

Extended Phase 1 Habitat Survey

for land off

Nun Street

St David's

Pembrokeshire

Client: Mr & Mrs B & N Pert

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This report was prepared for the specific purpose of carrying out a Phase 1 walkover survey on land off Nun Street, St David's and no liability will be accepted for use for other purposes or by third parties. Information supplied by the client and third parties has been taken as being correct and no liability can be accepted for errors and omissions. It has been assumed that the client has disclosed all relevant information whether asked for or not.



EXECUTIVE SUMMARY

Habitat Matters Ltd was instructed by the clients, Mr & Mrs Pert, to provide an ecological assessment in relation to a proposed development on land off Nun Street, St David's.

The site has been assessed as poor semi-improved grassland of low ecological value. The site boundaries are stone-faced earthbanks (cloddiau) with bracken and occasional wind-sculpted hawthorn. These will, on the whole, be unaffected by the proposals. However, as part of the proposed development, the stonewall alongside the road and internal *clawdd* will need to be removed; mitigation measures will be included to avoid a negative detrimental impact on species, such as reptiles and nesting birds, within these sections.

Badger activity was noted in the north-east corner of the site (an old latrine and an occasional track).

It is considered that, with mitigation, there will be no negative impact on the local or regional ecology through the development of the site. There are, in fact, opportunities for positive biodiversity gain through the creation of a new hedge bank to the north of the site.



1. INTRODUCTION

Habitat Matters Ltd was instructed by the clients, Mr & Mrs Pert, to provide an ecological assessment on a small (c 0.5ha) parcel of land off Nun Street, St David's, in order to support a planning application to Pembrokeshire Coast National Park Authority for a small housing development. (*The location of the site is shown at Appendix 1*).

The field survey was carried out on the 10th July 2017; it identified the habitats present within the site and allowed an assessment to be made with respect to the potential impact on biodiversity.

1.2 SITE DESCRIPTION & ECOLOGICAL CONTEXT

(*Photos of the site are included at Appendix 2*)

The proposed development site is located to the north of Nun Street, St David's.

The site is a gently-sloping and free-draining area of land, divided into two small, separate fields (Field 1 to the west and Field 2 to the east) by a stone-faced earth-bank. It lies on the north-western edge of St David's and is accessed via a field gate leading off Nun Street. The road plus a line of houses, with gardens, are located along the south-eastern edge of the site, a small workshop is situated immediately north-east and, to the west, there is a primary school, Ysgol Bro Dewi Sant. The land to the north is agricultural, with predominantly medium to large grass and arable fields and, immediately to the north-west of the site, an area of rough grazing.

Most of the site boundaries are stone-faced earth banks (traditional Pembrokeshire *cloddiau*) with bracken. The boundary with the gardens is a combination of wire mesh fencing or concrete block walls and there is a concrete block wall along the road frontage.

There are no watercourses or ponds within, or close to, the site.

2. METHODOLOGY

The survey, assessment and reporting was carried out in-line with the Preliminary Ecological Appraisal (2012) guidelines produced by the Chartered Institute of Ecology & Environmental Management (CIEEM), the Phase 1 Habitat Survey methodology (JNCC 2010), the British Standards for Biodiversity: Code of Practice for Planning and Development (BS42020:2013) and other relevant species best practice guidelines.

Following an initial desk study, a walk-over survey of the site was carried out to assess the habitat, the potential value for various species and any potential constraints for the development.



2.1. Desk Study

A desk-study was carried out prior to the field survey. This included:

- Reference to OS Maps and aerial photographs in order to identify potential areas of habitat interest that may be impacted by the proposals or may support species that could be affected.
- Reference to data obtained from West Wales Biodiversity Information Centre (WWBIC) on Protected Habitats and Species within a 2km buffer of the site.
- Reference to BS:42020 and best practise guidelines
- Reference to relevant legislation

Landscape Context

The site and wider landscape was assessed using Google Earth aerial images, Ordnance Survey maps and WWBIC habitat/protected sites maps. This enabled an assessment to be made of off-site features and habitats, and therefore the potential impact of the development on the local biodiversity. The proximity of different habitats and the connectivity of linear features between areas of habitat outside the site boundary and the site itself were included within this assessment.

