorded species during the transect surveys. The only other species of bat recorded was a noctule and this was only on two separate occasions in September and October 2021. The bat activity during the transect surveys was very low for a site of this size as was the lack of diversity of species, particularly given that there are roosts for both brown long eared and lesser horseshoe bats in the immediate area. Noctule and *Myotis* were occasionally recorded. The highest number of bat records was during September 2021. This is most likely attributed to bats dispersing from their summer roosts. The bat activity recorded during each transect is summarised on Figures 18 to 24.



Figure 18. Summary of bat transect activity recorded during July 2021.



Figure 19. Summary of bat transect activity recorded during August 2021.



Figure 20. Summary of bat transect activity recorded during September 2021.



Figure 21. Summary of bat transect activity recorded during October 2021.



Figure 22. Summary of bat transect activity recorded during May 2022.



Figure 23. Summary of bat transect activity recorded during June 2022.

### 6.2.2 Static detector survey

Common pipistrelle, soprano pipistrelle, brown long eared, *Myotis*, noctule, greater horseshoe *Rhinolophus ferrumequinum* and lesser horseshoe *Rhinolophus hipposideros* were all recorded during the static detector survey. Common pipistrelle were the most frequently recorded by static detector 1 and 2, with soprano pipistrelle bat the most commonly recorded by static detector 3. Low numbers of noctule and brown long eared were recorded, with individual passes of greater and lesser horseshoe bats recorded on an occasional basis. The most number of calls were recorded in September 2021, with October 2021 recording the least amount of calls. The data recorded by each static detector is summarised in Figures 24 to 26.

