



FORMER HOT MILL, LLANWERN

Preliminary Ecological Appraisal Report

Tata Steel UK Ltd

2486598-D03 (00)

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General Notes

Document ref.: 2486598-D03 (00)

Title: Former Hot Mill Llanwern – Preliminary Ecological Appraisal Report

Client: Tata Steel UK Ltd

Date: August 2025

Office: Cardiff

Status: ISSUE

Revision	Date	Comments/amendments	Prepared by	Checked by	Approved by
00	15/08/2025		FL03	TC47	TC47
01	21/08/2025	Amendments made following client review	FL03	TC47	TC47

Executive Summary

1. RSK Biocensus was appointed by Tata Steel to complete a preliminary ecological appraisal of the former Hot Mill building and surrounding buildings and structures at the Tata Steelworks in Llanwern, near Newport, South Wales.
2. The survey was undertaken on 31st July 2025. It was required in relation to proposed demolition of the Hot Mill and surrounding buildings.
3. A desk study was undertaken to gather existing ecological data for the Site and surrounding area.
4. The survey was undertaken using UK Habitat survey classification, and the suitability of the Site to support protected or otherwise notable plant and animal species was assessed.
5. The Site was mostly comprised of hard-standing, buildings and associated structures with scrub, ephemeral and ruderal plants. There were several waterbodies on the north side of the site, which are part of drainage and settlement tank system for run-off/water discharge from the Hot Mill building. Habitats on Site were generally species-poor. No notable or protected plant species were identified.
6. The Site is suitable for nesting birds, roosting bats and reptiles (albeit low potential for reptiles).
7. A Habitats Regulations Assessment is recommended to determine the potential for the proposed demolition works to give rise to impacts on any European sites.
8. Breeding bird and bat surveys of the Hot Mill and surrounding buildings have been undertaken by RSK Biocensus in 2025. Roosting bats and breeding birds have been identified as using the buildings on Site. Consideration needs to be given to timing and methods of works which may disturb both nesting birds and roosting bats. A European Protected Species Bat Mitigation License will be required from Natural Resources Wales for any works on or around buildings which may impact bats. Works will need to conform to the licensed method statement and conditions.
9. For the buildings, ecological supervision will be required for certain dismantling works under the bat licence and monitoring of nesting birds is recommended.
10. Ecological supervision is also recommended for any vegetation clearance which may impact nesting birds or reptiles and as a precautionary measure during the drain down of the waterbodies.
11. As no development is proposed there is no scope for ecological restoration or enhancement within the Site. Net Biodiversity Benefit is not covered here as it is demolition only, however it would be required for any future development planning application.

Mitigation for bats and birds is dealt with in the respective detailed reports.

Contents

1	Introduction	1
1.1	Purpose of this report	1
1.2	Proposed development.....	1
1.3	Landscape context	1
1.4	Legislation	2
1.5	Planning policy	2
2	Methodology.....	4
2.1	Introduction.....	4
2.2	Desk study.....	4
2.3	Habitat survey	5
2.4	Protected and priority species survey	5
2.5	Invasive non-native species.....	7
2.6	Survey limitations	7
2.7	Validity of data	8
3	Results.....	9
3.1	Desk study.....	9
3.2	Habitats	13
3.3	Protected and priority species.....	15
3.4	Invasive non-native species.....	20
4	Ecological Constraints and Opportunities	21
4.1	Introduction.....	21
4.2	Designated sites	21
4.3	Habitats	22
4.4	Protected and priority species.....	22
4.5	Invasive non-native species.....	24
4.6	Opportunities for enhancement.....	24
5	Conclusion	25
6	References.....	26
	Figures.....	27
	Appendix A - Target Notes	28
	Appendix B - Site Photographs.....	29
	Photographs (cont.).....	30
	Photographs (cont.).....	31
	Appendix C - Desk Study Records	32

1 Introduction

1.1 Purpose of this report

- 1.1.1 RSK Biocensus was appointed by Tata Steel to complete a preliminary ecological appraisal (PEA) for the former Hot Mill building and surrounding structures at the Tata Steelworks in Llanwern, near Newport, South Wales.
- 1.1.2 The survey area included the land within the red-line boundary (hereafter referred to as 'the Site'). The Site and survey area are shown on Figure 1.
- 1.1.3 This report is required in connection with Tata Steels' proposed demolition of the former Hot Mill and surrounding buildings.
- 1.1.4 This report presents the results of a desk study to gather existing ecological information for the Site and surrounding area, the results of the Site survey using UK Habitat (UKHab) survey classification, and an assessment of the potential for protected or notable species and habitats to be present.
- 1.1.5 The purpose of this report is to identify key ecological receptors to inform the proposed demolition works.

1.2 Proposed development

- 1.2.1 Proposed demolition of the former Hot Mill and surrounding buildings. Works are anticipated to commence in Autumn 2025 on the Hot Mill and last for a duration of c. three years. The adjacent buildings are planned to be demolished at a later stage (likely 2-3 years from the start of the demolition works).
- 1.2.2 The aim is to remove all buildings within the redline boundary and infill all cellars and other underground structures.

1.3 Landscape context

- 1.3.1 The c. 32 hectare (ha) Site is located east of the city of Newport. A review of aerial photographs and OS maps shows that the Site is bordered to all directions by the wider Llanwern Steelworks site, with the A4810 road 200m to the south, and the Tata exchange railway sidings c.330m north, which are separated from the mainline railway by a (c. 100m wide) woodland strip.
- 1.3.2 The Llanwern Steelworks site is bordered by industrial landscapes to south, east and west, with agricultural fields to the north. The Gwent levels are c.930m south and the Severn Estuary is located approximately 3km to the south.
- 1.3.3 The Site comprises 28 buildings and structures within the north-west of Llanwern steelworks complex, located around the Hot Mill. The Hot Mill occupies the majority of the Site area, with a footprint of approximately 11.6 hectares. Surrounding the Hot Mill are a number of structures ranging from single storey buildings which were used as offices, to four storey concrete cooling towers and water treatment plants. The majority of the land between buildings is bare ground or hardstanding in form of slag, gravel or tarmac. Scrub, ruderal and ephemeral vegetation has begun to colonise the mounds of fuel ash/slag and the edges and cracks within the hard standing and bare ground.

1.4 Legislation

1.4.1 Table 1 below provides a summary of the legislation considered in this assessment.

Table 1: Legislation considered in this assessment

Legislation/Source	Notes
The Conservation of Habitats and Species Regulations (Habitats Regulations) 2017 (as amended)	Affords protection to certain species and habitats listed on the relevant schedules.
The Wildlife and Countryside Act (WCA) 1981 (as amended)	
Protection of Badgers Act 1992	Affords protection to badgers and there setts
The Environment (Wales) Act 2016	Section 6 requires public bodies or statutory undertakers to enhance, restore or protect populations or habitats.

