

# Vale of Glamorgan Rhoose Primary School

Preliminary Ecological Appraisal (PEA) Report

Vale of Glamorgan Council

August 2019

## Quality information

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## 1. Executive Summary

AECOM was instructed by Vale of Glamorgan Council to carry out a Preliminary Ecological Appraisal (PEA) of the site of the proposed Rhoose Primary School, hereafter referred to as 'the Site'. The central grid reference for the Site is ST0679166300 and the boundary of the Site is shown on Figure 1.

The Site is located within a housing development. Ephemeral/short perennial and bare ground are the dominant habitats on Site. The Site was cleared of vegetated habitats during the construction of the surrounding housing estate. The Site is now comprised of earth and rubble substrate with early successional ephemeral species.

The proposed development will include new school buildings and associated sports and recreational areas, as well as vehicle parking and pedestrian access. Habitat areas for wildlife will be included in the landscaping design. The development will require the complete removal of all semi-natural habitats. Detailed designs, including a lighting plan, are not yet available. It is understood that construction is programmed to commence July 2020 and be completed July 2021.

The Site has Low Suitability to support foraging bats. There is no suitability for any additional Protected or Priority Species.

Potential impacts are loss of Low Suitability foraging habitat for bats. The impact of this habitat loss, when new vegetated/landscaped areas will form part of the new school development in the long-term, is negligible. Creation of new habitats suitable for foraging and commuting bats as part of the new school development will have a positive impact on bats. New external lighting, if poorly designed, could spill outside of the Site boundary and impact any bats using habitats outside the Site boundary.

There will be no further impacts on habitats or Protected/Priority Species. There will be no impacts in designated nature conservation sites.

No further surveys are required.

Mitigation for external lighting is required. No further mitigation is required.

Recommendations for enhancement have been made. These will enhance the ecological value of the proposed development and help in achieving BREEAM Land use Ecology credits.

The Executive Summary is not a substitute for the full report. Refer to the full text for further detail.

## 2. Introduction

### 2.1 Introduction

AECOM was instructed by Vale of Glamorgan Council to carry out a Preliminary Ecological Appraisal (PEA) of the site of the proposed Rhoose Primary School, hereafter referred to as 'the Site'. The central grid reference for the Site is ST 0679166300 and the boundary of the Site is shown on Figure 1.

This PEA was commissioned to identify whether there are known or potential ecological receptors (nature conservation designations, and Protected and Priority Habitats and Species) that may constrain or influence the design and implementation of the proposed development. The approach applied when undertaking this PEA pays due regard to the *Guidelines for Preliminary Ecological Appraisal* published by the Chartered Institute of Ecology and Environmental Management (CIEEM, 2017). The PEA addresses relevant wildlife legislation and planning policy as summarised in this report.

In order to deliver the PEA, a desk study and an extended Phase 1 Habitat Survey were undertaken by an appropriately experienced ecologist, to identify ecological features within the proposed development Site and the wider potential zone of influence of the proposed development. The potential zone of influence was defined with reference to the project description provided by Vale of Glamorgan Council and using the Site boundary as shown on Figure 1. Additional details are provided in Section 3: Methodology.

### 2.2 Site Location and Description

The Site is approximately 486 (m<sup>2</sup>) and located on the outskirts of Rhoose, Vale of Glamorgan, nearest postcode CF5 6SG.

The Site is located within a Taylor Wimpey housing estate. The estate is currently in the construction phase. Ephemeral/short perennial and bare ground are the dominant habitats on Site. The Site was cleared of natural habitats during the construction of the surrounding housing estate. Prior to development the Site was comprised of fields with hedgerows with a direct vegetated link to the railway line. The Site is now comprised of earth and rubble substrate with early successional ephemeral species.

At present the Site is surrounded to the south, east and west with bare ground, with residential buildings to the north. As the housing development progresses the Site will be completely surrounded by residential buildings.

### 2.3 Proposed Development

The proposed development will include new school buildings and associated sports and recreational areas, as well as vehicle parking and pedestrian access. Habitat areas for wildlife will be included in the landscaping design. The development will require the complete removal of all existing habitats. Detailed designs, including a lighting plan, are not yet available.

It is understood that construction is programmed to commence July 2020 and be completed July 2021.

### 2.4 Objectives

The purpose of the PEA was to:

- Identify any designated nature conservation sites on or within proximity to the Site;
- Identify any known records of Protected or Priority Species within proximity to the Site;
- Identify and categorise the main habitats and features of ecological interest present within the Site ;
- Appraise the potential for Protected or Priority Species of fauna and flora;
- Provide advice on any potential ecological constraints and opportunities on or within proximity to the Site;
- Identify the requirement for further habitat and/or Protected Species surveys;
- Make recommendations to avoid and mitigate ecological impacts as well as opportunities for biodiversity enhancements; and,
- Provide a map showing the Phase 1 habitats on Site and any features of ecological interest.

The purpose of this report is to inform the design of the proposed development to support the submission of a planning application. The report identifies the scope of further work (where necessary) that would be required to support a planning application. High level recommendations are made on potential options for the avoidance, mitigation or compensation of the potential impacts of the proposed development (where known) on the identified ecological receptors, and of potential enhancements to the biodiversity and ecosystem services.

## 2.5 Wildlife Legislation and Planning Policy

### 2.5.1 Wildlife Legislation

There are several different acts of legislation and regulations which refer to the protection of wildlife. These are summarised in Appendix A. In particular, the legislation relating to possible protected species on site is outlined. 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.

The following wildlife legislation is potentially relevant to the proposed development:

- The Wildlife and Countryside Act (WCA) 1981 (as amended);
- The Countryside and Rights of Way (CROW) Act 2000;
- The Conservation of Habitats and Species and Planning (Various Amendments) (England and Wales) Regulations 2018; and,
- Environment (Wales) Act 2016.

The above legislation has been considered when planning and undertaking this PEA, when identifying potential constraints to the proposed development, and when making recommendations for further survey, design options and mitigation. Compliance with legislation may require the attainment of relevant protected species licences prior to the implementation of the proposed development.

### 2.5.2 National Planning Policy

#### 2.5.2.1 Planning Policy Wales (9th Ed. November 2016)

Planning Policy Wales (PPW) sets out the land use planning policies of Welsh Government.

Chapter 5, Conserving and Improving the Natural Heritage and the Coast, outlines Welsh Government's objectives for the conservation and improvement of natural heritage. The relevant measures in place to conserve landscape and biodiversity include:

- Statutory designations;
- Non-statutory designations;
- LANDMAP Information System (LANDMAP describes and evaluates aspects of the landscape and provides the basis of a consistent Wales-wide approach to landscape assessment);
- Development plans and the conservation and improvement of the natural heritage;
- Development management and the conservation and improvement of the natural heritage;
- Development management and statutory designations;
- Trees and woods; and,
- Protected species.

Paragraph 5.3.10 states that "potential SPAs and candidate SACs (included in the list sent to the European Commission) should be treated in the same way as classified SPAs and designated SACs. Sites which the UK and the European Commission have agreed as Sites of Community Importance and which are to be designated as SACs attract the same legal protection as if they had already been designated. The same considerations should, as a matter of policy, be applied to listed Ramsar sites".

Paragraph 5.2.9 states that "Local planning authorities should seek to protect trees, groups of trees and areas of woodland where they have natural heritage value or contribute to the character or amenity of a particular locality.

Ancient and semi-natural woodlands are irreplaceable habitats of high biodiversity value which should be protected from development that would result in significant damage."

Paragraph 5.5.4 states that "For all planning applications likely to result in disturbance or harm to a protected species or likely to have a significant adverse effect on sites of more than local importance, or on a designated area, local planning authorities should seek the advice of Natural Resources Wales and should always consult them before granting permission".

#### **2.5.2.2 Technical Advice Note 5 (TAN5) Nature Conservation and Planning (September 2009)**

The Planning Policy Wales (PPW) is supplemented by a series of Technical Advice Notes. TAN 5 provides guidance on how the land use planning system should contribute to protecting and enhancing biodiversity and geological conservation. It provides advice on areas including the key principles of positive planning for nature conservation, nature conservation in Local Development Plans and development management procedures. It also provides advice on development affecting designated sites and habitats, in addition to protected or priority habitats and species.

