LAND AT THE FORMER GOODIG HOTEL, PWLL ROAD, BURRY PORT, Nr LLANELLI

ECOLOGICAL APPRAISAL

JULY 2017

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POBL GROUP

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Ecological Appraisal

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NON-TECHNICAL SUMMARY

An ecological appraisal was undertaken of land at the former Goodig Hotel on Pwll Road in Burry Port near Llanelli, South Wales. The work included assessments of the habitats, the presence of protected sites, the potential for protected species to be present and assessments of any potential impacts on those habitats sites and species present.

The site lies within on the edge of an urban area and comprises a single agriculturally improved grassland field surrounded by rough common grazing, walls, hedges and mature trees.

There are no designated sites on or adjacent to the proposed development site. The Carmarthen Bay and Estuaries Special Area of Conservation (SAC), Burry Inlet Special Protection Area (SPA), Burry Inlet and Loughor Estuary Site of Special Scientific Interest (SSSI) Pwll Lagoon SSSI, Pembrey Coast SSSI and the Burry Inlet Ramsar site are all within 2km of the site. There are a number locally designated sites including Local Nature Reserves (LNRs) and Country Parks. No isres if Importance for Nature Conservation are identified within the Adopted Local Development Plan.

Identified Ecological features and Constraints:

1) Bats

There are no buildings within the development site application boundary that could offer bat roosting habitat although there are such buildings and structures in very close proximity to it.

There are a number of mature standard trees on and around the boundaries of the site which could provide bats with potential roosting features.

It is likely that bats use the grassland on the site and the site's boundaries for foraging.

Further surveys are considered necessary for this group.

2) Dormouse

The only habitats on the site that might be suitable for this species are the tree line around the northern and western boundaries and possibly the hedge at the south western corner of the site; these will be retained in their entirety. Further surveys are not considered necessary.

3) Great Crested newt

There is no suitable breeding habitat on or adjacent to the site. There are no records of great crested newts in the area. No further surveys are considered necessary in respect of this species.

4) Badger

No evidence of badger activity was recorded from the site. No further surveys are considered necessary and this species will not be considered further in this report.

5) Breeding birds

Breeding birds should be assumed to use the trees hedges and scrub around the boundaries of the site. Certain species may utilise the grassland on the site; however the recent management of the grassland has resulted in it being less suitable for ground nesting species as the grass is tall and rank.

6) Reptiles

The site provides optimal habitat for all four common species of reptiles for foraging, basking and sheltering. There is limited hibernation habitat on the site for members of this group, all of which is located on the bank along the northern boundary of the site and among the ruins of the former Goodig Hotel, also to the north of the site. If it is assumed that reptiles will use the site and that clearance is undertaken in a manner which prevents harm to reptiles, there will be no requirement for any further surveys for this group.

7) Non-native invasive species

No non-native or invasive botanical species were recorded from the site.

8) Summary

Further ecological surveys in respect of bats will be required depending on the scope of works.

Clearance of the site should be undertaken in accordance with an approved method statement to prevent harm to reptiles. This will also prevent harm to other groups such as amphibians and small mammals as well as ground nesting birds in the event that they utilise the site.

1 INTRODUCTION

1.1 OBJECTIVE

The objectives of this report are to:

- collate and analyse existing ecological information relating to the site;
- identify the habitats present on site;
- identify the presence of protected sites;
- identify the potential for protected species to be present on site;
- using the information gathered to determine whether there will be any impacts (both positive and negative) on the protected sites, species and habitats present;
- provide recommendations for further survey as necessary; and
- suggest outline mitigation and enhancement ideas and principles

1.2 METHODOLOGY

To achieve the objectives set out above, the following actions were taken:

- Ecological information data search:
    1. Local biological records data search; and
- Field based assessments in respect of
    1. Habitats; and
    2. Protected species

The impact assessment has been undertaken by ecological feature rather than by section i.e. each subject is discussed and assessed separately and summarised in conjunction with the others.

1.3 SITE DESCRIPTION

Species lists are at Appendix A; photos are at Appendix B.

The site is approximately 4.3ha in extent and is located on land alongside Pwll Road on the northern edge of Burry Port near Llanelli in South Wales (centred on NGR SN455013) (Figure 1).

The site (Figure 2) comprises a single field of semi-improved grassland (Plate 1) with a mortared stone wall along the southern boundary (Plate 2), a short section of hedge along the southern boundary (Plate 3), fences and scrub along the eastern boundary, an open boundary with the former Goodig Hotel on the eastern end of the northern boundary (Plate 4) and an embankment and tree line along the remainder of the northern boundary (Plate 5). There are scattered mature standard trees across the site (Plate 6) and what appears to be the remains of a former field boundary in the form of a number of mature standard trees extending in a line from the A484 boundary towards the northern boundary (Plate 7).

The A484 Pwll Road runs along the southern boundary of the site and provides the site with links with Kidwelly to the west and Llanelli to the east.

There is a track (Plate 8) leading from the A484 to the former Goodig Hotel effectively splitting the site into two sections. This track appears to extend around the western part of the site before re-joining the A484 at the site's western end.

The land to the south is dominated by the settlement of Burry Port. Land to the east and west of the site is characterised by larger domestic dwellings and gardens; the land to the north is a south facing slope with rough or common grazing, open woodland and areas of bracken.

The site lies on the edge of the Burry Port settlement boundary and the rural (pastoral) land beyond. There are no public rights of way over the site.

The grassland is dominated by perennial ryegrass (*Lolium perenne*), curled dock (*Rumex crispus*), white clover (*Trifolium repens*) and Timothy (*Phleum pratense*) with common fleabane (*Pulicaria dysenterica*), yarrow (*Achillea millefolium*), common bent (*Agrostis capilaris*), common nettle (*Urtica dioica*), crested dog's-tail (*Cynosaurus cristatus*), rough meadow grass (*Poa trivialis*), red fescue (*Festuca rubra*), meadow foxtail (*Alopecurus pratensis*), Yorkshire fog (*Holcus lanatus*) and common sedge (Carex nigra).

