

Talbot Green

Preliminary Ecological Appraisal

Maska Group Ltd

61417

January 2026



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S0 – Work in progress

S1 – For coordination

S2 – For information

S3 – For review and comment

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List of Abbreviations

Abbreviation	Full Description
BA	Protection of Badgers Act
BCT	Bat Conservation Trust
BDir1 / 21 / 22	EC Birds Directive Annex 1 / 2.1 / 2.2 Species
CHEGD	Conservation priority fungi categories (based on waxcap grassland indicators)
CIEEM	Chartered Institute of Ecology and Environmental Management
CITES	Convention on International Trade in Endangered Species
CRoW	Countryside and Rights of Way Act
EPS	European Protected Species
GDPR	General Data Protection Regulation
HDir	EU Habitats Directive Species
IMS	Integrated Management System
INNS	Invasive Non-Native Species
ISO	International Organization for Standardization
JNCC	Joint Nature Conservation Committee
LBAP	Local Biodiversity Action Plan (by local authority code)
LDP	Local Development Plan
LERC	Local Environmental Records Centre
LI (BIS) / LI (SEWBReC)	Locally Important species (BIS / SEWBReC area)
LRQA	Lloyd's Register Quality Assurance
NERC	Natural Environment and Rural Communities
OS	Ordnance Survey
PEA	Preliminary Ecological Appraisal
PPW	Planning Policy Wales
RDB1 / RDB2	UK / Welsh Red Data Book listings
S7	Section 7 Species (Environment Wales Act 2016)
SAC	Special Area of Conservation
SEWBReC	South East Wales Biodiversity Records Centre
SINC	Site of Importance for Nature Conservation
SSSI	Site of Special Scientific Interest
TACP	TACP (UK) Ltd
UKBR (RSPB)	UK Birds Red list (RSPB)
UKHab	UK Habitat Classification
WBAm (RSPB)	Welsh Birds Amber list (RSPB)
WBR (RSPB)	Welsh Birds Red list (RSPB)
WCA	Wildlife and Countryside Act
WS_P / WS_C	Wildlife Sites - Primary / Contributory species

EXECUTIVE SUMMARY

PURPOSE

Maska Group Ltd commissioned TACP UK (Ltd) (referred to as TACP) to conduct a Preliminary Ecological Appraisal (PEA) of a parcel of land at Talbot Green, henceforth referred to as the Site. The central Ordnance Survey (OS) grid reference for the Site is ST 03944 82322, and the boundary is illustrated in Appendix B.

The purpose of the PEA was to identify potential ecological receptors, including designated sites, habitats, and species that may impact the design and implementation of the proposed development. The appraisal was carried out in accordance with the Guidelines for Preliminary Ecological Appraisal (CIEEM, 2017) and the standard Phase 1 Habitat Survey methodology (JNCC, 2010).

This report provides an ecological overview of the Site and its ecological receptors, identifying any constraints and opportunities, as well as offering recommendations for further surveys.

RESULTS

The Site features a diverse range of habitats, including broadleaved woodlands, scrub communities, and semi-improved grasslands. Additionally, open mosaic habitats on previously disturbed ground enhance this diversity by providing opportunities for ruderal species and scattered trees. These habitats have the potential to support a variety of protected and notable species. Mature trees may serve as roosting sites for bats, while the edges of woodlands, scrub, and grasslands offer suitable nesting habitats for birds. Rubble piles and grassland mosaics could provide habitats for reptiles, while waterlogged hollows to the south may support amphibians. The presence of devil's-bit scabious indicates that the area may be suitable for the marsh fritillary butterfly, a species of conservation concern, especially given its proximity to local Sites of Importance for Nature Conservation (SINCs).

However, several invasive non-native species (INNS) have been identified on the site, including Himalayan balsam, butterfly bush, and cotoneaster, all of which are listed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended).

RECOMMENDATIONS

Recommended surveys:

- Bats: Ground-level tree assessment and a survey of the bat box located within the site
- Reptiles: Leave rubble and grass margins undisturbed- if necessary, a destructive search of the rubble.
- Breeding Birds: Clear vegetation outside nesting season or check by a suitably experienced ecologist beforehand.
- Devil's-bit Scabious habitat mitigation
- Invasive Species: Map in peak growth; create a management plan with monitoring recommendations.

1 INTRODUCTION

1.1 Background

- 1.1.1 Maska Group Ltd commissioned TACP UK (Ltd) (TACP) to carry out a Preliminary Ecological Appraisal (PEA) in a site located in Talbot Green (hereafter referred to as 'the Site'). The central Ordnance Survey (OS) grid reference is **ST 03944 82322**, and the boundary for the Site is shown on Appendix B.
- 1.1.2 This PEA was commissioned to identify whether there are known or potential ecological receptors (nature conservation designations and protected and notable habitats and species) that may constrain or influence the design and implementation of the Scheme. The PEA was undertaken in accordance with 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 section 2 of this report.
- 1.1.3 To deliver the PEA, a desk study and a Phase 1 Habitat Survey were undertaken by an appropriately experienced ecologist to identify ecological features within the Scheme and the wider potential zone of influence. The surveys were completed by Joseph Coyle (BSc (Hons), MSc, QCIEEM).
- 1.1.4 This report provides an ecological overview of the Site covered by the Scheme, including a description of the potential ecological receptors. It provides a preliminary ecological assessment of the Scheme as it currently stands. This appraisal provides general recommendations for mitigation and enhancement in relation to the identified potential impacts, based on available information.

1.2 Site Description

- 1.2.1 The survey area consists of broadleaved woodlands, scrub, semi-improved grasslands, and open mosaic habitats found on previously disturbed ground. The site supports a diverse range of plant life, which includes both native and non-native species. This diversity reflects a complex history of natural colonisation, habitat enrichment, and ornamental planting. However, the presence of invasive species in certain areas is diminishing habitat quality in some sections of the site.

1.3 Purpose Of Report

- 1.3.1 This report aims to identify the presence of and potential for protected species within the Scheme boundary and the scope of further work (where necessary) required to support species licence applications, ecological impact assessment, method statements, and consents.
- 1.3.2 The objectives of the PEA are to:
 - Identify designated nature conservation sites on or within proximity to the Scheme.
 - Identify known records of protected or notable species near the Scheme.

- Identify and categorise the main habitats and features of ecological interest present within the Scheme.
- Appraise the potential for protected or notable species of fauna and flora.
- Provide previous records of ecological constraints and designated sites within 1km proximity to the Site.
- Identify the requirement for further habitat and species surveys and;
- Provide a map showing the phase 1 habitats on the Site and features of ecological interest.

1.4 Quality Assurance

- 1.4.1 This survey and subsequent report were undertaken in accordance with TACP's Integrated Management System (IMS), certified to ISO 9001, 14001, and 45001 and accredited by LRQA UK. This was combined with our adaptability to ensure that projects are managed efficiently to maximise project and client benefits.
- 1.4.2 Our Quality accreditation has been in place for over 20 years. The IMS includes procedures for Strategic Management, Project Management and Office Management. It sets out how projects are to be managed to ensure deadlines are met and high-quality deliverables are provided sustainably and environmentally sensitively.
- 1.4.3 All TACP's projects and schemes are delivered per the Data Protection Act 2018 and the General Data Protection Regulation (GDPR). In addition to this and our established QEMS, all our projects are delivered in accordance with a range of internal policies, including modern slavery, Health and Safety, Sustainability, Anti-Bribery, Safeguarding, and Social Value.
- 1.4.4 All TACP 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, 2022) when undertaking ecological work.

2 LEGISLATION AND PLANNING POLICY

2.1 Legislation

2.1.1 Several different acts of legislation and regulations relate to the protection of wildlife. These are summarised in Appendix A. In particular, the legislation relating to possible protected species on the Site is outlined. This is a summary of the legislation and is not to be regarded as a definitive legal opinion. When dealing with individual cases, it is advised that the full texts of the relevant legislation are reviewed alongside legal advice.

2.1.2 The following wildlife legislation is potentially relevant to the Project:

- The Wildlife and Countryside Act (WCA) 1981 (as amended);
- The Countryside and Rights of Way (CRoW) Act 2000;
- The Conservation of Habitats & Species Regulations 2017;
- Environment (Wales) Act 2016;
- Wild Mammals (Protection) Act 1996
- Natural Environment and Rural Communities (NERC) Act 2006
- The Hedgerow Regulations 1997; and,
- The Protection of Badgers Act 1992.
- Invasive Alien Species (Enforcement and Permitting) Order 2019

2.1.3 The above legislation has been considered when planning and undertaking this PEA using the methods described in Section 4, identifying potential constraints to the Project, and making recommendations for further surveys, design options, and mitigation. Compliance with legislation may require the attainment of relevant protected species licences before implementing the Project.

2.2 National Planning Policy

2.2.1 Planning Policy Wales (12th Ed. February 2024) sets out the Welsh government's land use planning policies and provides the policy framework for the preparation of Local Development Plans. Chapter 6, Distinctive and Natural Places, outlines the Welsh Government's objectives for conserving and improving natural heritage.

2.2.2 Updates to Chapter 6 include a stronger emphasis on taking a proactive approach to green infrastructure, covering cross-boundary considerations and further clarity on securing net benefit for biodiversity through the application of the step-wise approach. A strengthened approach to the protection of SSSIs is also included, as is promotion of new tree and woodland planting as part of development.

2.2.3 The Planning Policy Wales (PPW) is supplemented by a series of Technical Advice Notes (TAN 5). 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, as well as protected or priority habitats and species.

2.2.4 Key Principles include that the town and country planning system in Wales should integrate nature conservation into all planning decisions. Chapter 6 provides further clarity that the town and country planning system should look for development to provide a net benefit for biodiversity conservation through a step-wise approach, with no significant loss of habitats or species populations, locally or nationally. Enhancement and long-term management should be considered at each step, with off-site compensation measures as a last resort. All planning decisions must fully meet the UK's international and national obligations for site, species and habitat protection.

2.3 Local Planning Policy

2.3.1 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 provided 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.

Policy AW 8 - Biodiversity and the Natural Environment

2.3.2 Development proposals must conserve and enhance biodiversity and ecological features. They should avoid net biodiversity loss and safeguard ecological assets including Sites of Importance for Nature Conservation (SINCs), Local Nature Reserves, SSSIs, and other statutory designations, as well as wildlife corridors and green infrastructure networks. Proposals affecting habitats or species listed under Sections 6 (Environment (Wales) Act 2016) or Section 74 / Section 42 of the NERC Act must include appropriate ecological appraisal and mitigation where necessary.

Policy AW 10 - Ecological Networks

2.3.3 The County Borough will support maintaining and enhancing ecological connectivity by protecting linear and networked habitat features critical for species movement and genetic exchange. This includes river corridors, hedgerows, woodland belts, and disused rail embankments. Development must avoid severance of ecological links and should contribute positively to the Living Landscapes network across RCTBC.

Policy AW 9 Supplementary Guidance- Pre-Application Ecological Advice and Green Infrastructure Integration

2.3.4 In line with RCTBC planning guidance, developers are encouraged to integrate biodiversity considerations early. Pre-application discussion is advised to determine ecological constraints, survey needs, and mitigation measures. The Council promotes the incorporation of green infrastructure, SuDS features, habitat enhancement (e.g. bird and bat boxes), and design-led nature recovery as part of sustainable development—even within urban or brownfield sites

2.4 Local SINCs in the Talbot Green Area

2.4.1 The Local Development Plan for Rhondda Cynon Taf County Borough (2006–2021), along with its Local Biodiversity Action Plan, recognises several designated Sites of Importance for Nature Conservation (SINCs) within and around the Talbot Green/Ely Valley corridor. These sites are essential for protecting local biodiversity and ensuring habitat connectivity.