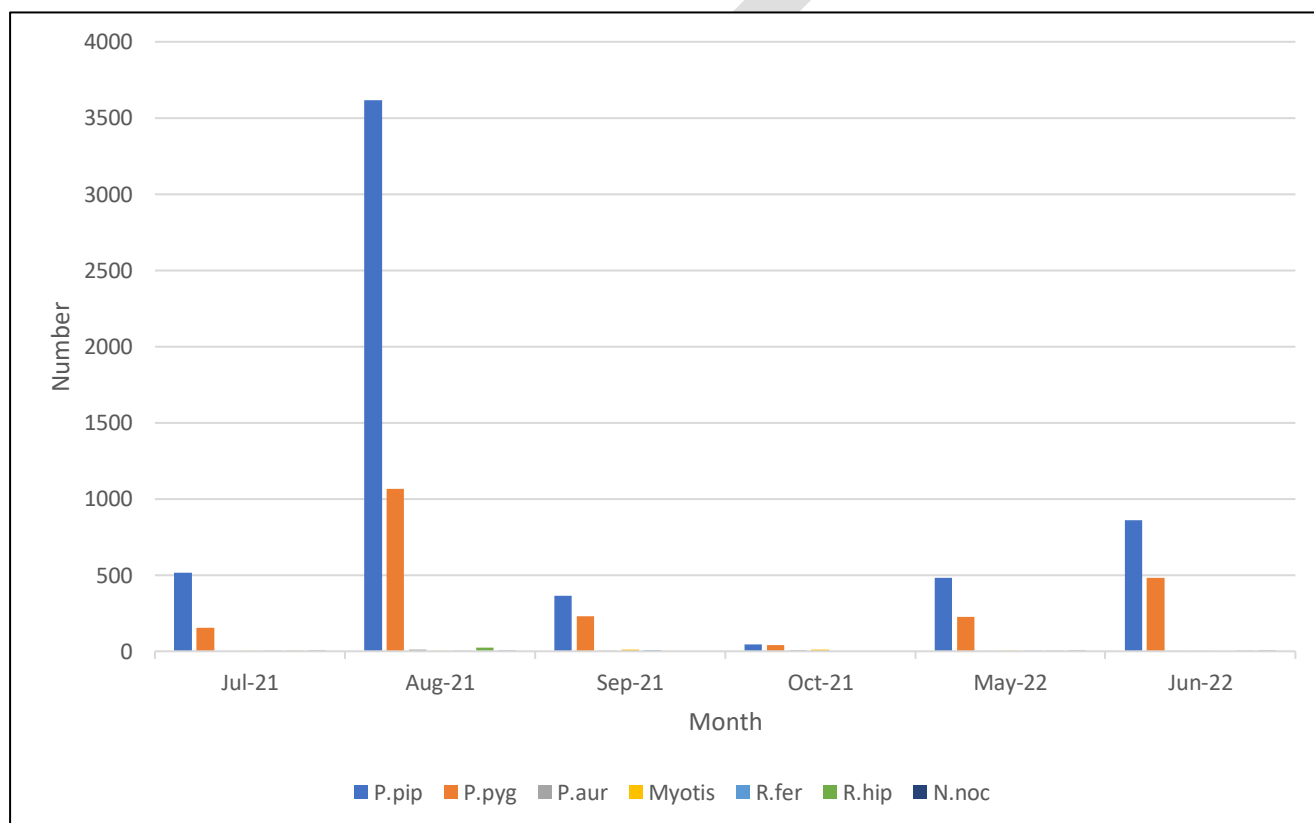


Figure 24. Summary of the data recorded by static detector 1.