The hedge is comprised of elm (*Ulmus procera*), hawthorn (*Crataegus monogyna*), sycamore (*Acer pseudoplatanus*) and bramble (*Rubus fruticosus* agg.) over ivy (*Hedera helix*), common nettle, bracken (*Pteridium aquilinum*), stinking iris (*iris foetidissima*), and herb Robert (*Geranium robertianum*).

The trees on the site include horse chestnut (*Aesculus hippocastanum*), sycamore, Scots pine (*Pinus sylvestris*), ash (*Fraxinus excelsior*) and beech (*Fagus sylvatica*).

Figure 1 - aerial view of the proposed development site (arrowed red)

Figure 2 – detailed view of the proposed development site (approximate boundary outlined in red)

1.4 PROPOSED DEVLOPMENT

It is understood that up to 100 dwellings, gardens and associated infrastructure will be built on the site with access from the A484. Please refer to the master plan / layout for further details.

1.5 STUDY AREA

The field survey looked at the development area itself and up to 50m from the site boundaries.

1.6 PLANNING FRAMEWORK

The proposed development will be undertaken wholly under the auspices of the Town and Country Planning Act 1990 (as amended).

2 REGULATORY FRAMEWORK

2.1 INTERNATIONAL

European Union legislation requires that member states designate sites for the protection of habitats and species included in the annexes of both Council Directive 92/43/EC on the Conservation of Natural Habitats and of Wild Flora and Fauna (the Habitats Directive) and Council Directive 79/409/EEC on the Conservation of Wild Birds (the Birds Directive). This legislation is implemented in the UK by the Conservation of Habitats and Species Regulations 2010 (as amended) ("the Habitat Regulations"). This results in sites being designated as Special Areas of Conservation (SACs) and Special Protection Areas respectively (SPAs).

2.2 NATIONAL (UK)

The Wildlife and Countryside Act 1981 (as amended) allows sites to be designated as Sites of Special Scientific Interest (SSSI) for one or all of the following categories:

- Flora;
- Fauna;
- Habitat; and
- Geological importance.

European designated sites are automatically designated as SSSIs prior to their designation.

The relevant legislation includes:

- The Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999 (as amended);
- The Conservation of Habitats and Species Regulations 2010 (as amended);
- The Wildlife and Countryside Act 1981 (as amended);
- Countryside and Rights of Way Act 2000;
- Wild Mammals (Protection) Act 1996; and
- The Protection of Badgers Act 1992.

Biodiversity Action Plans (BAPs) are tools which are used to monitor, manage and enhance those habitats and species which are of significance to an area or organisation, The United Kingdom BAP lists a number of priority habitats and species which are of conservation concern.

Section 40 of the Natural Environment and Rural Communities Act 2006 (as amended) requires all public bodies to have regard wherever possible to conserving biodiversity. Section 42 of the Act requires that a list of habitats and species of Principle Importance for the Conservation of Biological Diversity in Wales be produced.

2.3 NATIONAL (WALES)

The Environment (Wales) Act 2016 requires that all public authorities, when carrying out their functions in Wales, seek to "maintain and enhance biodiversity" where it is within the proper exercise of their functions. In doing so, public authorities must also seek to "promote the resilience of ecosystems".

This ensures that biodiversity is an integral part of the decisions that public authorities take in relation to Wales. It also links biodiversity with the long term health and functioning of our ecosystems, therefore helping to align the biodiversity duty with the framework for sustainable natural resource management provided in the Act.

In Wales, this legislation replaces and enhances the Natural Environment and Rural Communities Act (2006) which sought to raise the profile of biodiversity and to make sure that it is considered in all local authority decisions by ensuring that "Every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity.".

Other elements of NERC 2006 may still apply.

Planning Policy Wales (Welsh Assembly Government, 2002) and Planning Policy Wales Technical Advice Note 5: Nature Conservation and Planning (Welsh Assembly Government, September 2009) set out the protection given to wildlife (sites, habitats and species) by the planning system operational in Wales.

2.4 LOCAL AND REGIONAL

The proposed development is wholly within the Carmarthenshire County Council (CCC) area of responsibility. Therefore, all planning and development policies adopted by the Council will apply, specifically:

Strategic Policies
SP14 Protection and Enhancement of the Natural Environment

Specific Policies
EQ3 Regional and Local designations
EQ4 Biodiversity
EQ5 Corridors, Networks and Features of Distinctiveness
EQ6 Special Landscape Areas

Other policies and objectives outlined within the adopted Local Plan may be of relevance and the development proposals should take account of these during the design stage and planning process.

3 DESK STUDY

3.1 SUMMARY

Biological records information has been requested but not received at the time of writing. This report will therefore either be updated on receipt of that information or the information provided as an addendum.

3.2 RESULTS

3.2.1 Statutorily protected sites

3.2.1.1 European designated sites

There are a number of European designated sites within 2km of the proposed development site. These are detailed in Table 1 below.

Table 1 - European designated sites within 2km of the proposed development site

Designated site name	Designation	Reason for designation	Area (ha)	Distance (m)
Burry Inlet	SPA	Overwintering oystercatcher and pintail; & At least 20,000 waterfowl	6628	788
Carmarthen Bay and Estuaries	SAC	The presence of Annex 1 marine habitats; & The presence of Annex II marine, freshwater & terrestrial species.	66092	788
Burry Inlet	Ramsar	Species and species assemblages of international importance	6628	788

The proposed development will not affect the sites or the designated features within these sites in any way and therefore they will not be considered further in this report.

3.2.1.2 UK designated sites

There are three UK designated sites (SSSIs) within 2km of the proposed development site. Please refer to Table 2 below.

