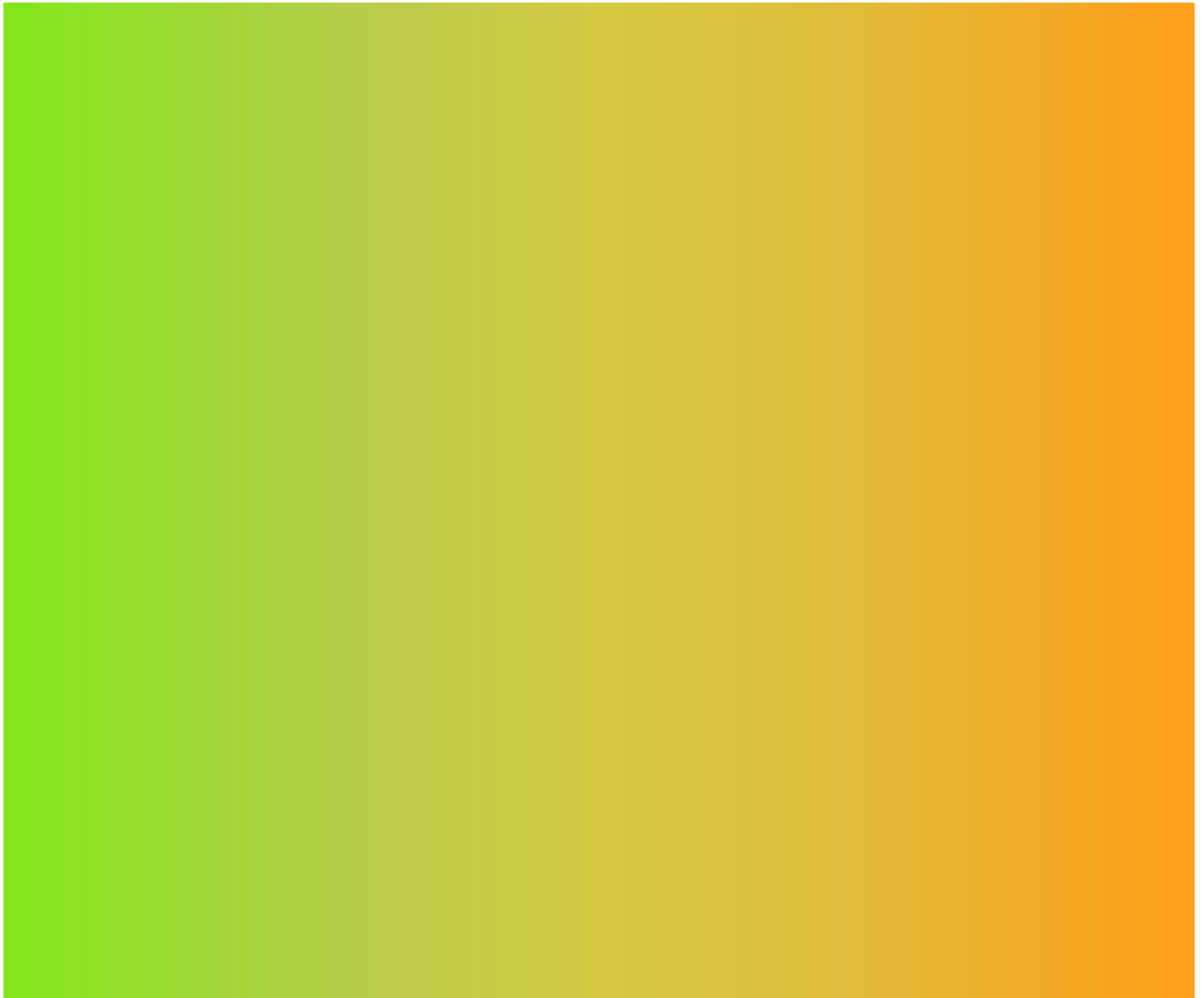
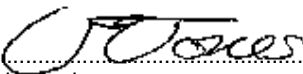



Welsh Government Biodiversity Surveys Site Management Plan – Parc Bryn Cefni, Llangefni



