

Greenscape Environmental Ltd

LLANARMON ESTATE

**PHASE 1
ENVIRONMENTAL SURVEY**

**PEN-Y-BRYN
LLANARMON DYFFRYN CERIOG
LLANGOLLEN
LL20 7LB**

FEBRUARY 2014

1033 02 001R

**Inscape
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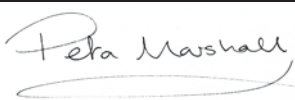
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Executive Summary

Greenscape Environmental Ltd was commissioned by Carter Jonas, to conduct a survey to determine the presence or absence of protected species and potential for the damage or destruction of habitats of ecological value, prior to seeking planning permission for the construction of a tennis court on land adjacent to Pen Y Bryn, Llanarmon Dyffryn Ceiriog. This is in accordance with the Planning Policy Guidance for Wales 2013 and TAN 5 Nature Conservation and Planning 2009.

The project involves the development and construction of a tennis court within a concreted area, surrounded with a bund. It is understood that this site was a former silage clamp.

An initial phase 1 ecological appraisal was undertaken at the site, OS grid reference SJ158 332 on 12th September 2012, by P Marshall BSc(hons) AIEMA, an experienced biologist, with the assistance of H Maggs BSc(hons). A further phase 1 ecological appraisal was undertaken at the site, 20th February 2014, by P Roberts, an experienced surveyor.

This report will incorporate the findings from both surveys and reports.

No designated sites notified under Section 28 of the Wildlife and Countryside Act 1981 were found close to the site, but the River Dee and Bala Lake SAC / SSSI are within 320m of the site. No impact expected from this development.

Records of protected species within 2km include Lesser horseshoe bats (*Rhinolophus hipposideros*) Common pipistrelle (*Pipistrellus pipistrellus*), Soprano pipistrelle (*Pipistrellus pygmaeus*) Brown long-eared bats (*Plecotus auritus*), Whiskered bats (*Myotis mystacinus*) Daubenton's bat (*M. Daubentonii*), Natterer's bat (*M. Nattereri*), Water vole (*Arvicola amphibius*) and Otter (*Lutra lutra*). No habitat suitable for aquatic animals is within close proximity of the site.

The proposed development area is a redundant silage clamp located adjacent to a farm unit typical of a traditional upland farm. A thorough search of the site and surrounds was made on each visit, including searches under any materials which could be lifted. It is considered that the area is of low ecological value.

No other protected species were recorded in the vicinity of the site.

Potential Impacts

The surveyors consider the development can proceed without the loss of habitat of significant value and without the loss of favourable conservation status of any protected species. There will be opportunity to enhance the area post construction and clearance with tree and hedge planting.

A protective temporary bund is constructed to ensure no run off down into the valley during clearance and construction work.

There are no other ecological constraints to the development as planned.

1 Instruction

Greenscape Environmental Ltd was commissioned by Carter Jonas, to conduct a survey to determine the presence or absence of protected species and potential for the damage or destruction of habitats of ecological value, prior to planning permission for the construction of tennis courts on land adjacent to Pen Y Bryn, Llanarmon Dyffryn Ceiriog. This is in accordance with the Planning Policy Guidance for Wales 2013 and TAN 5 Nature Conservation and Planning 2009.

A detailed environmental survey was undertaken at the land adjacent to Pen Y Bryn, Llanarmon Dyffryn Ceiriog. OS grid reference SJ158332 on 12th September 2012, by P Marshall BSc(hons) AIEMA, an experienced biologist, with the assistance of H Maggs BSc(hons). A further phase 1 ecological appraisal was undertaken at the site, 20th February 2014, by P Roberts, an experienced surveyor.

1.1 Details of surveyors

Name	Membership of associations	Licenses
Peta Marshall BSc(hons)	AIEMA 8 years experience	NE CLS01255 (bats) NRW 42240:OTH:CSAB:2012 CLS01255 (GCN) NE 20131377(box trap) NRW 44978:OTH:SA:2013 NE 20131376 (barn owl). NRW 42239:OTH:DBE:2012
Paul Roberts	U Cert 2 years experience	
H Maggs BSc (Hons)	5 years experience	

1.2 Project Background

It is understood that planning permission is sought for the construction of a tennis court within a small concrete platform located adjacent to and forming part of Pen Y Bryn an upland farm unit.