Key Principles include that the town and country planning system in Wales should integrate nature conservation into all planning decisions; that the town and country planning system should look for development to provide a net benefit for biodiversity conservation with no significant loss of habitats or populations of species, locally or nationally and that they should ensure that the UK's international and national obligations for site, species and habitat protection are fully met in all planning decisions.

### **2.5.3 Local Planning Policy**

Local Development Plans (LDPs) must be produced by every Local Planning Authority in Wales. Any development proposal will be tested against the policies within the LDP. The LDPs follow the planning guidance provide in PPW, including biodiversity and natural heritage policies. These include protecting designated sites and other areas of importance for biodiversity conservation; safeguarding protected species and priority species, including those listed in local biodiversity action plans and retaining, creating and enhancing features of importance for biodiversity conservation where appropriate.

Relevant local planning policies for Vale of Glamorgan Council are detailed in the following document:

- Vale of Glamorgan Local Development Plan 2011-2026. Local Development Plan Written Statement. June 2017.

Appendix C provides a summary of relevant local planning policies. For the precise wording of each specific policy please refer back to the source document. This planning policy has been considered when assessing potential ecological constraints and opportunities identified by the desk study and field surveys; and, when assessing requirements for further survey, design options and ecological mitigation.

## **2.6 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 maintaining our certification to the international standards BS EN ISO 9001:2015 and 14001:2015 and BS OH SAS 18001:2007. In addition our IMS requires careful selection and monitoring of the performance of all sub consultants and contractors.

All AECOM Ecologists who worked on this project are members of (at the appropriate level) the Chartered Institute of Ecology and Environmental Management (CIEEM) and follow their code of professional conduct (CIEEM, 2019) when undertaking ecological work.



## 3. Methodology

### 3.1 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 2 km from the Site boundary using the Multi Agency Geographic Information for the Countryside (MAGIC) website ([www.magic.gov.uk](http://www.magic.gov.uk));
- Locally designated sites, up to 2 km from the Site boundary using the South East Wales Biodiversity Record Centre (SEWBReC);
- Protected and Priority Species records and records of locally designated sites up to 2 km from the Site boundary, using SEWBReC data;
- Special Areas of Conservation (SAC) and Sites of Special Scientific Interest (SSSI) designated for bats within a 10 km radius of the Site boundary in accordance with Bat Conservation Trust (Collins, 2016) recommendations;
- Section 7 list of Species and Habitats of Principal Importance for Conservation in Wales;
- Ancient Semi-Natural Woodland (ASNW), Plantation on Ancient Woodland Site (PAWS), Restored Ancient Woodland Site (RAWS) or Ancient Woodland Site of Unknown category (AWSU) within or adjacent to the Site boundary using Forestry Commission Wales 2011 Ancient Woodland Inventory data set downloaded from the Lle website (NRW, 2018);
- Trees with a Tree Protection Orders (TPO) within or adjacent to the Site, from Vale of Glamorgan Council interactive planning map;
- Local/county recorders for birds and mammals and the County Ecologist were contacted for local records or knowledge about the project area;
- Existing ecology reports available to AECOM were reviewed; and,
- Aerial photographs and Ordnance Survey (OS) maps were reviewed to identify features of ecological interest surrounding the Site including ponds within 500 m, nearby areas of ecological interest and features connecting these habitats (hedgerows, watercourses, railway lines).

### 3.2 Extended Phase 1 Habitat Survey

A Phase 1 Habitat Survey (JNCC, 2010) of the Site was undertaken by an experienced AECOM ecologist (BSc, ACIEEM and BSc, Qualifying Member of CIEEM) on 06 August 2019.

The survey involved a site walkover and preliminary assessment of habitats, land use and ecological features. The main habitats present were recorded using standard Phase 1 Habitat Survey methodology as described in the Handbook for Phase 1 Habitat Survey: A technique for Environmental Audit (JNCC, 2010). The plant species defining the habitat types on Site were recorded. Evidence of any Invasive Non-Native Species (INNS) of plant subject to legal controls was recorded.

The Phase 1 Habitat Survey was 'Extended' by including a desk study, as described above, and an assessment of the potential for the Site to support Protected or Priority Species in order to identify potential ecological constraints and to guide recommendations for further surveys.

Habitat outside of but adjacent to the Site boundary was noted to aid in the determination of the zone of influence.

### 3.3 Assessment of Bat Habitat Suitability

During the Phase 1 Habitat Survey, where access allowed, 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. Table 3.1 provides descriptions of the categories for buildings and trees.

Habitats on Site were classified into categories dependent on the presence of features suitable for bats to commute and forage. Table 3.2 provides descriptions for commuting and foraging habitats.

**Table 3.1 Building and Tree Bat Roost Suitability Categories**

<b>Roost Suitability</b>	<b>Descriptions for Buildings</b>	<b>Descriptions for Trees</b>
Known or Confirmed	Confirmed signs of bat presence/ occupation (droppings, oily staining around entry points, insect remains, odour, scratching) and actual bat presence.	Confirmed signs of bat presence/ occupation (droppings, oily staining around entry points, insect remains, odour, scratching) and actual bat presence.
High	<p>A structure with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potential for longer periods of time due to their size, shelter, protection, conditions (e.g. temperature, humidity, height above ground level, light levels or levels of disturbance) and surrounding habitat.</p> <p>Can include structures with points of access to the interior of the building and poorly maintained fabric providing ready access points for bats into structures, but at the same time not draughty. Structures of traditional stone, brick or timber construction.</p> <p>Structures with large (&gt;20cm) roof timbers with mortice joints, cracks and holes. Structures of pre or early 20<sup>th</sup> century construction. Structures with large complicated and/or uncluttered roof spaces providing unobstructed flying spaces. Structures with weather boarding and/or hanging tiles with gaps. Structures with accessible south facing roofs. Structures with proximity to good foraging habitat such as woodland, wetland, water and /or good hedgerows.</p>	<p>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 potential for longer periods of time due to their size, shelter, protection, conditions (e.g. temperature, humidity, height above ground level, light levels or levels of disturbance) and surrounding habitat.</p>
Moderate	<p>A structure with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions (e.g. temperature, humidity, height above ground level, light levels or levels of disturbance) and surrounding habitat but unlikely to support a roost of high conservation status.</p> <p>Can include structures with some potential to support roosting bats, but fewer features than a high risk building. Features may include areas suitable for crevice dwelling and/or access points into structures. Some proximity to foraging habitat.</p>	<p>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.</p>
Low	<p>A structure with one or more potential roost sites that could be used by individual bats opportunistically. However these potential roost sites do not provide enough space, shelter protection, appropriate conditions and/or suitable habitat to be used on a regular basis or by large numbers of bats (i.e. unlikely to be suitable for maternity or hibernation).</p>	<p>Tree of sufficient size and age to contain potential roost features but with none seen from the ground or features seen have only very limited roosting potential.</p>
Negligible	<p>No features suitable for roosting bats.</p> <p>Can include structures constructed from unsuitable materials e.g. prefabricated with steel and sheet material. Structure is draughty, light and cool buildings with no roosting opportunities. High levels of regular disturbance including external and/or internal lighting. Building is isolated from areas of foraging habitat.</p>	<p>Trees with no potential to support bats.</p>

Source: Category descriptions drawn from Collins, 2016 and Mitchell-Jones, 2004 to be applied using professional judgement

**Table 3.2 Commuting and Foraging Habitat Suitability Categories**

<b>Commuting and Foraging Suitability</b>	<b>Descriptions</b>
High	<p>Continuous high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of trees and woodland edge.</p> <p>High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland.</p> <p>Site is close to and connected to known roosts.</p>
Moderate	<p>Continuous habitat connected to the wider landscape that could be used by bats for commuting such as lines of trees and scrub or linked back gardens.</p> <p>Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.</p>
Low	<p>Habitat that could be used by small numbers of commuting bats such as a gappy hedgerow or un-vegetated stream, but isolated, i.e. not very well connected to the surrounding landscape by other habitat.</p> <p>Suitable, but isolated habitat that could be used by small number of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.</p>
Negligible	<p>Negligible habitat features on site likely to be used by commuting or foraging bats.</p>

*Source: Category descriptions drawn from Collins, 2016 to be applied using professional judgement*

### 3.4 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 Habitat survey, they can contribute to a robust ecological assessment of a site.