The site lies within the confines of St David's, with built areas on three sides (a school, residential area and a small workshop / garage. To the north-west (and around St David's), the landscape is predominantly agricultural, with medium to large grassland and arable fields divided, generally, by earth banks with sparse woody growth.

A large area of broadleaved woodland and scrub has established in a more sheltered valley to the north-east of the site, running around the edge of the city from the cathedral; otherwise, there are very few woodlands or trees on this exposed peninsular.

2.2 Phase 1 Habitat Survey

A walk-over field survey of the proposed site and the immediate area, where accessible, was carried out by Fiona Lanc MCIEEM, on the 10th July 2017. Conditions were clear, warm and dry during the survey and did not impede the habitat assessment. The suitability of the recorded habitats for supporting different animal species, including signs and incidental sightings, was also considered during the survey.

The survey provided an assessment of the habitat types and the likelihood of the development having an impact on protected fauna. It included:

- A survey for non-native invasive species, including Japanese Knotweed.
- A search for signs of badger activity on the site
- An assessment of the potential for impact on birds, including suitable nest sites within the area.
- An assessment of the potential impact of the development on bats
- An assessment of the potential impact on reptiles



- An assessment of the likely impact on other notable species, such as dormice, otters and water vole

3.0 EVALUATION OF ECOLOGICAL FEATURES & IDENTIFICATION OF POTENTIAL IMPACTS

3.1 HABITATS

3.1.1 Protected Sites

There are no areas with statutory protection within the site boundary and no priority habitats within or adjoining the site. The site is, however, within the Pembrokeshire Coast National Park.

The WWBIC data did not return any local sites of wildlife interest within 2km of the survey area; the Waunfawr, Ty Dewi SSSI and Special Area of Conservation (SAC) (which links into Dowrog Common SSSI and Wildlife Trust Reserve) is approximately 600m to the north-east of the site. Pembrokeshire Marine Special Area of Conservation (SAC) and the St David's Peninsula SSSI are approximately 1.6km due south, at the nearest point. The proposed development is unlikely to have any impact on these protected sites; there are no hydrological or other direct connectivity between the site and the designated areas.

There are many species records within the search area but none are associated with (or close to) the site itself. Many of the records are historic sightings, from at least 20-30 years ago.

3.1.2 Habitat Survey

The site and much of the adjacent area was unclassified under the historic Phase 1 Habitat Survey (Nature Conservancy Council 1993-96) map obtained from WWBIC. This suggests that, at that time, the area was either developed or considered to be improved agricultural land. The area of rough grazing to the north-west of the site was classified as semi-improved grassland and dense scrub.

Both fields had been cut and baled for silage just before the site survey. While this limited the species identification possible, the regrowth, a wide strip around the edges and the western part of one field, below an electric fence, were uncut and the species present could be identified.

The habitats identified during the survey are as follows:

Semi-Improved Grassland

Semi-improved grassland has been modified through past agricultural management (for instance, through use of fertiliser or grazing) and consequently, has a less diverse range of plant species compared to unimproved grassland. It does, however, contain a greater diversity of species than would be found in an agriculturally improved grassland.

It is understood that the fields have been grazed by horses for around 30 years, during which time low levels of artificial fertiliser have been applied and it has been mown for hay most years.