The map from Magic Maps (Defra) represents the position of the proposed site in relation to the River Ceiriog, Pen y Bryn and its surrounds. Please note that the development area is situated up the valley side at an elevated position



Figure 1: A map of the proposed site

2 Objectives

The aim of this type of survey is to locate and describe, as far as reasonably practicable, evidence of use or scope for wildlife including all protected species and BAP species and the potential for suitable habitats which may be disturbed or lost in the event of development.

This is in accordance with:

The Wildlife and Countryside Act 1981(as amended) – as listed in:

Schedule 1. Birds protected by special penalties at all times

Schedule 5. Protected animals

Schedule 8. Protected plants

The Conservation of Habitats and Species (Amendment) Regulations 2010 – as listed in:

Schedule 2. European protected species of animals

Schedule 4. European protected species of plants

Countryside and Rights of Way Act (2000)

Hedgerow Regulations 1997

The Protection of Badgers Act 1992.

Natural Environment and Rural Communities Act 2006 (NERC 2006)

Summary recommendations have been made outlining reasonable avoidance measures and the associated habitat creation/management required to offset any impacts associated with the proposed development.

3 Survey Type - Methodology

The site and surroundings were subject to a thorough ecological appraisal. Evidence was recorded of use, scope for habitats and any signs of protected species.

3.1 Mammals

Bats:

Hedges and trees are assessed for potential bat roosts, foraging and commuting opportunities.

Daytime surveys for bats may only identify potential roost sites if bats are not visibly present. Bat species may leave little evidence of their presence. Daytime surveys are conducted with the aid of a borescope, torches and binoculars. Evidence for the presence of bats includes:

- Holes, cracks and rot holes used as roosts, marked by streaks of urine and faeces.
- Smoothed, darkened edges where bats have rubbed and left natural body oils when entering and exiting a space.
- Scratches on wooden beams and joints indicating where certain species of bat may have clung to the wood.
- Faeces under a roof access point, a well used feeding point or a resting spot.
- Presence of roosting or dead bats in or behind any object.

Badgers:

Daytime surveys for badgers involve looking for

- Scrapings where badgers have dug for food or used as latrines.
- Signs of a sett, including signs of use such as presence of badger hair
- Tracks and prints.

3.2 Birds

Barn owls

The use of a building or tree by Barn owls can be determined by looking for signs such as

- Highly distinctive droppings or splats under roosting points.
- Presence of owl pellets/feathers

Other birds

Evidence of other birds using a building, hedge or tree will be from looking for

- Presence of nests
- Collections of droppings and/or feathers

3.3 Amphibians and reptiles

A refugia search is conducted for amphibians and reptiles looking under any logs, large stones and other debris.

4 Site Description

4.1 Location

The land adjacent to Pen- Y- Bryn, Llanarmon Dyffryn Ceiriog is located roadside of a steep single unclassified road leading from the Village of Llanarmon D.C. to the Berwyn and South Clwyd Mountains.



Figure 2: A view south towards Llanarmon D.C.

4.2 Desk top Survey

No designated sites notified under Section 28 of the Wildlife and Countryside Act 1981 were found close to the site, but the River Dee and Bala Lake SAC / SSSI are within 320m. No impact expected from this development, but it will be proposed that a protective temporary bund is constructed to ensure no run off down into the valley during clearance and construction work.

Scrutiny of the OS map (Appendix A) and a walk around the locality showed there are not any significant areas of still water in the vicinity of Pen-Y-Bryn. No further survey with respect to great crested newts is considered necessary.

Records of protected species within 2km include Lesser horseshoe bats (*Rhinolophus hipposideros*) Common pipistrelle (*Pipistrellus pipistrellus*), Soprano pipistrelle (*Pipistrellus pygmaeus*) Brown long-eared bats (*Plecotus auritus*), Whiskered bats (*Myotis mystacinus*) Daubenton's bat (*M. Daubentonii*), Natterer's bat (*M. Nattereri*), Water vole (*Arvicola amphibius*) and Otter (*Lutra lutra*).). No habitat suitable for aquatic animals is within close proximity of the site.

4.3 Condition on survey dates

Date	Time	Temp °C	Sunset	Condition
12/09/12	Day	16	N/A	Sunny, brisk breeze
20/02/14	14:00	6	N/A	Rain showers

4.4 Phase 1 Description and Observations

The proposed site is a small plot of approximately 482m² located within the western aspect of the farm unit.