Table 2 - UK designated site within 2km of the proposed development site

Designated site name	Designation	Reason for designation	Area (ha)	Distance (m)
Burry Inlet and Loughor Estuary	SSSI	Estuary comprising open water, sand and mud flats, grazing marsh and for the assemblage of waders and wildfowl.	5898	1550
Pwll Lagoon	SSSI	Fen and woodland	5.3	1012

		communities		
Pembrey Coast	SSSI	Intertidal, saltmarsh and sand dune habitats including transitional areas, wet woodland & neutral grassland. Scrub and river habitats. Oystercatchers, sanderlings and invertebrates.	4119.7	2000

None of the sites will be affected in any way by the proposed development. They will not be considered further in this report.

3.2.2 Non-statutory designations

Awaiting confirmation as part of the biological records data search.

3.2.3 Carmarthenshire Local Biodiversity Action Plan

The Local Biodiversity Action Plan lists a number of habitats and species which are considered to be of relevance to the proposed development site. These are as follows:

1. Amphibians & reptiles
2. Barn owl
3. Bats
4. Brown hare
5. Dormouse
6. Hedgehog
7. Lowland grassland & heathland habitats
8. Tree sparrow
9. Woodland habitats

3.3 PREVIOUS SURVEYS

There are no known surveys of this site.

4 PROTECTED SITES

4.1 STATUTORILY DESIGNATED SITES

There are no statutorily designated sites on or adjacent to the propsoed development site.

There are a number of statutorily designated sites within 2km; however, the proposed development will not impact on these in any way, either positively or adversely. Therefore, these sites will not be considered further in this report.

5 PHASE 1 HABITAT SURVEY

5.1 SUMMARY

A number of habitats were recorded on and around the survey area. These included:

- Broadleaved woodland;
- Scattered trees;
- Scrub;
- Semi-improved grassland;
- Hedges;
- Scattered bracken;
- Walls

The potential for a number of protected species was recorded, including habitats suitable for:

- Bats;
- Dormouse;
- Badger;
- Breeding birds;
- Reptiles;

5.2 BACKGROUND

The Phase 1 habitat survey was carried out to assess the existing habitats, identify any protected habitats or species that may be present, determine the impact of the proposed works on them, and identify any mitigation measures that may be necessary. This was done by undertaking both a desk study and field survey.

The survey was undertaken on 13th July 2017.

Phase 1 habitat survey is a way of recording the basic habitat data to form a baseline level of knowledge of the ecology of a site and provide recommendations for future surveys if considered necessary.

5.3 METHODOLOGY

5.3.1 Desk study:

A biological data search was undertaken. Refer to section 3 above.

5.3.2 Field survey:

Experienced surveyors from BE Ecological Ltd carried out a habitat assessment and mapping exercise in July 2017 using the Phase 1 habitat survey technique. Nomenclature follows Stace (1997)[1].

A full species list is at Appendix A.

5.4 CONSTRAINTS

There were no constraints to the survey.

5.5 RESULTS

5.5.1 Habitats

The following habitats were found on the site:

5.5.1.1 Broad leaved woodland

This habitat was found towards the western end of the northern boundary. It comprises horse chestnut, ash, hazel (*Corylus avellana*) and pedunculate oak (*Quercus robur*). The shrub layer appears to be fairly sparse with a very thin ground layer comprised predominantly of bare ground.

It is anticipated that this habitat will be retained in its entirety and will therefore not be considered further in this report.

5.5.1.2 Scattered trees

These were found across the semi-improved grassland on the site. The species included horse chestnut, ash, pedunculate oak and Scots pine.

5.5.1.3 Scrub

This habitat is found on the embankment along the northern boundary of the site and the eastern boundary and is dominated by low growing bramble (*Rubus fruticosus* agg.).

It is anticipated that this habitat will be retained in its entirety and will therefore not be considered further in this report.

5.5.1.4 Semi-improved grassland

The site is comprised wholly of semi-improved grassland. It has been used most recently to graze goats; there is no evidence for or available knowledge of any other management. It is dominated by agricultural grasses, docks, nettle and soft rush with

[1] Stace, C (1997). *New Flora of the British Isles* (2nd Ed.). Cambridge University Press

a limited range of herbs, the most obvious of which was common fleabane (species list at Appendix A).

5.5.1.5 Hedges

The site is bounded on its south eastern corner by a hedges alongside the A484 dominated by elm and hawthorn with hazel and bramble. These have reached a height of approximately 3m. There are occasional gaps, but the hedge is generally intact although thin.

This hedge will be retained in its entirety during and after the development. Therefore, this habitat will not be considered further in this report. It should be noted that if there is any change to the proposals involving the loss of the hedge in part or whole, it will need to be subject of an ecological assessment.

5.5.1.6 Scattered bracken

There are a number of areas of scattered bracken towards the rear (northern) boundary) of the site. The canopy of these areas is not continuous and therefore there is very little ecological interest other than the fact if left unmanaged, the bracken would be likely to outcompete the other vegetation around.

This habitat will not be considered further in this report.

5.5.1.7 Walls

The site's southern boundary is a is formed by a mortared stone wall approximately 1.2m high. There is no ecological value to it as there are few crevices for species to exploit.

This feature will not be considered further in this report.

5.5.2 Protected species assessment

5.5.2.1 Bats

There are a number of records of bats within 2km of the site; however, there are no structures on the application site that could be used by bats for roosting. However, there are a number of trees which appear to provide bats with potential roosting features. It should be assumed that the site provides good foraging habitat and commuting links.

This species group will require further surveys prior to any planning application being made. Please see section 6 below.

5.5.2.2 Dormouse

The features which could be utilised by this species will be retained in their entirety. Therefore, further survey work is considered to be unnecessary. However, there will be a requirement to ensure that these habitats remain unaffected by the development during site clearance, construction and operational phases.

This species will not be referred to further in this report.