An uncut margin along the electric fence on the northern boundary through Field 1 included ribwort plantain (*Plantago lanceolata*), bird's foot trefoil (*Lotus corniculatus*), catsear (*Hypochaeris radicata*), selfheal (*Prunella vulgaris*), lesser stitchwort (*Stellaria graminea*), sweet vernal grass (*Anthoxanthum odoratum*), sorrel (*Rumex acetosa*), crested dogstail (*Cynosurus cristatus*), red clover (*Trifolium pratense*), white clover (*Trifolium repens*), meadow buttercup (*Ranunculus acris*), yarrow (*Achillea millefolium*) and ragwort (*Senecio jacobaea*). The rest of the field had been cut and baled but a number of species could be seen growing back; these included ribwort plantain, red clover, yarrow, creeping thistle (*Cirsium arvense*), broadleaved dock (*Rumex obtusifolius*) and sorrel; nettles (*Urtica dioica*), Yorkshire fog (*Holcus lanatus*) and hogweed (*Heracleum sphondylium*) were noted along the eastern margin. Creeping thistle, nettle and dock are often associated with localised high levels of nutrient, possibly from feeding livestock or from spreading manure.

Field 2 had also been mown and baled. This area appeared to have a greater proportion of coarse grasses, including couch grass (*Elymus repens*) and cocksfoot (*Dactylis glomerata*).

Semi-improved grasslands are a relatively common grassland habitat within the region; areas of improved grassland will naturally revert once nutrient input (fertiliser) is reduced and if managed by a regime of cutting and low levels of grazing. It is not considered that the proposed development will have a significant impact on the local ecology.

Field Boundaries

The site boundaries to south of Field 1 and part of Field 2, are concrete block walls or wire fences, of low ecological value, with a number of ornamental species planted within the gardens. The road boundary in Field 2 is a stone wall with valerian (*Centranthus*), growing along the sides and top. There is no hard boundary along the northern western edge of the site in Field 1; this is continuous with the rest of the field which remains outside the proposed development.

The western boundary of Field 1, alongside the school, is an overgrown bank dominated by bracken (*Pteridium aquilinum*) with areas of gorse (*Ulex europaeus*). Nettle, hogweed, bramble (*Rubus fruticosus*) and broadleaved dock are common along the lower edge. A high wooden fence runs along the perimeter of the school grounds, on top of the bank. A single semi-mature sycamore (*Acer pseudoplatanus*) has established on the edge of the field, partway down this boundary, and two semi-mature ash (*Fraxinus excelsior*) towards the northern end.

The boundary to the north of the Field 2 and the internal boundary between the two fields, are stone-faced earth banks. These are covered in dense bracken (encroaching into the field), gorse and occasional wind-sculpted hawthorn (*Crataegus monogyna*). Vegetation has been cleared in places (along the boundary with the workshop and along the boundary with the property to the south-west).

Stone-faced earth banks are included within the Traditional Field Boundaries Priority Habitat in the Pembrokeshire Biodiversity Action Plan.

All the external boundaries are to be retained as part of the development, apart from the roadside boundary which will be removed to provide site access. The internal boundary will also be removed.



3.1.3 Invasive Non-Native Species

There was no evidence of invasive species such as Japanese Knotweed (*Fallopia japonica*) or Himalayan balsam (*Impatiens glandulifera*), on the site.

3.2 SPECIES

An assessment was carried out into the suitability of the site and adjacent areas for a number of animal species including those listed under the Conservation of Habitats and Species Regulations 2010 (as amended); the Wildlife and Countryside Act 1981 (as amended); the Natural Environment and Rural Communities (NERC) Act 2006 Section 42 Habitats or Species of Principle Importance for Conservation of Biological Diversity in Wales; UK Biodiversity Action Plan (UK BAP) priority species or Local BAP (LBAP) priority species; Nationally rare or nationally scarce species; and, Species of Conservation Concern (e.g. JNCC Red List, RSPB/BTO Red or Amber Lists).

The information from WWBIC returned no published records of protected species on or close to the site.

Bats

There are no suitable features – such as large trees or buildings - on the site that would provide a bat roost; the nearby houses may potentially be used by bats and the field boundaries are potentially suitable commuting routes for bats to follow in order to forage around the woodland and across the rough grassland area to the north and west of the site.