1.5 Planning policy

1.5.1 This PEA will have due regard for the Planning Policy Wales 12 and the following policies and guidance:

Table 2: Policies and guidance considered in this assessment

Policy/Source	Notes
Government's 25-Year Environment Plan 2018 https://www.gov.uk/government/publications/25-year-environment-plan	The plan promotes the creation or restoration of wildlife-rich habitat outside the protected site network and seeks to recover threatened, iconic, or economically important species of animals, plants, and fungi, and where possible to prevent human induced extinction or loss of known threatened species in England.
Technical Advice Note 5, Nature Conservation and Planning (2009) https://gov.wales/technical-advice-note-tan-5-nature-conservation-and-planning	Provides guidance on how the land use planning system in Wales should contribute to protecting and enhancing biodiversity and geological conservation. It gives advice on developments affecting designated sites and habitats, in addition to protected or priority habitats and species. It identifies protected species as a material planning consideration, discusses protection of EPS, as well as birds, badgers, other animals, and plants, and provides guidance on habitats and species of principal importance for biodiversity in Wales.
Newport Local Biodiversity Action Plan https://www.newport.gov.uk/documents/Leisure-and-Tourism/Countryside/Newport-Local-Biodiversity-Action-Plan.pdf	The Newport Biodiversity Partnership is a partnership of more than 15 organisations and individuals who are involved with conserving and enhancing Newport's biodiversity. This partnership has worked together to produce 14 individual action plans for priority habitats and species present in Newport County, these are: Woodland, Freshwater, Wetland, farmland, lowland grassland and heathland, brownfield and urban, marine, and coastal, dormouse, bat, otter,

Policy/Source	Notes
	water vole, fungi, small ranunculus and shrill carder bee. The Partnership acts as a platform to adjust, improve and deliver the Local Biodiversity Action Plan
Newport City Council's Biodiversity Duty Report https://bioamrywiaethcymru.org.uk/Biodiversity-Duty-Reporting	Newport City Council's 'Biodiversity duty report' has been produced in response to the enhanced biodiversity and resilience of ecosystems duty under Section 6 of the Environment (Wales) Act 2016 which requires that Public Authorities must seek to maintain and enhance biodiversity so far as is consistent with the proper exercise of their functions and in so doing promote the resilience of ecosystems. Newport City Council is dedicated to stopping the decline in biodiversity across our county and values the importance of conservation and enhancement across habitats for all our communities 'health and Wellbeing' and encourage attitude and behaviour change for sustainable futures.

2 Methodology

2.1 Introduction

- 2.1.1 The PEA was undertaken in line with Chartered Institute of Ecology and Environmental Management (CIEEM) guidance (CIEEM, 2017), and includes:
- A desk study to obtain existing ecological information for the Site and surrounding area.
 - A field survey to inform habitat mapping and an assessment of the likely importance of habitat features. Habitats were also assessed for their suitability to support protected or otherwise notable species of plants and animals, taking into account the geographic location of the Site and its connectivity to other natural habitats in the wider landscape.
- 2.1.2 The following additional surveys were also undertaken in 2024/2025 by RSK Biocensus and information from them may be referenced in this report:
- A preliminary bat roost assessment (PRA) survey and bat hibernation surveys in 2024.
 - Breeding bird surveys, with a specific focus on gulls and peregrines potentially nesting on the Hot Mill building between May and June 2025.
 - Further PRA, bat dusk emergence and dawn re-entry surveys between May and August 2025.
 - A Habitat Regulations Assessment (HRA) Stage 1: Screening in August 2025.
- 2.1.3 The survey was carried out on 31 July 2025 by FL03, an RSK Biocensus Principal Ecologist, BSc (Hons) MSc. MCIEEM, with over 18 years' experience of PEA surveys.

2.2 Desk study

- 2.2.1 The background data search (BDS) was carried out in July 2025.

Table 3: Data Sources

Information Obtained	Available From
Protected and noteworthy species-records	South East Wales Biodiversity Records Centre
Designated site locations and citations	Natural Resource Wales
Designated site locations and citations	Joint Nature Conservation Committee (JNCC) Website
Designated site locations and citations	South East Wales Biodiversity Records Centre
Designations and legal protection of noteworthy species	Joint Nature Conservation Committee (JNCC) Website
Areas/Habitats of Strategic Significance	https://www.newport.gov.uk/environment/biodiversity

- Internationally designated statutory sites search distance: 10 km.

- All statutory designated sites search distance: 2 km.
- Non-statutory designated sites search distance: 2 km.
- Ancient woodland search distance: 1 km.

2.3 Habitat survey

- 2.3.1 A survey of the Site was undertaken to identify and map all habitats present using the UK Habitat Classification (UKHab) survey methodology (Version 2.01) (UKHab Ltd, 2023). Secondary codes were allocated to help describe habitats, such as management and land use. Where possible, all habitats were mapped to a minimum of Level 3 within the classification hierarchy. Plant names follow Stace (2019) for native and naturalised species of vascular plant. The habitats are mapped on Figure 2, including 'target notes' to identify any habitats or features of particular interest.

Habitats of principal importance

- 2.3.2 An assessment of the likelihood of the Site to support habitats of principal importance was carried out.

2.4 Protected and priority species survey

- 2.4.1 The suitability of the Site to support protected or otherwise notable plant and animal species was assessed. Target notes (see Figure 2, and Appendix A) were used to record suitable habitats, as well as any sightings or evidence of such species, where found.
- 2.4.2 Taking into account the results of the BDS, the geographic location, connectivity to natural habitats in the wider landscape, the nature and extent of habitats at the Site, and the proposed development, specific assessment was also carried out for the species/species groups outlined below.

Plants

- 2.4.3 Vascular plant species were recorded during the survey, although no attempt was made to produce an exhaustive species list. Additional species are likely to be found during more detailed surveys or repeat surveys at different times of the year.

Terrestrial Invertebrates

- 2.4.4 The Site was assessed for its suitability to support notable species and/or assemblage of invertebrates, based on the extent and quality of the microhabitats present, but no specific surveys were undertaken. The habitat requirements of particular invertebrates are often species-specific, so consideration was given to the presence of features and habitats that might be suitable for the notable species identified in the BDS

Amphibians

- 2.4.5 The Site was assessed for its suitability to support both terrestrial and breeding amphibians, including great crested newts (GCN).
- 2.4.6 Waterbodies and ditches within the Site boundary were evaluated to determine suitability to support GCN. Optimal breeding ponds tend to be well-vegetated, relatively clean and unpolluted, free of fish and wildfowl, and retain water throughout most summers. As GCN

are terrestrial for most of the year, habitats on Site were also assessed for their potential to support the species, based on factors such as vegetation structure and composition, and the availability of shelter and foraging resources.

- 2.4.7 Although standing water is essential for their breeding, great crested newts (*Triturus cristatus*) are terrestrial for most of the year. Aerial imagery and OS maps were reviewed to identify any ponds within 500 metres (m) of the Site boundary, and the Site was assessed for its suitability for both terrestrial and breeding great crested newts. Optimal breeding ponds tend to be well-vegetated, relatively clean and unpolluted, free of fish and wildfowl, and retentive of water throughout most summers (but not necessarily all). Highly suitable terrestrial habitats include woodland, scrub and tussocky grassland, although great crested newts can be found in a broad range of sub-optimal habitats as well. The proximity of ponds and connectivity/ suitability of terrestrial habitats are an important factor in determining the likelihood of this species being present on Site. Habitat suitability for other amphibians was similarly assessed.

Reptiles

- 2.4.8 The Site was assessed for its suitability for the four most widespread reptile species, with particular attention given to those features that provide suitable basking areas (e.g. south-facing slopes), hibernation sites (e.g., banks, walls, piles of rotting vegetation) and opportunities for foraging (e.g. rough grassland and scrub).
- 2.4.9 Specific habitat requirements differ between species. Common lizards (*Zootoca vivipara*) and slow worms (*Anguis fragilis*) favour rough grassland. Grass snakes (*Natrix helvetica*) have broadly similar requirements, with a greater reliance on ponds and wetlands. Adders (*Vipera berus*) use a range of fairly open habitats with some cover but are most often found in dry heath.