5.5.2.3 Great crested newt

There are no aquatic features which could be used by this species for breeding purposes although it is possible that the habitats on the site could be used by this species during the terrestrial phase of its life cycle i.e. for foraging, sheltering and hibernation. It is considered that the only area which could be used for hibernation is likely to be the embankment on the northern boundary.

Surveys for this species would involve placing and checking artificial refugia. However, this type of survey for this species is inefficient, producing low confidence results. It is considered that including this species with reptiles in an appropriate site clearance method statement (e.g. as for reptiles) would be more pragmatic. In the event that great crested newts are found during the clearance, works will cease and a Natural Resources Wales development licence be sought and obtained prior to re-commencement of clearance work.

This species will not be considered further in this report.

5.5.2.4 Badgers

The site offers potential foraging habitat for this species; the northern embankment provides optimal sett building habitat.

No evidence of badger was recorded from the site. This species will not be considered further in this report; however, all surveys and checks of the site prior to development will look for signs of presence so that an assessment can be made of them should they start using the site.

5.5.2.5 Breeding birds

All areas of woodland, standard trees, hedges and scrub on the site should be considered to be used by this group as they provide optimal foraging and breeding sites for a variety of bird species.

The suitability of the grassland for ground nesting birds is limited due to the agricultural management of the site (or lack thereof). No evidence of ground nesting birds was seen or heard during the survey visit.

The grassland should be assumed to be used by birds for foraging purposes.

5.5.2.6 Reptiles

The semi-improved grassland on the site provides optimal habitat for all the common species of reptiles, particularly grass snake (*Natrix natrix*), slow worm (*Anguis fragilis*) and common lizard (*Lacerta vivipara*). It is less likely that adder (*Vipera berus*) would use the site, although their presence should be assumed on the rough grazing to the north of the site.

It should be assumed that reptiles will be on the site. It is considered that a full survey will not be necessary if presence is assumed and site clearance is undertaken in a manner which ensures the safety of reptiles i.e. implementing a habitat manipulation and denial exercise pushing animals into safe and / or retained areas of suitable habitat.

5.5.2.7 Non-native invasive species

No non-native invasive species were recorded from the site.

This group will not be considered further in this report.

5.5.3 Other features

None.

5.6 HABITATS - EVALUATION, IMPACT CHARACTERISATION AND ASSESSMENT

5.6.1 Scattered trees

5.6.1.1 Scattered trees - evaluation

The trees on the site are all mature standards and appear to be in a good condition (although this would have to be confirmed by an appropriate arboricultural survey) with the exception of one tree, a Scots pine, which appears to be dead but still standing.

The presence of the trees suggest that the application site may once have fulfilled a parkland role. Mature trees in this context are of a high ecological value as they tend to be larger than those found in woodland and due to their maturity, provide

features which are of benefit to a wide range of species and groups, particularly invertebrates, bats and birds. The location of the trees in open areas increases the value by providing refuge and shelter for a range of species which might be less likely to be found within woodland. The tree species concerned increase this ecological value as they have rough, dense canopies, heavily creviced rough bark and multiple stems and limbs.

The trees should therefore be regarded as being of a **high** ecological value at a **local (site)** level.

5.6.1.2 Scattered trees - impact characterisation without mitigation

Not all the trees on the site will be lost. Confirmation of which trees will only come as a result of the arboricultural survey and finalisation of the proposed site layout. However, it is anticipated that only three trees will be lost: a horse chestnut, pedunculate oak and the dead Scots pine, all of which are in the centre of the application site.

It is considered that without mitigation the loss of these trees would represent a **certain long term (permanent) significant adverse** impact.

5.6.1.3 Scattered trees - potential mitigation measures

There is no real cost effective way or providing mitigation for the loss of mature parkland trees such as those on the site. However, it is recommended that:

- Replacement planting be undertaken with mature trees of as large a size as possible with associated parkland style protective fencing; and
- Planting to be implemented in open areas across the development.

5.6.1.4 Scattered trees - impact assessment with mitigation

It is considered that with mitigation, there would be a **certain long term moderate adverse impact**, reducing over time.

5.6.1.5 Scattered trees - significance of the impact

Without mitigation:

It is anticipated that without mitigation the significance of the impact will be **large**.

With mitigation:

It is anticipated that the significance of the impact is **moderate** reducing to **neutral** over time.

5.6.2 Semi-improved grassland

5.6.2.1 Semi-improved grassland - evaluation

This habitat dominates the application site. This habitat in itself has a generally low ecological importance because of the generally low botanical species diversity (resulting from a lack of agricultural and / or conservation management; however,

its value increases due to the potential presence of other species and species groups.

It is considered that this area is of a **low** ecological value at a **local** level due to its low species diversity and management.

5.6.2.2 Semi-improved grassland - impact characterisation without mitigation

It is anticipated that this habitat will be lost in its entirety to the development; small areas may be retained, but it is not clear at this point what size those areas will be or where they will be. This is likely to result in a **certain significant permanent adverse** impact.

5.6.2.3 Semi-improved grassland - potential mitigation measures

Specific mitigation for loss will not be required. However, it is advisable to consider implementing the following measures:

- minimising the area of grassland loss through design (i.e. only clearing the minimum grassland absolutely necessary);
- re-use topsoil from the site for open space landscaping purposes to retain the existing seedbank; and
- implement conservation (rather than amenity) management of the open spaces to benefit botanical diversity which in turn benefits invertebrates, birds, mammals and reptiles.

5.6.2.4 Semi-improved grassland - impact assessment with mitigation

It is considered that there will be a **certain minor permanent adverse** impact as a result of the loss of the grassland.

5.6.2.5 Semi-improved grassland - significance of the impact

Without mitigation:

It is anticipated that without mitigation the significance of the impact will be **moderate**.

With mitigation:

It is anticipated that the significance of the impact is **slight**.

6 PROTECTED SPECIES

6.1 BATS

6.1.1 Summary

Data search information will be provided in the bat survey report following the completion of the full surveys.