It is considered that there will be no negative impact on the local bat population as a result of the proposed development.

Birds

Crevices between stones on the earth banks together with cover provided by the vegetation on the boundaries will provide suitable habitat for nesting songbirds, such as wrens and robins.

As the external banks are to be retained, there will be no loss of habitat along these boundaries and it is considered that there will be a very low impact on nesting songbirds; proposed supplementary planting will actually provide additional nesting habitat. Work to remove the internal bank should be carried out over the autumn period, outside the bird nesting season.

Badger

The site was assessed for badger activity (including tracks, latrines, snuffle holes and more extensive digging). A hole and track was found on the western boundary near the school but, given the appearance of the hole and the nearby fox scat, this is not considered to be badger activity.

A track of flattened vegetation and an old badger latrine (no fresh dunging) was noted on the field boundary in the north-eastern corner. There was no sign of digging and no snuffle holes or scratching nearby. However, there was no access into the adjacent field and this area could not be checked for



further activity. It is likely that the latrine was used for marking the edge of the territory but fell out of use if the badgers had moved away.

Reptiles

Due to the grassland management, the fields are not considered to be good reptile habitat; these species prefer a mosaic of vegetation at different heights, with areas of shorter growth for feeding and basking, and areas of taller vegetation for refuges. There is potential for reptiles and amphibians to use the boundary habitat as linear corridors and use the crevices as refuges and potentially as a hibernation place. These will continue to be available in the future around the edge of the site.

The internal bank is to be removed and mitigation measures will need to be included in the proposals to prevent any individuals being injured or killed.

Development of the site is unlikely to have a negative impact on the local reptile population, providing the internal bank is removed carefully.

Other Notable Species

There is no suitable habitat for otters and water vole on or close to, the site.

Due to the nature of the site it was considered unsuitable for dormouse.

The development is therefore unlikely to have a negative impact on these species.

4.0 RECOMMENDATIONS FOR FURTHER SURVEY WORK

4.1 There are no recommendations for further survey work as such but it is recommended that a check is made of the site before work starts, in case badgers are present.

5.0 MITIGATION AND ENHANCEMENT

5.1 Mitigation

Badgers - Badgers and their setts, where currently active, are protected under the Protection of Badgers Act 1992. Therefore, if works are proposed that are likely to disturb an active sett, it will be necessary to obtain a licence from Natural Resources Wales to cover the proposals. This will include the use of lighter machinery (especially for digging) within 20m of a sett entrance.

Badgers are very mobile and could easily move into an area. Therefore, a check should be made prior to work starting and, if found to be present, work must be carried out under licence.

Once work starts, it would be prudent to cover open trenches and to check them daily in case a badger has fallen into an excavation overnight.



Removal of internal and roadside boundaries – these should be removed during the autumn (September to October) before reptiles begin to hibernate and after birds have finished nesting. A careful watch should be made while each boundary is dismantled and any reptiles found should be carefully collected and moved to a safe area on one of the external boundaries. Carrying out the work over the winter may disturb or kill any hibernating reptiles.

5.2 Enhancement Measures

A new hedge-bank is proposed for the northern-western boundary of the site. This is an excellent opportunity to create additional boundary habitat and, once established, new opportunities for wildlife. Materials removed from the roadside and internal boundaries should, ideally, be salvaged and used to build the new bank as a traditional *clawdd*.

6.0 REFERENCES

BS 42020: Biodiversity – Code of Practice for Planning & Development

List of Species & Habitats of Principle Importance for Conservation of Biological Diversity in Wales. Wales Biodiversity Partnership/Welsh Assembly Government.