An extended phase assessment of the habitat was conducted using guidance from the JNCC Handbook for Phase 1 Surveys 2010. The site is classified as hard standing with the presence of tall ruderal within the margins and is typical of disturbed ground. The concrete area is surrounded with a bund, protecting the surrounds from leachate and is overgrown with ruderal such as nettles, brambles and coarse grasses.



Figure 3: View from the bund

Within the hard standing areas are discarded bales of silage. A thorough search for reptiles was conducted with no evidence being found. A precautionary method statement will be recommended for any works within this area.



Figure 4: Site to be converted.

South and west of the site and forming a boundary is stock proof post and wire fencing (J.2.4). The fencing is securing livestock within the adjacent semi improved grassland pasture (B6).

The boundary easterly and roadside is a flailed species poor intact hedgerow (J2.1) of approximately 13m in length. The dominant species is hawthorn with the presence of hazel.

Northerly and forming a boundary to the site and a large semi improved grazed pasture (B6) is a defunct species rich hedgerow (J.2.1.1.) the dominant species is hawthorn with the presence of hazel, elder and blackthorn. The security for livestock is provided by the presence of stock proof post and wire fencing (B6).

The majority of the surrounding landscape is agricultural grazed semi improved grassland although there is a small block mixed species of woodland (A.1.3.2) located west of the proposed site and a some scattered trees located north east of the site.



Figure 5: Site area 2012.

The existing access is provided via concrete pathway opposite an entrance to Pen-Y-Bryn farm unit.

5 Evaluation of Results

5.1 Ecologically Important Species

Species	Consideration	Impact
Mammals		
Bats	No trees or hedgerows to be removed which will support bats	Nil
Badgers	No badger evidence found within the site or its surroundings.	Nil
Water vole	No habitat on site.	Nil
Hazel Dormouse	No suitable habitat on site	Nil
Otter	No suitable habitat on site	Nil
Birds		
Barn Owl	No evidence on site	Nil
Nesting birds	Potential in hedgerows.	LOW. No planned removal.
Herpetofauna		
Reptiles	No suitable habitat on the hard standing.	ECW will conduct a search prior to and whilst removal of the bales is carried out.
Great Crested Newts	No suitable habitat on site	Nil
Amphibian	No suitable habitat on site	Nil

5.2 Importance of Habitats on site

Habitat Type	Consideration/ is the habitat capable of supporting protected species	Impact
Fields	S.I. Grassland	Not of notable condition
Hedgerows	Not considered of historic importance and lack of species diversity.	Not of notable condition. An opportunity to carry out further planting.
Trees	None on site	Nil
River	320 metres from site. Potential Impacts are considered within designated sites protection.	

5.3 Designated sites

Site	Reason for Designation	Distance and direction from Pen Y Bryn metres	Impact Assessment
Bala lake and River Dee SSSI / SAC	The Afon Ceiriog is a larger tributary of the Dee. Type VII Mesotrophic upland plateau rivers, The Mynach, Meloch and Ceiriog tributaries are the most important salmon spawning tributaries in the Dee catchment and are included within this SSSI. The otter is of special interest and is found throughout the site, especially where appropriate bank side cover exists to provide secure holts and lying up areas. Rivers with floating vegetation often dominated by water crowfoot - Annex I Otter – Annex II & IV Sea lamprey – Annex II River lamprey – Annex II & V Brook lamprey – Annex II Atlantic salmon – Annex II & V Bullhead – Annex II Freshwater pearl mussel – Annex II & V Grayling – Annex V The otter and the freshwater pearl mussel are listed under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended).	230	The proposed development is within the catchment of a tributary of the River Ceiriog a tributary of the River Dee. There would be no expected direct or indirect negative impacts upon the SSSI/ SAC. Any potential adverse runoff effects from water discharge would not arise due to operational procedures. A bund will be installed to catch any water or materials during clearance and construction.

5.4 Consideration of Individual Species/habitats

5.5 Reptiles

The more common species of reptiles, which include slow-worm, common or viviparous lizard (*Zootoca vivipara*), adder (*Vipera berus*) and grass snake (*Natrix natrix*) are protected by the Wildlife and Countryside Act 1981 by part of Section 9(1) and all of Section 9(5). This means that they are protected against intentional or reckless killing and injuring (but not 'taking') and against sale and transporting for sale.