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Table of Contents

1	Introduction	1
2	Methodology.....	2
3	Baseline Conditions.....	4
4	Biodiversity Management Objectives.....	9
5	Biodiversity Management Actions and Recommendations	10
6	References.....	12
	Figure 1: Phase 1 Habitat Map.....	13
	Appendix A: Target Notes for Figure 1 Phase 1 Map	14
	Appendix B: Site Photographs	15

Capabilities on project:
Environment

1 Introduction

1.1 Introduction

AECOM was commissioned by Kier Services Ltd. to undertake Extended Phase I Habitat Surveys and produce Biodiversity Site Management Plans for Welsh Government owned sites across Wales. Biodiversity Site Management Plans provide a tool to enable appropriate management of a species, habitat or other ecological feature at a site.

This report provides an overall ecological description of Parc Bryn Cefni site, identifies potential ecological constraints, outlines ecological objectives and actions for the management and conservation of the features identified during an initial site assessment stage, and outline measurable targets and if required a monitoring programme to enhance and maintain biodiversity on site. The report includes a desk study and an extended Phase 1 Habitat Survey including a bat habitat assessment.

1.2 Site Description

The site is located to the south-east of Llangefni, Anglesey, on the Llangefni Industrial Estate, National Grid Reference (NGR) SH466749. The surrounding land use includes the continuation of the industrial estate and agricultural pasture with associated buildings and boundary features.

As shown in Figure 1 the site is approximately 30 acres in size and comprises neutral semi-improved grassland, improved grassland, earth banks, scattered and dense scrub, broadleaved woodland, a number of warehouse-type buildings with associated ornamental planting and amenity grassland, roads, car park and paved areas.

1.3 Objectives

Objectives of this study were:

- To identify any designated nature conservation sites on or in the vicinity of the site
- To record and map the main habitats and features of ecological interest;
- To highlight any potential for protected species constraints;
- To set five well defined Management Objectives; and
- To set defined actions to help achieve the Management Objectives

1.4 Legislation

There are several different acts of legislation and regulations which refer to the protection of wildlife. These are summarised in Appendix 1 AECOM, 2013 Site Biodiversity Management Prescriptions document. This is a brief summary of the legislation and is not to be regarded as a definitive legal opinion. When dealing with individual cases, the client is advised to consult the full texts of the relevant legislation and obtain further legal advice.

1.5 Quality Assurance

This survey and subsequent report was undertaken in line with AECOM's Integrated Management System (IMS). Our IMS places great emphasis on professionalism, technical excellence, quality, environmental and Health and Safety management. All staff members are committed to establishing and maintaining our accreditation to the international standards BS EN ISO 9001:2008 and 14001:2004 and BS OHSAS 18001:2007. In addition our IMS requires careful selection and monitoring of the performance of all sub consultants and contractors.

All AECOM Ecologists are members of (at the appropriate level) the Chartered Institute of Ecology and Environmental Management (CIEEM) and follow their code of professional conduct when undertaking ecological work.

Capabilities on project:
Environment

2 Methodology

2.1 Desk Study

The objectives of the desk study are to review the existing information available in the public domain concerning species and habitats to identify the following:

- Internationally, nationally and locally designated sites, up to 1 km from the site;
- Special Areas of Conservation (SACs) and Sites of Special Scientific Interest (SSSIs) designated for bats within a 5 km radius of the site;
- Priority habitats and priority species listed on Local Biodiversity Action Plans (LBAP); and,
- Section 42 list of Species and Habitats of Principal Importance for Conservation of Biological Diversity in Wales.

Information relating to internationally and nationally designated sites within a 1 km radius was collated using the Multi Agency Geographic Information for the Countryside (MAGIC) website (www.magic.gov.uk). In accordance with Bat Conservation Trust (2012) recommendations, SACs and SSSIs designated for known bat populations were included in a search of up to 5 km radius.

The Local Authority website and the Biodiversity Action Reporting System (BARS) website (<http://ukbars.defra.gov.uk/>) were reviewed to establish the Local Biodiversity Action Plan (LBAP) species and habitats. LBAP habitats and species present within the site have been highlighted.