There are no structures on the site which could offer bats with roosting sites.

The site should be assumed to be used by bats for foraging, with the boundaries, with those on the west, north and south being of particular importance.

A number of trees were recorded during the phase 1 habitat survey which appeared to offer potential roosting features for bats. These trees were subject of a ground based assessment to assist with informing the requirement for climb and inspect surveys and / or emergence / daw return to roost surveys.

Further surveys of the site in the form of activity transects will be required.

6.1.2 Bat ecology

British bats are small flying nocturnal mammals that feed exclusively upon insects. There are 17 species resident in Britain, ranging in size from the small pipistrelle species (*Pipistrellus* sp.) weighing in at approximately 5g up to the larger noctule (*Nyctalus noctula*) weighing approximately 35g. Bats are active from April through to October and hibernate when insects are in short supply in the winter months. Bats generally emerge from hibernation in late March - early April and move into transition roosts before the female bats move to maternity sites by the beginning of May where they give birth to a single baby between June and early July. The baby is reared solely by the mother and is weaned and independent by end of August. After breeding, bats move to transition roosts and females will visit males at mating roosts. During the autumn, bats feed intensively to gain sufficient weight for hibernation.

Although traditionally trees, caves and rock faces were used by roosting bats and are still used, many different structures are used nowadays by bats, which take advantage of readymade (manmade) roosts. Structures used frequently include bridges, ice-houses, pillboxes, disused railway tunnels, houses and barns etc. Bats do not hold territories but have foraging ranges which vary in size between species: from just 3-4km from the roost for the smaller bats while noctules may fly 20km or more. Threats to bats include habitat destruction and the severance of commuting routes, use of agricultural pesticides, intensification of farming methods and deliberate persecution by man. Bats have few natural predators; the domestic cat probably accounts for most losses.

6.1.1 Legislation

6.1.1.1 Conservation of Habitats & Species Regulations 2010

The Conservation of Habitats and Species Regulations (2010) provides safeguards for European Protected Species (those listed under Annex IV Habitats Directive). With regards to bats, this makes it an offence to:

- Deliberately (or recklessly in Scotland) capture, injure or kill a bat
- Deliberately (or recklessly in Scotland) disturb a bat in a way that would (significantly in Scotland) affect its ability to survive, breed or rear young (or hibernate or migrate in England, Wales and Northern Ireland) or (significantly in England, Wales and Scotland) affect the local distribution or abundance of the species.
- Damage or destroy a roost (this is an 'absolute' offence)
- Possess, control, transport, sell, exchange or offer for sale/exchange any live or dead bat or any part of a bat

It is possible to undertake damaging activities under the auspices of a European Protected Species Licence issued by Natural Resources Wales which provides a derogation from the Regulations, meaning that an otherwise illegal operation carried out under licence is lawful.

6.1.1.2 Wildlife & Countryside Act 1981

The Wildlife & Countryside Act 1981 (as amended) is the legislation for England and Wales for nature conservation, making it an offence to:

- Intentionally or recklessly disturb a bat at a roost
- Intentionally or recklessly obstruct access to a roost

6.1.2 Methodology

6.1.2.1 Ground based tree assessment

The tree inspections were undertaken in accordance with current best practice[2]. Each tree or discrete group of trees was assessed from ground level to the canopy using close focusing binoculars and a high powered torch. Features likely to be used by roosting bats (see list below of features of interest) were noted and, where possible, were inspected. Evidence of bat usage was also recorded where present. Each tree was recorded on a plan and scored, as detailed below.

Features include:

- Natural holes;
- Woodpecker holes;
- Cracks/splits in major limbs;
- Loose bark;

[2] *Bat Surveys for Professional Ecologists - Good Practice Guidelines* (Collins, J (Ed)). BCT, 2016

- Behind dense, thick-stemmed ivy;
- Hollows/cavities;
- Within dense epicormic growth; and
- Bird and bat boxes.

In addition to features of interest, evidence of bats was searched for including:

- Live and dead bats;
- Bat droppings;
- Potential bat access points;
- Fur oil/urine staining;
- Characteristic scratches;
- Smell of bats and/or droppings; and
- Noise made by bats.

The trees inspected were graded according to Table 3 below.

Table 3 - tree classification (BCT 2016)

Tree grade	Category description
Negligible	Negligible habitat features likely to be used by bats
Low	A tree of sufficient size and age to contain PRFs but with none seen from the ground or features seen with only some very limited roosting potential
Moderate	A tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status
High	A tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.

6.1.3 Constraints

At this visit there was no way of accessing features over 2m off the ground to determine whether they have been used, are being used or are useable by bats.

There were no other constraints to the survey

6.1.4 Results

6.1.4.1 Desk study

To be included in final bat survey report.

6.1.4.2 Habitat assessment

The semi-improved grassland within the application boundary provides optimal foraging habitat for a range of bat species as there is likely to be a high number and density of prey species.

The woodland, hedges and trees on and within the application site boundaries are likely to be used by bats for foraging and also have the potential to provide roosting habitats for bats.

It is likely that bats are using the former Goodig Hotel building and other buildings adjacent to the application site for roosting.

6.1.4.3 Ground based tree assessment

No trees were confirmed as bat roosts.

Only seven trees were identified within the application site which are likely to be removed. All seven offered potential to provide bat roosting habitat. Five were classified as having low potential for bats and two as providing moderate potential for bats. They are identified at Figure 3 below.

The woodland hedge and boundary trees were not surveyed as these will be retained; it can be safely assumed that there are trees in these areas which do provide roosting habitat. The proposed activity transects will inform the requirement for further surveys in the event that felling or pruning is required in these areas.

Refer to Table 4 and Figure 3 below for the locations of the trees described above. Full descriptions of the trees will be provided in the final bat survey report.