Policy Alignment with RCTCBC Biodiversity Framework

2.4.2 Under Policy AW 8 "Biodiversity and the Natural Environment", the Sites of Importance for Nature Conservation (SINCs) and ecological corridors in Talbot Green must be preserved and improved. Developments that could impact these areas are required to demonstrate how any potential loss of biodiversity will be avoided, mitigated, or offset, ensuring there is no net loss and ideally a net gain in biodiversity.

2.4.3 Policy AW 10 "Ecological Networks" protects the integrity of these corridors by discouraging the fragmentation of linear features, such as hedgerows, railway embankments, and trees along riversides.

2.4.4 Policy AW 9 and its Supplementary Guidance encourage early engagement with developers, recommend conducting ecological surveys, and promote the safeguarding of biodiversity features, such as bat and dormouse boxes and habitat enhancements, particularly in areas where development interfaces with Talbot Green's SINCs.

2.4.5 Table 1 Identifies the relevant policies applicable to the SINCs located in the Schemes' surrounding area.

Table 1 SINC Policy Relevant of RCTCBC Biodiversity Framework

Feature	Importance	Relevant Policy
Afon Clun Corridor & Wetlands	Supports protected & priority species, habitat connectivity	AW 8 & AW 10
Linear Habitats (hedgerows, embankments)	Maintain ecological networks across urban edges	AW 10
Adjacent Wetland Floodplain	Wetland biodiversity and ecosystem services	AW 8 & AW 9

3 METHOD

3.1 Desk Study

- 3.1.1 The objectives of the desk study were to review the existing information available in the public domain concerning species and habitats to identify the following:
- 3.1.2 Internationally, nationally and locally designated sites, up to 2km from the Site using the Multi Agency Geographic Information for the Countryside (MAGIC) website (www.magic.gov.uk).
- 3.1.3 Protected and Priority species records and records of locally designated sites up to 2km from the Site, using the South East Wales Biodiversity Records Centre (SEWBReC) database.
- 3.1.4 Special Areas of Conservation (SACs) and Sites of Special Scientific Interest (SSSIs) designated for bats within a 10km radius of the Site, in accordance with Bat Conservation Trust (BCT) guidelines (Collins, 2023).
- 3.1.5 Section 7 list of Species and Habitats of Principal Importance for Conservation of Biological Diversity in Wales.
- 3.1.6 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 survey boundary using LLE dataset (<http://lle.gov.wales/home>);
- 3.1.7 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).
- 3.1.8 The Local Environmental Records Centres (LERC) Wales' Biodiversity Information & Reporting Database was used to obtain information 10km surrounding the site to indicate the protected species in the wider area.
- 3.1.9 A review of available designated sites information was also undertaken within 10km of the Site for internationally and nationally designated sites.

3.2 Field Surveys

- 3.2.1 On 24/07/2025 and 19/08/2025, Joseph Coyle (BSc (Hons), MSc, ACIEEM) carried out an ecological walkover survey on behalf of TACP (UK) Ltd. to assess the habitats' value and potential to support protected and priority species. The survey was carried out following appropriate Chartered Institute of Ecology and Environmental Management (CIEEM) guidelines (*Guidelines for Preliminary Ecological Appraisal* 2nd edition. CIEEM (2017)).
- 3.2.2 Habitats within and around the Scheme were classified and mapped with detailed target notes (refer to Appendix C) using the methods outlined in the Joint Nature Conservation Committee (JNCC)'s *Handbook for Phase 1 Habitat Survey – a Technique for Environmental Audit* (JNCC, 1990).

3.2.3 Plant species listed in Schedule 9 of the Wildlife and Countryside Act (WCA) (1981), as amended, were identified and recorded during the survey.

3.3 Limitations

- 3.3.1 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.
- 3.3.2 Areas of grassland and some dense scrub were cut prior to the survey taking place. This may have limited the number of species identified in certain areas.
- 3.3.3 Despite the limitations described, there are deemed to be no significant limitations to this PEA.

4 BASELINE ECOLOGICAL CONDITIONS

4.1 Desk Study Results

4.1.1 A desk study was conducted of all designated sites and protected species, using records obtained from LERC within a 2 km area of the site.

Designated Sites

4.1.2 The results of the desk study of designated habitats, sites and features within proximity to the Scheme are listed in Table 2 below.

Table 2 Desk Study Results- Designated Sites

Designation (SINC/Other)	Distance from ST0388182305	Description
Llantrisant Common & Pastures SINC	~ 1.3 km	The area north-east of Talbot Green features a diverse mosaic of habitats, including marshy grassland, neutral grassland, hedgerows, and wet woodland. This diversity supports various flowering plants such as marsh bedstraw (<i>Galium palustre</i>), devil's-bit scabious (<i>Succisa pratensis</i>), and bird's-foot trefoil (<i>Lotus corniculatus</i>), as well as grassland invertebrates like fritillaries (<i>Boloria</i> spp.). The region serves as a vital breeding ground for birds and maintains a connection to the broader Ely Valley landscape. It is recognised for its significant features in EB44.
Y Graig SINC	~ 1.2 km	South-east of Talbot Green, there is a supporting acid grassland that is rich in species such as saw-wort (<i>Serratula tinctoria</i>), dog violet (<i>Viola riviniana</i>), betony (<i>Stachys officinalis</i>), heather (<i>Calluna vulgaris</i>), and bilberry (<i>Vaccinium myrtillus</i>). This area is also notable for its invertebrate population, including butterflies like the small pearl-bordered fritillary (<i>Boloria selene</i>), grayling (<i>Hipparchia semele</i>),

		purple hairstreak (<i>Favonius quercus</i>), and dingy skipper (<i>Erynnis tages</i>). Additionally, it provides habitat for lizards (<i>Zootoca vivipara</i>) and slowworms (<i>Anguis fragilis</i>).
Afon Clun SINC (Section adjacent to Pontyclun)	~ 0.7 km	The riparian corridor supports otters (<i>Lutra lutra</i>), dippers (<i>Cinclus cinclus</i>), kingfishers (<i>Alcedo atthis</i>), grey wagtails (<i>Motacilla cinerea</i>), and feeding bats (<i>Pipistrellus spp.</i>). Although it is slightly beyond Talbot Green itself, the section within Pontyclun SINC borders the corridor through the target area.
Pant Marsh	~ 0.6 km	Wet grassland and valley mire are located southeast of the grid point. This area contains peatland and both acid and neutral grassland, which are important habitats for dragonflies (such as the keeled skimmer (<i>Orthetrum coerulescens</i>)), sedges (<i>Carex spp.</i>), and various marsh flora. Grazing has been reintroduced here by the Freemen of Llantrisant.
Llantrisant Common	~ 1.4 km	Extends from Llantrisant Common and Pastures into the Talbot Green ward. The area features wet, marshy grasslands, hedgerows, and pastures typical of SINC qualifiers. It supports a diverse array of flowering plants, grassland fauna, and wet woodland habitats that connect to the Ely Valley SSSI areas.
Ely Valley, Llantrisant Common & Pastures SSSI / SAC	~ 1.5–2.0 km	Designated for its semi-natural grassland and wetland habitats, which form part of the larger Ely Valley SSSI/SAC. These areas lie adjacent to, but slightly beyond, the 2 km buffer, yet they have connectivity influences on local SINCs.

Habitats

4.1.3 The desk study also revealed that several habitats, including Priority Habitats, are located within the 2 km study area. These are listed in Table 3.

Table 3 Priority and other habitats within 2 km of the site

Habitat Type	Code	Location	Relevant Legislation
Planted Coniferous Woodland	A1.2.2	Widespread, dominant habitat 3,235,461 m ²	Not listed as a Priority Habitat under the Environment (Wales) Act 2016
Marshy Grassland	B5	Found throughout low-lying areas, notably Pant Marsh, approximately 1,035,230 m ²	Environment (Wales) Act 2016 (Section 7) – Priority Habitat
Semi-Natural Broadleaved Woodland	A1.1.1	Scattered throughout the area, with notable stands near Y Graig and Llantrisant Common; approx. 782,377 m ²	Environment (Wales) Act 2016 (Section 7) – Priority Habitat

Semi-Improved Neutral Grassland	B2.2	Interspersed across central and eastern areas, approximately. 447,412 m ²	Environment (Wales) Act 2016 (Section 7) – Priority Habitat
Amenity Grassland	J1.2	Common within urban and residential zones, including Talbot Green, approximately. 388,446 m ²	Not listed as a Priority Habitat under the Environment (Wales) Act 2016
Planted Broadleaved Woodland	A1.1.2	Occurs in discrete compartments; approximately. 355,740 m ²	Not listed as a Priority Habitat under the Environment (Wales) Act 2016
Bracken	C1.1	Predominantly found on slopes such as Y Graig, approximately. 226,521 m ²	Not listed as a Priority Habitat under the Environment (Wales) Act 2016
Dense Scrub	A2.1	Frequently associated with woodland edges and transitional zones; approximately. 213,662 m ²	Not listed as a Priority Habitat under the Environment (Wales) Act 2016
Quarry	I2.1	A large quarry site is located southwest of the study area, approximately. 211,799 m ²	Not listed as a Priority Habitat under the Environment (Wales) Act 2016
Semi-Improved Acid Grassland	B1.2	Found in more upland and acidic soils, including Y Graig and Common areas; approximately. 156,564 m ²	Environment (Wales) Act 2016 (Section 7) – Priority Habitat
Running Water (Rivers and Streams)	G2	Includes Afon Clun and smaller tributaries in the area, approximately 102,370 m ²	Environment (Wales) Act 2016 (Section 7) – Priority Habitat
Felled Coniferous Woodland	A4.2	managed forestry; approximately 101,945 m ²	Not listed as a Priority Habitat under the Environment (Wales) Act 2016
Standing Water	G1	Scattered ponds and waterbodies are across the area, approximately 28,634 m ²	Environment (Wales) Act 2016 (Section 7) – Priority Habitat
Swamp	F1	Located in wetter hollows and Pant Marsh, approximately. 20,986 m ²	Environment (Wales) Act 2016 (Section 7) – Priority Habitat
Tall Ruderal Herb	C3.1	Disturbed areas throughout the boundary; approximately 17,787 m ²	Not listed as a Priority Habitat under the Environment (Wales) Act 2016
Wet Heath/Acid Grassland Mosaic	D5	Limited area; approximately 2,885 m ²	Environment (Wales) Act 2016 (Section 7) – Priority Habitat

Felled Broadleaved Woodland	A4.1	Small areas in managed woodland, approximately 543 m ²	Not listed as a Priority Habitat under the Environment (Wales) Act 2016
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Protected and Priority Species

4.1.4 These are summarised below. It is noted that the absence of records of other flora and fauna does not necessarily discount the possibility of protected species being on the site or in the vicinity. A full list of the legislation abbreviations can be found in Appendix A.