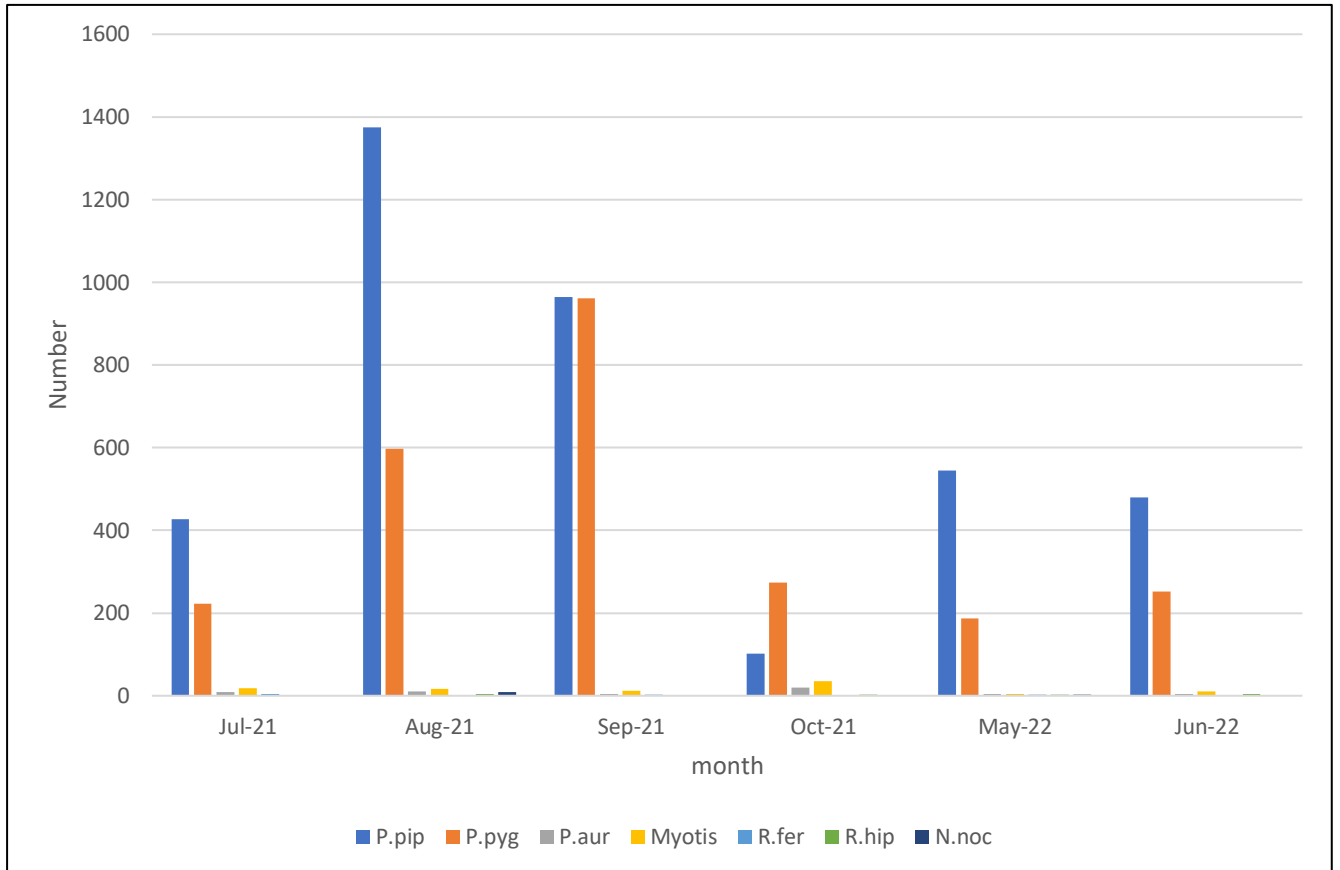


Figure 25. Summary of the data recorded by static detector 2.