The Section 42 List of Species and Habitats in Wales was reviewed via the Wales Biodiversity Partnership website (<http://www.biodiversitywales.org.uk/en-GB/Section-42-Lists>). The Section 42 list of habitats and species of principal importance in Wales is the definite list and is a key requirement of the NERC Act 2006 Biodiversity Duty. The list has been published as a reference for all statutory and non-statutory bodies involved in operations that affect biodiversity in Wales. The S42 list is designed to be used by decision-makers such as public bodies, including local and regional authorities, in implementing their duty under section 40 of the Natural Environment and Rural Communities Act 2006 “to have regard” to the conservation of biodiversity in all their activities. Section 42 habitats and species present within the site have been highlighted.

Aerial photographs and Ordnance Survey (OS) maps were reviewed to identify features of ecological interest surrounding the site including ponds within 500m, nearby areas of ecological interest and features connecting these habitats (hedgerows, watercourses, railway lines).

2.2 Extended Phase I Habitat Survey

An Extended Phase I Habitat Survey (JNCC 1990, revised reprint 2010) of the site was undertaken by AECOM on 13th September 2013. All results were recorded using a handheld GIS device (Trimble Juno SD/SB) to aid accurate mapping of habitats and features.

The survey involved a site walkover and preliminary assessment of key habitats, land use and ecological features. The main habitats present were recorded using standard Phase I Habitat Survey methodology as described in the Handbook for Phase I Habitat Survey: A technique for Environmental Audit (JNCC, 2010). The plant species defining the habitat types on site were recorded. Evidence of any invasive plant species subject to legal controls was recorded.

The site was assessed for its potential to support protected species in order to identify potential ecological constraints and to guide recommendations for further Phase II survey requirements for these species.

2.3 Assessment of Bat Potential

During the extended Phase 1 Habitat Survey, trees and buildings throughout the site were classified into categories dependent on the presence of features suitable as bat roost habitat. This was conducted via an external appraisal from the ground using binoculars where necessary. The categories used for buildings include: Confirmed Roost, High, Moderate, Low and Negligible potential for use by bats. Table 2.1 provides descriptions of these categories. The categories used for trees include: Confirmed Roost, Category I*, Category I, Category II and Category III. Table 2.2 provides descriptions of these categories.

Capabilities on project:
Environment

Table 2.1: Building Bat Roost Potential Categories

(Category descriptions drawn from BCT, 2012 and Mitchell-Jones, 2004)

Roost Potential	Description
Known or Confirmed	Confirmed signs of bat presence/ occupation (droppings, oily staining around entry points, insect remains, odour, scratching) and actual bat presence.
High	Features present with high potential to support roosting bats. These include structures with points of access to the interior through degraded/missing mortar/brickwork/roof tiles/hanging tiles. Proximity to good foraging habitat such as woodland, good hedgerows and/or water.
Moderate	Features with some potential to support roosting bats. Access points into structures may include mortar cracks in brickwork or holes in soffits/fascias.
Low	Limited roosting potential. Structures in good condition with no access into structure visible with few features of bat interest.
Negligible	Negligible potential for roosting and bats very unlikely to be present. Includes structures constructed from unsuitable materials e.g. prefabricated with steel, draughty, light and cool buildings with no roosting opportunities.

Table 2.2: Tree Bat Roost Potential Categories

(Category descriptions drawn from BCT, 2012)

Roost Potential	Description
Known or confirmed	Confirmed signs of bat presence/ occupation (droppings, oily staining around entry points, insect remains, odour, scratching) and actual bat presence.
Category I*	Trees with multiple, highly suitable features capable of supporting larger roosts.
Category I	Trees with definite bat potential, supporting fewer suitable features than Category I* trees or with potential for use by single bats.
Category II	Trees with no obvious potential, although the tree is of a size and age that elevated surveys may result in cracks or crevices being found; or the tree supports some features which may have limited potential to support bats.
Category III	Trees with no potential to support bats.

2.4 Limitations

Biological records can be received from a wide variety of sources and may or may not be comprehensive and accurate. However, if assessed in conjunction with a Phase 1 survey, they can contribute to a robust ecological assessment of a site.

There are deemed to be no significant limitations to the Phase 1 survey described in this report.

Capabilities on project:
Environment

3 Baseline Conditions

3.1 Desk Study Results

The designated habitats, sites and features within proximity to the site are listed in Table 3.1 below.