4.1.5 Bird species data can be found in Appendix C.

4.1.6 Records of mammal species within 2km of the Site are listed in Table 4.

Table 4 Mammals data

Species	Results	Legislation
Hare (<i>Lepus europaeus</i>)	Record from 2025	S7, LBAP(ANG, BBNP, CER, CLY, CON, CRM, DEN, GWY, PEM, POW, SNP, TRF, VOG), LI(BIS), WS_P
Otter (<i>Lutra lutra</i>)	Record from 2024	EPS, HDir, WCA5, S7, Bern, CITES, RDB2(UK), LBAP(ANG, BBNP, CER, CLY, CON, CRM, DEN, GWY, PEM, POW, SNP, TRA, TRF, VOG, WRE), LI(BIS), WS_P
Common Pipistrelle (<i>Pipistrellus pipistrellus</i>)	Record from 2024	EPS, HDir, WCA5, S7, Bern, RDB2(UK), LBAP(ANG, BBNP, CER, CLY, CON, CRM, DEN, GWY, PEM, POW, SNP, TRA, TRF, VOG), LI(BIS), WS_P
Pipistrelle Bat species (<i>Pipistrellus spp.</i>)	Record from 2024	EPS, WCA5, LBAP(ANG, DEN, SNP, TRA, TRF), LI(BIS)
Hedgehog (<i>Erinaceus europaeus</i>)	Record from 2024	S7, Bern, LBAP(ANG, BGW, BRG, CON, GWY, NEW, POW, RCT, VOG), LI(BIS)
Polecat (<i>Mustela putorius</i>)	Record from 2024	HDir, S7, Bern, RDB2(UK), LBAP(BGW, BRG, CON, GWY, NEW, POW, SNP, VOG), LI(BIS)
Bat (<i>Chiroptera spp.</i>)	2 records between 2018 and 2021	EPS, WCA5, LBAP(ANG, DEN, RCT, SNP, TRA, TRF), LI(BIS)
Soprano Pipistrelle (<i>Pipistrellus pygmaeus</i>)	Record from 2021	EPS, HDir, WCA5, S7, Bern, RDB2(UK), LBAP(ANG, BBNP, CLY, DEN, GWY, PEM, POW, SNP, TRA, TRF, VOG), LI(BIS), WS_P
Hazel Dormouse (<i>Muscardinus avellanarius</i>)	Record from 2021	EPS, HDir, WCA5, S7, Bern, RDB2(UK), LBAP(BBNP, CER, CLY, CON, CRM, DEN, GWY, MON, PEM, POW, SNP, TRA, TRF, VOG), LI(BIS), WS_P
Harvest Mouse (<i>Micromys minutus</i>)	Record from 2020	S7, LBAP(BRG, CON, GWY, VOG), LI(BIS), WS_P
Badger (<i>Meles meles</i>)	Record from 2020	BA, Bern, LBAP(CLY, CON, DEN, PEM, POW, TRF, WRE), LI(BIS), WS_P
Myotis Bat species (<i>Myotis spp.</i>)	Record from 2019	EPS, HDir, WCA5, Bern, LBAP(ANG, DEN, SNP, TRA, TRF), LI(BIS)

Noctule (<i>Nyctalus noctula</i>)	Record from 2018	EPS, HDir, WCA5, S7, Bern, RDB2(UK), LBAP(ANG, CLY, CON, DEN, GWY, POW, SNP, TRA, TRF, VOG), LI(BIS), WS_P
Serotine (<i>Eptesicus serotinus</i>)	Record from 2017	EPS, HDir, WCA5, Bern, RDB2(UK), LBAP(GWY, POW, TRA, TRF), LI(BIS), WS_P
Brown Long-eared Bat (<i>Plecotus auritus</i>)	Record from 2016	EPS, HDir, WCA5, S7, Bern, RDB2(UK), LBAP(ANG, CLY, CON, DEN, GWY, POW, SNP, TRA, TRF, VOG), LI(BIS), WS_P

4.1.7 Reptiles and amphibians can be found in Table 5.

Table 5 Reptile and Amphibians Data

Species	Results	Priority Status
Common lizard (<i>Zootoca vivipara</i>)	Recorded in 2024	WCA5, S7, Bern, LBAP(ANG, CLY, CON, DEN, GWY, POW, SNP, TRA, TRF, VOG), LI(BIS), WS_C
Grass snake (<i>Natrix helvetica</i>)	Recorded in 2023	WCA5, S7, Bern, LBAP(ANG, CLY, CON, DEN, GWY, POW, SNP, TRA, VOG), LI(BIS), WS_P
Common frog (<i>Rana temporaria</i>)	Recorded in 2022	HDir, WCA5, Bern, LBAP(ANG, CLY, CON, POW, TRA), LI(BIS), WS_C
Slow-worm (<i>Anguis fragilis</i>)	Recorded in 2021	WCA5, S7, Bern, LBAP(ANG, CLY, CON, DEN, GWY, POW, SNP, TRA, VOG), LI(BIS), WS_C
Common toad (<i>Bufo bufo</i>)	Recorded in 2016	WCA5, S7, Bern, LBAP(ANG, CLY, CON, DEN, GWY, POW, TRA, VOG), LI(BIS), WS_C

4.1.8 Bryophytes data can be found in Table 6 below

Table 6 Bryophytes Data

Species	Results	Legislation
Chalk Comb-moss (<i>Ctenidium molluscum</i>)	Record from 2023	RDB1(Wales) - DD, LBAP(CON), LI(BIS), LI(WWBIC), LI(VC41, LR), LI(VC44, LR), LI(VC46, LR), LI(VC47, LR), LI(VC48, LR)
Ciliated Fringewort (<i>Ptilidium ciliare</i>)	2 records, between 1994 and 2017	RDB1(Wales) - LC, LI(VC41, LR)
Fountain Smoothcap (<i>Atrichum crispum</i>)	Record from 2017	RDB1(Wales) - NA, LI(WWBIC), LI(VC45, LR)

4.1.9 Fish records are found in below.

Table 7 Fish Data

Species	Results	Legislation
Atlantic salmon (<i>salmo salar</i>)	4 records, between 1991 and 2023	HDir, S7, Bern, RDB2(UK), LBAP(CLY, CON, DEN, GWY, POW, TRA, VOG), LI(BIS), WS_P
Brown/sea trout (<i>salmo trutta</i>)	4 records, between 1991 and 2023	S7, LBAP(BGW, CLY, CON, GWY, MTR, RCT, TRA, TRF, VOG), LI(BIS), WS_P

Eel (anguilla anguilla)	4 records, between 1991 and 2023	S7, RDB1(UK) - CR, LBAP(CLY, CON, GWY, VOG), LI(BIS), WS_P
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4.1.10 Priority floral species recorded within 2km of the Site are listed in Table 8

Table 8 Vascular Plant Data

Species	Results	Priority Status
Monk's-hood (Aconitum napellus)	4 records, all from 2025	LBAP(CDF, RCT, VOG), LI(BIS), LI(SEWBReC), WS_P
Toothwort (Lathraea squamaria)	2 records, both from 2025	LI(SEWBReC), LI(VC47), LI(VC48, LR), LI(VC49, LR), LI(VC50, LS), LI(VC51, LS), WS_C
Green-winged orchid (Anacamptis morio)	Recorded in 2025	CITES, RDB1(UK) - NT, LBAP(ANG, BGW, CLY, CON, GWY, RCT, TRA, VOG), LI(BIS), LI(SEWBReC), LI(VC43), LI(VC47), LI(VC48, LR), LI(VC49, LS), LI(VC50, LR), LI(VC51, LS), LI(VC52, LS), WS_C

4.1.11 Priority invertebrate species are listed in Appendix C.

4.1.12 Fungi species are found in Table 9.

Table 9 Fungi and Slime Mould Data

Species	Results	Priority Status
Hazel gloves (Hypocreopsis rhododendri)	2 records, both from 2024	S7, WS_P
Wood pinkgill (Entoloma rhodopolium)	Recorded in 2024	CHEGD
Parrot waxcap (Gliophorus psittacinus)	Recorded in 2023	LBAP(CDF, DEN, GWY), LI(BIS), CHEGD
Blackening waxcap (Hygrocybe conica)	2 records, both from 2022	LBAP(CDF, DEN, GWY), LI(BIS), CHEGD, WS_C
Bitter waxcap (Hygrocybe mucronella)	Recorded in 2022	LBAP(CDF, DEN, GWY), LI(BIS), CHEGD, WS_C
Spangle waxcap (Hygrocybe insipida)	Recorded in 2022	LBAP(CDF, DEN, GWY), LI(BIS), CHEGD, WS_C
Pink waxcap (Porpolomopsis calyptiformis)	14 records, all from 2019	LBAP(BBNP, CDF, CER, CON, CRM, DEN, GWY, MON, PEM, POW, TRF), LI(BIS), CHEGD, WS_C
Hygrocybe glutinipes (Hygrocybe glutinipes)	Recorded in 2019	CHEGD
Meadow waxcap (Cuphophyllum pratensis var. pratensis)	3 records, all from 2016	LBAP(CDF, DEN, GWY), LI(BIS), CHEGD, WS_C

Yellow foot waxcap (Cuphophyllyus flavipes)	3 records, all from 2016	LBAP(CDF, DEN, GWY), LI(BIS), CHEGD, WS_C
Honey waxcap (Hygrocybe reidii)	Recorded in 2016	LBAP(CDF, DEN, GWY), LI(BIS), CHEGD, WS_C
Glutinous waxcap (Hygrocybe glutinipes var. glutinipes)	Recorded in 2016	LBAP(CDF, DEN, GWY), LI(BIS), CHEGD, WS_C
Hygrocybe glutinipes var. rubra	Recorded in 2016	LBAP(DEN), LI(BIS), CHEGD, WS_C

4.1.13 Invasive Non-Native Species (INNS) are found in Table 10clear.

Table 10 Invasive Non-Native Species Data

Species	Results	Legislation
Grey Squirrel (Sciurus carolinensis)	Record from 2025	WCA9, INNS
American Mink (Neovison vison)	2 records between 2007 and 2018	WCA9, INNS
Three-cornered garlic (Allium triquetrum)	2 records, between 2024 and 2025	WCA9, INNS
Japanese knotweed (Fallopia japonica)	Recorded in 2025	WCA9, INNS
Harlequin ladybird (Harmonia axyridis)	Recorded in 2025	INNS

4.2 Field Survey Results

4.2.1 The site supports a mosaic of semi-natural habitats, including broadleaved woodland, scrub, grassland, and open mosaic areas. These habitats display a mixture of native and non-native species, with structural diversity ranging from tree canopies and understorey shrubs to herbaceous field layers and disturbed ground. This diversity provides a variety of ecological niches, supporting both common and invasive plant species, and reflects the dynamic nature of the landscape shaped by natural processes and human influence.

Broadleaved Woodland

4.2.2 The woodland is semi-natural in character, dominated by sessile oak (*Quercus petraea*), common birch (*Betula pendula*), sycamore (*Acer pseudoplatanus*), ash (*Fraxinus excelsior*), and alder (*Alnus glutinosa*, *A. incana*). Additional trees include balsam poplar (*Populus balsamifera*) and holly (*Ilex aquifolium*), with scattered non-native blue Atlas cedar (*Cedrus atlantica*), deodar (*Cedrus deodara*), and Lawson cypress (*Chamaecyparis lawsoniana*).

4.2.3 The understorey is varied, supporting common hazel (*Corylus avellana*), English hawthorn (*Crataegus laevigata*), grey willow (*Salix atrocinerea*), pussy willow (*Salix caprea*), and common dogwood (*Cornus sanguinea*). Bramble (*Rubus fruticosus*, *R. fruticosa*) forms dense thickets in places, while ground ivy (*Glechoma hederacea*) provides local ground cover.