Where any conclusions and recommendations contained in this Report are based upon information provided by others, it has been assumed that all relevant information provided by those parties is accurate. Any such information obtained by AECOM has not been independently verified by AECOM, unless otherwise stated in the Report. AECOM accepts no liability for any inaccurate conclusions, assumptions or actions taken resulting from any inaccurate information supplied to AECOM from others.

The methodology adopted and the sources of information used by AECOM in providing its services are outlined in this Report. The work described in this Report was conducted during August 2019 and is based on the conditions encountered and the information available during the said period of time. The scope of this Report and the services are accordingly factually limited by these circumstances. AECOM disclaim any undertaking or obligation to advise any person of any change in any matter affecting the Report, which may come or be brought to AECOM's attention after the date of the Report.

The survey was undertaken during the optimal time of the year for Phase 1 Habitat surveys and in good weather conditions. There were no restrictions to access. There are deemed to be no significant limitations to this PEA.

## 4. Baseline Conditions

### 4.1 Desk Study Results

The designated habitats, sites and features within proximity to the site are listed in Table 4.1 below.

**Table 4.1 Desk Study Results**

<b>Designation / Feature</b>	<b>Description</b>
Internationally and Nationally Designated Sites Within 2 km	<p><b><u>East Aberthaw Coast SSSI</u></b>  <b>Distance and Direction:</b> Approx. 1.7 km south west  <b>Description:</b> Rocky and sandy shore, shingle spits, saltmarsh, relict sand dunes and Liassic limestone cliffs all support species of plants and animals that are of a limited distribution in the county. <i>Adiantum capillus-veneris</i> and <i>Lithospermum purpurocaeruleum</i> are species of note found on the limestone cliffs and in associated areas of scrub. Saltmarsh and shingle ridges support a good range of plant species. Land and littoral invertebrates are particularly rich in this area and include <i>Phanacis caulicola</i>, <i>Brachinus crepitans</i> and <i>Lima pontia</i> (CCW, 1983).</p> <p><b><u>Cliff Wood – Golden Stairs SSSI</u></b>  <b>Distance and Direction:</b> Approx. 1.9 km north east  <b>Description:</b> Mixed woodland with a canopy of pedunculate oak <i>Quercus robur</i>, ash <i>Fraxinus excelsior</i>, field maple <i>Acer campestre</i> and yew <i>Taxus baccata</i>. Un-grazed flora and wooded cliff areas include purple gromwell (restricted to a small number of sites in the county) (CCW, 1972).</p>
Locally Designated Sites Within 2 km	<p>Descriptions of Sites of Interest to Nature Conservation (SINCs) were derived from the Vale of Glamorgan Council Local Development Plan (2013).</p> <p><b><u>Rhose Point SINC</u></b>  <b>Distance and Direction:</b> 0.3 km south west  <b>Description:</b> Extensive site supporting a mosaic of habitats associated with old quarry and limeworks including bare rock, maritime cliffs and slopes, ponds, calcareous to neutral grassland, reedbed, scrub and secondary woodland.</p> <p><b><u>Font-y-Gary SINC</u></b>  <b>Distance and Direction:</b> 0.8 km south west  <b>Description:</b> Old quarry with range of habitats including species rich calcareous grassland, neutral grassland, bare rock, maritime cliffs and slopes, shallow pools and scrub.</p> <p><b><u>Readers Way Pond SINC</u></b>  <b>Distance and Direction:</b> 0.9 km north west  <b>Description:</b> Pond supporting important population of breeding great crested newt <i>Triturus cristatus</i>.</p> <p><b><u>North West Bullhouse Brook SINC</u></b>  <b>Distance and Direction:</b> 1.3 km north east  <b>Description:</b> ASNW site.</p> <p><b><u>North Bullhouse Brook SINC</u></b>  <b>Distance and Direction:</b> 1.3 km north east  <b>Description:</b> ASNW site.</p> <p><b><u>South West of Church Farm SINC</u></b>  <b>Distance and Direction:</b> 1.3 km north east  <b>Description:</b> Species-rich unimproved neutral grassland.</p> <p><b><u>Porthkerry Country Park</u></b></p>

Designation / Feature	Description
	<p><b>Distance and Direction:</b> 1.4 km north east</p> <p><b>Description:</b> 220 acres of woodland and meadow in a sheltered valley leading to a pebble beach and cliffs.</p>
	<p><b><u>East of Lower Porthkerry SINC</u></b></p> <p><b>Distance and Direction:</b> 1.4 km north east</p> <p><b>Description:</b> Semi-natural broadleaved woodland on an ancient woodland site.</p>
	<p><b><u>West of the Old Rectory SINC</u></b></p> <p><b>Distance and Direction:</b> 1.5 km north east</p> <p><b>Description:</b> ASNW site.</p>
	<p><b><u>Knock Man Down Wood SINC</u></b></p> <p><b>Distance and Direction:</b> 1.7 km north east</p> <p><b>Description:</b> Predominantly ASNW site with some broadleaved PAWS.</p>
	<p><b><u>Cliff Wood – Golden Stairs LNR</u></b></p> <p><b>Distance and Direction:</b> 1.9 km north east</p> <p><b>Description:</b> The best example of a mixed woodland in South Glamorgan which has a canopy of pedunculate oak, ash, maple <i>Acer</i> sp. and yew. The ungrazed ground flora and wooded cliff areas includes Purple gromwell which is restricted to a very small number of sites in the county.</p>
Designated Sites Within 10 km Designated for Bats	There are no SSSIs or SACs within 10 km of the Site boundary designated for bats.
Protected and Priority Species Records from the last 10 years within 2 km	<p>The following recent (last 10 years) species have been recorded within 2 km of the Site:</p> <p><b>Plants:</b> Bluebell <i>Hyacinthoides non-scripta</i>.</p> <p><b>Invertebrates:</b> Chalk carpet <i>Scotopteryx bipunctaria</i>, dinghy skipper <i>Erynnis tages</i>, large wainscot <i>Rhizodra lutosa</i>, grayling <i>Hipparchia semele</i>.</p> <p><b>Amphibians:</b> Common toad <i>Bufo bufo</i> (20 records, closest 1.6 km east), great crested newt (two records, closest 0.9 km north west).</p> <p><b>Reptiles:</b> Adder <i>Vipera berus</i> (29 records, closest 0.7 km south east) slow worm <i>Anguis fragilis</i> (16 records, closest 1.0 km south west).</p> <p><b>Birds :</b> Avocet <i>Recurvirostra avosetta</i>, barn owl <i>Tyto alba</i>, bittern <i>Botaurus stellaris</i>, black headed gull <i>Chroicocephalus ridibundus</i>, black redstart <i>Phoenicurus ochruros</i>, bullfinch <i>Pyrrhula pyrrhula</i>, cuckoo <i>Cuculus canorus</i>, curlew <i>Numenius arquata</i>, dark bellied brent goose <i>Branta bernicla subsp. Bernicla</i>, dunnock <i>Prunella modularis</i>, fieldfare <i>Turdus pilaris</i>, grey partridge <i>Perdix perdix</i>, hoopoe <i>Upupa epops</i>, house sparrow <i>Passer domesticus</i>, kestrel <i>Falco tinnunculus</i>, kingfisher <i>Alcedo atthis</i>, lapwing <i>Vanellus vanellus</i>, lesser redpoll <i>Acanthis cabaret</i>, lesser spotted woodpecker <i>Dendrocopos minor</i>, linnet <i>Linaria cannabina</i>, peregrine <i>Falco peregrinus</i>, redwing <i>Turdus iliacus</i>, reed bunting <i>Emberiza schoeniclus</i>, ringed plover <i>Charadrius hiaticula</i>, skylark <i>Alauda arvensis</i>, song thrush <i>Turdus philomelos</i>, spotted flycatcher <i>Muscicapa striata</i>, starling <i>Sturnus vulgaris</i>, whimbrel <i>Numenius phaeopus</i>, whooper swan <i>Cygnus cygnus</i>, yellowhammer <i>Emberiza citrinella</i>.</p> <p><b>Bats:</b> Unidentified bat <i>Chiroptera</i> sp. (two records, closest is a record of droppings 1.4 km north east), common pipistrelle <i>Pipistrellus pipistrellus</i> (two records, closest was captured bat 1.3 km west, one record of a large maternity roost with more than 70 bats 1.8 km north east), noctule <i>Nyctalus noctule</i> (two records, closest 1.9 km north east), soprano pipistrelle <i>Pipistrellus pygmaeus</i> (one record of maternity roost 1.8 km north east).</p> <p><b>Other Mammals:</b> Brown hare <i>Lepus europaeus</i> (two records, closest 1.2 km north east), Eurasian badger <i>Meles meles</i> (three records, closest 1.4 km north east), West European hedgehog <i>Erinaceus europaeus</i> (seven records, live hedgehog found 0.2 km east, no major barriers to movement to the Site).</p>
Priority Habitats and Species – Section 7 List	The full list of Section 7 Habitats and Species of Principle Importance in Wales has been reviewed. Those priority habitats present on site and priority species with potential to be on site are listed in Table 4.2 and Table 4.3 respectively.