Table 3.1: Desk Study Results

Designation / Feature	Description
Designated Sites within 1km	No records of statutory internationally or nationally designated nature conservation sites within a 1 km radius of the site
Designated Sites within 5km designated for bats	No sites designated for bats within 5 km.
Priority Habitats and Species - LBAP	The habitats and species listed on the Local Biodiversity Action Plan are listed in Appendix 2 AECOM (2013) Site Biodiversity Management Prescriptions document.
Priority Habitats and Species – Section 24 List	A full list of Section 42 Habitats and Species of Principle Importance in Wales which are found in the region are included in Appendix 3 AECOM (2013) Site Biodiversity Management Prescriptions document. 504 of the UK priority species occur in Wales and a further 53 species recognised as Welsh priorities go to make up a list of 557 species of principal importance in Wales with an additional 4 groups/assemblages of species. Of the UK's 65 priority habitats, 51 occur in Wales. An additional 3 marine habitats not on the UK list but identified as a priority in Wales are included on the Section 42 list, making a total of 54 priority habitats in Wales. The combined list of species and habitats is referred to as the Section 42 list for Wales. Those priority habitats present on site and priority species with potential to be on site are listed in Table 3.2.
Surrounding Habitats	The surrounding land use includes the continuation of the industrial estate and agricultural pasture with associated buildings and boundary features.
Ponds within 500m	There are 6 ponds within 500m to the south of site.

Capabilities on project:
Environment

3.2 Extended Phase I Survey

3.2.1 Habitats

The habitats present on site and their descriptions are shown in Table 3.2. A plan of the site showing the location and distribution of these habitats is shown in Figure 1.

Table 3.2: Phase I Habitats and Descriptions

Habitat	Description	LBAP Habitat	Section 42 Habitat
Improved grassland	Three areas of species poor grassland, with perennial rye-grass, ribwort plantain, Yorkshire fog, red fescue, white clover, cocksfoot, hogweed, bent grass species, dock species and common ragwort.	No	No
Neutral grassland, unimproved	One large area with good botanical diversity, some scrub encroachment. Evidence of orchids flowering during early summer. Species include black medick, false oat-grass, tufted hair-grass, selfheal, meadow vetchling, hogweed, hairy vetch, tufted vetch, hope trefoil and tormentil.	No	Yes
Neutral grassland, semi-improved	Two areas, one damp with small patches of shallow standing water and a diverse sward including Yorkshire fog, ribwort plantain, creeping bent, glaucous sedge, pendulous sedge, Timothy-grass, spike rush species and vetch species. The other area is dry with a good selection of botanical species including Yorkshire fog, red fescue, bent grass species, smooth vetch, lesser stitchwort and hogweed. The earth bank has the most botanical interest.	No	Yes
Other tall herb and fern, ruderal	Two small areas containing botanical species typical of disturbed ground: hogweed, bramble, ash sapling, dock species, thistle species, common ragwort, meadow vetchling and burdock species.	No	No
Scrub, dense	Four areas of dense scrub- two patches to the south, one to the centre and another surrounding the northern boundary of the site including woody species, bramble, dogwood and Cotoneaster sp..	No	No
Scrub, scattered	A large area of scattered scrub encroaching from the woodland into the area of grassland	No	No
Broadleaved woodland semi-natural	Two areas, one to the south of the site and one in the centre of the site including the woody species birch and ash.	Yes	Yes
Marginal vegetation	Two areas of vegetation adjacent to small areas of shallow standing water. Species include soft rush, jointed rush and willow species.	No	No
Buildings	Four light industry buildings of brick and metal construction.	No	No

Capabilities on project:
Environment

Habitat	Description	LBAP Habitat	Section 42 Habitat
Cultivated/disturbed land, amenity grassland	Seven areas of species-poor amenity grassland, some with small trees of rowan and oak. Mown and sprayed.	No	No
Bare ground	Several areas of car park, asphalt road and pavement.	No	No
Earth bank	Fiver vegetated earth banks are present on site.	No	No
Scattered trees	Trees including ash, sessile oak, cherry species, bay laurel, hazel and willow species have encroached on to the site.	No	No

3.3 Protected or Priority Species

Details of protected and priority species recorded on site are shown in Table 3.3. A plan of the site showing the location and distribution of features with potential for protected or priority species is shown in Figure 1. Target notes of protected species evidence or features that have potential to support protected species are shown in Appendix 1.