4.2.4 The ground layer is moderately diverse, with bracken (*Pteridium aquilinum*), stinging nettle (*Urtica dioica*), hogweed (*Heracleum sphondylium*; *H. sibiricum*), hedge parsley (*Torilis japonica*), tutsan (*Hypericum androsaemum*), horsetail (*Equisetum arvense*), and coltsfoot (*Tussilago farfara*). Disturbance is indicated by the presence of cleavers (*Galium aparine*) and other ruderal herbs.

Scrub and Edge Habitats

4.2.5 Scrub is widespread along woodland margins and disturbed areas. It is dominated by bramble (*Rubus fruticosus*) and grey willow (*Salix atrocinerea*), with additional species including gorse (*Ulex europaeus*), creeping willow (*Salix repens*), common dogwood (*Cornus sanguinea*), and the invasive butterfly bush (*Buddleja davidii*). Other climbers and colonisers include great bindweed (*Calystegia silvatica*) and wild morning-glory (*Calystegia sepium*).

4.2.6 Tall ruderal and wetland-edge scrub is common and characterised by great hairy willowherb (*Epilobium hirsutum*), smallflower hairy willowherb (*E. parviflorum*), marsh woundwort (*Stachys palustris*), redshank (*Persicaria maculosa*), and invasive Himalayan balsam (*Impatiens glandulifera*). Himalayan balsam is locally abundant and represents a significant invasive threat.

Grassland and Open Mosaic Habitats

4.2.7 Open grassland and bare ground occur across the site, forming a mosaic of neutral, damp, and disturbed grassland.

4.2.8 Grasses are dominated by cock's-foot (*Dactylis glomerata*), common bent (*Agrostis capillaris*), Yorkshire-fog (*Holcus lanatus*), sweet vernal grass (*Anthoxanthum odoratum*), common couch (*Elymus repens*), and creeping bent (*Agrostis stolonifera*).

- 4.2.9 Legumes and forbs include bird's-foot-trefoil (*Lotus corniculatus*), red clover (*Trifolium pratense*), white clover (*T. repens*), strawberry clover (*T. fragiferum*), zig-zag clover (*T. medium*), meadow vetchling (*Lathyrus pratensis*), tufted vetch (*Vicia cracca*), and devil's-bit scabious (*Succisa pratensis*).
- 4.2.10 Herbs and composites include ox-eye daisy (*Leucanthemum ircutianum*), common knapweed (*Centaurea nigra*), red bartsia (*Odontites vernus*), burnet saxifrage (*Pimpinella saxifraga*), smooth cat's ear (*Hypochaeris glabra*), and St John's wort (*Hypericum perforatum*).
- 4.2.11 Areas of disturbed or enriched soil are characterised by dandelion (*Taraxacum campylodes*), black medick (*Medicago lupulina*), field thistle (*Cirsium arvense*), curly dock (*Rumex crispus*), common ragwort (*Jacobaea vulgaris*), bristly oxtongue (*Helminthotheca echioides*), small hemp-nettle (*Galeopsis bifida*), horseweed (*Erigeron canadensis*), and small fleabane (*Pulicaria vulgaris*).
- 4.2.12 Wet hollows and compacted ground support creeping buttercup (*Ranunculus repens*), rushes (*Juncus conglomeratus*, *J. inflexus*), and common fleabane (*Pulicaria dysenterica*).

4.3 Protected and Priority Species

- 4.3.1 The site includes several features that may have ecological value beyond the previously described habitats. Rubble piles within the area provide suitable refuges for reptiles (see target notes 10, 11, 12 and 13), offering them shelter and basking opportunities.
- 4.3.2 In the wetter areas to the south, there is potential for amphibian support, particularly during periods of seasonal flooding. A bat box is located on the site (See target note 4), and the woodland to the south, along with the trees along the southern boundary, may offer potential roosting sites for bats.
- 4.3.3 Furthermore, the woodland, scrub, and boundary trees create potential nesting habitats for breeding birds, especially in spring and early summer. Features such as dense shrubs, tree branches, and bramble thickets are conducive to supporting various breeding bird species.

Invasive Species

- 4.3.4 Several invasive non-native species were recorded within the survey area. These species pose ecological risks through competition with native flora, alteration of habitats, or suppression of natural regeneration. Their presence is also subject to legal control in the UK.

Himalayan Balsam (Impatiens glandulifera)

- 4.3.5 This species is locally abundant in edge habitats, particularly within scrub. Himalayan balsam is listed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended). It is illegal to plant or allow this species to grow in the wild.

Butterfly Bush (Buddleja davidii)

- 4.3.6 This plant is found along disturbed ground and woodland edges within the scheme. Butterfly bush is non-native species that can damage structures

Cotoneaster (*Cotoneaster horizontalis*)

4.3.7 This species was recorded sporadically at woodland edges. Several Cotoneaster species, including *C. horizontalis*, are listed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended).

Persian Ivy (*Hedera colchica*)

4.3.8 This non-native ivy was identified in the woodland understorey on the southern extent of the scheme. Persian ivy is not currently listed on Schedule 9, but local authorities and conservation organisations recognise it as a problematic invasive species.

Other Non-native Ornamental Species

4.3.9 Several non-native trees were observed in scattered plantings, including Lawson cypress (*Chamaecyparis lawsoniana*), deodar (*Cedrus deodara*), and blue Atlas cedar (*Cedrus atlantica*). A small but dense patch of bamboo (*Poaceae sp.*) was identified in the north-eastern corner of the scheme. Although these species are not listed under invasive species legislation, they represent alien plantings that do not contribute positively to native biodiversity.

5 ECOLOGICAL CONSTRAINTS

5.1 Designated Sites

- 5.1.1 Several designated ecological sites are located within 2 kilometres of the project area, including SINCs, Pant Marsh, Llantrisant Common, and the Ely Valley Site of Special Scientific Interest/Special Area of Conservation (SSSI/SAC). Although the site itself is not within a designated boundary, it is ecologically connected to nearby grasslands, woodlands, and riparian corridors. Therefore, indirect effects, such as hydrological changes, disturbances, and pollution, must be considered.
- 5.1.2 Pant Marsh, located approximately 0.6 kilometres away, and the Afon Clun SINC, about 0.7 kilometres from the site, are the most sensitive nearby receptors. Activities at the site could potentially impact hydrology and water quality, which may in turn affect wetland species, otters, fish, and aquatic invertebrates.

5.2 Habitats

- 5.2.1 The site features a variety of semi-natural habitats, including broadleaved woodlands, scrub, neutral and damp grasslands, and wet hollows. Many of these habitats are considered Priority Habitats under the Environment (Wales) Act 2016.
- 5.2.2 The woodlands are semi-natural and include veteran trees as well as potential roosting sites for bats. Any removal or disturbance of these areas may trigger legislative protections.
- 5.2.3 The scrub, tall ruderal vegetation, and edge habitats offer valuable transitional and structural diversity, potentially supporting a range of species, including reptiles, amphibians, and nesting birds.
- 5.2.4 The grassland areas are botanically diverse and feature species like devil's-bit scabious and bird's-foot trefoil, both of which indicate high ecological value.
- 5.2.5 Devil's-bit scabious is a key indicator of species-rich, damp, and neutral grassland. It can be found both within the site and in the surrounding (SINCs), such as Llantrisant Common and Pant Marsh. This perennial herb holds conservation significance as it serves as the primary larval food source for the marsh fritillary butterfly (*Euphydryas aurinia*). The marsh fritillary is a European Protected Species listed under the Habitats Directive and is recognised as a UK Priority Species. This butterfly requires a varied sward structure, typically found in lightly grazed or damp grasslands, where abundant devil's-bit scabious is available for egg-laying and larval development. The presence within the site and in the locally designated habitats indicates the area's potential suitability for the marsh fritillary. Any loss, fragmentation, or alteration of grassland habitats could negatively impact the species. Consequently, management practices that affect grazing, sward height, and hydrology are critical for maintaining ecological connectivity and minimising adverse effects on this sensitive butterfly.
- 5.2.6 Wet hollows may serve as temporary habitats for amphibians and invertebrates.
- 5.2.7 Open mosaic and disturbed ground areas also provide a variety of forbs and grasses that are of ecological interest.

6 RECOMMENDATIONS

Bats

6.1.1 A ground-level tree assessment should be conducted on all mature trees within the southern woodland and along the southern boundary. Inspections should focus on identifying potential roosting features (PRFs) such as cavities, cracks, or loose bark. Where suitable features are identified, follow-up climbing inspections or the use of endoscopes should be considered in line with best practice guidelines.

Reptiles

6.1.2 Rubble piles and associated habitats should not be disturbed during the reptile inactive season (October to March). Any vegetation clearance or rubble management should be carefully planned to minimise the risk of harm to reptiles.

Amphibians

6.1.3 Surveys of wetland areas to the south should be undertaken during the appropriate seasonal window to assess amphibian presence and potential breeding activity.

Breeding Birds

6.1.4 Vegetation clearance, tree works, and scrub removal should be scheduled outside of the bird breeding season (March–August). If works are unavoidable within this period, a pre-clearance nesting bird check must be undertaken by a suitably qualified ecologist.

Marsh Fritillary

6.1.5 Given the presence of devil's-bit scabious (*Succisa pratensis*) and nearby SINCs, . Re-use of the soil material and targeting areas of high density devil's-bit scabious for translocation should be included in the landscape design and a Landscape and Environmental Management Plan to include maintenance of the high quality habitat.

Invasive Non-native Species

6.1.6 Several INNS were recorded within the survey area, most notably Himalayan balsam (*Impatiens glandulifera*), and cotoneaster (*Cotoneaster horizontalis*). All are listed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended). These species pose a risk to the ecological integrity of the site by displacing native flora, altering habitat structure, and, in the case of Himalayan balsam, contributing to riverbank erosion following winter die-back.

- Targeted INNS Surveys: A dedicated invasive species survey should be undertaken during peak growing season (June–August) to map populations of Himalayan balsam, butterfly bush, and cotoneaster.
- Monitoring: Annual monitoring of recorded INNS should be implemented to track spread and assess management effectiveness.
- Management Strategy: A site-specific INNS management plan should be developed. Recommended measures include hand-pulling or controlled herbicide application for Himalayan balsam, and phased removal or treatment of butterfly bush and cotoneaster.

- Biosecurity Measures: All works in infested areas must follow biosecurity protocols to prevent the spread of invasive plant material, particularly Himalayan balsam seeds.

7 CONCLUSION

- 7.1.1 This Preliminary Ecological Appraisal has identified that the site supports a range of semi-natural habitats, including broadleaved woodland, scrub, grassland and wet hollows, which have the potential to support protected and priority species. The key ecological constraints associated with the site have been identified and are outlined within this report.
- 7.1.2 The proposed development will be considered in accordance with the stepwise approach of mitigation hierarchy, which aims to avoid impacts where possible, mitigate unavoidable impacts, and identify opportunities for compensation and enhancement where appropriate.
- 7.1.3 Opportunities to achieve biodiversity enhancement and net benefit will be considered in the Green Infrastructure Statement, in accordance with Section 6 duty of the Environment (Wales) Act 2016.
- 7.1.4 Subject to the implementation of the recommendations set out in this report, including further surveys where required, appropriate timing of works, invasive non-native species management, and the adoption of best-practice working methods, the proposals are considered capable of complying with relevant ecological legislation and planning policies.