Birds

- 2.4.10 Birds nest, forage and roost in a wide variety of habitats including scrub, woodland, hedgerows and trees, wetland, arable and pastoral farmland and rough grassland. Some species also use open bare ground and man-made structures.
- 2.4.11 Habitat suitability for nesting birds was broadly assessed however a specific breeding bird survey of the Site was previously carried out by RSK Biocensus, between May and June 2025. The findings from the breeding bird survey report are summarised in this report but the breeding bird survey report (RSK Biocensus 2025a)¹ should be referred to for details.

Bats

- 2.4.12 The Site was broadly assessed for its suitability for use by roosting, foraging and commuting bats in line with the bat survey guidelines (Collins, 2023). Areas of particular interest vary between species, but generally include sheltered areas and habitats with good numbers of insects.
- 2.4.13 Preliminary roost assessments, bat hibernation surveys, bat emergence and re-entry surveys of the Hot Mill and buildings on and adjacent to the Site by RSK Biocensus, have been carried out between November 2024 and August 2025. The main findings from the

¹ RSK Biocensus (2025a) Llanwern Hot Mill Breeding Bird Report. 2486598. RSK Biocensus, Cardiff.

bat surveys are briefly summarised in this report but the bat survey report (RSK Biocensus 2025b²) should be referred to for full details.

Badger

- 2.4.14 Habitats were assessed for their suitability for use by badger (*Meles meles*) for foraging and sett-building. Any incidental signs, such as setts, latrines, foraging signs, or footprints were recorded if they were encountered. Where access was available, 30 m outside the Site boundary was also surveyed for badgers.

Other species of principal importance

- 2.4.15 The UK countries of England, Wales, Scotland and Northern Ireland are obliged by their individual laws to maintain lists of species and habitats of principal importance for biodiversity conservation. In Wales, this obligation derives from Section 7 of the Environment Act 2016 (Wales). An assessment of the likelihood of the Site to support priority species identified in the Newport Local Biodiversity Action Plan (LBAP) and other species of principal importance was carried out.
- 2.4.16 Due to the lack of suitable watercourses, suitable waterbodies and suitable woody vegetation it was considered otters, water voles and dormice are unlikely to be present and therefore no detailed consideration was undertaken for these species.

2.5 Invasive non-native species

- 2.5.1 UK Habitat survey does not involve exhaustive surveying for individual plant species, and various invasive species may be little in evidence at various times of year (depending on the species). A survey seeking to identify habitat types cannot therefore be relied upon to provide firm information about the presence or extent of any INNS. However, any incidental records of invasive non-native species (INNS) would be noted and mapped during the survey, if identified.

2.6 Survey limitations

- 2.6.1 The assessment as to whether protected and/or priority species might occur on the Site is based on the known distribution of species in the local area (from online sources and desk study), the suitability of the habitats, and any evidence of the species recorded during the survey. It does not constitute a full and definitive survey of any protected species group.
- 2.6.2 Field signs for protected and valuable species are often difficult to find or absent from a site. The survey conducted was not intended to be a comprehensive presence/absence survey for all species, but rather to provide an indication of the likely presence of such species based on the field signs found, and the nature of the habitats present.
- 2.6.3 Access was not made to adjacent land, and therefore it remains possible that a badger sett (or other evidence of protected or notable species) beyond the Site boundary could have been missed. Access to all potential of waterbodies within 500m was not possible,

² RSK Biocensus (2025b) Llanwern: Bat Survey Report. 2486598. RSK Biocensus, Bristol

however these ponds have previously been surveyed by RSK Biocensus in 2022³, with the results consulted.

- 2.6.4 Hot and dry weather in the period before the survey had dried up many of the ephemeral and ruderal plants. Although some plants may not have been visible because of this, it was possible to identify the majority of desiccated plants which were seen.
- 2.6.5 Buildings were only assessed externally, which was considered sufficient for the PEA survey as buildings were previously inspected both externally and internally for bats during PRA surveys carried out in 2024 and 2025.
- 2.6.6 All recommendations made in this report are based on survey within the proposed red line boundary as shown in Figure 1. If the plans change significantly, then an ecologist must be consulted, and further surveys may be required.

2.7 Validity of data

- 2.7.1 In accordance with industry guidelines (CIEEM, 2019), unless the Site changes significantly, the desk study and surveys carried out to inform this report should remain valid for at least 18 months. After 18 months, an ecologist would need to reassess the Site to determine if the results remained valid. After three years, the report is unlikely to still be valid and most, if not all, of the surveys are likely to need to be updated (subject to an assessment by an ecologist). National and local policy may differ on survey validity.

³ RSK Biocensus (2022) Project Cronus: Great Crested Newt Survey Report. 2482634. RSK Biocensus, Cardiff.

3 Results

3.1 Desk study

Strategic significance

Formal Local Biodiversity Action Plans and Strategies

3.1.1 The Newport City Council local biodiversity action plan lists the following habitats as local formal targets:

- Woodland
- Freshwater
- Wetlands
- Farmland
- Lowland grassland
- Open greenspace
- Marine and coastal

Designated sites

Table 4: European sites of importance for nature conservation within 10 km of the site boundary.

Site name	Designation	Approximate distance/direction from Site
Severn Estuary (Wales)	RAMSAR	3480 S
Qualifying features: Dunlin – passage Dunlin – wintering Estuary with immense tidal range Gadwall – wintering Redshank – passage Redshank – wintering Ringed plover – passage Run of migratory fish Shelduck – wintering Unusual estuarine communities Waterbird assemblage – wintering Whimbrel - passage White-fronted goose - wintering		
Severn Estuary (Wales)	SAC	3480 S
Qualifying Annex I habitats: Estuaries Mudflats and sandflats not covered by seawater at low tide		

Site name	Designation	Approximate distance/direction from Site
Reefs Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>) Qualifying Annex II species: Sea lamprey River lamprey Twaite shad		
Severn Estuary (Wales)	SPA	3480 S
Qualifying features: Bewick's swan Dunlin Gadwall Greater white-fronted goose Redshank Shelduck Waterbird assemblage		
River Usk / Afon Wysg	SAC	4150 W
Qualifying Annex I habitats: Water courses of plain to montane levels with the <i>Ranunculon fluitantis</i> and <i>Callitricho-Batrachion</i> vegetation Qualifying Annex II species: Allis shad Twaite shad Bullhead River lamprey Brook lamprey Otter Sea lamprey Atlantic salmon		
Severn Estuary (England)	RAMSAR	8540 SE
Qualifying features: Dunlin – passage Dunlin – wintering Estuary with immense tidal range Gadwall – wintering Redshank – passage Redshank – wintering Ringed plover – passage Run of migratory fish Shelduck – wintering Unusual estuarine communities Waterbird assemblage – wintering Whimbrel – passage White-fronted goose - wintering		
Severn Estuary (England)	SAC	8250 SE
Qualifying Annex I habitats:		

Site name	Designation	Approximate distance/direction from Site
Estuaries Mudflats and sandflats not covered by seawater at low tide Reefs Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>) Qualifying Annex II species: Sea lamprey River lamprey Twaite shad		
Severn Estuary (England)	SPA	8540 SE
Qualifying features: Bewick's swan Dunlin Gadwall Greater white-fronted goose Redshank Shelduck Waterbird assemblage		

Table 5: Statutory sites of national importance for nature conservation within 2 km of the site boundary.