Table 3.3: Protected and Priority Species on Site

Species/Species Group	Target Note	Associated habitat	Justification	LBAP Species	Section 42 Species
Orchids (unidentified)	N/A	Unimproved neutral grassland	Several stems of orchid species that had flowered earlier in the year were identified in the unimproved neutral grassland.	No	Some species of orchid
Invertebrates	1	Neutral grassland, scrub and marginal vegetation	Common blue butterfly observed at TN 1, other habitats have good floristic diversity and are able to support a range of invertebrate species.	No	No
Reptiles	N/A	Neutral grassland, scrub margins and earth banks	Potential for these habitats to support reptile species.	No	Yes
Birds	N/A	Scrub, woodland, trees, unimproved grassland and buildings	Potential for these habitats to support nesting birds. The unimproved grassland has the potential to support ground nesting birds.	No (species listed would not utilise the habitats on this site)	Yes

Capabilities on project:
Environment

Species/ Species Group	Target Note	Associated habitat	Justification	LBAP Species	Section 42 Species
Bats	N/A	Buildings, trees, scrub and grassland	<p>One building was assessed as having Low potential to support roosting bats. One tree was assessed as Category II for roosting bats.</p> <p>The semi-improved and unimproved grassland on site has the potential to support foraging bats.</p> <p>The dense scrub along the site boundaries create linear features that have the potential to support foraging and/or commuting bats.</p>	Yes	Yes
Badgers	2	Scrub, woodland and neutral grassland	<p>A badger trail through the scrub from the adjacent woodland was identified as well as a latrine at TN2.</p> <p>Latrines are often used by badgers to mark territorial boundaries.</p> <p>The woodland adjacent to the site may support a badger sett, and it appears badgers are accessing the site through the scrub.</p> <p>The scrub and neutral grassland have the potential to support commuting and foraging badgers.</p>	No	No
Red Squirrel	N/A	Woodland	<p>Red squirrel is present in Anglesey and is dominant over grey squirrel on the island.</p> <p>There is potential that the woodland on site which is connected to further woodland in the wider landscape could support red squirrels.</p>	Yes	Yes

Capabilities on project:
Environment

3.4 Invasive Species Subject to Legal Controls

The following plant species are listed on Schedule 9 of the Wildlife and Countryside Act 1981 making it an offence to cause the spread of these species in the wild. The locations of plants subject to legal controls are shown on Figure 1.

Table 3.4: Invasive Species on Site

Species	Target Note	Description
Cotoneaster – Species unidentified	N/A	Within dense scrub. Species of cotoneaster was not identified, several species are listed on Schedule 9.

3.5 Bat Roost Assessment

Features suitable for supporting roosting bats were assessed during the site visit and are shown in Table 3.5. The locations of potential roosts are shown on Figure 1.

Table 3.5: Features Assessed as Having Potential to Support Roosting Bats

Feature	Description	Bat Roost Potential Category
Tree 1	Ash, 30m in height, 1.5m DBH, with knotholes, missing limbs, hollows/cavities, and ivy cover limiting the view.	Category II
Building 1	Brick construction with flat roof of unknown material, modern well maintained structure, with a small cluttered roof space.	Low
Building 2	Pitched metal, south facing roof, roof, metal walls with metal fascia boards. Modern well maintained structure.	Negligible
Building 3	Pitched metal roof, metal fascia boards. Modern well maintained structure	Negligible

Capabilities on project:
Environment

4 Biodiversity Management Objectives

4.1 Biodiversity Management Objectives

Based on the findings from the Extended Phase I Habitat survey the following Ecological Management Objectives (a maximum of five objectives will be given) have been created to manage the risk of protected species at the site, maintain current site biodiversity and enhance the conservation potential of the site where possible:

1. Maintain condition of the unimproved neutral grassland
2. Increase the botanical diversity of the improved, semi-improved and amenity grassland
3. Increase suitable reptile habitat
4. Maintain suitability for nocturnal species on site (bats)