REFERENCES

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The Countryside and Rights of Way (CROW) Act 2000; [Countryside and Rights of Way Act 2000 \(legislation.gov.uk\)](#)

The Conservation of Habitats & Species Regulations 2017; [The Conservation of Habitats and Species Regulations 2017 \(legislation.gov.uk\)](#)

Environment (Wales) Act 2016; [Environment \(Wales\) Act 2016 \(legislation.gov.uk\)](#)

Wild Mammals (Protection) Act 1996; [Wild Mammals \(Protection\) Act 1996 \(legislation.gov.uk\)](#)

Natural Environment and Rural Communities Act 2006; [Natural Environment and Rural Communities Act 2006 \(legislation.gov.uk\)](#)

The Hedgerow Regulations 1997; [The Hedgerows Regulations 1997 \(legislation.gov.uk\)](#)

The Protection of Badgers Act 1992; [Protection of Badgers Act 1992 \(legislation.gov.uk\)](#)

Appendices

Appendix A

LEGISLATION AND PLANNING POLICIES

In addition to habitats, several 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. Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) covers birds, Schedule 5 covers other animals and Schedule 8 covers plants. The table below outlines the key forms of protection afforded to species.

Species including bats, otters and great crested newts are listed under Schedule 2 of the Conservation of Habitats and Species Regulations 2017. Badgers are protected under their Act: The Protection of Badgers Act 1992. Activities affecting protected species must usually be conducted under a 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 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.

Table 1 – Legislation in Detail

Legislation	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 2017) (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, 2017 and the Wildlife & Countryside Act 1981 (as amended).
Wildlife and Countryside Act (1981) (as amended)	<p>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.</p> <p>The Countryside and Rights of Way Act 2000 has strengthened this legal protection (see below).</p> <p>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>Fallopia japonica</i>), Himalayan balsam (<i>Impatiens glandulifera</i>), montbretia (<i>Crocosmia x crocosmiiflora</i>), giant hogweed</p>

Legislation	Brief Description
	<p>(<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.</p>
<p>Convention on Biological Diversity and the Countryside and Rights of Way Act 2000</p>	<p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p>
<p>Environment (Wales) Act 2016</p>	<p>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.</p> <p>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.</p>
<p>The Protection of Badgers Act 1992</p>	<p>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</p>

Legislation	Brief Description
	<p>current use by a badger' and Natural England takes this definition to include seasonally used setts.</p> <p>Work that may disturb badgers or their setts is illegal without a development licence from the relevant statutory body.</p>
The Hedgerow Regulations (1997)	<p>The Hedgerow Regulations (1997) make provision for the protection of important hedgerows in England and Wales. The regulations affect hedgerows which are 20 m or more in length, or connected at both ends to another hedgerow of any length.</p> <p>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.</p>

National Planning Policy

Planning Policy Wales (12th Ed. February 2024) sets out the land use planning policies of Welsh Government. It provides the policy framework for the preparation of Local Development Plans. Chapter 6, Distinctive and Natural Places, outlines Welsh Government's objectives for the conservation and improvement of natural heritage.

The Planning Policy Wales (PPW) is supplemented by a series of Technical Advice Notes (TAN). **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.

Policy 15 is for Conserving and enhancing the natural environment. The following apply:

protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);

recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodlands:

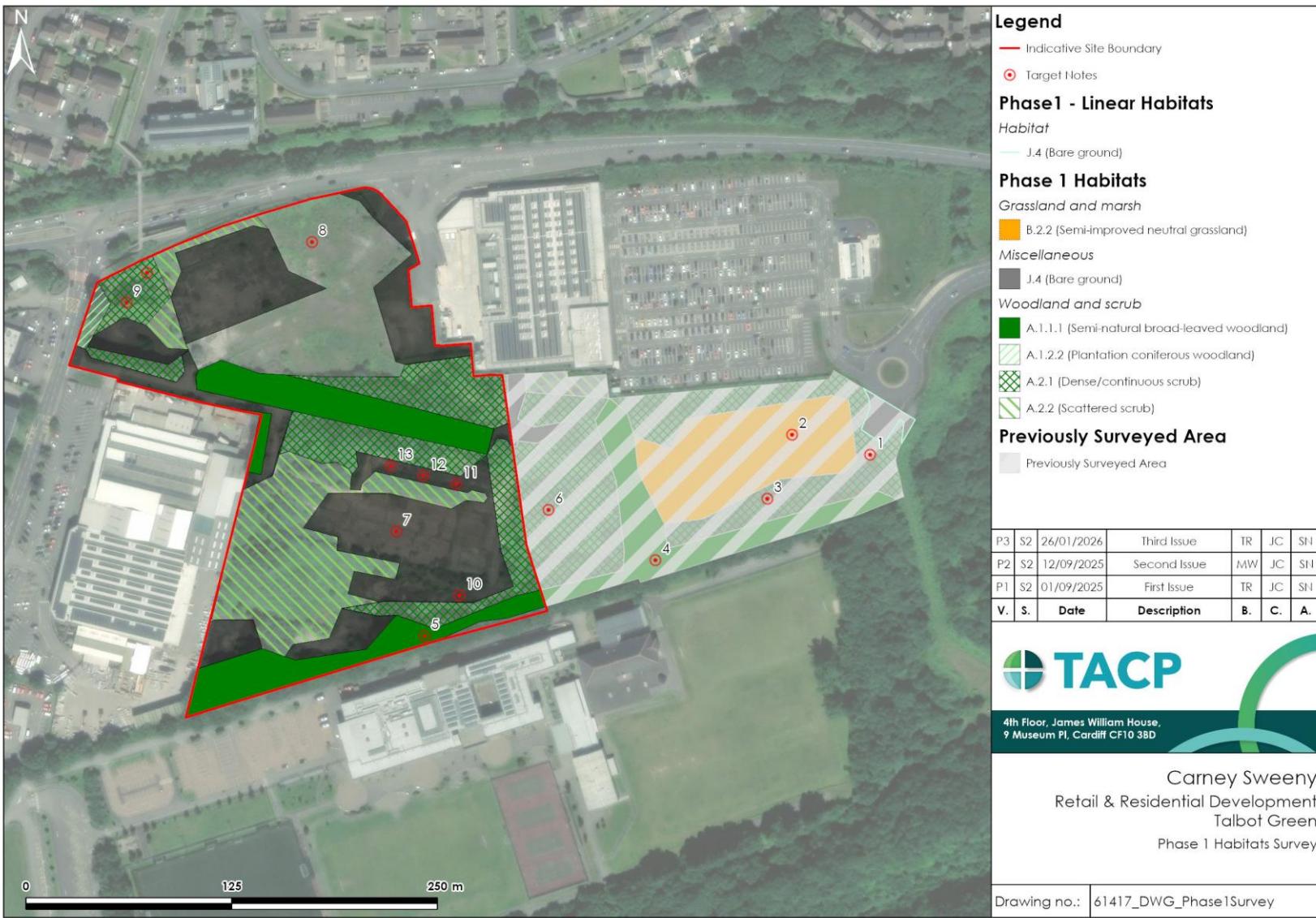
- Minimising impacts on the providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and further pressures.
- To protect and enhance biodiversity and geodiversity.

Abbreviations for legislation used in Section 4 is found below.

Abbreviation	Legislation / Information
BA	Protection of Badgers Act
UKBAP	UK Biodiversity Action Plan Priority Species
UKBAP (R)	UK Biodiversity Action Plan Priority Species (Research only species)
BDir1	EC Birds Directive Annex 1 Species
BDir21	EC Birds Directive Annex 2.1 Species
BDir22	EC Birds Directive Annex 2.2 Species
Bern	The Bern Convention on the Conservation of European Wildlife and Natural Habitats
Bonn	The Bonn Convention on the Conservation of Migratory Species of Wild Animals Species
CITES	Convention on International Trade in Endangered Species
EPS	European Protected Species
HDir	EU Habitats Directive Species
NRW	Natural Resources Wales Priority Species
RD1 (Wales)	Welsh Red Data Book listing based on IUCN guidelines
RD1 (UK)	UK Red Data Book listing based on IUCN guidelines
RD2 (UK)	UK Red Data Book listing not based on IUCN guidelines (Nationally Rare and Scarce)
WBR (RSPB)	RSPB Welsh Red listed birds (not based on IUCN criteria)
WBAm (RSPB)	RSPB Welsh Amber listed birds (not based on IUCN criteria)
UKBR (RSPB)	RSPB UK Red listed birds (not based on IUCN criteria)
UKBAm (RSPB)	RSPB UK Amber listed birds (not based on IUCN criteria)
S7	Environment Act (Wales) Section 7 Species
WCA1.1	Wildlife and Countryside Act Schedule 1 Part 1 Species
WCA5	Wildlife and Countryside Act Schedule 5 Species
WCA8	Wildlife and Countryside Act Schedule 8 Species
WCA9	Wildlife and Countryside Act Schedule 9 Species

Abbreviation	Legislation / Information
INNS	Invasive Non-Native Species
WSG.P	Guidelines for the Selection of Wildlife Sites in South Wales - Primary species
WSG.C	Guidelines for the Selection of Wildlife Sites in South Wales - Contributory species
WVP	IUCN Threat Listing of Welsh Vascular Plants
LBAP (xxx)	Local Biodiversity Action Plan Species (xxx = local area code)
LI (SEWBReC)	Locally Important Species (identified by local specialists) in SEWBReC area
LI (BIS)	Locally Important Species (identified by local specialists) in BIS area
LI (BRYO-MON)	Locally or nationally scarce or rare bryophyte in Monmouthshire
LI (VC##)	Locally Important Species (identified by local specialists) in Vice County ##
LI (VC##, LS)	Locally Scarce in Vice County ##
LI (VC##, LR)	Locally Rare in Vice County ##
LI (VC##, EX)	Extinct in Vice County ##
LI (VC##, UR)	Under Recorded in Vice County ##

Appendix B
Phase 1 Habitat Map



Appendix C

Species List

Botanical species encountered during the phase 1 habitat survey

Species name	current common name
<i>Alnus glutinosa</i>	Alder
<i>Fraxinus excelsior</i>	Ash
<i>Cedrus atlantica</i>	Atlas Cedar
<i>Scorzoneroidea autumnalis</i>	Autumn Hawkbit
<i>Populus balsamifera</i>	Balsam Poplar
<i>Poaceae sp.</i>	Bamboo sp.
<i>Elymus caninus</i>	Bearded Couch
<i>Galeopsis bifida</i>	Bifid Hemp-nettle
<i>Lotus corniculatus</i>	Bird's-foot-trefoil
<i>Medicago lupulina</i>	Black Medick
<i>Rubus fruticosus</i>	Blackberry
<i>Pteridium aquilinum</i>	Bracken
<i>Rubus gratus</i>	Bramble
<i>Helminthotheca echioides</i>	Bristly Oxtongue
<i>Rumex obtusifolius</i>	Broad-leaved Dock
<i>Ranunculus tuberosus</i>	Bulbous Buttercup
<i>Pimpinella saxifraga</i>	Burnet-saxifrage
<i>Buddleja davidii</i>	Butterfly Bush
<i>Erigeron canadensis</i>	Canadian Fleabane
<i>Galium aparine</i>	Cleavers
<i>Dactylis glomerata</i>	Cock's-foot
<i>Tussilago farfara</i>	Coltsfoot
<i>Agrostis capillaris</i>	Common Bent
<i>Euphrasia nemorosa</i>	Common Eyebright
<i>Pulicaria dysenterica</i>	Common Fleabane
<i>Centaurea nigra</i>	Common Knapweed
<i>Urtica dioica</i>	Common Nettle
<i>Jacobaea vulgaris</i>	Common Ragwort
<i>Juncus conglomeratus</i>	Compact Rush
<i>Oenanthe pimpinelloides</i>	Corky-fruited Water-dropwort
<i>Agrostis stolonifera</i>	Creeping Bent
<i>Ranunculus repens</i>	Creeping Buttercup
<i>Cirsium arvense</i>	Creeping Thistle
<i>Salix repens</i>	Creeping Willow
<i>Rumex crispus</i>	Curled Dock