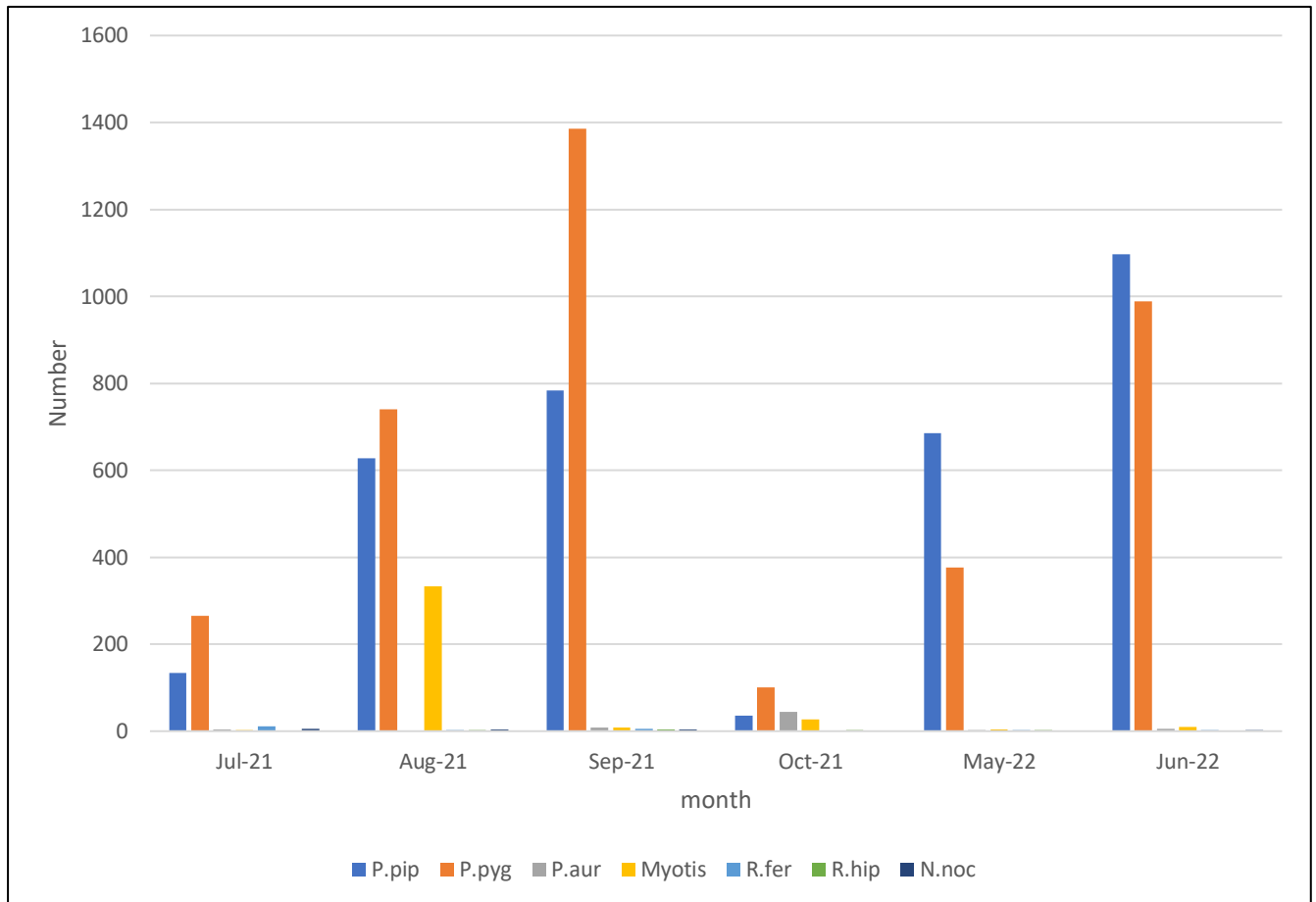


Figure 26. Summary of the data recorded by static detector 3.

## 6.4 Legislation

6.4.1 Bats and their roosts are afforded a high level of protection under the Conservation of Habitats and Species Regulations 2017 (as amended) (the 'Habitats Regulations'), the legislation means that it is an offence to:

- Deliberately capture, injure or kill a wild bat;
- Deliberately disturb wild bats; 'disturbance of animals includes in particular any disturbance which is likely:
  - (a) to impair their ability —
    - (i) to survive, to breed or reproduce, or to rear or nurture their young; or
    - (ii) in the case of animals of a hibernating or migratory species, to hibernate or migrate;
  - or
  - (b) to affect significantly the local distribution or abundance of the species to which they belong.' and
- Damage or destroy a breeding site or resting place used by this species.

6.4.2 Protection is also afforded under the Wildlife and Countryside Act 1981 (as amended) with respect to disturbance of animals when using places of shelter, and obstruction of access to places of shelter.

6.4.3 Due to the high level of protection afforded to bats and their habitat, mitigation for this species is governed by a strict licensing procedure administered by Natural Resources Wales (normally, 'planning permission must be obtained before a licence can be sought'). Licencing is subject to three tests, as defined under the Habitats Regulations, these must also be applied by the planning authority before granting permission for activities affecting bats. For permission to be granted the following criteria must be satisfied:

- The proposal is necessary 'to preserve public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment';
- 'There is no satisfactory alternative'; and
- The proposals 'will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range'.

6.4.4 Certain species of bats including the barbastelle, Bechstein's, noctule, brown long-eared, common pipistrelle, soprano pipistrelle, greater horseshoe and Lesser horseshoe are also listed as Priority Species under Section 7 of the Environment (Wales) Act 2016. Under Section 7 of the Environment (Wales) Act 2016, Welsh Ministers must take all reasonable steps to maintain and enhance the living organisms and types of habitats included on any list published under this section and encourage others to take such steps.

## 6.5 Discussion

A total of 7 species of bats were recorded during the bat surveys. The number of bat calls recorded appears relatively low, suggesting that while the bats do feed on site, it is not a core feeding area. The habitat around the site is likely to provide more suitable foraging opportunities than those on site.

## 6.7 Recommendations

### 6.7.1 *Trees*

None of the trees on site are being affected by the scheme so targeted surveys of the trees were not completed.

### 6.7.2 *Lighting*

Many species of bats, but particularly greater horseshoe, lesser horseshoe and brown long eared are sensitive to artificial lighting and will actively avoid heavily lit areas. Careful consideration must also be given to all lighting around the site (including spill from windows). A lighting strategy (including plan) will be designed and implemented to ensure there is no impact on the bats or the features used by the bats.

**Figure 27. Proposed lighting plan.**

## 6.8 Mitigation and enhancement

6.8.1 To mitigate for the loss of the habitat on site, new planting is being included along the northern and western boundaries hedgerow is to be included along the new northern boundary. These will provide additional foraging opportunities as well as acting as a commuting route around the site.