Designation / Feature	Description
Surrounding Land Use	<p>At present the Site is surrounded to the south, east and west with bare ground, with residential buildings to the north. As the housing development progresses the Site will be completely surrounded by residential buildings.</p> <p>Beyond the housing development to the north, and south and west of the Site are further residential areas. A railway line is located 0.1 km south. To the east are pasture fields with hedgerows. A disused quarry is located 350 m south. Rhoose Point and the Glamorgan coastline are located 0.7 km south. Cardiff Airport is located 0.5 km north.</p>
Ancient Woodland	There are no ASNW, PAWS, RAWs or AWSU areas within or adjacent to the site boundary.
Trees with a Tree Protection Order (TPO)	The County Council interactive map shows there are no TPOs within or immediately adjacent to the Site.
Ponds within 500 m	<p>There are two ponds within 500 m of the Site boundary:</p> <ul style="list-style-type: none"> <li>• Pond 1: Approximately 160 m<sup>2</sup> and 370 m south west from the from the nearest Site boundary. The pond is surrounded by woodland and is connected to Pond 2 (detailed below) via a network of drainage ditches. There is limited connectivity between the Site and the pond due to housing development, roads and a railway line.</li> <li>• Pond 2: Approximately 60 m<sup>2</sup> and 410 m south west from the nearest Site boundary. Pond is surrounded by trees and scrub. It is connected to Pond 1 via a network of drainage ditches. Limited connectivity to the Site due to housing development, roads and a railway line.</li> </ul>
Council Ecologist and Local Specialist Recorders	<p>No reply has been received from the County Ecologist or Mammal Society to date. It is understood from previous work that any ecological records are submitted to SEWBRcC.</p> <p>Phil Bristow of Glamorgan Bird Group replied saying all data is held by SEWBRcC.</p>
Existing Ecological Reports	<p>A review of existing reports available to AECOM was undertaken. These included:</p> <ul style="list-style-type: none"> <li>• Land North of Railway Line, Rhoose. Ecological Mitigation Strategy and Management Plan (Soltys Brewster, 2014);</li> <li>• Land North of Railway Line, Rhoose. Mitigation Strategy for Reptiles (Soltys Brewster, 2014);</li> <li>• Land North of Railway Line, Rhoose. Tree Survey, Arboriculture Impact Assessment and Protection Plan (Jerry Ross Arboriculture Consultancy, 2014);</li> <li>• Rhoose Point, Ecological Statement (TACP, 2012); and,</li> <li>• Rhoose Point, Reptile Survey Report (TACP, 2012).</li> </ul> <p>The reports do not cover the extent of the Rhoose Primary School Site but provide information of the ecological baseline conditions in the surrounding area which had similar land use pre-development. Reports show that slow-worm are present in the area at a low density and the area pre-development provided suitable habitat for breeding birds and foraging bats.</p>

## 4.2 Extended Phase 1 Survey

### 4.2.1 Habitats

The habitats present within the Site boundary and their descriptions are shown in Table 4.2. A plan of the site showing the location and distribution of these habitats is shown in Figure 1.

**Table 4.2 Phase 1 Habitats and Descriptions**

Habitat	Description	Section 7 Habitat
Ephemeral/Short Perennial	<p>Ephemeral/short perennial, with pockets of bare ground are the dominant habitats on Site (Appendix B: Photographs 1 – 4).</p> <p>The Site was cleared of vegetated habitats during the construction of the surrounding housing estate. The Site now comprises of an earth and rubble substrate with early successional ephemeral species.</p> <p>Species include black mustard <i>Brassica nigra</i>, bristly ox tongue <i>Helminthotheca echioides</i>, curled leaf dock <i>Rumex crispus</i>, broad leaved plantain <i>Plantago major</i>, ribwort plantain <i>Plantago lanceolata</i>, ragwort <i>Jacobaea vulgaris</i>, scentless mayweed <i>Tripleurospermum inodorum</i>, coltsfoot <i>Tussilago farfara</i>, scarlet pimpernel <i>Anagallis arvensis</i>, spear thistle <i>Cirsium vulgare</i>, cocksfoot <i>Dactylis glomerata</i>, black medic <i>Medicago lupulina</i>, white clover <i>Trifolium repens</i>, red clover <i>Trifolium pratense</i>, nettle <i>Urtica dioica</i>, broadleaved willow herb <i>Epilobium montanum</i>, creeping thistle <i>Cirsium arvense</i>, wheat <i>Poaceae</i> sp., buddleia <i>Buddleja davidii</i>, sheep sorrel <i>Rumex acetosella</i>, bird's-foot trefoil <i>Lotus corniculatus</i>, hedge bindweed <i>Calystegia sepium</i>, bramble <i>Rumex fruticosus</i>, perennial ryegrass <i>Lolium perenne</i>, creeping buttercup <i>Ranunculus repens</i>, weld <i>Reseda luteola</i>.</p> <p>In addition, there are some ornamental species in an area where garden waste has been dumped (Figure 1: Target Note 1).</p> <p>There are some bare earth mounds located across the Site (Figure 1: Target Note 2).</p> <p>A gravelled car parking area has been created along the northern boundary (Figure 1: Target Note 3).</p> <p>There are some sections of bare earth which are used as pedestrian routes across the Site.</p>	No

### 4.3 Protected and Priority Species

Details of Protected and Priority Species suitability recorded on Site are listed in Table 4.3. 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 Figure 1 and Appendix B.

**Table 4.3 Protected and Priority Species Potential**

<b>Species/ Species Group</b>	<b>Associated habitat</b>	<b>Description</b>	<b>Section 7 Species</b>
Invertebrates (common)	Ephemeral/short perennial	The ephemeral/short perennial habitat provides habitat for a range of generalist invertebrate species. Protected and Priority Species are unlikely at this Site. Invertebrates are not discussed further.	No
Reptiles and Amphibians	N/A	The ephemeral/short perennial habitat is not suitable to support reptiles or amphibian sand the area has undergone significant recent disturbance. Reptiles and amphibians are considered absent from the Site	N/A
Bats	Ephemeral/short perennial	The Site has been assessed as having Low suitability to support foraging bats. There is limited connectivity with the surrounding landscape and commuting corridors are absent within the Site boundary, the site has no suitable features for commuting. There are no buildings or trees on Site and therefore no opportunities for roosting bats.	Yes

### 4.4 Invasive Non-Native Species Subject to Legal Controls

No INNS of plant were recorded during the Phase 1 Habitat Survey.



## 5. Ecological Constraints and Potential Impacts

The potential impacts of the proposed development on habitats and Protected Species are detailed below.

### 5.1 Development Proposal

The proposed development will include new school buildings and associated sports and recreational areas, as well as vehicle parking and pedestrian access. Habitat areas for wildlife will be included in the landscaping design.

Detailed designs are not yet available. It is understood that construction is programmed to commence July 2020 and be completed July 2021.

### 5.2 Designated Nature Conservation Sites

#### 5.2.1 International Nature Conservation Sites

There are no internationally designated sites within 2 km. There will be no impact on internationally designated sites as a result of the proposed development.

#### 5.2.2 National Nature Conservation Sites

There are two SSSIs located within 2 km of the Site designated for habitats. The closest SSSI is located 1.7 km from the Site. The proposed development will have no impact on nationally designated sites due to distance from the Site, absence of connectivity and pollution pathways and nature of the proposed Development.