<i>Taraxacum campylodes</i>	Dandelion
<i>Cedrus deodara</i>	Deodar Cedar
<i>Succisa pratensis</i>	Devil's-bit Scabious
<i>Cornus sanguinea</i>	Dogwood
<i>Elaeagnus pungens</i>	Evergreen Oleaster
<i>Equisetum arvense</i>	Field Horsetail
<i>Salix caprea</i>	Goat Willow
<i>Ulex europaeus</i>	Gorse
<i>Epilobium hirsutum</i>	Great Willowherb
<i>Salix atrocinerea</i>	Grey Willow
<i>Glechoma hederacea</i>	Ground-ivy
<i>Juncus inflexus</i>	Hard Rush
<i>Corylus avellana</i>	Hazel
<i>Senecio sylvaticus</i>	Heath Groundsel
<i>Calystegia sepium</i>	Hedge Bindweed
<i>Eupatorium cannabinum</i>	Hemp-agrimony
<i>Impatiens glandulifera</i>	Himalayan Balsam
<i>Epilobium parviflorum</i>	Hoary Willowherb
<i>Heracleum sphondylium</i>	Hogweed
<i>Ilex aquifolium</i>	Holly
<i>Hedera helix</i>	Ivy
<i>Castanea crenata</i>	Japanese Chestnut
<i>Calystegia silvatica</i>	Large Bindweed
<i>Chamaecyparis lawsoniana</i>	Lawson's Cypress
<i>Arctium minus</i>	Lesser Burdock
<i>Leontodon saxatilis</i>	Lesser Hawkbit
<i>Geranium purpureum</i>	Little Robin
<i>Stachys palustris</i>	Marsh Woundwort
<i>Lathyrus pratensis</i>	Meadow Vetchling
<i>Hesperocyparis lusitanica</i>	Mexican Cypress
<i>Crataegus laevigata</i>	Midland Hawthorn
<i>Salix viminalis</i>	Osier
<i>Leucanthemum ircutianum</i>	Oxeye Daisy
<i>Hypericum perforatum</i>	Perfoliate St John's-wort
<i>Hypericum perforatum</i>	Perforate St John's-wort
<i>Odontites vernus</i>	Red Bartsia
<i>Trifolium pratense</i>	Red Clover
<i>Persicaria maculosa</i>	Redshank
<i>Melilotus officinalis</i>	Ribbed Melilot
<i>Melilotus officinalis</i>	Ribbed Melilot
<i>Plantago lanceolata</i>	Ribwort Plantain

<i>Chamaecyparis pisifera</i>	Sawara Cypress
<i>uercus petraea</i>	Sessile Oak
<i>Heracleum sibiricum</i>	Siberian Hogweed
<i>Betula pendula</i>	Silver Birch
<i>Argentina anserina</i>	Silverweed
<i>Pulicaria vulgaris</i>	Small Fleabane
<i>Hypochaeris glabra</i>	Smooth Cat's-ear
<i>Trifolium fragiferum</i>	Strawberry Clover
<i>Anthoxanthum odoratum</i>	Sweet Vernal-grass
<i>Acer pseudoplatanus</i>	Sycamore
<i>Melilotus altissimus</i>	Tall Melilot
<i>Vicia cracca</i>	Tufted Vetch
<i>Hypericum androsaemum</i>	Tutsan
<i>Torilis japonica</i>	Upright Hedge-parsley
<i>Cotoneaster horizontalis</i>	Wall Cotoneaster
<i>Mentha aquatica</i>	Water Mint
<i>Trifolium repens</i>	White Clover
<i>Melilotus albus</i>	White Melilot
<i>Pastinaca sativa</i>	Wild Parsnip
<i>Calamagrostis epigejos</i>	Wood Small-reed
<i>Taxus baccata</i>	Yew
<i>Holcus lanatus</i>	Yorkshire-fog
<i>Trifolium medium</i>	Zigzag Clover

Bird species from the desk study

Species	Results	Priority Status
Starling (<i>Sturnus vulgaris</i>)	5 records, between 2016 and 2025	BDir22, S7, Bern, WBR(RSPB), UKBR(RSPB), LBAP(BBNP, CON, GWY, VOG), LI(BIS), WS_C

Lesser Black-backed Gull (<i>Larus fuscus</i>)	4 records, between 2016 and 2025	BDir22, WBAm(RSPB), LBAP(CON, GWY, PEM, POW, SNP), LI(BIS), WS_C
House Sparrow (<i>Passer domesticus</i>)	4 records, between 2016 and 2025	S7, WBAm(RSPB), UKBR(RSPB), LBAP(CLY, CON, GWY, VOG), LI(BIS), WS_C
Bullfinch (<i>Pyrrhula pyrrhula</i>)	3 records, between 2020 and 2025	S7, WBR(RSPB), LBAP(BBNP, CER, CLY, CON, DEN, GWY, PEM, TRF, VOG), LI(BIS), WS_C
Grey Wagtail (<i>Motacilla cinerea</i>)	2 records, between 2022 and 2025	Bern, WBAm(RSPB), UKBR(RSPB), LBAP(CLY, CON, POW, TRA), LI(BIS)

Dipper (<i>Cinclus cinclus</i>)	2 records, between 2018 and 2025	Bern, WBAm(RSPB), LBAP(BRG, CLY, CON, MTR, POW, RCT, TRA), LI(BIS)
House Martin (<i>Delichon urbicum</i>)	Recorded in 2025	Bern, LBAP(BRG, CON, POW, RCT, VOG), LI(BIS)
Grey Heron (<i>Ardea cinerea</i>)	Recorded in 2025	WBAm(RSPB), LBAP(BRG, RCT), LI(BIS)
Swallow (<i>Hirundo rustica</i>)	Recorded in 2025	Bern, WBAm(RSPB), LBAP(ANG, CON, GWY, POW, VOG), LI(BIS)

Song Thrush (<i>Turdus philomelos</i>)	Recorded in 2025	BDir22, S7, Bern, WBAm(RSPB), UKBR(RSPB), LBAP(ANG, BBNP, CER, CLY, CON, DEN, GWY, PEM, POW, SNP, TRF, VOG, WRE), LI(BIS), WS_C
Kingfisher (<i>Alcedo atthis</i>)	Recorded in 2025	BDir1, WCA1, Bern, WBAm(RSPB), LBAP(CLY, CON, DEN, GWY, POW, TRA), LI(BIS), WS_C
Green Woodpecker (<i>Picus viridis</i>)	Recorded in 2025	Bern, WBAm(RSPB), LBAP(CLY, CON, DEN, GWY, PEM, POW, SNP), LI(BIS), WS_C

Long-tailed Tit (<i>Aegithalos caudatus</i>)	Recorded in 2025	WBAm(RSPB)
Goldcrest (<i>Regulus regulus</i>)	9 records, between 2002 and 2024	Bern, WBAm(RSPB), LBAP(CON, POW), LI(BIS)
Willow Warbler (<i>Phylloscopus trochilus</i>)	8 records, between 2013 and 2024	WBR(RSPB), LBAP(CON), LI(BIS)
Skylark (<i>Alauda arvensis</i>)	7 records, between 1991 and 2024	BDir22, S7, WBAm(RSPB), UKBR(RSPB), LBAP(ANG, BBNP, CER, CLY, CON, CRM, DEN, GWY, PEM, POW, SNP, TRF, VOG), LI(BIS), WS_C
Greenfinch (<i>Chloris chloris</i>)	5 records, between 2020 and 2024	Bern, WBAm(RSPB), LBAP(CON, POW), LI(BIS)

Linnet (<i>Linaria cannabina</i>)	5 records, between 2013 and 2024	S7, Bern, WBR(RSPB), UKBR(RSPB), LBAP(ANG, BBNP, CER, CLY, CON, DEN, GWY, PEM, VOG), LI(BIS), WS_C
Whitethroat (<i>Curruca communis</i>)	5 records, between 2013 and 2024	WBR(RSPB), LBAP(CON, POW), LI(BIS)
Dunnock (<i>Prunella modularis</i>)	4 records, between 2023 and 2024	S7, Bern, LBAP(CON, POW, VOG), LI(BIS)
Herring Gull (<i>Larus argentatus</i>)	4 records, between 2023 and 2024	BDir22, S7, WBR(RSPB), UKBR(RSPB), LBAP(CON, GWY, POW, VOG), LI(BIS), WS_C
Swift (<i>Apus apus</i>)	4 records, between 2013 and 2024	WBAm(RSPB), LBAP(BRG, RCT, VOG), LI(BIS)

Red Kite (<i>Milvus milvus</i>)	3 records, between 2016 and 2024	BDir1, WCA1, WCA9, CITES, WBAm(RSPB), LBAP(CON, CRM, GWY, POW), LI(BIS), WS_P
Kestrel (<i>Falco tinnunculus</i>)	3 records, between 1991 and 2024	S7, Bern, CITES, WBR(RSPB), LBAP(ANG, CLY, CON, DEN, GWY, PEM, POW, VOG), LI(BIS), LI(VC43), WS_C
Canada Goose (<i>Branta canadensis</i>)	2 records, between 2022 and 2024	BDir21, WCA9, INNS
Tree Pipit (<i>Anthus trivialis</i>)	2 records, between 2013 and 2024	S7, Bern, WBAm(RSPB), UKBR(RSPB), LBAP(CON, DEN, GWY, POW, VOG), LI(BIS), WS_C

Reed Bunting (<i>Emberiza schoeniclus</i>)	2 records, between 1988 and 2024	S7, Bern, WBAm(RSPB), LBAP(BBNP, CER, CLY, CON, DEN, GWY, PEM, POW, VOG), LI(BIS), WS_C
Sand Martin (<i>Riparia riparia</i>)	Recorded in 2024	Bern, WBAm(RSPB), LBAP(CON, DEN, GWY, POW, VOG), LI(BIS), WS_C
Firecrest (<i>Regulus ignicapilla</i>)	Recorded in 2024	WCA1, Bern, WBAm(RSPB), LBAP(BRG, CON, GWY, POW), LI(BIS), LI(VC43), WS_C
Redstart (<i>Phoenicurus phoenicurus</i>)	Recorded in 2024	Bern, WBAm(RSPB), LBAP(CON, GWY, POW, SNP), LI(BIS), WS_C

Meadow Pipit (<i>Anthus pratensis</i>)	Recorded in 2024	Bern, WBAm(RSPB), LBAP(CON), LI(BIS)
Mallard (<i>Anas platyrhynchos</i>)	Recorded in 2024	BDir21, WBAm(RSPB), LBAP(CON, GWY), LI(BIS)
Black-headed Gull (<i>Chroicocephalus ridibundus</i>)	Recorded in 2024	BDir22, S7, WBR(RSPB), LBAP(GWY, VOG), LI(BIS)
Coot (<i>Fulica atra</i>)	Recorded in 2024	BDir21, WBAm(RSPB), LBAP(BRG), LI(BIS)
Redwing (<i>Turdus iliacus</i>)	2 records, both from 2023	BDir22, WCA1, WBAm(RSPB), UKBR(RSPB), LBAP(CON, POW), LI(BIS)
Mistle Thrush (<i>Turdus viscivorus</i>)	2 records, both from 2023	BDir22, Bern, WBAm(RSPB), UKBR(RSPB)