APPENDIX 1 - SITE LOCATION and PHASE 1 HABITAT PLAN



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APPENDIX 2 – SITE PHOTOGRAPHS



1. Field 1, view N



2. Field 1, view NW



3. Field 2, view S





4. Eastern boundary, view N



5. Field 2 - SE, SW & S boundaries



6. Roadside boundary





7. Field 2 – N boundary



8. Internal boundary



9. Field 1, garden boundary to S





10. Field 1, western boundary with school



11. NE corner – badger activity noted on hedgebank



APPENDIX 3: LEGISLATION

Birds

The Wildlife and Countryside Act 1981 (as amended) makes it an offence (with certain limited exceptions) to intentionally kill, injure or take any wild bird, or to damage, take or destroy the nest of any wild bird whilst that nest is being built or in use, or to take or destroy its eggs. Furthermore, the Act affords additional protection to specific species of birds listed in Schedule 1 of the Act. In respect of these species it is unlawful intentionally or recklessly to disturb such a bird whilst it is nest-building or is in, on or near a nest containing eggs or young; or to disturb their dependent young. Following recent revisions, fifty-nine species are listed on the UKBAP.

Bats

All species of bats and their roosting sites are protected under the Wildlife and Countryside Act 1981 (as amended) and the Conservation (Natural Habitats etc.) Regulations 1994, updated and consolidated by the Conservation of Habitats and Species Regulations 2012. All species of UK bats are designated as 'European Protected Species' and are covered by a Species Action Plan within Carmarthenshire LBAP.

Badgers

Badgers and badger setts are protected under The Protection of Badgers Act 1992, which makes it illegal to kill, injure or take a badger, or to interfere with a sett. A sett is defined as "any structure or place which displays signs indicating current use by a badger".

Otters:

The Eurasian Otter is protected under Regulation 41 of The Conservation of Habitats and Species Regulations 2010 and Section 9 of the Wildlife and Countryside Act 1981 (as amended), being listed in Schedule 5 of the act. Under the legislation it is an offence to:

- Deliberately, capture, injure or kill an Otter;
- Damage, destroy or obstruct their breeding or resting places;
- Disturb otters in their breeding or resting places.

Offences under Section 9 carry a maximum penalty of a fine up to £5000, imprisonment for up to six months, or both, for each animal in respect of which an offence is committed. There is, however, provision within the legislation to kill, take, disturb or possess otters or to use prohibited methods to kill or take under a licence in certain defined circumstances, if the issue cannot be resolved by any alternative means. Licenses can be granted for a variety of purposes, including development.

Water Vole:

Water Voles and their habitats are afforded protection under Section 9 of the Wildlife & Countryside Act 1981 (as amended). Under the legislation it is an offence to:



- Intentionally kill, injure or take (capture) a water vole;
- Possess or control a live or dead water vole, or any part of a water vole or anything derived from a water vole;
- Intentionally or recklessly damage, destroy or obstruct access to any structure or place which a water vole uses for shelter or protection
- Intentionally or recklessly disturb a water vole while it is occupying a structure or place which it uses for shelter or protection;
- Sell, offer or expose for sale, or have in one's possession or transport for the purpose of sale, any live or dead water voles, or any part of a water vole or anything derived from a water vole;
- Publish any advertisement, or cause any advertisement to be published, which is likely to be understood as conveying that a person buys or sells, or intends to buy or sell, any of the above things.

Offences under Section 9 carry a maximum penalty of a fine up to £5000, imprisonment for up to six months, or both, for each animal in respect of which an offence is committed.

Invasive Species

Japanese Knotweed is listed under Schedule 9, Part 11 of the Wildlife and Countryside Act 1981, making it an offence to plant or otherwise cause it to grow in the wild. Care should be taken to avoid bringing in or removing material contaminated with Japanese Knotweed during the site development.

Reptiles

There are four widespread species of British reptile, comprising grass snake (*Natrix natrix*), slow-worm (*Anguis fragilis*), adder (*Vipera berus*) and common lizard (*Zootoca vivipara*). These animals are protected under the Wildlife and Countryside Act 1981 (as amended). They are given so called 'partial protection', which prohibits the deliberate killing or injury of individuals. The habitats of common reptiles are not specifically protected.