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## 7 Dormice

### 7.1 Survey methodology

7.1.1 The site was assessed for its suitability for use by dormice. Based on this assessment 75 dormouse nest tubes were installed on site in July 2021. The location of the tubes is shown on Figure 28. Tubes were installed at approximately 20m spacing and attached to native woody species including hawthorn, blackthorn, elder, holly, willow and bramble.



Figure 28. Distribution of 75 dormouse tubes around the site.

7.1.2 Tubes were checked on 3<sup>rd</sup> November 2021 and checked and removed on 29<sup>th</sup> November 2021 during suitable weather conditions. The deployment of the tubes and boxes over this time ensured sufficient points (<20) were gained to demonstrate likely absence in accordance with the best practice guidelines as set out in the Dormouse Conservation Handbook (2006). The points refer to an index of probability, with points given for each month that the tubes are in place.

### 7.2 Results

A total of nine dormouse nests were found in the tubes during the check on 3<sup>rd</sup> November 2021. The nests were found in tubes 2, 4, 9, 17, 31, 35, 39, 72 and 73. The nests were spread throughout the site, as can be seen on Figure 29. Given the distribution of the nests around the site, it can be assumed that dormice utilise all of the hedgerows on and around the site. An example of one of the nests showing the characteristics associated with a dormouse nest is shown in Figure 30.



Figure 29. Location of dormouse nests in the tubes during the check on 3<sup>rd</sup> November 2021.



Figure 30. Example of a dormouse nest found in tube 4 with the characteristic tightly woven nesting material.

### 7.3 Legislation

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.

7.4 Discussion

7.4.1 Note to client

Dormice have been recorded on site. As a protected species, prior to any works which would impact on the dormouse habitat it will be necessary to obtain a dormouse development licence from Natural Resources Wales. Such licenses can only be applied for once full planning permission has been granted and all conditions relating to dormice have been discharged.

7.4.2 Note to client

As part of a Natural Resources Wales development licence, a method statement must be written which sets out how the scheme will proceed, while allowing the dormice to continue to utilise the site post development. This mitigation is discussed further in Section 7.4.3 on wards, but in summary work to remove any hedgerows will require a licence from Natural Resources Wales, be time constrained and buffer zones must be incorporated between the development and affected boundary features.



Figure 31. Hedgerows affected by the proposals and proposed enhancements.

7.4.3 Removal of sections hedgerows

To allow access around the site, existing access points will need to be widened and new access points formed. These access points will be approximately 5m wide and are shown on Figure 32. In total, this will lead to the loss of approximately 25m<sup>2</sup> of hedgerow. This is based on the removal of 5 sections of 5m lengths of hedgerows at 2m thick. New planting is being provided along the northern and western boundaries (approximately 7000m<sup>2</sup>). The loss of very small sections of the central hedgerows to provide access around the site will more than adequately be mitigated for by the new planting (also shown on Figure 32).



Figure 32. New access points (in red) in relation to proposed new planting (green).

#### 7.4.4 Central hedgerows

While the central hedgerows are to remain (highlighted on Figure 33), it is likely that the additional pressures (additional lighting and noise) on them will make them less suitable for use by dormice. Therefore the additional planting already discussed in Section 7.4.3 will also more than adequately cover their loss which totals 600m<sup>2</sup> compared to over 7000m<sup>2</sup> of additional planting along the northern boundaries. This is based on the loss of hedgerows H7 and H11 which total over 300m in length and are on average 2m wide.





Figure 33. Central hedgerows (H7 and H11) which are to remain but are likely to lose their suitability for use by dormice.

#### 7.4.5 New habitat

New habitat is being planted to the south of the site, as well as a new hedgerow along an access track to the north. This provides over ...m<sup>2</sup> of new habitat. This is intended to provide additional links to the surrounding habitat, as shown on Figure 34.



Figure 34. Summary of additional planting to the south and along new access track to the north.