Snipe (<i>Gallinago gallinago</i>)	2 records, both from 2023	BDir21, WBAm(RSPB), LBAP(ANG, CON, DEN, GWY, POW), LI(BIS), LI(VC43), WS_C
Willow Tit (<i>Poecile montanus</i>)	Recorded in 2023	S7, Bern, WBR(RSPB), UKBR(RSPB), LBAP(BBNP, CON, DEN, GWY, POW, VOG), LI(BIS), LI(VC43), WS_P, WS_C
Cuckoo (<i>Cuculus canorus</i>)	Recorded in 2023	S7, WBR(RSPB), UKBR(RSPB), LBAP(CON, DEN, GWY, VOG), LI(BIS), WS_C

Barn Owl (<i>Tyto alba</i>)	Recorded in 2023	WCA1, WCA9, Bern, CITES, LBAP(ANG, CLY, CON, CRM, DEN, GWY, PEM, POW, SNP, TRA, VOG, WRE), LI(BIS), LI(VC43), WS_P
Cormorant (<i>Phalacrocorax carbo</i>)	Recorded in 2023	WBAm(RSPB), LBAP(CON, GWY, POW), LI(BIS), WS_C
Goshawk (<i>Accipiter gentilis</i>)	Recorded in 2023	WCA1, WCA9, CITES, LBAP(CLY, CON, POW, VOG), LI(BIS), WS_P
Woodcock (<i>Scolopax rusticola</i>)	Recorded in 2022	BDir21, WBR(RSPB), UKBR(RSPB), LBAP(CON, DEN, GWY, POW), LI(BIS), LI(VC43), WS_C

Black Redstart (<i>Phoenicurus ochruros</i>)	Recorded in 2021	WCA1, Bern, WBAm(RSPB), UKBR(RSPB), LBAP(GWY, VOG), LI(BIS)
Great Northern Diver (<i>Gavia immer</i>)	7 records, all from 2020	BDir1, WCA1, Bern, WBAm(RSPB), LBAP(CON, GWY), LI(BIS)
Lesser Redpoll (<i>Acanthis cabaret</i>)	Recorded in 2020	S7, WBAm(RSPB), UKBR(RSPB), LBAP(CON, DEN, POW, VOG), LI(BIS), WS_C
Cetti's Warbler (<i>Cettia cetti</i>)	Recorded in 2020	WCA1, LBAP(ANG, PEM, VOG), LI(BIS)
Fieldfare (<i>Turdus pilaris</i>)	Recorded in 2018	BDir22, WCA1, WBAm(RSPB), UKBR(RSPB), LBAP(CON, POW), LI(BIS)

British Dipper (<i>Cinclus cinclus gularis</i>)	7 records, between 2009 and 2017	LBAP(BRG, CLY, MTR, POW, RCT, TRA), LI(BIS)
Brambling (<i>Fringilla montifringilla</i>)	4 records, between 2013 and 2017	WCA1, WBAm(RSPB), LBAP(CON), LI(BIS)
Nightjar (<i>Caprimulgus europaeus</i>)	2 records, between 2016 and 2017	BDir1, S7, Bern, WBAm(RSPB), LBAP(BBNP, CER, CLY, CON, CRM, DEN, GWY, MON, PEM, POW, SNP, VOG), LI(BIS), LI(VC43), WS_P
Peregrine (<i>Falco peregrinus</i>)	Recorded in 2016	BDir1, WCA1, Bern, CITES, LBAP(ANG, CLY, CON, GWY, PEM, POW, TRF, VOG), LI(BIS), LI(VC43), WS_P, WS_C

Hobby (<i>Falco subbuteo</i>)	3 records, between 1917 and 2015	WCA1, Bern, CITES, LBAP(CON, GWY, POW, VOG), LI(BIS), LI(VC43), WS_P
Wheatear (<i>Oenanthe oenanthe</i>)	Recorded in 2015	Bern, WBAm(RSPB), LBAP(BRG, CON, POW), LI(BIS)

Invertebrates from the desk study

Species	Results	Priority Status
Cinnabar (<i>Tyria jacobaeae</i>)	8 records, between 2018 and 2025	S7, LBAP(GWY, VOG), LI(BIS)
Brindled beauty (<i>Lycia hirtaria</i>)	6 records, between 2019 and 2025	S7, LBAP(GWY, VOG), LI(BIS)
Long-horned bee (<i>Eucera longicornis</i>)	5 records, between 2023 and 2025	S7, RDB2 (UK) — Nationally scarce, LBAP(VOG), LI(BIS)
Grass rivulet (<i>Perizoma albulata</i>)	3 records, between 2021 and 2025	S7, LBAP(VOG), LI(BIS)

Brown-banded carder bee (<i>Bombus humilis</i>)	3 records, between 2017 and 2025	S7, LBAP(CER, CON, GWY, PEM, POW, VOG), LI(BIS)
Pied grey (<i>Eudonia delunella</i>)	2 records, between 2023 and 2025	RDB2 (UK) — Nationally notable
Knot grass (<i>Acronicta rumicis</i>)	2 records, between 2022 and 2025	S7, LBAP(GWY, VOG), LI(BIS)
White ermine (<i>Spilosoma lubricipeda</i>)	2 records, between 2020 and 2025	S7, LBAP(GWY, VOG), LI(BIS)
<i>Dolichovespula media</i>	Recorded in 2025	RDB2 (UK) — Nationally scarce, LBAP(CON), LI(BIS)
Small phoenix (<i>Ecliptopera silacea</i>)	Recorded in 2025	S7, LBAP(GWY, VOG), LI(BIS)
Buff ermine (<i>Spilosoma lutea</i>)	7 records, between 2019 and 2024	S7, LBAP(GWY, VOG), LI(BIS)
Small square-spot (<i>Diarsia rubi</i>)	5 records, between 2019 and 2024	S7, LBAP(GWY, VOG), LI(BIS)

Rustic (<i>Hoplodrina blanda</i>)	4 records, between 2019 and 2024	S7, LBAP(GWY, VOG), LI(BIS)
Mottled rustic (<i>Caradrina morpheus</i>)	3 records, between 2019 and 2024	S7, LBAP(GWY, VOG), LI(BIS)
Long-winged cone-head (<i>Conocephalus fuscus</i>)	Recorded in 2024	LI(SEWBReC), WS_P
<i>Longitarsus curtus</i>	Recorded in 2024	RDB2 (UK) — Nationally scarce
Slender ground-hopper (<i>Tetrix subulata</i>)	Recorded in 2024	LBAP(BRG), LI(BIS), LI(SEWBReC), WS_C
White-letter hairstreak (<i>Satyrium w-album</i>)	Recorded in 2024	WCA5, S7, RDB1 (UK) — Endangered, LBAP(BRG, NEW, SWN, VOG), LI(BIS), LI(SEWBReC), WS_C
Dot moth (<i>Melanchra persicariae</i>)	Recorded in 2024	S7, LBAP(GWY, VOG), LI(BIS)

Bramble bronze (<i>Argolamprotes micella</i>)	Recorded in 2024	RDB2 (UK) — Nationally notable
Streak (<i>Chesias legatella</i>)	Recorded in 2024	S7
Minor shoulder-knot (<i>Brachylomia viminalis</i>)	Recorded in 2024	S7, LBAP(GWY, VOG), LI(BIS)
Beautiful demoiselle (<i>Calopteryx virgo</i>)	Recorded in 2024	LBAP(CLY, SNP), LI(BIS), LI(SEWBReC), WS_C
Green-brindled crescent (<i>Allophyes oxyacanthae</i>)	7 records, between 2018 and 2023	S7, LBAP(GWY, VOG), LI(BIS)
Adonis' ladybird (<i>Hippodamia variegata</i>)	2 records, both from 2023	RDB2 (UK) — Nationally notable, LBAP(CON), LI(BIS)
Blunthorn nomad bee (<i>Nomada flavopicta</i>)	2 records, between 2016 and 2023	RDB2 (UK) — Nationally notable

Rosy rustic (<i>Hydraecia micacea</i>)	Recorded in 2023	S7, LBAP(GWY, VOG), LI(BIS)
Meligethes fulvipes	Recorded in 2023	RDB2 (UK) — Nationally notable
Lesne's earwig (<i>Forficula lesnei</i>)	Recorded in 2023	RDB2 (UK) — Scarce, LBAP(BRG), LI(BIS), LI(SEWBReC), WS_P
Grey dagger (<i>Acronicta psi</i>)	Recorded in 2023	S7, LBAP(GWY, VOG), LI(BIS)
Speckled bush-cricket (<i>Leptophyes punctatissima</i>)	Recorded in 2023	LI(SEWBReC), WS_C
Ghost moth (<i>Hepialus humuli</i>)	Recorded in 2023	S7, LBAP(GWY, VOG), LI(BIS)
Colobaea bifasciella	Recorded in 2023	RDB2 (UK) — Nationally notable
Western bee-fly (<i>Bombylius canescens</i>)	Recorded in 2023	RDB2 (UK) — Nationally notable, LBAP(POW), LI(BIS)

Black-tailed skimmer <i>(Orthetrum cancellatum)</i>	Recorded in 2023	LBAP(CLY, SNP), LI(BIS), LI(SEWBReC), WS_C
Marsh fritillary <i>(Euphydryas aurinia)</i>	Recorded in 2023	HDir, WCA5, S7, Bern, RDB1 (UK) — Vulnerable, LBAP(ANG, BBNP, CER, CON, CRM, GWY, PEM, POW, SNP, TRA, VOG), LI(BIS), LI(SEWBReC), WS_P

Small pearl-bordered fritillary (<i>Boloria selene</i>)	Recorded in 2023	S7, RDB1 (UK) — Near threatened, LBAP(BGW, BRG, CON, DEN, GWY, MTR, NEW, POW, RCT, SNP, SWN, TRF, VOG), LI(BIS), LI(SEWBReC), LI(VC43), WS_C
Shoulder-striped wainscot (Leucania comma)	Recorded in 2023	S7, LBAP(GWY, VOG), LI(BIS)
Golden-ringed dragonfly (Cordulegaster boltonii)	Recorded in 2023	LBAP(CLY, SNP), LI(BIS), LI(SEWBReC), WS_C
Painted nomad bee (Nomada fucata)	Recorded in 2023	RDB2 (UK) — Nationally notable

Large sallow mining bee <i>(Andrena apicata)</i>	Recorded in 2023	RDB2 (UK) — Nationally notable
Dark-barred twin-spot carpet <i>(Xanthorhoe ferrugata)</i>	8 records, between 2018 and 2022	S7, LBAP(GWY, VOG), LI(BIS)
White-spotted sable <i>(Anania funebris)</i>	6 records, between 1914 and 2022	S7, RDB2 (UK) — Nationally notable, WS_P
Dusky brocade <i>(Apamea remissa)</i>	4 records, between 2018 and 2022	S7, LBAP(GWY, VOG), LI(BIS)
Dusky thorn <i>(Ennomos fuscantaria)</i>	4 records, all from 2022	S7, LBAP(GWY, VOG), LI(BIS)
Rosy minor <i>(Litoligia literosa)</i>	2 records, both from 2022	S7, LBAP(GWY, VOG), LI(BIS)
Oblique carpet <i>(Orthonama vittata)</i>	2 records, both from 2022	S7, LBAP(BRG), LI(BIS)
Sapromyza opaca	2 records, both from 2022	RDB2 (UK) — Nationally notable