Site name	Designation	Approximate distance/direction from Site
Gwent Levels - Whitson	SSSI	0.7 km south-east
The Gwent Levels constitute the lowlands between Cardiff and Chepstow and are drained by an ordered network of drainage ditches. They are an example of one of the most extensive areas of reclaimed wet pasture in Great Britain which includes the Somerset Levels, Romney Marsh and the Pavensey Levels, and is the largest area of its kind in Wales. Together these Levels systems constitute a national series of sites each with its own special features. The Gwent Levels reens are rich in plant species and communities, many of which are rare or absent in other Levels systems. This is due to the variety of reen types and their management regimes and the timing of the management which results in a staggered programme across the Levels. The regular maintenance of some reens provides conditions for submerged species such as hairlike pondweed (<i>Potamogeton trichoides</i>) and openwater emergents such as arrowhead (<i>Sagittaria sagittifolia</i>) an opportunity to flourish. Others are less intensively managed, and some have become completely overgrown by weeds and hedges. The aquatic invertebrate fauna is very diverse, and the Gwent Levels compares well with similar areas in Britain. Many nationally rare or notable species are present such as <i>Haliphus mucronatus</i> and <i>Hydrophilus piceus</i>. The area is important in the Welsh context for its snails and dragonflies and includes the species <i>Physa heterostropha</i> and <i>Brachytron pratense</i> respectively. The large number of hedgerows add to the diversity of the area and together with the main reen banks provide a habitat for nationally important assemblages of terrestrial invertebrates such as <i>Pipunculus fonscai</i> and <i>Tomosvaryella minima</i>.		

Site name	Designation	Approximate distance/direction from Site
The Whitson area is of particular importance for its large number of nationally rare and notable invertebrate species. A total of 65 of these rare invertebrates have been recorded in this area including <i>Anthomyza bifasciata</i>, <i>Coptophlebia volucris</i> and <i>Hydrophilus piceus</i>. This area is also important for its botanical interest as it contains the nationally rare hairlike pondweed <i>Potamogeton trichoides</i> and is the only location in Gwent for the tussock sedge (<i>Carex elata</i>). Arrowhead also grows in abundance in several main reens in this area.		
Gwent Levels - Nash and Goldcliff	SSSI	0.8 km south-west
The Nash and Goldcliff area form an important part of the Gwent Levels system and is of particular botanical interest as it is the only area in Wales for the Least Duckweed (<i>Wolffia arrhizal</i>). There is also an interesting community where two species of hornwort <i>Ceratophyllum submersum</i> and <i>C. demersum</i> grow together. The invertebrate interest is also high, as rare and notable species such as <i>Odontomyia ornata</i>, <i>Oplodontha viridula</i> and <i>Hydaticus transversalis</i> are present.		
Gwent Levels - Redwick and Llandeenny	SSSI	1.5 km north-east
The Redwick and Llandeenny area supports rich assemblages of invertebrate species including <i>Chalcis sispes</i> a parasite of the <i>Stratiomys</i> fly larvae, the beetle <i>Scirtes orbicularis</i> and the drone fly <i>Pharhelophilus consimilis</i>. The area also contains a number of nationally rare plant species including the rare <i>Myriophyllum verticillatum</i> located in peaty ditches in the northern part of the site and the brackish water crowfoot associated with the ditches bordering the sea wall.		

Table 6: Non-statutory sites of importance for nature conservation within 2 km of the site boundary

Site name	Reasons for designation	Approximate distance/direction from Site
Spencer Works 3 SINC	Marshy grassland with wet drains	600 S
Monk's Ditch SINC	Stream used by otters	797 NW
Craig-Y-Perthi Field South SINC	Area of semi-improved calcareous grassland within larger field of improved grassland.	1075 N
Craig-Y-Perthi Wood SINC	Ancient semi-natural woodland	1170 N
Elver Pill Reen Grassland & Pond SINC	Lagoon with mosaic of swamp and marshy grassland. Cetti's warbler.	1215 SE
Craig-Y-Perthi Field North SINC	Area of semi-improved calcareous grassland within larger field of improved grassland.	1220 N
Dockwell Wood SINC	Ancient semi-natural woodland	1230 NW
Hartridge Fields SINC	Calcareous grassland	1490 NW
Greenmoor Pool SINC	Standing water with reedswamp. Cetti's warbler.	1505 E
Hartridge Wood SINC	Ancient semi-natural woodland	1570 NW
The Routes Wood SINC	Ancient semi-natural woodland	1780 NE

The site is fully within a Natural Resources Wales Priority Area for Lowland Wetland.

Ancient Woodlands

- 3.1.2 There are three areas of ancient semi-natural woodland within 1 km of the site boundary; two areas of plantation on ancient woodland within 1 km of the site boundary; one area of restored ancient woodland within 1 km of the site boundary.
- 3.1.3 The closest area of ancient woodland is ancient semi-natural woodland that is approximated 675 m north of the site boundary.

SSSI Impact Risk Zones

- 3.1.4 The site intersects one SSSI Impact Risk Zone buffer for the Gwent Levels SSSI's. The constraints criteria associated with this buffer are:
 - Infrastructure: Airports, helipads and other aviation proposals.
 - Air Pollution: Livestock & poultry units with a floorspace > 500m², slurry lagoons > 4000m².
 - Combustion: General combustion processes >50MW energy input. Including: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/combustion.

3.2 Habitats

- 3.2.1 The UKHab map is provided as Figure 2 and shows the location of the target notes referred to in the text below. A description of each target note is given in Appendix A and photographs are provided in Appendix B.
- 3.2.2 The Site was mostly comprised of dilapidated buildings, hard-standing and bare ground interspersed with scattered scrub (mostly buddleia), ruderal and ephemeral plants. There were two separate areas of rank grassland with encroaching scrub on the north side of the Site (formerly amenity grassland when managed several years ago). There were also several artificial waterbodies on the north side.
- 3.2.3 The habitats of bare ground, grassland, ruderal, short perennial, ephemeral and mosses are some of the features required to qualify as Priority habitat: 'Open Mosaic Habitats on Previously Developed Land'. However the habitats on Site were not species-rich and were not considered of high ecological value even when combined as a whole, as most of the same species were generally found throughout. The majority of the Site was comprised of hard-standing with scattered non-native butterfly bush. The grassland areas were not species-rich and there was not a high diversity of short perennial, ephemeral and moss species.

Other neutral grassland (UK Habitat code g3c)

- 3.2.4 Two areas of other neutral grassland were present on the northern part of the Site.
- 3.2.5 Both areas of grassland were previously amenity grassland which appeared to have been unmanaged for several years as had become rank, tussocky grassland with patches of encroaching bramble (*Rubus fruticosus* agg.). There was a mix of longer sward tussocky grasses, shorter open sward with scattered or patchy tall herbs and bramble. There were

ant hills in the grassland at the north-east part of the site. Yorkshire fog (*Holcus lanatus*) was abundant; with common bent (*Agrostis capillaris*) and creeping bent (*A. stolonifera*) and red fescue (*Festuca rubra*) frequent. Herbs included frequent teasel (*Dipsacus fullonum*); locally abundant creeping thistle (*Cirsium arvense*) and rosebay willowherb (*Chamaenerion angustifolium*). The grassland was mostly species-poor and encroached by bramble, however there were small patches of open sward grassland with more herbs which were moderately species-rich (7-10 species per m²). These more open sward areas included occasional self-heal (*Prunella vulgaris*), common storksbill (*Erodium cicutarium*), creeping cinquefoil (*Potentilla repens*), ground ivy (*Glechoma hederacea*), common century (*Centaureum erythraea*) and imperforate St Johns wort (*Hypericum maculatum*).