#### 5.2.3 Local Nature Conservation Sites

There are nine SINCs one LNR and one Country Park within 2 km of the Site. The nearest SINC is 0.3 km south west of the Site with limited connectivity to the Site. The proposed development will have no impact on locally designated sites due to distance from the Site, absence of connectivity and pollution pathways and nature of the proposed Development.

### 5.3 Habitats

Ephemeral/short perennial is the only habitat on Site. This habitat will be removed during construction. New vegetated/landscaped areas will form part of the new school development. Removal of this Ephemeral/short perennial, which has low ecological value, will have a negligible impact.

### 5.4 Protected and Priority Species

#### 5.4.1 Foraging Bats

All existing habitat will be removed during construction. Alternative habitat of greater value for foraging bats is available in the wider landscape. The new school development will include green space including sports and recreational areas and nature area(s). Creation of new habitats will have a positive impact on bats and wider biodiversity.

There will be a short-term loss of Low suitability bat foraging habitat. This Site offers only a limited resource for bats and alternative habitat of greater value for foraging bats is available in the wider landscape. Therefore, the Site is considered not to be the sole resource for foraging bats in the locality. The impact of habitat loss on foraging bats during construction will be negligible. Creation of new habitats suitable for foraging and commuting bats as part of the school development will have a positive impact on bats.

## 6. Further Surveys and Recommendations

### 6.1 Further Surveys

No further surveys are required.

The impact of habitat loss on foraging bats during construction will be negligible. As such, no bat activity surveys have been recommended.

### 6.2 Recommendations for Mitigation

#### 6.2.1 External Lighting

Any new lighting design at the Site should avoid light spill outside of the Site boundary and onto any newly created habitat features, to maximise their value to wildlife.

There is no legislation requiring an area or road to be lit (ILP, 2018). There are British Standards that relate to various components of lighting and there are also guidelines that relate to crime prevention, prevention of vehicular accidents and amenity use (ILP, 2018). There is legislation requiring bats are protected against disturbance, which includes light disturbance.

The following recommendations in line with best practice guidance should be incorporated into any new lighting scheme at the Site:

- Light spill onto any new bat roost boxes must be avoided;
- In the first instance, external lighting must be designed to avoid light spill onto and beyond boundary features including any proposed rows of trees and/or hedgerows; and,
- If light spill onto Site boundaries cannot be avoided, this should be limited to levels of 3 Lux or less.

Suggestions for mitigating external lighting and achieving the lighting recommendations above are outlined in the ILP Bats and Lighting Guidance Note (ILP, 2018) and best practice guidance (BCT, 2009, BCT 2014 and Gunnell et. al., 2012). These include:

- Only light areas which need to be lit, and use the minimal level of lighting required to comply with guidance such as Institute of Lighting Engineers Guidance Notes for the Reduction of Obtrusive Light (2005);
- Avoid aesthetic lighting which has no other function, and up lighting of trees and buildings.
- Use the lowest level of illumination required for purpose;
- Where lighting is proposed, use lighting modelling programs to indicate where the light spill will occur;
- LED luminaires should be used where possible due to their sharp cut off, low intensity, good colour rendition and dimming capability.
- A warm white spectrum (ideally <2700Kelvin) should be adopted to reduce blue light component; Avoid neutral white, cool white and blue spectrums of light;
- All luminaires should lack or have negligible UV elements. Avoid white and blue spectrums of light;
- Eliminate bare lamps and any upward pointing light.
- Luminaires should be mounted on the horizontal, i.e. no upward tilt. The spread of light should be at or near the horizontal. Flat cut off lanterns are best. Only luminaires with an upward light ratio of 0% and with good optical control should be used – See ILP Guidance for the Reduction of Obtrusive Light;
- Luminaires should feature peak wavelengths higher than 550nm to avoid the component of light most disturbing to bats (Stone, 2012);
- Where lighting columns are in proximity (adjacent to) the wildlife corridors/boundary features and where light spill onto these features is predicted by the lighting models, the luminaries must be moved or fitted with back light control systems to reduce light spill onto the adjacent wildlife corridors/boundary features. This additional feature minimises light spill from the back of the luminaire to avoid intrusive light spill behind the column.
- Any external security lighting should be set to motion sensors and short (1 min) timers;

- Limit the times that the lights are on, to provide some dark periods; Limit the times that the lights are on to provide some dark periods; and/or dimming of lights during certain periods; the proposed new lighting could be dimmed or turned by 75% from 22:00 until 06:00 daily; and,
- Avoid using reflective surfaces under lights; and
- Do not use a lamp greater than 150W for security lighting.

This will increase the value of the Site for a number of other nocturnal species, as well as for bats.

## 6.3 Recommendations for Enhancement

### 6.3.1 Biodiversity Enhancements

The National Planning Policy Framework (February, 2019) and the Environment Wales Act 2016, requires that developments enhance biodiversity, as well as just mitigating impacts.

Recommendations have been made to make the most of proposed landscape planting on Site to benefit biodiversity. These enhancement recommendations if implemented will help in achieving BREEAM Land use Ecology Credits.

Prior to development the Site was comprised of fields with hedgerows with a direct link to the railway line. Enhancement at the Site should reflect the previous habitats and species supported by these habitats. The following enhancements should be considered and included in the landscape design:

- A review of existing reports shows that reptiles were present within the wider Taylor Wimpey development and may still be present in the wider surrounding landscape. Habitat suitable to support reptiles should be created. This could include an area of species rich grassland with earth mounds for basking reptiles. The grassland should be managed during operation for reptiles, with reduced mowing. Log and rubble piles could be provided within and adjacent to this habitat to provide shelter and hibernating habitat for reptiles.
- Hedgerows were previously present and would have provided habitat for breeding birds and foraging and commuting bats. Hedgerows or rows of trees should be planted along the boundaries of the Site to create new green corridor habitat. Hedgerows should be planted with a mix of native locally sourced species. A shade tolerant species rich grassland mix could be planted adjacent to the hedgerows to enhance the hedgerow and create a wider corridor. Tree planting should include locally sourced native species of benefit to wildlife.
- Create a wildflower meadow and/or sensory garden with locally native species or species of benefit to wildlife, to provide habitat for pollinating insects. Gunnell et.al. 2012, Landscaping and urban design for bats and biodiversity (free to download online) has planting lists which are beneficial for invertebrates and to foraging bats.
- Create invertebrate habitats including invertebrate walls, bee banks, and log piles <https://www.buglife.org.uk/activities-for-you/children-and-schools/bug-resources-for-schools>. Native species planting included in some of the enhancements above will also be of benefit to invertebrates.
- Create a pond or wetland area. This could be part of a Sustainable Urban Drainage Solution (SUDS).
- Create a kitchen garden to be used by pupils for educational and recreational purposes.
- Provision of at least two cavity wall bat boxes in new building(s). Boxes should be included in the building design.
- At least five bird boxes should be installed on newly planted (semi-mature) trees along the boundaries or cavity boxes included within the building design. Boxes suitable for swifts and house sparrows would be suitable for use on buildings.
- Green corridors should be planted to link new bat roost provisions and bird boxes with commuting corridors along the Site boundary. These should be planted with locally sourced native species of benefit to wildlife.
- Create a hedgehog shelter using log piles or purpose built structure; these should be connected to existing or newly created wildlife corridors.
- Lighting of new bat roost provisions and green corridors and light-spill onto new bat roost provisions and green corridors should be avoided. See guidance above.