### 7.4.6 Monitoring

To monitor future dormouse use on site, 25 dormouse nest boxes will be installed on site. These will be installed in the new habitat along the northern boundary and the new access road to the north.

**8 Birds**

**8.1 Survey methodology**

Any bird species seen or heard on site during the surveys were recorded.

**8.2 Results**

Blackbird, blue tit, bullfinch, buzzard, carrion crow, chaffinch, dunnoek, great tit, house sparrow, house martin, jackdaw *Corvus monedula*, magpie, pied wagtail, robin, rook, song thrush, starling, swallow, tawny owl, woodpigeon and wren were all seen or heard on site. All hedgerows on site are suitable for nesting birds at appropriate times of year.

**8.3 Legislation**

Under the Wildlife and Countryside Act 1981 (as amended) all wild birds are protected from killing and injury, and their nests and eggs protected from taking, damage and destruction whilst in use. Additional protection is extended to species listed under Schedule 1 of the Act, meaning it is also an offence to disturb these species at or near the nest, or whilst they have dependent young.

**8.4 Discussion**

The hedgerows on and around the site contained a range of habitats with suitability for supporting breeding birds.

**8.5 Recommendations**

Any required vegetation clearance will take place outside of the breeding bird season (considered March to August inclusive) to avoid disturbance/destruction of any active nests. Where it is not possible to clear vegetation outside of the breeding bird season. Vegetation suitable to support nesting birds that will be affected by the works will be checked by an ecologist no more than 24 hours prior to commencement of the works. Any nesting birds identified must be left to fledge before works can commence.

## **9 Reptiles**

### **9.1 Survey methodology**

A data search was commissioned from the Local Records Centre and informal surveys were completed while on site.

### **9.2 Results**

The site is dominated by long grass so has the potential to be used by common species of reptile, particularly slow worm.

### **9.3 Summary of findings**

Grass snake and slow worm have been recorded within the 2km data search radius and are likely to utilise the site.

### **9.4 Legislation**

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.

### **9.5 Limitations**

Formal reptile surveys were not completed, so data is restricted to known records informed by the data search and informal sightings while completing other surveys on site.

### **9.6 Discussion**

Reptiles were not encountered during the surveys, but there are records of both grass snake and slow worm within 2km of the site.

### **9.7 Recommendations**

The presence of common species of reptiles will be assumed on site and work completed under a working brief as set out in Section 9.8 below.

### **9.8 Mitigation**

#### **9.8.1 *Prior to works commencing***

All contractors involved in the scheme must be given a copy of this working brief, with a copy retained on site for the duration of the project.

#### **9.8.2 *Cutting of vegetation***

- Grassland and scrubby vegetation on the development site will be cut to 10cm above ground height using hand tools (this includes the use of hand strimmer's and brush cutters). The vegetation must not initially be cut to ground level, or the risk of animal mortality would be high. Cut material will be hand raked to the sides of the area and then removed from the site.
- The prepared area should then be left as such for at least three days prior to a further strimming or cutting as close to ground level as possible, thus allowing time for any species (if present) to move away.

- Work will proceed working from the centre of the site outwards, again allowing any species (if present) time to move away into the surrounding habitat.
- The area cut must be maintained at a shorter sward height as possible until clearance work commences. Any reptiles which are then found can be captured using gloves and moved to the surrounding habitat.

9.8.3 *Clearance of log and or rubble piles or similar feature*

These must be taken apart by hand (wearing gloves) to ensure no reptiles are amongst them. Where an animal is encountered, it can either be left to move off of its own accord or moved to the surrounding habitat.

9.8.4 *Clearance of turf*

Any turf removal must be completed using an excavator fitted with a toothed bucket. Any reptiles encountered must either be allowed to move off of their own accord or captured and moved off into the surrounding habitat.