<i>Xylota xanthocnema</i>	2 records, both from 2022	RDB2 (UK) — Nationally notable
Shaded broad-bar (<i>Scotopteryx chenopodiata</i>)	2 records, between 2019 and 2022	S7, LBAP(GWY, VOG), LI(BIS)
Blood-vein (<i>Timandra comae</i>)	2 records, between 2019 and 2022	S7, LBAP(VOG), LI(BIS)
Sallow (<i>Cirrhia icteritia</i>)	10 records, between 2018 and 2022	S7, LBAP(GWY, VOG), LI(BIS)
Centre-barred sallow (<i>Atethmia centrago</i>)	Recorded in 2022	S7, LBAP(GWY, VOG), LI(BIS)
Beet moth (<i>Scrobipalpa ocellatella</i>)	Recorded in 2022	RDB2 (UK) — Nationally notable
Spindle knot-horn (<i>Nephopterix angustella</i>)	Recorded in 2022	RDB2 (UK) — Nationally notable
Bulrush veneer (<i>Calamotropha paludella</i>)	Recorded in 2022	RDB2 (UK) — Nationally notable, LBAP(NEW), LI(BIS)

Scarce grass-moth (<i>Crambus pratella</i>)	Recorded in 2022	RDB2 (UK) — Nationally notable
Small heath (<i>Coenonympha pamphilus</i>)	Recorded in 2022	S7, RDB1 (UK) — Near threatened, LBAP(GWY, VOG), LI(BIS), WS_C
Garden tiger (<i>Arctia caja</i>)	Recorded in 2022	S7, LBAP(GWY, VOG), LI(BIS)
Broom moth (<i>Ceramica pisi</i>)	Recorded in 2021	S7, LBAP(GWY, VOG), LI(BIS)
Hill cuckoo bee (<i>Bombus rupestris</i>)	Recorded in 2021	RDB2 (UK) – Nationally notable B, LBAP(GWY), LI(BIS)
Big-headed mining bee (<i>Andrena bucephala</i>)	Recorded in 2021	RDB2 (UK) – Nationally notable A
Powdered quaker (<i>Orthosia gracilis</i>)	2 records, 2018–2020	S7, LBAP(GWY, VOG), LI(BIS)

Autumnal rustic <i>(Eugnorisma glareosa)</i>	Recorded in 2020	S7, LBAP(GWY, VOG), LI(BIS)
Small scabious mining bee <i>(Andrena marginata)</i>	Recorded in 2020	RDB2 (UK) – Nationally notable A
August thorn <i>(Ennomos quercinaria)</i>	Recorded in 2020	S7, LBAP(GWY, VOG), LI(BIS)
Lobe-spurred furrow bee <i>(Lasioglossum pauxillum)</i>	Recorded in 2020	RDB2 (UK) – Nationally notable A
Large wainscot <i>(Rhizedra lutosa)</i>	2 records, 2018–2019	S7, LBAP(BRG, GWY), LI(BIS)
Hedge rustic <i>(Tholera cespitis)</i>	Recorded in 2019	S7, LBAP(GWY, VOG), LI(BIS)
Short-winged cone-head <i>(Conocephalus dorsalis)</i>	Recorded in 2019	LBAP(BRG, TRF), LI(BIS), LI(SEWBReC), WS_C
Sitona waterhousei	Recorded in 2017	RDB2 (UK) – Nationally notable B

<i>Globiceps</i> (<i>Kelidocoris</i>) <i>fulvicollis</i> subsp. <i>cruciatus</i>	Recorded in 2017	RDB2 (UK) – Nationally notable B
<i>Polydrusus</i> <i>formosus</i>	Recorded in 2016	RDB2 (UK) – Nationally notable A
Smooth ramshorn (<i>Gyraulus</i> (<i>Torquis</i>) <i>laevis</i>)	Recorded in 2019	RDB2 (UK) – Scarce

Appendix D

Target Notes

Target note ID	Photo	Comments
1		<p>The edge scrub habitat supports a mix of woody species and tall-herb vegetation. Notable species recorded include oak (<i>Quercus</i> sp.), willow (<i>Salix</i> sp.), butterfly bush (<i>Buddleja davidii</i>), bramble and blackberry (<i>Rubus fruticosus</i> agg.), and Himalayan balsam (<i>Impatiens glandulifera</i>). The ground flora and herb layer contain a range of ruderal and meadow species with wet hollow pockets characterised by coltsfoot (<i>Tussilago farfara</i>), black medick (<i>Medicago lupulina</i>), compact rush (<i>Juncus conglomeratus</i>), hard rush (<i>Juncus inflexus</i>), redshank (<i>Persicaria maculosa</i>), St John's wort (<i>Hypericum</i> sp.), bristly oxtongue (<i>Helminthotheca echioides</i>), hedge parsley (<i>Torilis japonica</i>), horseweed (<i>Erigeron canadensis</i>), field thistle (<i>Cirsium arvense</i>), creeping buttercup (<i>Ranunculus repens</i>), dock (<i>Rumex</i> sp.), common fleabane (<i>Pulicaria dysenterica</i>), bird's-foot trefoil (<i>Lotus corniculatus</i>), small fleabane (<i>Pulicaria vulgaris</i>), sweetclover (<i>Melilotus</i> sp.), knapweed (<i>Centaurea nigra</i>), marsh woundwort (<i>Stachys palustris</i>), willowherb (<i>Epilobium</i> sp.), and hogweed (<i>Heracleum sphondylium</i>).</p>

Target note ID	Photo	Comments
2		<p>The semi-improved grassland supports a varied sward of grasses and forbs. Notable species recorded include devil's-bit scabious (<i>Succisa pratensis</i>), tufted vetch (<i>Vicia cracca</i>), red bartsia (<i>Odontites vernus</i>), zig-zag clover (<i>Trifolium medium</i>), creeping bent (<i>Agrostis stolonifera</i>), Yorkshire fog (<i>Holcus lanatus</i>), cock's-foot (<i>Dactylis glomerata</i>), meadow vetchling (<i>Lathyrus pratensis</i>), white clover (<i>Trifolium repens</i>), and silverweed (<i>Potentilla anserina</i>). Himalayan balsam (<i>Impatiens glandulifera</i>) is also present, occurring around the grassland edges and spreading through the reptile fencing that cuts the habitat into sections.</p>

Target note ID	Photo	Comments
3		<p>The woodland edge scrub comprises a mix of woody and ground flora species. Notable shrubs and trees include willow (<i>Salix</i> sp.), alder (<i>Alnus glutinosa</i>), hawthorn (<i>Crataegus monogyna</i>), and sycamore (<i>Acer pseudoplatanus</i>). The ground layer is dominated by bramble (<i>Rubus fruticosus</i> agg.), St Anthony's turnip (<i>Lactuca perennis</i>), ivy (<i>Hedera</i> sp.), and cock's-foot (<i>Dactylis glomerata</i>).</p>

Target note ID	Photo	Comments
4		The bird/bat box is located in the southern woodland.

Target note ID	Photo	Comments
5		<p>The woodland on the southern extent of the scheme comprises a mix of native and introduced tree and shrub species. Notable species include oak (<i>Quercus</i> sp.), alder (<i>Alnus glutinosa</i>), holly (<i>Ilex aquifolium</i>), sycamore (<i>Acer pseudoplatanus</i>), hazel (<i>Corylus avellana</i>), and Himalayan balsam (<i>Impatiens glandulifera</i>). The ground flora contains bracken (<i>Pteridium aquilinum</i>), horsetail (<i>Equisetum</i> sp.), broad-leaved dock (<i>Rumex obtusifolius</i>), ribwort plantain (<i>Plantago lanceolata</i>), and hawthorn (<i>Crataegus monogyna</i>).</p>

Target note ID	Photo	Comments
6		<p>The central scrub habitat comprises a mix of woody and herbaceous species, with some sections cut to ground level in places. Notable species include willow (<i>Salix</i> sp.), hazel (<i>Corylus avellana</i>), dogwood (<i>Cornus</i> sp.), hawthorn (<i>Crataegus monogyna</i>), butterfly bush (<i>Buddleja davidii</i>), bramble and blackberry (<i>Rubus fruticosus</i> agg.), and Himalayan balsam (<i>Impatiens glandulifera</i>). The ground flora contains smooth cat's-ear (<i>Hypochaeris glabra</i>), hemp agrimony (<i>Eupatorium cannabinum</i>), autumn hawkbit (<i>Leontodon autumnalis</i>), cock's-foot (<i>Dactylis glomerata</i>), zig-zag clover (<i>Trifolium medium</i>), couch (<i>Elymus repens</i>), and tufted vetch (<i>Vicia cracca</i>).</p>

Target note ID	Photo	Comments
7		<p>The bare ground areas support scattered vegetation, primarily in cracks of the concrete and along edges. Notable species include willow (<i>Salix</i> sp.), willowherb (<i>Epilobium</i> sp.), horseweed (<i>Erigeron canadensis</i>), hairy hawkbit (<i>Leontodon hispidus</i>), burnet-saxifrage (<i>Pimpinella saxifraga</i>), thistle (<i>Cirsium</i> sp.), morning-glory (<i>Convolvulus</i> sp.), hemp agrimony (<i>Eupatorium cannabinum</i>), silverweed (<i>Potentilla anserina</i>), and water mint (<i>Mentha aquatica</i>).</p>

Target note ID	Photo	Comments
8		<p>The northern extent of the scheme comprises an open mosaic of semi-improved grassland with bare patches of concrete. Notable species include bird's-foot trefoil (<i>Lotus corniculatus</i>), autumn hawkbit (<i>Leontodon autumnalis</i>), cock's-foot (<i>Dactylis glomerata</i>), Yorkshire fog (<i>Holcus lanatus</i>), ribwort plantain (<i>Plantago lanceolata</i>), meadow parsley (<i>Thlaspi arvense</i>), white clover (<i>Trifolium repens</i>), creeping willow (<i>Salix repens</i>), dandelion (<i>Taraxacum officinale</i>), meadow vetchling (<i>Lathyrus pratensis</i>), coltsfoot (<i>Tussilago farfara</i>), heath groundsel (<i>Senecio sylvaticus</i>), ox-eye daisy (<i>Leucanthemum vulgare</i>), common bent (<i>Agrostis capillaris</i>), and creeping bent (<i>Agrostis stolonifera</i>).</p>

Target note ID	Photo	Comments
9		<p>Dense patches of scrub occur within areas of bare ground, including ornamental species. The boundary of the site is lined with coniferous trees as a screen. Notable woody species include common gorse (<i>Ulex europaeus</i>), Tutsan (<i>Hypericum androsaemum</i>), sycamore (<i>Acer pseudoplatanus</i>), cypress (<i>Cupressus</i> sp.), Lawson cypress (<i>Chamaecyparis lawsoniana</i>), bamboo (<i>Bambusoideae</i> sp.), and bramble (<i>Rubus fruticosus</i> agg.). The ground flora and herb layer contains nettle (<i>Urtica dioica</i>), hemp agrimony (<i>Eupatorium cannabinum</i>), water mint (<i>Mentha aquatica</i>), and hawkbit (<i>Scorzoneroidea autumnalis</i>).</p>

Target note ID	Photo	Comments
10		South-facing rubble piles suitable for reptiles

Target note ID	Photo	Comments
11		Rubble pile suitable for reptiles

Target note ID	Photo	Comments
12		Rubble pile suitable for reptiles

13



Rubble pile suitable for reptiles