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
## Figure 1: Phase 1 Habitat Map

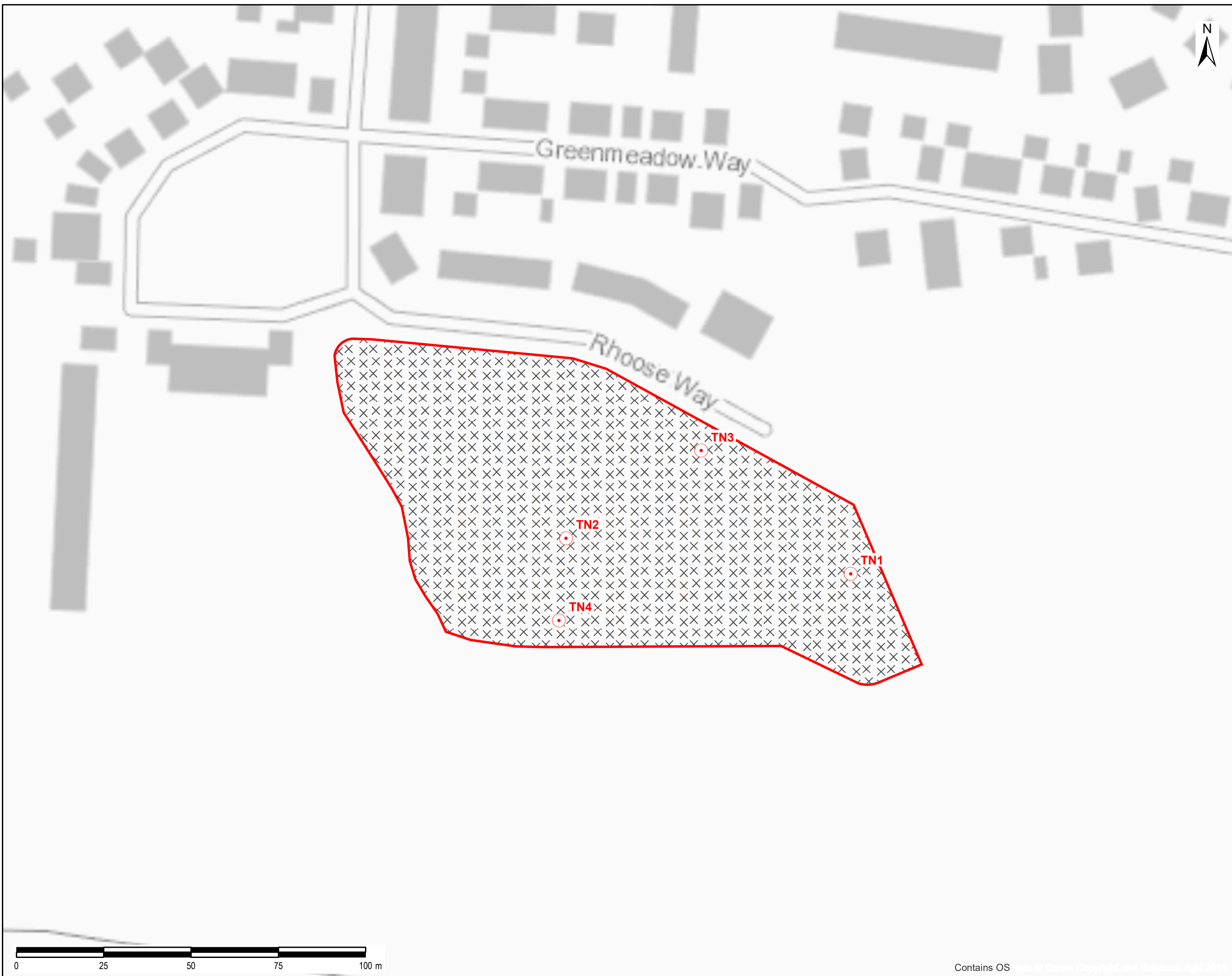
**Project Title:**

**RHOOSE PRIMARY SCHOOL**

**Client:**

**LEGEND**

-  Site Boundary
-  Target Notes
-  Cultivated/Disturbed Land - Ephemeral/Short Perennial



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**Drawing Title:**  
**RHOOSE PRIMARY PHASE 1 HABITAT PLAN**

**Scale at A3:** 1:1,000

**Drawing No:** FIGURE 1 **Rev:** 001

Drawn:	Chk'd:	App'd:	Date:
BM	LF	LF	29/08/19

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## Appendix A Wildlife Legislation and Local Planning Policy

### Legislation – Habitats

A variety of sites are designated in the UK, under Conventions, Directives and Regulations for their nature conservation importance and interest. The general aim of these designations is to conserve and protect ecological resources, as well as raising awareness and understanding. Other non-statutory sites are afforded some protection through local plans. The following outlines the most common statutory and non-statutory designations:

Designation	Brief Description
Special Areas of Conservation (SAC)	SACs are sites selected to conserve the natural habitat types and species of wild flora and fauna listed in the Annexes of the Habitats Directive (further information regarding the Habitats Directive is set out in more detail in the table below). They are the best areas to represent the range and variety of habitats and species within the European Union (EU).
Special Protection Area (SPA)	SPAs are strictly protected sites for the most important habitats for rare and migratory birds within the EU classified in accordance with Article 4 of the Birds Directive information regarding the Birds Directive is set out in more detail in the table below).
Ramsar Sites	Ramsar Sites are wetlands of international importance. Ramsar Sites are protected, through the planning system, under the Wildlife and Countryside Act 1981 (as amended), and the Countryside and Rights of Way Act 2000 through their notification as SSSIs and through other regulatory systems addressing water, soil and air quality.
National Nature Reserve (NNR)	NNRs are nationally important areas of wildlife habitat and geological formations in Britain. NNRs are designated and protected under the National Parks and Access to the Countryside Act 1949 and the Wildlife and Countryside Act 1981 (as amended). They receive additional protection under the Countryside and Rights of Way Act 2000. They are managed for the benefit of nature conservation.
Site of Special Scientific Interest (SSSI)	A SSSI is a site of at least national importance for nature conservation designated under the Wildlife and Countryside Act 1981 (as amended) due to its special interest in terms of flora, fauna or geological or physiographical features. Protection afforded to SSSI's was strengthened by the Countryside and Rights of Way Act 2000. It should be noted that under the Countryside and Rights of Way Act 2000 owners of SSSIs must give Natural Resources Wales (NRW) written notice before they begin any of the operations listed in the notification as likely to damage the special interest features, or if they allow others to carry out these activities. None of the listed operations can be carried out without NRW's consent.
County Wildlife Site (Local site)	A County Wildlife Site is a non-statutory site designated by a local authority as being of local nature conservation value.
Ancient Woodland Inventory	Ancient Woodland is a term applied to woodlands which have existed from at least Medieval times to the present without ever having been cleared for uses other than wood or timber production. A convenient date used to separate ancient and secondary woodland is about the year 1600. In special circumstances semi-natural woods of post-1600 but pre-1900 origin are also included.
Wildlife Trust Reserve	These non-statutory sites are managed by the Wildlife Trusts with the purpose of conserving wildlife.



## Legislation – Protected Species

In addition to habitats, a number of species have been afforded protection through international/European and national law. Other species are considered to contribute to our 'quality of life'. Although these species do not benefit from legal protection, they can be material considerations in the planning process. The table below outlines the key forms of protection afforded to species. The Countryside and Rights of Way Act, the Wildlife and Countryside Act 1981 (as amended), The Protection of Badgers Act 1992 and the Conservation of Habitats and Species Regulations 2018 are the main legislative framework for protection of wild animals in the UK. Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) covers birds, Schedule 5 covers other animals and Schedule 8 covers plants.

Species including bats, otters and great crested newts are listed under Schedule 2 of the Conservation of Habitats and Species Regulations 2018. Badgers are protected under their own Act: The Protection of Badgers Act 1992. Activities affecting protected species must usually be conducted under licence obtained from the appropriate body (in Wales, this is Natural Resources Wales).

Developers must be able to show that all reasonable measures have been taken to ensure that protected species are not subject to disturbance. The habitats which regularly support the Conservation of Habitats and Species Regulations 2018 Schedule 2 species, the Wildlife and Countryside Act 1981 (as amended) Schedule 1 species and some Wildlife and Countryside Act 1981 (as amended) Schedule 5 species are also protected from disturbance and destruction. Again, all reasonable precautions should be taken to ensure that this does not happen. The Countryside and Rights of Way Act 2000 has strengthened enforcement powers and introduced a new offence of "reckless disturbance" that applies to both protected sites and species. The table below provides a summary of the relevant legislation with regards to protected and priority species.