4.2 Recommendations to Manage Compliance with Legislation

The following management actions and recommendations in Section 5 have been made to prevent an offence being committed in respect to the following species:

1. Invasive species- Cotoneaster
2. Reptiles
3. Nesting birds
4. Bats
5. Badgers
6. Red squirrel

Capabilities on project:
Environment

5 Biodiversity Management Actions and Recommendations

5.1 Biodiversity Management Actions and Recommendations

In order to achieve the Ecological Management Objectives set out in Section 4, the following management actions have been recommended. Actions are given in brief, with the full prescription and methodology for these actions being specified in AECOM (2013) Site Biodiversity Management Prescriptions Report.

Table 5.1: Recommended Management Actions for Objectives

Objective	Actions and Recommendations	Prescription Details Reference AECOM (2013) Management Prescriptions Report
1: Maintain condition of the unimproved neutral grassland 2: Increase the botanical diversity of the improved, semi-improved and amenity grassland 3: Increase suitable reptile habitat	Mow grassland a maximum of three times a year and at appropriate times to increase grassland flora, this will increase invertebrate diversity and have a positive impact on reptiles and birds utilising the area	Section 2.1
4: Maintain suitability for nocturnal species on site (bats)	Manage lighting on site to benefit bats	Section 11.2 Bats and Lighting

5.2 Recommendations to Manage Compliance with Legislation

In order to reduce the risk of an offence being committed the recommendations in Table 5.2 have been made. Actions are given in brief, with the full prescription and methodology for these actions being specified in AECOM (2013) Site Biodiversity Management Prescriptions Report.

Table 5.2: Recommended Actions to Manage Compliance with Legislation

Objective	Actions and Recommendations	Prescription Details Reference AECOM (2013) Management Prescriptions Report
Invasive species - Cotoneaster:	Prevent the spread of the plant into the wild.	Section 3.2
Reptiles	To reduce risk of injury or harm to reptiles cut grass to specified height and consult an ecologist before any development, ground breaking or soil stripping works commence	Section 8
Nesting birds	To reduce risk of disturbance to nesting birds conduct any vegetation management outside of nesting bird season	Section 9.2.1 – 9.2.2

Capabilities on project:
Environment

Bats	To reduce risk of disturbance to roosting bats consult an ecologist before any works are conducted on the tree and building with potential to support a bat roost	Sections 11.2.1 – 11.2.3
Badgers	Active badger setts may be present in the woodland immediately adjacent to site. Before conducting any works within 30m of the woodland consult an ecologist.	Section 10.2
Red Squirrel	Red squirrels may be present in the woodland immediately adjacent to site. Before conducting any works adjacent to the woodland consult an ecologist.	Section 14.2

Capabilities on project:
Environment

6 References

AECOM (2013) *Site Biodiversity Management Prescriptions Report* - Welsh Government Sites