9.8.5 *Timing*

- Clearance work will take place when day-time temperatures are between 16-24°C, i.e. when reptiles and amphibians are alert and mobile and can move out of the area subject to disturbance.
- Vegetation above ground can be cleared during the autumn and winter months (September to March) when reptiles are in hibernation, while the remaining ground-level structures cleared during the subsequent summer months (April to September) when reptiles are active. Potential hibernation sites (e.g. hedge banks, wood piles, rock piles etc) must not be disturbed during the winter period as they may be used by as hibernacula.
- Work areas can be completely cleared of above and ground-level structures during the autumn months of September and October.

## 10 Additional legislation

### 10.1 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.

### 10.2 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.

### 10.3 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.

### 10.4 Local Development Plan

*Policy 11 (Protection of Biodiversity) of the Pembrokeshire Coast National Park Authority Local Development Plan states that:*

*'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 including Local Biodiversity Action Plan species and habitats will only be permitted where the effects will be acceptably minimised or mitigated through careful design, work scheduling or other measures.'*

*also of relevance is Policy 15 of the LPD, 'Conservation of the Pembrokeshire Coast National Park', which states that:*

*Development will not be permitted where this would adversely affect the qualities and special character of the Pembrokeshire Coast National Park by:*

- a) causing significant visual intrusion; and/or,*
- b) being insensitively and unsympathetically sited within the landscape; and/or*
- c) introducing or intensifying a use which is incompatible with its location; and/or*
- d) failing to harmonise with, or enhance the landform and landscape character of the National Park; and/or*
- e) losing or failing to incorporate important traditional features.*

11 Summary of recommendations and enhancements

11.1 Habitats

Any planting should utilise locally sourced, native species in all landscaping. The existing vegetation along the northern boundary is to be thickened to provide a natural screen between the site and surrounding land. This will utilise locally sourced native species. The proposed site layout is shown on Figure 35.



Figure 35. Proposed site layout.

11.2 Badgers

No evidence of badgers was found on site.

11.3 Bats

At least 7 bat species were recorded during the survey period. However, records were relatively low during both the transect and static surveys. Common and soprano pipistrelle bats were the most commonly recorded species, with greater and lesser horseshoe bats only recorded during the static survey and limited to very occasional passes. There are no trees or building on site to support roosting bats, so no direct impacts are envisaged. Boundary habitat is to be retained and improved around the site to ensure foraging and commuting corridors are maintained. A sensitive lighting strategy will be designed which will avoid shining lighting directly onto retained the surrounding and minimises light spill onto retained habitat.

**11.4 Birds**

Any required vegetation clearance takes place outside of the breeding bird season (considered March to August inclusive) to avoid disturbance/destruction of any active nests. Where it is not possible to clear vegetation outside of the breeding bird season. Vegetation suitable to support nesting birds that will be affected by the works will be checked by an ecologist no more than 24 hours prior to commencement of the works. Any nesting birds identified must be left to fledge before works can commence.

**11.5 Dormice**

Dormice have been recorded on site. As a protected species, prior to any works which would impact on the dormouse habitat it will be necessary to obtain a dormouse development licence from Natural Resources Wales. Such licenses can only be applied for once full planning permission has been granted and all conditions relating to dormice have been discharged. As part of a Natural Resources Wales development licence, a method statement must be written which sets out how the scheme will proceed, while allowing the dormice to continue to utilise the site post development. The scheme includes large areas of new planting which will more than adequately compensate for the loss of any hedgerows, so retaining the favourable conservation status of the species on site.

**Figure 36. New dormouse habitat.**

**11.6 Reptiles**

Grass snake and slow worm have also been recorded within a 2km radius of the site so are also likely to be found on site. The presence of common species of reptiles will be assumed on site and work completed under a working brief.



## 12 Conclusions

Dormice have been recorded on site. As a protected species, prior to any works which would impact on the dormouse habitat it will be necessary to obtain a dormouse development licence from Natural Resources Wales. Such licenses can only be applied for once full planning permission has been granted and all conditions relating to dormice have been discharged. As part of a Natural Resources Wales development licence, a method statement must be written which sets out how the scheme will proceed, while allowing the dormice to continue to utilise the site post development. The mitigation and enhancement measures included for dormice will also have benefits for other wildlife, particularly bats and nesting birds.

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