Designation	Brief Description
The Habitats Directive	The Habitats Directive 1992 (Directive 92/43/EEC sets out the legal framework requiring EU member states to protect habitat sites supporting vulnerable and protected species, as listed within the Directive. The need for an assessment of impacts on Natura 2000 sites (the collective name for European designated sites, including SPAs and SACs) is set out within Article 6 of the Directive. The Directive is transposed into UK law through the Conservation of Habitats and Species Regulations 2018 (the "Habitats Regulations") and the Wildlife & Countryside Act 1981 (as amended).
The Birds Directive	The Directive on the Conservation of Wild Birds (Directive 2009/147/EC (the codified version of Council Directive 79/409/EEC as amended)) provides a framework for the protection, management and control of all species of naturally occurring wild birds in the European territory of Member States, including the UK. The provisions of the Birds Directive are transposed into UK law by the Conservation of Habitats and Species Regulations, 2018 and the Wildlife & Countryside Act 1981 (as amended).
Wildlife and Countryside Act (1981) (as amended)	The Wildlife and Countryside Act 1981 (as amended) is the principal mechanism for the legislative protection of wildlife in Great Britain. This legislation is the means by which the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and (partially) the Birds Directive and the Habitats Directive are implemented in the UK. The Countryside and Rights of Way Act 2000 has strengthened this legal protection (see below).  A small number of plant species are listed under Schedule 9 of the Wildlife and Countryside Act 1981, as amended, which includes species such as Japanese knotweed ( <i>Reynoutria japonica</i> ), Himalayan balsam ( <i>Impatiens glandulifera</i> ), montbretia ( <i>Crococsmia x crocosmiiflora</i> ), giant hogweed ( <i>Heracleum mantegazzianum</i> ) and some cotoneaster species ( <i>Cotoneaster</i> sp.). It is illegal to plant or to cause these plants to grow in the wild, and legal disposal methods for vegetation and soil subject to disturbance or clearance from a site must be used.
Convention on Biological Diversity and the Countryside and Rights of Way Act 2000	The Countryside and Rights of Way Act 2000 provides a statutory framework for biodiversity conservation. The Act places a duty on Government Departments and the National Assembly for Wales to have regard for the conservation of biodiversity and maintain lists of species and habitats for which conservation steps should be taken or promoted, in accordance with the Convention on Biological Diversity.

## Designation

## Brief Description

Schedule 9 of the Act amends SSSI provisions of the Wildlife and Countryside Act 1981, including provisions to change SSSIs and providing increased powers for their protection and management. The provisions extend powers for entering into management agreements; place a duty on public bodies to further the conservation and enhancement of SSSIs; increases penalties on conviction where the provisions are breached; and introduce a new offence whereby third parties can be convicted for damaging SSSIs.

Schedule 12 of the Act amends the species provisions of the Wildlife and Countryside Act 1981, strengthening the legal protection for threatened species. The provisions make certain offences 'arrestable' and create a new offence of reckless disturbance.

The UK Biodiversity Action Plan (BAP) was published in 1994, and was the UK Government's response to the Convention on Biological Diversity (CBD), which the UK signed up to in 1992. It provides the framework for fulfilling the UK's responsibilities towards the Convention on Biological Diversity. Conservation of biodiversity (the variety of life on earth) is an essential element of sustainable development.

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Environment (Wales) Act 2016	The Environment (Wales) Act puts in place the legislation needed to plan and manage Wales' natural resources in a more proactive, sustainable and joined-up way. Part 1 relates to the sustainable management of natural resources. This ensures that the way in which the use of and the impacts on natural resources do not result in long term decline. The aim is to sustainably manage natural resources in a way and rate that meets the needs of present and current generations without compromising the needs of future generations.  The Act also contains at section 7, a duty for the Welsh Ministers prepare and publish a list of the living organisms and types of habitat which in their opinion are of principal importance for the purpose of maintaining and enhancing biodiversity in relation to Wales. This section replaces the duty in section 42 of the NERC Act 2006.
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Protection of Badgers Act 1992	The Protection of Badgers Act 1992 makes it an offence to wilfully take, kill, injure or ill-treat a badger, possess a dead badger or any part of a badger. Sett interference includes damaging or destroying a sett, obstructing access to a sett, and disturbing a badger whilst it is occupying a sett. The Act defines a badger sett as 'any structure or place, which displays signs indicating the current use by a badger' and Natural England takes this definition to include seasonally used setts.  Work that may disturb badgers or their setts is illegal without a development licence from the relevant statutory body (in this case Natural Resources Wales).
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The Hedgerow Regulations 1997	The Hedgerow Regulations (1997) make provision for the protection of important hedgerows in England and Wales. The regulations affect hedgerows which are 20m or more in length, or connected at both ends to another hedgerow of any length.  They relate to hedgerows which are on, or adjoining land used for the following purposes: agriculture or forestry; the breeding or keeping of horses, ponies or donkeys; common land; village greens; and SSSIs (They do not include hedges that are attached to, or marking the boundaries of a private house.  It is an offence to intentionally or recklessly remove or cause or permit another person to remove a hedgerow or intentionally or recklessly remove, or cause or permit another person to remove, a hedgerow which is the subject of a hedgerow retention notice.
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## Appendix B Local Planning Policy

### Local Planning Policy

The Vale of Glamorgan Local Development Plan (LDP) 2011-2026 provides the local planning policy framework for the Vale of Glamorgan and was adopted by the Council on 28th June 2017.

The Plan sets out the vision, objectives, strategy and policies for managing development in the Vale of Glamorgan, and contains a number of local planning policies and makes provision for the use of land for the purposes of housing, employment, retailing, recreation, transport, tourism, minerals, waste, and community uses. It also seeks to identify the infrastructure that will be required to meet the growth anticipated in the Vale of Glamorgan up to 2026, and provides a monitoring framework for assessing the effectiveness of the Plan.

Policies referring to nature conservation are outlined below. Full details can be found in Vale of Glamorgan Local Development Plan 2011-2026, Local Development Plan-Written Statement June 2017.

Policy	Details
Policy SP10 – Built and Natural Environment	<p>Development proposals must preserve and where appropriate enhance the rich and diverse built and natural environment and heritage of the Vale of Glamorgan including:</p> <ol style="list-style-type: none"> <li>1. The architectural and / or historic qualities of buildings or Forest Schools nature areas, including locally listed buildings;</li> <li>2. Historic landscapes, parks and gardens;</li> <li>3. Special landscape areas;</li> <li>4. The Glamorgan Heritage Coast;</li> <li>5. Sites designated for their local, national and European nature conservation importance; and</li> <li>6. Important archaeological and geological features.</li> </ol> <p>The Vale of Glamorgan’s natural and built environmental qualities significantly contribute to its identity and also provide valuable local recreation and tourism opportunities. These assets include areas recognised as being of European, national and local importance, including the Vale of Glamorgan’s coastline which includes the Glamorgan Heritage Coast designation and the Severn Estuary Special Protection Area.</p> <p>Policy SP10 emphasises the need to protect the Vale of Glamorgan’s natural and built environmental assets and reinforces that sensitive design and choice of location of new development can have a positive effect on the Vale of Glamorgan’s built and natural heritage. Similarly, new development will be required to minimise its impact on natural systems, landscapes, species and habitats and, where appropriate, provide opportunities for the creation of new habitats or the sensitive enhancement of existing habitats.</p> <p>The LDP provides a policy framework that seeks to preserve and enhance the Vale of Glamorgan’s important historic built environment particularly in relation to the numerous listed buildings (both statutory and local), Forest Schools nature areas, scheduled monuments and historic landscapes, parks and gardens that exist. It should be noted that statutory listed buildings are also covered under Policy MD8 and are subject to separate legislation. In addition, it recognises the importance of preserving and enhancing the natural environment, principally the countryside and the coast, which have significant landscape and nature conservation value.</p>
Policy Special Areas MG17 – Landscape Areas	<p>The following areas are designated as special landscape areas:</p> <ol style="list-style-type: none"> <li>1. Castle Upon Alun;</li> <li>2. Upper &amp; Lower Thaw Valley;</li> <li>3. Ely Valley &amp; ridge slopes;</li> <li>4. Nant Llanccarfan;</li> <li>5. Dyffryn basin &amp; ridge slopes;</li> <li>6. Cwrt-yr-Ala basin.</li> </ol> <p>Within the special landscape areas identified above, development proposals will be</p>

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permitted where it is demonstrated they would cause no unacceptable harm to the important landscape character of the area.

Special Landscape Areas (SLA) have been designated to protect areas of the Vale of Glamorgan that are considered to be important for their geological, natural, visual, historic or cultural significance. These areas have been identified through the utilisation of a methodology devised by the former

Countryside Council for Wales (now Natural Resources Wales) in collaboration with a consortium of local authorities in South East Wales, which uses LANDMAP data. The process allows information about the landscape to be gathered, organised and evaluated into a nationally consistent, quality assured data set.