Table 4 – details of ground based tree assessment results of trees scheduled for removal

Number	**Species**		**Classification**				
	Common name	**Scientific name**	**Neg**	**Low**	**Mod**	**High**	**Conf**
1	Scots pine	*Pinus sylvatica*		✓			
2	Horse chestnut	*Aesculus hipposcastanum*			✓		
3	Scots pine	*Pinus sylvatica*		✓			
4	Scots pine	*Pinus sylvatica*		✓			
5	Scots pine	*Pinus sylvatica*		✓			
6	Horse chestnut	*Aesculus hipposcastanum*			✓		
7	Oak	*Quercus robur*		✓			

Figure 3 – location and classification of trees offering potential bat roosting features

(Image courtesy of Google Earth)

Key: (Numbering as per Table 4 above.)

1 Trees with low potential for roosting bats
1 Trees with moderate potential for roosting bats

6.1.5 Bats - evaluation, impact characterisation and assessment

6.1.5.1 Bats - evaluation

Bats are protected by international and domestic legislation, a reflection of their increasingly threatened status; bats and their roosts are therefore of **very high international** value.

There are no structures within the application boundary that bats could use for roosting purposes although there are buildings adjacent to the site which could be used.

There are seven trees scheduled for removal which could bats with potential roosting sites; therefore these trees are of a probable high ecological value. This will be confirmed as a result of the full bat survey of the site.

Bats should be assumed to use the open areas of the site for foraging and the site boundaries for foraging and commuting purposes.

6.1.5.2 Bats - impact characterisation

It is considered that there will be a direct impact on bats as a result of the loss of foraging habitat; however, this is offset by the proximity of alternative foraging sites.

The removal of the seven trees identified in Table 4 above could result in the loss of bat roosting sites. This will be confirmed during further surveys. Bats could be killed, injured or disturbed during the felling process.

Flight lines will be retained as the site boundaries are being retained.

The replacement of the semi-improved grassland with housing will reduce the amount of foraging habitat available to bats as well as increase light levels which could discourage bats from using otherwise suitable features within the application area, particularly the boundaries to west, north and east.

6.1.5.3 Bats - impact assessment without mitigation

Please note that this assessment will be subject to change following the activity transects and dusk emergence / dawn return to roost surveys.

It is considered that without mitigation there will be a **probable moderate permanent adverse** impact on bats as a result of site clearance (buildings and habitats) prior to the proposed development and a **probable major medium term adverse** impact as a result of the operational phase of the development (lighting).

6.1.5.4 Bats - mitigation measures

A number of potential bat roosts in trees will be affected by the proposed development; activity transects and dusk emergence / dawn return to roost surveys will need to be undertaken to determine the exact mitigation required. Additionally, although bat foraging habitat is not protected *per se* it is proposed to implement mitigation for the loss of this feature

Mitigation will include (but not be limited to) the following actions:

- Bat roosting features will be included within a proportion of the structures to be built on the site. Exact mitigation will be dependent on the species of bat using the site and may include (but not be limited to) attic spaces within new roof structures, wall mounted bat boxes, pole mounted bat boxes and / or standalone bat roost structures.
- All development work and mitigation associated with the loss of or damage to or disturbance to, a bat roost will be undertaken under the auspices of a Natural Resources Wales development licence and Method Statement;
- Master planning will ensure that lit areas and features do not impact on retained boundaries and features and habitat connections / flight lines;
- Any and all lighting will be directed away from hedges, trees and landscaping to minimise impacts on flight lines;
- Landscape planting using native species planting, or if this is not possible close boarded fencing a minimum of 2m high, will be installed where necessary to further minimise light pollution of flight lines;
- Vegetation clearance will be minimised wherever possible. Where clearance is essential, hedgerows, scrub and trees will be translocated as a first option or replaced using trees of as large a size as possible to provide direct like for like mitigation;

- In the event that any trees considered to hold bat roosting potential need to be felled or pruned, either climb and inspect inspections or dusk emergence / dawn return to roost surveys will be undertaken to provide an accurate reclassification of the tree; licences will be sought should bats be discovered. Dawn return to roost check visits will be carried out by a suitably experienced ecologist on the day of felling;
- Pole mounted bat boxes will be required to provide mitigation for the loss of tree roosts;
- All felling will be supervised by a licensed bat ecologist; and
- A licensed bat ecologist will be "on call" for the duration of any operations involving felling or pruning trees classified as having 'moderate' or 'high' potential for roosting bats. If bats should be discovered, the work will cease immediately, Natural Resources Wales (NRW) will be contacted. A development licence may be required prior to any further work being carried out. No further work will be undertaken without the approval of NRW.

6.1.5.5 Bats - impact assessment with mitigation

Please note that this assessment will be subject to change following the activity transects and dusk emergence / dawn return to roost surveys.

It is anticipated that there will be a **probable minor short term adverse** impact on bats during the construction phase of the project and a **probable minor short term impact** as a result of the operational phase. However, it is considered that there could be a potential **long term positive** impact as a result of the implementation of an ecological and landscaping management plan for the site.

6.1.5.6 Bats - significance of the impact

Without mitigation:

It is anticipated that without mitigation the significance of the impact will be **moderate**.

With mitigation:

It is anticipated that the significance of the impact is **neutral - slight**.

6.2 REPTILES

6.2.1 Summary

No formal reptile survey was undertaken; however, a habitat assessment indicated that the site provides optimal and favourable habitat for certain reptile species, particularly grass snake and slow worm and that the presence of reptiles should be assumed.

If reptiles are assumed to be present and the site is cleared in a manner which prevents harm, it is considered that a full reptile survey is not necessary.

6.2.2 Reptile Ecology

Reptiles are cold blooded, meaning they have to rely on external heat sources to warm their blood sufficiently to allow foraging and other activity. During the winter they are in brumation (similar to hibernation), emerging in April (or when the temperatures are consistently warm enough). Males tend to emerge before females, to enable them to prepare for mating. Females emerge a few weeks later and mating takes place. Female reptiles in the UK generally breed every other year to allow them to build up sufficient energy reserves. Grass snakes are the UK's only egg-laying reptile, eggs are laid in summer in warm piles of decomposing vegetation (or similar) and left to develop and hatch on their own. Young reptiles are born/hatch in late summer/early autumn. Brumation (hibernation) starts again as temperatures fall in the autumn.