The site provides some suitable habitat for reptiles. It is recommended that the site clearance follows a method statement outlining reasonable avoidance measures. A supervised clearance exercise will be carried out to remove any reptiles out of the construction zone

5.6 Methodology

5.7 Concluding remarks

In the opinion of the surveyor, should this development proceed, it will not affect the favourable conservation status of protected species.

There are no other ecological constraints to the development as planned.

6 Recommendations

6.1 Reasonable avoidance measures: reptiles

1. A polythene bund will be created to the south of the area to stop potential construction leachates flowing towards the river.
2. Clearance works within the construction zone of the site will be carried out during an appropriate time of year when reptiles are fully active. Although activity is weather and temperature dependent, slow-worms are usually fully active from April to September, inclusive. All works will be directly supervised by a suitably experienced ecologist.
3. A hand search of the area will be carried out by the ecologist, with any natural or artificial refugia found, such as logs, stones, rocks, silage bales etc., lifted and checked for sheltering animals before being removed from the area.
4. Where necessary, particularly on the bund area to be moved, the vegetation will be managed to reduce its suitability with the aim to have a short sward. This should be carried out using hand held trimmers/brush cutters and completed in a phased approach with all arisings collected using plastic rakes. This will be conducted from March onwards to reduce the potential for the area to be used by reptiles
5. After the Ecologist is satisfied with the above preparatory works on site, he/she will supervise a destructive search of the area. This will involve the removal of all remaining ground vegetation; including all tree/shrub roots if present, leaving only bare earth. An excavator will be used for this purpose, with the turf/topsoil being placed carefully to one side. Particular care will be required during this exercise, which will be closely monitored by the on-site Ecologist.
6. Any animals found during this exercise will be caught and placed in a container and released into adjacent habitat that will not be affected by the works. In order to increase the carrying capacity of this area a series of log piles will be created to provide shelter and overwintering sites for reptiles.
7. In the unlikely event that high numbers of reptiles are being encountered at any stage of the works then an alternative strategy will be discussed and agreed with the Council Ecologist and other interested parties.
8. All interested parties will be kept informed of the works while they are being carried out, and a brief summary report will be issued when the works are complete.
9. The following additional controls will be implemented during the works, where practicable to do so:
10. All trenches will be covered overnight to prevent animals falling into them and small lengths of wood will be used to create ramps so mammals and reptiles can exit the trenches.
11. No piles of bricks, tiles, building rubble etc will be left close to the adjacent habitat as reptiles may attempt to take refuge and/or overwinter in them.
12. All building materials will be stored above ground on pallets to reduce the potential to create refugia.
13. All waste will be placed into skips to reduce the potential of creating refugia.

6.2 Landscaping

There is opportunity to enhance the biodiversity in the area within the boundaries by planting a hedgerow to replace the existing. Species chosen for this should be locally sourced and selected from the list below.

Plant	Latin name
Blackthorn	<i>Prunus spinosa</i>
Crab Apple	<i>Malus sylvestris</i>
Field Rose	<i>Rosa arvensis</i>
Field Maple	<i>Acer campestre</i>
Hawthorn	<i>Crataegus monogyna</i>
Hazel	<i>Corylus avellana</i>
Spindle	<i>Euonymus europaeus</i>
Wild Cherry	<i>Prunus avium</i>
Wild pear	<i>Pyrus communis</i>
Wild Service Tree	<i>Sorbus torminalis</i>

7 Other

- This report may not be reproduced other than in full and without prior permission from Greenscape Environmental. The report should be read in its entirety.
- Questions arising from the survey report should be directed to the author of this report, who will be pleased to clarify any technical issues raised.
- Whilst the surveyors make every reasonable effort, Greenscape Environmental Ltd cannot guarantee that all protected species have been identified and survey results are definitive.
- Reports are considered valid for 2 years after which time further survey information may be required.
- Greenscape Environmental Ltd can provide advice and support for recommendations and planning conditions.

Appendices

A Ordnance Survey Map Abstract

Sheet(s): 1

B Site Plan

Sheet(s): 1

C Bibliography

Sheet(s): 1

A Ordnance Survey Map Abstract



Ordnance survey map for Pen-y-bryn, Llanarmon Fyffryn Ceiriog.

B Site Plans



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