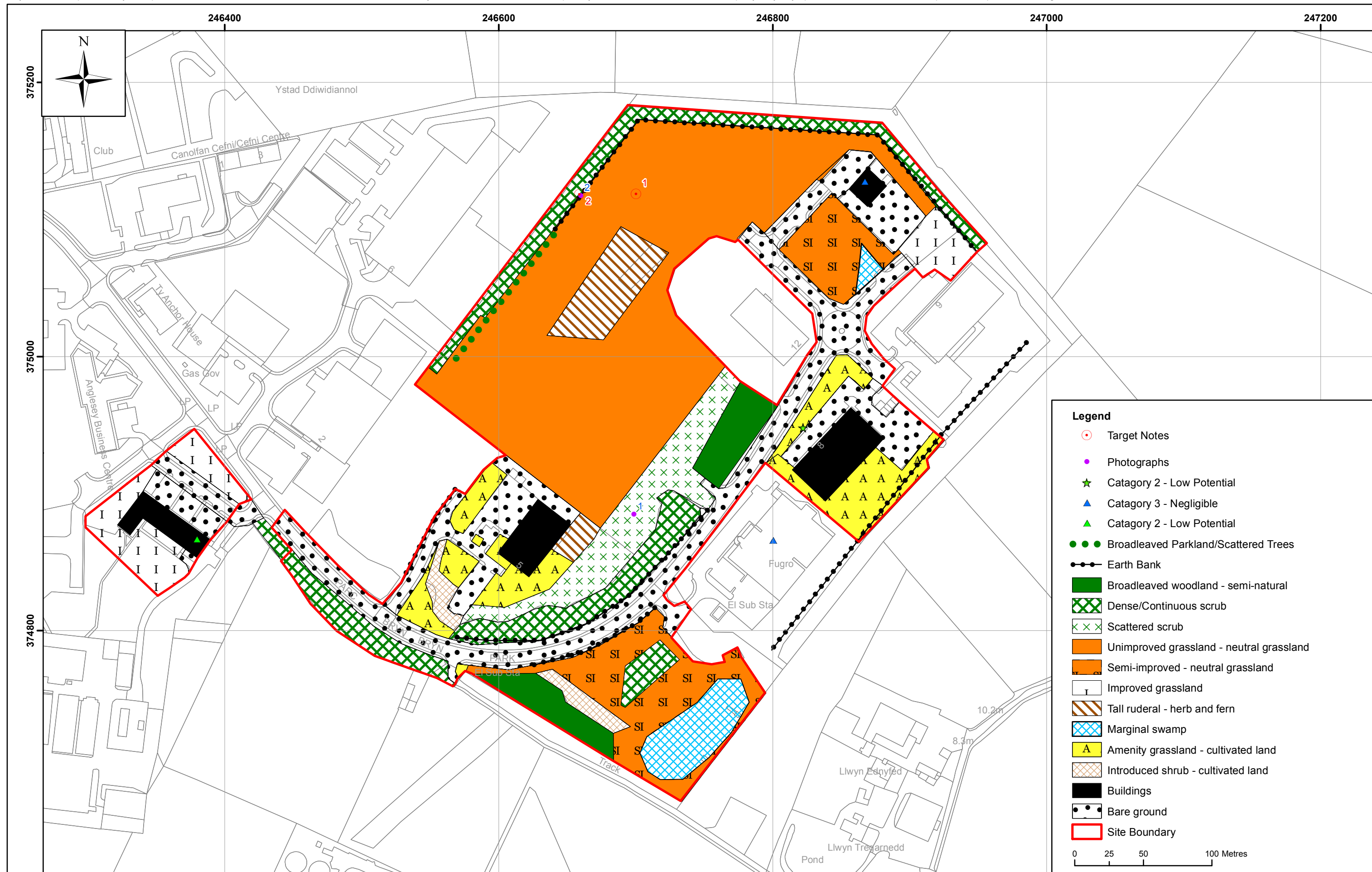
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Joint Nature Conservation Committee (2010). *Handbook for Phase I Habitat Survey – A Technique for Environmental Audit*. JNCC. Peterborough.

Capabilities on project:
Environment

Figure 1: Phase 1 Habitat Map



Legend

- Target Notes
- Photographs
- ★ Catagory 2 - Low Potential
- ▲ Catagory 3 - Negligible
- ▲ Catagory 2 - Low Potential
- Broadleaved Parkland/Scattered Trees
- Earth Bank
- Broadleaved woodland - semi-natural
- ▨ Dense/Continuous scrub
- ▧ Scattered scrub
- Unimproved grassland - neutral grassland
- Semi-improved - neutral grassland
- ▨ Improved grassland
- ▨ Tall ruderal - herb and fern
- ▨ Marginal swamp
- A Amenity grassland - cultivated land
- ▨ Introduced shrub - cultivated land
- Buildings
- Bare ground
- Site Boundary

0 25 50 100 Metres

Client:	KIER SERVICES LTD.
Project:	WELSH GOVERNMENT BIODIVERSITY SITE MANAGEMENT PLAN

Title:	BRYN CEFNI, LLANGFNI PHASE 1 HABITAT MAP
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Capabilities on project:
Environment

Appendix A: Target Notes for Figure 1 Phase 1 Map

Target Note	Description
1	Common blue butterfly
2	Badger trail and latrine

Capabilities on project:
Environment

Appendix B: Site Photographs



Photograph 1- Unimproved neutral grassland



Photograph 2- Badger latrine