Sparsely vegetated urban land (UK Habitat code u1f) with scattered scrub (10)

- 3.2.6 This was the majority of the habitat found on site (abandoned urban land with 10-50% vegetation cover).
- 3.2.7 On the north side of the Hot Mill this mostly comprised large areas of hard-standing which were largely unvegetated but had scattered or patchy scrub, ruderal, ephemeral/short perennial plants and mosses along the edges, within cracks and on the small mounds of substrate scattered throughout. Scrub was dominated by non-native butterfly bush (*Buddleia davidii*) with silver birch (*Betula pendula*) occasional. Canadian fleabane (*Erigeron canadensis*) and stinking mayweed (*Anthemis cotula*) were frequent. Biting stonecrop (*Sedum acre*) was locally abundant. Other herbs included occasional common vervain (*Verbena officinalis*), common century, yellow wort (*Blackstonia perfoliate*), imperforate St Johns wort (*Hypericum maculatum*), redshank (*Persicaria maculosa*), red valerian (*Valeriana rubra*), bristly oxtongue (*Helminthotheca echioides*) and hedge mustard (*Sisymbrium officinale*).
- 3.2.8 The south side of the Hot Mill was mostly bare ground with gravel and ballast, also with scattered or patchy scrub (mostly butterfly bush) and ruderal herbs such as imperforate St Johns wort. Biting stonecrop and mosses were locally abundant.
- 3.2.9 Overall, vegetation was sparse (most areas had c. 10%-30% vegetated cover) and the vegetated habitat was generally species-poor.

3.2.10 Buildings (UK Habitat code u1b5)

- 3.2.11 The section of the Hot Mill building which is to be demolished is approximately 860m long and 11.6ha in area. As well as being long, it is tall (c. 60m high), flat-roofed building, mostly constructed of metal, with louvered metal slats along its walls, many of which are missing or in disrepair as the building has been disused since 2011.
- 3.2.12 There are also several smaller buildings (e.g. offices and sub-stations) and various structures/pipes within the Site boundary which are also proposed to be demolished. Buildings were mostly constructed of brick and flat roofed.

Standing open water and canals (UK Habitat code r1)

- 3.2.13 Five artificial waterbodies were within the Site (TN 4, TN 5, TN 6 and TN 7 shown in photos 7-11) which collect water run-off from the former Hot Mill roof and pumped out from basements (where rainwater collects).
- 3.2.14 They were mostly made of concrete with steep sides and are used as settling lagoons and oil catchment areas for rain water run-off from the former Hot Mill roof and pumped

from the Hot Mill basements. All appeared to be polluted to varying degrees. They receive continuous monitoring and treatment to ensure the water is clean prior to discharge out of the steelworks, under conditions of an Environmental Permit.

Dense scrub (UK Habitat code h3)

- 3.2.15 As well as scattered scrub (most butterfly bush) throughout, there were a few patches of dense bramble and dense butterfly bush mostly along the edges and at the corners of the Hot Mill.

3.3 Protected and priority species

Plants

- 3.3.1 The desk study returned records of 11 protected or otherwise notable plant species within 2 km of the Site.

Table 7: Protected or otherwise notable plant species within 2 km of the Site boundary

Latin name	Common name	Designation
<i>Brassica oleracea</i>	Wild cabbage	NS
<i>Catabrosa aquatica</i>	Whorl-grass	GB RDB(VU)
<i>Chenopodium glaucum</i>	Oak-leaved goosefoot	GB RDB(VU), NS
<i>Gastridium ventricosum</i>	Nit-grass	NS
<i>Hyacinthoides non-scripta</i>	Bluebell	WCA8
<i>Lepidium latifolium</i>	Dittander	NS
<i>Myriophyllum verticillatum</i>	Whorled water-milfoil	GB RDB(VU)
<i>Oenanthe fistulosa</i>	Tubular water-dropwort	S7, GB RDB(VU)
<i>Poa infirma</i>	Early meadow-grass	NS
<i>Polypogon monspeliensis</i>	Annual beard-grass	NS
<i>Wolffia arrhiza</i>	Rootless duckweed	GB RDB(VU), NS

- 3.3.2 None of the species above were identified and no other protected nor otherwise notable plant species were identified during the survey.

Aquatic invertebrates

- 3.3.3 The desk study returned three records of protected or otherwise notable aquatic invertebrate species within 2 km of the Site.

Table 3: Protected or otherwise notable aquatic invertebrate species within 2 km of the Site boundary

Latin name	Common name	Designation
<i>Hydaticus transversalis</i>	N/A	NS
<i>Oulimnius troglodytes</i>	N/A	NS
<i>Peltodytes caesus</i>	N/A	NS

- 3.3.4 However, the waterbodies on Site, being of such poor water quality, were not considered suitable for aquatic invertebrate species.

Terrestrial invertebrates

- 3.3.5 The desk study returned records of 51 protected or otherwise notable terrestrial invertebrate species within 2 km of the Site, including several moth species, predominantly associated with the priority habitats coastal floodplain grassland of the adjacent Gwent levels.

Table 4: Protected or otherwise notable terrestrial invertebrate species within 2 km of the Site boundary

Latin name	Common name	Designation
<i>Acronicta psi</i>	Grey dagger	S7
<i>Acronicta rumicis</i>	Knot grass	S7
<i>Agathomyia wankowiczii</i>	N/A	NS
<i>Anaglyptus mysticus</i>	N/A	Notable: B
<i>Anagnota bicolor</i>	N/A	Notable
<i>Arctia caja</i>	Garden tiger	S7
<i>Atethmia centrargo</i>	Centre-barred sawfly	S7
<i>Bombus humilis</i>	Brown-banded carder-bee	S7
<i>Bombus sylvarum</i>	Knapweed carder bee	S7, Notable: B
<i>Brachylomia viminalis</i>	Minor shoulder-knot	S7
<i>Calamotropha paludella</i>	Bulrush veneer	Notable: B
<i>Caradrina morpheus</i>	Mottled rustic	S7
<i>Chiasmia clathrata</i>	Latticed heath	S7
<i>Coenonympha pamphilus</i>	Small heath	S7
<i>Colobaea distincta</i>	N/A	Notable
<i>Cryptophagus populi</i>	N/A	Notable
<i>Cupido minimus</i>	Small blue	WCA5, S7
<i>Diarsia rubi</i>	Small square-spot	S7
<i>Dicraeus scibilis</i>	N/A	Notable
<i>Dicranomyia ventralis</i>	N/A	Notable
<i>Ditaeniella grisescens</i>	N/A	Notable
<i>Dolichopus signifer</i>	N/A	NS
<i>Ennomos fuscantaria</i>	Dusky thorn	S7
<i>Eudonia delunella</i>	Pied grey	Notable: B
<i>Geomyza apicalis</i>	N/A	Notable
<i>Gymnetron villosulum</i>	N/A	Notable: B
<i>Hemistola chrysoprasaria</i>	Small emerald	S7
<i>Hepialus humuli</i>	Ghost moth	S7
<i>Hoplodrina blanda</i>	Rustic	S7
<i>Hydraecia micacea</i>	Rosy rustic	S7
<i>Lissodema denticolle</i>	N/A	NS, Notable: B
<i>Malacosoma neustria</i>	Lackey	S7
<i>Molophilus corniger</i>	N/A	Notable
<i>Neoascia geniculata</i>	N/A	Notable
<i>Odontomyia tigrina</i>	Black colonel	Notable
<i>Oscinella angustipennis</i>	N/A	Notable
<i>Pherbellia dorsata</i>	N/A	Notable

Latin name	Common name	Designation
<i>Phytoecia cylindrica</i>	N/A	Notable: B
<i>Prionychus ater</i>	N/A	Notable: B
<i>Pseudocistela ceramboides</i>	N/A	NS, Notable: B
<i>Rhizedra lutosa</i>	Large wainscot	S7
<i>Sapromyza quadricincta</i>	N/A	Notable
<i>Scirtes orbicularis</i>	N/A	NS
<i>Spilosoma lubricipeda</i>	White ermine	S7
<i>Spilosoma lutea</i>	Buff ermine	S7
<i>Tetanocera phyllophora</i>	N/A	Notable
<i>Thrypticus tarsalis</i>	N/A	NS
<i>Timandra comae</i>	Blood-vein	S7
<i>Tyria jacobaeae</i>	Cinnabar	S7
<i>Vanoyia tenuicornis</i>	Long-horned soldier	NS, Notable
<i>Xanthorhoe ferrugata</i>	Dark-barred twin-spot carpet	S7

3.3.6 The knapweed carder bee (shrill carder bee) is a priority species listed in the Newport LBAP.

3.3.7 The Site was considered likely to support an assemblage of common invertebrate species as habitats were generally species-poor. Although the butterfly bush is suitable foraging for moths there was a lack of diversity of other species. The rare shrill carder bee requires extensive species-rich grassland (Bumblebee Conservation Organisation, 2025) so is considered unlikely to be present.