The four more commonly occurring species of reptile in the UK (adder (*Vipera berus*), grass snake (*Natrix natrix*) slow worm (*Anguis fragilis*) and common lizard (*Lacerta vivipara*) have different preferences for habitat and diet. Adders generally prey on small mammals in drier habitats, grass snakes primarily hunt amphibians in wetter areas and aquatic habitats, slow worms take small, slow-moving invertebrates and inhabit drier areas and common lizards prey on small, faster-moving invertebrates and tolerate both wet and dry habitats.

6.2.3 Legislation

The four more common reptile species mentioned above are protected by the Wildlife and Countryside Act 1981 (as amended) against killing, injury and sale.

Smooth snake (*Coronella austriaca*) and sand lizard (*Lacerta agilis*) are not found in this area, having very specific geographical distribution within Britain, and so will not be referred to in this report despite the higher legislative protection afforded to them.

6.2.4 Methodology

6.2.4.1 Habitat assessment

The habitat assessment looked for features that would be attractive to reptiles such as:

- South facing banks;
- Varied profile ground form;
- Basking areas;
- Vegetation cover;
- Structurally diverse vegetation;
- Potential brumation (hibernation) sites;
- Evidence of suitable prey sources;
- Connectivity to other potentially suitable reptile habitat; and
- Levels of disturbance/land management.

6.2.5 Results

The site is located on an even south facing slope. The ground is comprised entirely of semi-improved grassland with very little differentiation in ground cover with no bare ground. The sward is generally even in height and density. There are no potential hibernation features in the sward with the only potential hibernation features being found on the embankment along the northern boundary of the site and the hedges on the western and eastern boundaries. The land to the north of the application site is comprised of a mosaic of open rough grazing, bracken and scrub which provides optimal habitat for this group.

6.2.6 Reptiles – evaluation, impact characterisation and assessment

6.2.6.1 Reptiles - evaluation

Reptiles are protected by UK legislation and therefore they are of **medium** to **high national** ecological importance.

The site should be assumed to be of **moderate** value to reptiles at a **local** level as there is suitable habitat for a limited number of species.

6.2.6.2 Reptiles - impact characterisation without mitigation

Grassland habitat suitable for reptiles will be lost as a result of site clearance prior to the construction of the proposed development. Reptiles may be killed or injured during site clearance, the construction period and the operational period.

6.2.6.3 Reptiles - mitigation measures

It is considered that a specific survey for reptiles is not required as if their presence is assumed, habitat manipulation and denial techniques can be used to clear the site and maintain as reptile free without harming any reptiles that are present. A full

trapping and translocation exercise is considered to be unnecessary; therefore the following measures will be adopted:

- vegetation loss will be minimised wherever possible;
- boundary habitats will be retained;
- vegetation clearance will be undertaken in accordance with a Method Statement to ensure that should reptiles (and / or amphibians) be found during the course of site clearance or any other development activity, they will not be harmed and can be adequately cared for; and
- post development landscaping will provide open grassland habitats and hibernacula (excavated pits infilled with logs and rubble, topped with brash and covered over with the soil arisings and turf). The number of hibernacula will be based on the area available for mitigation.

6.2.6.4 Reptiles - impact assessment with mitigation

It is considered that there will be a **neutral** impact on reptiles as a result of the clearance and construction phase of the proposed development.

6.2.6.5 Reptiles - significance of the impact

Without mitigation:

It is anticipated that without mitigation the significance of the impact will be **slight**.

With mitigation:

It is anticipated that the significance of the impact is **neutral**.

6.3 BREEDING BIRDS

6.3.1 Summary

Birds are likely to utilise the woodland, trees and hedges for nesting and foraging purposes. Birds may use the grassland on the site for foraging.

The grassland was considered to be generally unsuitable for ground nesting birds. No evidence of ground nesting birds was observed during the site visit.

6.3.2 Avian ecology

Most British avian species are found breeding during the spring and summer months, between April and August, although some, such as pigeons, and doves will frequently breed at all times of year, as they are not dependent on small, soft-bodied invertebrates to provide food for their chicks. Some other species, such as Barn Owl have also been recorded breeding in the winter months, in years when winters have been mild, and small mammal prey plentiful, although such breeding attempts are unusual, with chicks frequently failing to fledge. The breeding season can be extended for most species if the weather is mild, and food plentiful.

Contrary to common belief, whilst some bird species, such as crows and rooks, nest high in trees, often more than 10m high, the majority of British breeding birds will nest within 2m of the ground (or on the ground) within dense scrub or within holes and other natural and manmade cavities in rocks and walls.

Most bird species take considerably less than 60 days from egg-laying to chick fledging, whilst others, such as Barn Owl, can take more than 90 days. Many, but not all British species will make multiple breeding attempts if environmental conditions and food availability allow.

6.3.3 Legislation

In Britain, all naturally occurring avian species are protected under Section 1 of the Wildlife and Countryside Act 1981 (as amended). The legislation protects all birds, their nests and eggs, and it is an offence to:

- Intentionally kill, injure or take a wild bird;
- Intentionally take, damage or destroy the nest of any wild bird whilst it is in use or being built; and
- Intentionally take or destroy the egg of any wild bird.

In addition, birds listed on Schedule 1 of the Act, such as the Red Kite (*Milvus milvus*), are afforded further protection, and it is an offence to:

- Intentionally or recklessly disturb the bird whilst nest building or while at (or near) a nest with eggs or young; and
- Disturb the dependant young of such a bird.