Details of the identified SLAs are contained within the Vale of Glamorgan Designation of Special

Landscape Areas Background Paper (2013).

The designation of SLAs is not intended to prevent development but to ensure that where development is acceptable careful consideration is given to the design elements of the proposal such as the siting, orientation, layout and landscaping, to ensure that the special qualities and characteristics for which the SLAs have been designated are protected.

Development proposals within SLAs will be required to fully consider the impact of the proposal on the SLA through the submission of a Landscape and Visual Impact Assessment (LVIA). A LVIA will be required for any development that is likely to have a significant impact upon landscape character, or have a significant visual effect within the wider landscape (by virtue of its size or prominence or degree of impact on the locality) and will be prepared in accordance with the latest Landscape Institute and the Institute of Environmental Management and Assessment guidelines. Where applicable, this should form a key element of a planning application's design and access statement and should demonstrate that the proposal has been designed to remove or reduce any unacceptable impacts on the qualities for which the SLA has been designated. Any cumulative impacts that the proposal may have in relation to existing or planned proposals in the locality should also be considered. This is particularly the case for wind turbines or large structures and large-scale proposals such as solar farms. The level of detail required in each landscape impact assessment should be commensurate with the scale of the proposal.

### Policy MG18 – Green Wedges

Green wedges have been identified to prevent the coalescence of settlements and to retain the openness of land at the following locations:

1. Between Dinas Powys, Penarth and Llandough;
2. North West of Sully;
3. North of Wenvoe;
4. South of Bridgend;
5. Between Barry and Rhoose;
6. South Penarth to Sully; and
7. Between Rhoose and Aberthaw.

Within these areas development which prejudices the open nature of the land will not be permitted.

Land on the urban fringe particularly around the key, service and primary settlements within the South East Zone is vulnerable to speculative development that can blur the boundaries between settlement edges and the open countryside. Unchecked this development would result in the incremental loss of open land and ultimately lead to the coalescence of settlements with a resultant detrimental impact upon agriculture, the landscape and the amenity value of land.

While other policies of the LDP seek to prevent inappropriate development within the open countryside it is considered that the areas defined by the green wedges are more vulnerable and susceptible to change and require additional protection. Therefore, within the areas defined by the green wedges there will be a presumption against inappropriate development<sup>20</sup> which would contribute to urban coalescence, prejudice the open nature of the land, or have an adverse impact upon the setting of an urban area. In applying this

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	<p>protection, however, it is recognised that individual or small groups of dwellings exist within the designations and that activities such as agriculture, forestry and recreation, occur. Consequently, development associated with existing uses will be limited to minor structures which are strictly ancillary to existing uses. Details of each of the designations are contained within the Green Wedge Background Paper (2013).</p>
Policy MG19 – Site and Species of European Importance	<p>Development proposals likely to have a significant effect on a European site, when considered alone or in combination with other projects or plans will only be permitted where:</p> <ol style="list-style-type: none"><li>1. The proposal is directly connected with or necessary for the protection, enhancement and positive management of the site for conservation purpose; or</li><li>2. The proposal will not adversely affect the integrity of the site;</li><li>3. There is no alternative solution;</li><li>4. There are reasons of overriding public interest; and</li><li>5. Appropriate compensatory measures are secured.</li></ol> <p>Development proposals likely to have an adverse effect on a European protected species will only be permitted where:</p> <ol style="list-style-type: none"><li>1. There are reasons of overriding public interest;</li><li>2. There is no satisfactory alternative; and</li><li>3. The action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range.</li></ol> <p>Internationally designated sites comprise Special Areas of Conservation (SAC), Special Protection Areas (SPA) and Ramsar Sites. The Vale of Glamorgan has 2 international sites: - Dunraven Bay (SAC) and Severn Estuary (SAC, SPA, Ramsar) and is directly adjacent to the Kenfig SAC in the County Borough of Bridgend. The locations of the European sites are shown on the Constraints Map.</p> <p>Any development proposals that are likely to affect European designated sites or European Protected Species (EPS) will be determined in accordance with national planning policy set out in Planning Policy Wales and Technical Advice Note 5: Nature Conservation and Planning (2009) and relevant case law.</p> <p>In accordance with the Conservation of Habitats and Species Regulations 2010 (as amended), any development proposals that has the potential for adverse impact on the integrity of a European site will be subject to a Habitats Regulations Assessment.</p> <p>Prior to implementing any consent that may be granted which may affect species of European importance, developers will need to secure a derogation from Natural Resources Wales under the Conservation of Habitats and Species Regulations 2010 (as amended), the 'Habitats Regulations.</p>
MG20 – Nationally Protected Sites and Species	<p>Development likely to have an adverse effect either directly or indirectly on the conservation value of a site of special scientific interest will only be permitted where it is demonstrated that:</p> <ol style="list-style-type: none"><li>1. There is no suitable alternative to the proposed development; and</li><li>2. It can be demonstrated that the benefits from the development clearly outweigh the special interest of the site; and</li><li>3. Appropriate compensatory measures are secured; or</li><li>4. The proposal contributes to the protection, enhancement or positive management of the site.</li></ol> <p>Development proposals likely to affect protected species will only be permitted where it is demonstrated that:</p> <ol style="list-style-type: none"><li>1. The population range and distribution of the species will not be adversely impacted;</li><li>2. There is no suitable alternative to the proposed development;</li><li>3. The benefits of the development clearly outweigh the adverse impacts on the protected species; and</li><li>4. Appropriate avoidance, mitigation and compensation measures are provided.</li></ol>

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For the purposes of the policy, nationally designated sites include Sites of Special Scientific Interest (SSSI). Within the Vale of Glamorgan there are 28 SSSI and these are detailed in Appendix 2 and their locations are shown on the Constraints Map. Protected species are those detailed within the Wildlife and Countryside Act 1981 (as amended) and species specific legislation e.g. the Protection of Badgers Act 1992.

The presence of a protected species is a material consideration in the determination of planning applications. When assessing any development proposal which if carried out would be likely to result in harm to a protected species or its habitat, the Council will be guided by advice received from Natural Resources Wales.

There will always be a presumption against development which is likely to harm a protected site or species. However, there may also be instances when the importance of a development proposal will outweigh the conservation value, either temporarily or permanently to a SSSI / protected species and in such instances, the objective will always be to ensure that the nature conservation value of the site or protected species is preserved and where possible enhanced.

Where development is permitted, appropriate conditions or agreed planning obligations will be used to secure adequate compensation or mitigation measures

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### Policy MG21 – Sites of Importance for Nature Conservation, Regionally Important Geological and Geomorphological Sites and Priority Habitats and Species

Development proposals likely to have an adverse impact on sites of importance for nature conservation or priority habitats and species will only be permitted where it can be demonstrated that:

1. The need for the development clearly outweighs the nature conservation value of the site;
2. Adverse impacts on nature conservation and geological features can be avoided;
3. Appropriate and proportionate mitigation and compensation measures can be provided; and
4. The development conserves and where possible enhances biodiversity interests.

Sites of Importance for Nature Conservation (SINC) are identified to protect areas of high wildlife value at a local level. Regionally Important Geological and Geomorphological Sites are locally designated sites of local, national and regional importance for geodiversity (geology and geomorphology).

Priority Habitats and Species for Conservation are identified in the Environment (Wales) Act 2016 Section 7. Species or habitats are important wildlife features, are rare or declining and are not protected by primary legislation.

Development which is likely to have an adverse impact on SINC, RIGS or Priority Habitats and Species will be required to demonstrate that every effort has been made to avoid and mitigate any adverse impacts and that the need for the development outweighs the nature conservation or geological value. Where on site mitigation is not possible or sufficient to prevent any adverse impact then off-site compensation will be required. Off-site compensation will be secured through planning conditions or Section 106 agreements as appropriate.

The Council will produce Supplementary Planning Guidance on 'Biodiversity and Development' to support these policies and provide advice for developers on the Council's approach to biodiversity issues.

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## Appendix C Target Notes

Target Note	Description
1	Ornamental species from dumping of garden waste
2	Mounds of bare earth
3	Gravelled parking area
4	Pedestrian walkways

## Appendix D Site Photographs



Photograph 1: Ephemeral/short perennial.



Photograph 2: Ephemeral/short perennial.



Photograph 3: Mounds of bare earth.



Photograph 4: Gravelled car park.