Fish

3.3.8 The desk study returned one record of fish from within 2 km of the Site, the European eel (*Anguilla anguilla*) (s7, OSPAR).

3.3.9 However, it is considered unlikely that any fish would be present as the waterbodies on Site were of poor water quality and are therefore considered unlikely to be suitable (as lacking oxygen, plants and invertebrates for foraging). The waterbodies on Site are artificially made to connect to a drain flowing out of the Site ('drain 6'). They do not connect to any in-flowing watercourses so are unlikely to contain fish.

Amphibians

3.3.10 The desk study returned records of common amphibians and one record of great crested newt (GCN) (*Triturus cristatus*) within 2 km of the Site boundary. The desk study did not identify any GCN mitigation licences records within 2km.

3.3.11 eDNA surveys of the six ponds closest to the Site (within 300m) were previously carried out by RSK Biocensus in 2022⁴ which all tested negative for GCN. There were no other mapped ponds within 500m.

3.3.12 All the waterbodies had steep vertical concrete sides (so unlikely to be accessible for amphibians) except for the penultimate waterbody in the chain (TN 6 Photo 10) which had sloping edges where it connected to a small bed of common bulrush (*Typha latifolia*)

⁴ RSK Biocensus (2022) Project Cronus: Great Crested Newt Survey Report. 2482634. RSK Biocensus, Cardiff.

(TN6 Photo 11) - so it could potentially be accessed by amphibians at a single access point. However, even if amphibians could access the waterbodies, as they were polluted they are unlikely to be suitable for foraging and with no or very little vegetation for egg laying they are considered unlikely to be suitable for breeding.

- 3.3.13 GCN and other amphibians are therefore considered unlikely to be present on Site.

Reptiles

- 3.3.14 The desk study returned two records of reptiles within 2 km of the Site, these comprised grass snake (*Natrix natrix*) and slow worm (*Anguis fragilis*).
- 3.3.15 There was very little refuge cover and poor foraging habitat for reptiles due to sparsity of vegetation across the Site except for the two areas of grassland on the north side of the Hot Mill. However these areas of grassland were isolated from any other habitats which may provide suitable habitat in the wider landscape as they were surrounded by hard-standing and kerbed access roads. Due to this lack of habitat connectivity, if any reptiles had managed to colonise the grassland (such common lizard (*Zootoca vivipara*)), they would likely be in very low numbers.

Birds

- 3.3.16 The desk study returned records of 15 bird species protected under Schedule 1 of the Wildlife and Countryside Act 1981, nine of which are included within the 52 species listed as Red or Amber in the Birds of Conservation Concern (Stanbury et al., 2021). These records were largely associated the Gwent Levels and River Severn estuary.
- 3.3.17 Breeding bird surveys of the Site were undertaken by RSK Biocensus between March and June 2025⁵. A total of 13 bird species were identified, of which six are protected and/or notable. Nesting herring gull (*Larus argentatus*), lesser black-backed gull (*Larus fuscus*), jackdaw (*Coloeus monedula*), feral pigeons (*Columba livia*) and a pair of peregrines (*Falco peregrinus*) were identified on or within the Hot Mill building itself, including from the roof and from the cladding along the sides of the building. Stock doves (*Columba oenas*) were flushed from underneath the network of piping that surrounds the building on numerous occasions, indicating that they were probably using it as a nesting site. Whitethroat (*Curruca communis*) and lesser whitethroat (*Curruca curruca*) were also noted from areas of bramble and buddleia to the north and to the SE of the site.
- 3.3.18 Survey details, findings and recommendations are provided in the bird report (RSK Biocensus 2025a⁶).

Bats

- 3.3.19 The desk study returned records of seven bat species as summarised in Table .

Table 10: Summary of bat desk study records within 2 km of the Site boundary

Latin name	Common name	Designation	Most recent
<i>Chiroptera</i>	Unidentified species	EPS(Sch2)	2018
<i>Eptesicus serotinus</i>	Serotine	EPS(Sch2), WCA5, GB RDB(VU)	2018

⁵ RSK Biocensus (2025a) Llanwern Hot Mill: Breeding Bird Report. 2486598. RSK Biocensus, Bristol.

⁶ RSK Biocensus (2025a) Llanwern Hot Mill: Breeding Bird Report. 2486598. RSK Biocensus, Bristol.

Latin name	Common name	Designation	Most recent
<i>Myotis</i>	Unidentified myotis species	EPS(Sch2), WCA5	2018
<i>Myotis daubentonii</i>	Daubenton's bat	EPS(Sch2), WCA5	2020
<i>Nyctalus</i>	Unidentified nyctalus species	EPS(Sch2), WCA5	2018
<i>Nyctalus noctula</i>	Noctule	EPS(Sch2), WCA5, S7	2019
<i>Pipistrellus</i>	Unidentified pipistrelle species	EPS(Sch2), WCA5, S7	2019
<i>Pipistrellus nathusii</i>	Nathusius's pipistrelle	EPS(Sch2), WCA5	2014
<i>Pipistrellus pipistrellus</i>	Common pipistrelle	EPS(Sch2), WCA5, S7	2019
<i>Pipistrellus pygmaeus</i>	Soprano pipistrelle	EPS(Sch2), WCA5, S7	2019
<i>Plecotus</i>	Unidentified long-eared species	EPS(Sch2), WCA5	2018
<i>Plecotus auritus</i>	Brown long-eared	EPS(Sch2), WCA5, S7	2019
<i>Rhinolophus hipposideros</i>	Lesser horseshoe	EPS(Sch2), WCA5, S7	2018

3.3.20 The following are priority bat species listed in the Newport LBAP:

- Common pipistrelle
- Soprano pipistrelle
- Lesser horseshoe
- Brown long-eared
- Noctule
- Daubenton's bat

3.3.21 Bat surveys carried out by RSK Biocensus in 2024/2025⁷ have identified bat roosts in the Hot Mill and other buildings on and adjacent to the Site for common pipistrelle, brown long eared and lesser horseshoe bats. Survey details, findings and recommendations are provided in the bat report (RSK Biocensus 2025^b).

Hazel dormouse

3.3.22 The desk study returned records of dormice within 2 km of the Site.

3.3.23 However dormice are unlikely to be present on Site as there is no suitable connecting linked habitat and the habitats on Site were unsuitable, as scrub was mostly scattered butterfly bush which provides poor cover, poor connectivity and limited foraging opportunities.

Water vole

3.3.24 The desk study returned record of water voles within 2 km of the Site.

⁷ RSK Biocensus (2025^b) Llanwern: Bat Survey Report. 2486598. RSK Biocensus, Bristol.

- 3.3.25 However water voles are unlikely to be present as there were no suitable waterbodies or watercourses on or near the Site.