6.3.4 Methodology

A specific survey was not undertaken at his time. An assessment of the habitats present on the site and the likely use thereof by birds was made.

6.3.5 Results

The woodland, trees and hedges are all considered to suitable for birds to utilise for nesting and foraging purposes.

The grassland was considered to be generally unsuitable ground nesting birds as it is under managed leaving the sward taller and ranker than these species would prefer.

6.3.6 Breeding birds – evaluation, impact characterisation and assessment

6.3.6.1 Breeding birds – evaluation

Due to the legislative protection afforded to them, breeding birds are considered be of **medium** – **high national** importance.

The woodland on the northern boundary and hedges on the western and eastern and eastern end of the southern boundary of the site is likely to be utilised by birds for breeding and foraging purposes as well as foraging during all other seasons.

There was no evidence of ground nesting birds on the site. However, it should be assumed that birds will use the grassland for foraging purposes.

Within the context of the site, it is considered that breeding birds are of **low - medium local** importance as the only habitats likely to be used by breeding birds are the woodland, hedges and scrub around the boundaries; it is anticipated that these will be retained in their entirety. It is also probable that the species most likely to be present are considered to be representative of the range and extent of the habitats available.

6.3.6.2 Birds - impact characterisation without mitigation

It is anticipated that there will be no impacts on birds during the breeding season or at other times of the year as the habitats of interest will be retained. This results in there being a **probable neutral** impact.

6.3.6.3 Birds - potential mitigation measures

It is considered that specific mitigation is not required in respect of breeding birds; however, consideration should be given to including the following measures to ensure that birds are protected and features they use are conserved:

- site clearance (vegetation removal) will only be undertaken outwith the breeding bird season (i.e. only between October and March inclusive). Where this is not possible, clearance will only take place after an ecological assessment and approval (i.e. where no breeding birds are present). Where

breeding birds are present, no clearance will be allowed within 10m of the nest site;

- habitat enhancement of any retained grassland to increase the floral diversity and habitat structure will increase the range of invertebrates; both measures would increase the amount of foraging available to bird species; and
- the post-development landscaping plan should aim to utilise native species of as local a provenance as possible and thereby increase biodiversity levels to replace / recreate the habitats lost.

6.3.6.4 Breeding birds - impact assessment with mitigation

It is considered that there will be a **neutral** impact on breeding birds as a result of the construction and operational phases of the proposed development.

6.3.6.5 Breeding birds - significance of the impact

Without mitigation:

It is anticipated that without mitigation the significance of the impact will be **slight**.

With mitigation:

It is anticipated that the significance of the impact is **neutral**

7 CONCLUSION

Overall the site is of a generally low ecological value. However, the site's value is potentially increased by the presence of protected species, specifically bats and reptiles.

8 RECOMMENDATIONS

Further ecological surveys in respect of bats are considered necessary. These will involve dusk emergence and dawn return to roost surveys of the trees to be removed and activity transect surveys of the open area concentrating on the boundaries to determine which species are present and what further measures may be necessary.

Should bats be identified as using any or all of the trees, an NRW development licence will be required, This can only be sought on receipt of planning consent.

Habitats should be retained wherever possible with clearance minimised as far as possible.

It is further recommended that the mitigation measures outlined in the various sections above are incorporated as far as is possible into the design process for this development and subsequent construction methodologies.

Consideration should be given to providing an ecological and landscape management plan for retained habitats and new planting to benefit nature conservation.

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APPENDIX A - SPECIES LISTS

IMPROVED GRASSLAND

Scientific	English
Ranunculus repens	Creeping buttercup
Phleum pratense	Timothy
Pulicaria dysenterica	Fleabane
Plantago lanceolata	Ribwort plantain
Holcus lanatus	Yorkshire fog
Trifolium pratense	Red clover
Trifolium repens	White clover
Vicia cracca	Tufted vetch
Lolium perenne	Perennial ryegrass
Dactylis glomerata	Cock's foot
Juncus inflexus	Hard rush
Urtica dioica	Common nettle
Agrostis capillaris	Creeping bent
Festuca rubra	Red fescue
Cirsium arvense	Creeping thistle
Hypochaeris radicata	Common cat's ear
Lotus corniculatus	Common bird's-foot trefoil
Centaurea nigra	Black knapweed
Alopecurus pratensis	Meadow foxtail
Poa trivialis	Rough meadow grass
Rumex crispus	Curled dock
Rumex obtusifolius	Broad leaved dock
Rumex acetosa	Common sorrel
Rubus fruticosus agg	Bramble
Pteridium aquilinum	Bracken
Juncus effusus	Soft rush

HEDGE & WALL (SOUTHERN) BOUNDARY

Scientific	English
Acer pseudoplatanus	Sycamore
Ulmus procera	Elm
Crataegus monogyna	Hawthorn
Rubus fruticosus agg	Bramble
Urtica dioica.	Common nettle
Calystegia sepium	Hedge bindweed
Rosa canina	Dog rose
Hedera helix	Ivy
Geranium robertianum	Herb Robert
Iris foetidissima	Stinking iris
Senecio jacobaea	Ragwort
Pteridium aquilinum	Bracken
Senecio vulgaris	Groundsel
Buddleia davidii	Butterfly bush
Asplenium trichomanes	Maidenhair spleenwort

SCATTERED TREES

Scientific	English
Aesculus hippocastanum	Horse chestnut
Pinus sylvestris	Scots pine
Fraxinus excelsior	Ash
Fagus sylvatica	Beech
Acer pseudoplatanus	Sycamore

APPENDIX B - PHASE 1 HABITAT SURVEY PHOTOS

Plate 1 – Semi-improved grassland

Plate 2 – Southern boundary (wall)

Plate 3 – Hedge on southern boundary

Plate 4 – Open boundary to former Goodig hotel

Plate 5 – Woodland on northern boundary

Plate 6 – Scattered trees

Plate 7 – Line of trees / former field boundary

Plate 8 – Track & existing site access