Otter

- 3.3.26 The desk study returned records of otters within 2 km of the Site.
- 3.3.27 However otter is unlikely to be present as there were no suitable waterbodies or watercourses on or near the Site.

Badger

- 3.3.28 No badger setts or other signs of badger activity were noted during the survey. The Site and surrounding area had poor foraging and limited sett building opportunities for badgers, therefore although they could potentially use the Site for foraging at night it is considered low risk.

Other priority species or species of principal importance

- 3.3.29 The Site could be used by hedgehog (*Erinaceus europaeus*) however it is not considered optimal as it is likely to have limited foraging opportunities due to the general sparsity of vegetation.

3.4 Invasive non-native species

- 3.4.1 The desk study did not return any records of invasive non-native species (INNS) within 2 km of the Site and none were identified during the survey.
- 3.4.2 The survey was undertaken in July when most INNS plant species would be readily visible and identifiable. However as a dedicated INNS survey was not carried out the presence of INNS cannot be completely ruled out.

4 Ecological Constraints and Opportunities

4.1 Introduction

- 4.1.1 This section of the report identifies ecological constraints to the proposed demolition works and provides details of how potential adverse effects could be avoided, minimised or otherwise mitigated. It also describes details of additional surveys which may be required to inform works, and/or detailed mitigation design/licensing requirements.

4.2 Designated sites

Statutory designated sites - European sites of importance for nature conservation

- 4.2.1 SACs and SPAs are part of the 'national site network' and are afforded protection under the provisions of The Conservation of Habitats and Species Regulations 2017 (as amended) (the 'Habitats Regulations') or their equivalents in the devolved administrations. These sites are designated as being of international importance for ecology and nature conservation. Furthermore, Ramsar sites are also of international importance, being wetlands that have been designated under the criteria of the Ramsar Convention on Wetlands for containing representative, rare, or unique wetland types or for their importance in conserving biological diversity.
- 4.2.2 The Severn estuary SAC, SPA and Ramsar is just over 3 km from the Site boundary with likely hydrological connection from the Site via a monitored drainage network to the Gwent Levels. Therefore there are potential impact pathways of relevance, which will require further consideration as there is potential for adverse effects on the qualifying features of the designated site from the proposed works.
- 4.2.3 Also, the River Usk SAC is located just over 4 km from the Site boundary and as above, as likely significant effects cannot be ruled out at this stage a Habitats Regulations Assessment (HRA) to at least Stage 1 (Screening) is likely to be required.

Statutory designated sites - National importance for nature conservation

- 4.2.4 The Site is within 2km of three SSSIs – all part of the Gwent Levels. As there is likely to be some hydrological connection from the Site to the Gwent Levels there is potential for adverse effects on the qualifying features of the SSSI's from the proposed works, which will require further consideration when the proposals undergo detailed assessment (HRA). The three SSSI's are:
- Gwent Levels - Whitson SSSI is located 0.7 km from the Site boundary.
 - Gwent Levels - Nash and Goldcliff SSSI is located 0.74 km from the Site boundary.
 - Gwent Levels - Redwick and Llandeenny SSSI is located 1.3 km from the Site boundary.

Non-statutory designated sites of importance for nature conservation

- 4.2.5 There are eleven non-statutory designated sites within 2 km of the Site boundary, which are all Sites of Importance for Nature Conservation (SINC) recognised as of County ecological value. Due to proximity and potential hydrological connection there may be

potential impact pathways. However the monitored drainage network within the Site receives treatment prior to being discharged from the steelworks (at the north edge of the steelworks via drain 6 to Barn Reen and Oxleaze Reen). This water treatment and monitoring system will be maintained throughout the demolition works and therefore significant impacts based on hydrological connectivity are not considered likely. Other standard pollution prevention control measures will also be in place, such as dust suppression to prevent airborne pollution.

4.3 Habitats

- 4.3.1 The habitats of bare ground, grassland, ruderal, short perennial, ephemeral and mosses are some of the features required to qualify as Priority habitat: 'Open Mosaic Habitats on Previously Developed Land'. However the habitats on Site were not species-rich and were not considered of high ecological value even when combined as a whole, as most of the same species were generally found throughout. The majority of the Site was comprised of hard-standing with scattered non-native butterfly bush. The grassland areas were not species-rich and there was not a high diversity of short perennial, ephemeral and moss species. These habitats have largely colonised within the last 10 years since the Hot Mill was mothballed.
- 4.3.2 No notable or protected plants were identified on Site.
- 4.3.3 Vegetation on Site is proposed to be cleared to facilitate the demolition works. As works are for demolition and no development is proposed there is currently no scope for habitat restoration or ecological enhancement within the Site. This will cause some loss of biodiversity however the habitat loss is considered of relatively low ecological value. It is likely the same habitats will re-establish following completion of the demolition works. Net Biodiversity Benefit would be required for any future development planning application.

4.4 Protected and priority species

Plants

- 4.4.1 As stated above, no notable or protected plants were identified on Site and therefore are not a constraint to works.

Aquatic invertebrates

- 4.4.2 The waterbodies on Site are proposed to be in-filled after works (following treatment to remove any pollutants). However aquatic invertebrates are not considered likely to be present and therefore are not a constraint to works.

Terrestrial invertebrates

- 4.4.3 Vegetation removal will affect any terrestrial invertebrates present however the Site is considered likely to support only common invertebrate species as habitats were relatively species-poor and not in high abundance due to the general sparsity of vegetation. There are additional similar habitats outside the Site boundary which will be retained, and following demolition it is likely the same habitats will re-establish.

Fish

- 4.4.4 As stated above, the waterbodies on Site are proposed to be in-filled after works. Fish are not considered likely to be present and therefore should not be a constraint to works. However as a precautionary measure ecologist supervision is recommended during their drain down in the unlikely event that any fish or other animals need rescue.

Amphibians

- 4.4.5 Amphibians are considered unlikely to be present on Site and therefore should not be a constraint to works. However, as a precautionary measure ecologist supervision is recommended during the drain down of waterbodies in the unlikely event that any amphibians or other animals need rescue.

Reptiles

- 4.4.6 Adders, grass snakes, common lizards and slow worms are protected by law. The grassland is suitable habitat for reptiles however it is considered low risk that reptiles are present due to the isolation of the grassland as it lacks connectivity to suitable habitat in the wider area.
- 4.4.7 As a precautionary measure a two stage vegetation cut, where required, and hand search by an ecologist is recommended immediately prior to grassland clearance. Subsequent turf and soil removal should also then be carried out in a precautionary manner (slowly removing c. 10cm soil depth with a forked bucket) under ecologist supervision to avoid harm to any reptiles, if present. If any reptiles are found they would need to be carefully transported in a bucket to suitable habitat nearby in a safe area undisturbed by works.

Birds

- 4.4.8 The breeding bird survey by RSK Biocensus (2025a)⁸ identified 219 gulls (herring gull and black-backed gull), many of which were nesting on the roof of the Hot Mill. A pair of peregrines inside the Hot Mill and also jackdaw, stock dove and grey wagtail nesting inside and around the Hot Mill and associated structures. Whitethroat and lesser whitethroat were nesting in scrub around the site.
- 4.4.9 No bird species designated as features for the Severn Estuary SPA/Ramsar were identified on site. However herring gull is a species of principal importance as listed under Section 7 of the Environment (Wales) Act 2016. Three were Birds of Conservation Concern (BOCC) Red listed species: herring gull, black-backed gull and whitethroat; and two BOCC Amber listed species: magpie and grey wagtail.
- 4.4.10 All wild birds, their nests and their eggs are protected under Section 1 of the Wildlife and Countryside Act 1981 (as amended). Peregrine are also given additional protection under Schedule 1 of the act and it is offence to intentionally or recklessly disturb a Schedule 1 bird while it is building a nest or is in, on or near a nest containing eggs or young; or disturb with dependent young.
- 4.4.11 Consideration needs to be given to timing and methods of works which may disturb nesting birds. These works should ideally be carried out outside of the nesting season where possible (nesting bird season is affected by climactic conditions but is generally

⁸ RSK Biocensus (2025a) Llanwern Hot Mill: Breeding Bird Report. 2486598. RSK Biocensus, Bristol

taken as March to August inclusive). However due to the size of the building and duration of works, it is understood that avoidance by timing will not always be possible. Deterrents would therefore also need to be used to dissuade birds from nesting. During works in the nesting season (normally March to August), monitoring would be required by a suitably trained ecologist to observe possible nesting locations and appropriate buffer zones implemented to prevent disturbance. Detailed recommendations are provided in the breeding bird report (RSK Biocensus 2025a⁹).

- 4.4.12 Vegetation clearance should be timed to avoid the main nesting bird season. If this is not possible, a nesting bird check must be undertaken by an ecologist no more than 24 hours before the start of the works. If nests are found, they must be retained (with a suitable, species-specific buffer) and protected from damage or abandonment until the young have fledged.

Bats

- 4.4.13 All bat species, their breeding sites and resting places are protected by law.
- 4.4.14 Bat surveys carried out by RSK Biocensus in 2024 and 2025 identified common pipistrelle, brown long-eared and lesser horseshoe bats were identified roosting in the Hot Mill and several adjacent buildings within and adjacent to the Site. A European Protected Species Mitigation License will be required from Natural Resources Wales for any works on or around these buildings which may impact bats. Survey details, mitigation and compensation measures are detailed in the bat survey report (RSK Biocensus 2025b¹⁰).

4.5 Invasive non-native species

- 4.5.1 No INNS were identified during the survey and are not anticipated to be present, although a dedicated INNS survey was not carried out so they cannot be completely ruled out. Vigilance for the presence of any INNS should be carried out during any further surveys, site visits and during works.

4.6 Opportunities for enhancement

- 4.6.1 All the buildings and structures on Site are proposed to be demolished and all materials removed. Waterbodies and basements are anticipated to be in-filled and the ground levelled. The Site is then likely to be subject to a future application for development.
- 4.6.2 As no development is proposed there is no scope for ecological restoration or enhancement within the Site. Net Biodiversity Benefit is not covered here as it is demolition only, however it would be required for any future development planning application.
- 4.6.3 Mitigation for bats and birds is dealt with in the respective detailed reports.

⁹ RSK Biocensus (2025a) Llanwern Hot Mill: Breeding Bird Report. 2486598. RSK Biocensus, Bristol

¹⁰ RSK Biocensus (2025b) Llanwern: Bat Survey Report. 2486598. RSK Biocensus, Bristol

5 Conclusion

- 5.1.1 A Habitat Regulations Assessment is recommended to fully inform the potential impacts on internationally designated sites.
- 5.1.2 Roosting bats and breeding birds are using the buildings on Site. See the relevant reports for full survey details and recommendations.
- 5.1.3 For the buildings, ecological supervision will be required for dismantling works which may impact bats (under the bat mitigation licence, as detailed in the bat report) and monitoring of nesting birds is recommended (as detailed in the breeding bird report).
- 5.1.4 Ecological supervision is also recommended for any vegetation clearance which may impact nesting birds or reptiles and as a precautionary measure during the drain down of the waterbodies.
- 5.1.5 Mitigation for bats and birds is dealt with in the respective reports.

6 References

- ARG UK (2010), *Advice Note 5: Great Crested Newt Habitat Suitability Index*. Amphibian and Reptile Groups of the United Kingdom.
- Bumblebee Conservation Organisation (2025) Shrill Carder Bee
<https://www.bumblebeeconservation.org/learn-about-bumblebees/species-guide/shrill-carder-bee/> (accessed 13/08/2025)
- CIEEM (2017), *Guidelines for Preliminary Ecological Appraisal* (2nd edition). Chartered Institute of Ecology and Environmental Management, Winchester. Available online: <https://cieem.net/wp-content/uploads/2019/02/Guidelines-for-Preliminary-Ecological-Appraisal-Jan2018-1.pdf>
- CIEEM (2019), *Advice Note on the Lifespan of Ecological Reports & Surveys*. Chartered Institute of Ecology and Environmental Management, Winchester, Hampshire. Available online: <https://cieem.net/wp-content/uploads/2019/04/Advice-Note.pdf>
- Collins, J. (2023), *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (4th edition). The Bat Conservation Trust, London.
- Multi-Agency Geographic Information for the Countryside Interactive mapping tool run by Natural England. Available online: <https://magic.defra.gov.uk/> (accessed 12/08/2025)
- RSK Biocensus (2022) Project Cronus: Great Crested Newt Survey Report. 2482634. RSK Biocensus, Cardiff.
- RSK Biocensus (2025a) Llanwern Hot Mill: Breeding Bird Report. 2486598. RSK Biocensus, Bristol
- RSK Biocensus (2025b) Llanwern: Bat Survey Report. 2486598. RSK Biocensus, Bristol
- Stace, C.A. (2019), *A New Flora of the British Isles* (4th edition). C & M Floristics, Middlewood Green.
- Stanbury, A.J., Eaton, M.A., Aebischer, N.J., Balmer, D., Brown, A.F., Douse, A., Lindley, P., McCulloch, N., Noble, D.G. & Win, I. (2021), The status of our bird populations: the fifth Birds of Conservation Concern in the United Kingdom, Channel Islands and Isle of Man and second IUCN Red List assessment of extinction risk for Great Britain. *British Birds* 114. Available online: <https://www.bto.org/sites/default/files/publications/bocc-5-a5-4pp-single-pages.pdf>
- UKHab Ltd (2023), UK Habitat Classification Version 2.01. Available online: <https://www.ukhab.org> (accessed 13/08/2025)

Figures

Figure 1. Site Location Plan

Figure 2. UK Habitat Plan with Target Notes



Legend:

Site boundary

00	14/08/2025	2486598	RS	LB	RH
Rev	Date	Description	Drn	Chk	App
Llanwneryd Hot Mill					
RSK biocensus EXPERTS IN ECOLOGY					
TITLE: Figure 1: Site Location Plan					
0150300 Metres SCALE: 1:10,000 @ A3			N W E S REV 00		



Legend:

- Site boundary
- UKHab Classification
 - Other neutral grassland
 - Bramble scrub
 - Dense scrub (bramble)
 - Other standing water
 - Buildings
 - Developed land; sealed surface
 - Other developed land
 - Sparsely vegetated urban land
- Target note
- Secondary code

Secondary Code	Description
10	Scattered scrub
49	Freshwater – artificial
800	Road
852	Water treatment filter bed



Rev	Date	Description	Drn	Chk	App
00	15/08/2025	2486598	RS	SF	RH

Llanwern Hot Mill

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TITLE: Figure 2:
Habitat Survey

0 50 100
Metres
SCALE: 1:3,000 @ A3

N
W
E
S

REV 00

Appendix A - Target Notes

Table 11: Target Notes

Target Note number	Description
1	Grassland with low potential for reptiles and nesting birds
2	Grassland with low potential for reptiles and nesting birds
3	Area of bare ground, gravel and ballast dominated by biting stonecrop and mosses with occasional ruderal and scattered scrub. (Rest of Site was mostly hard-standing with scattered scrub).
4	Polluted waterbody as shown in photo 7
5	Polluted waterbody as shown in photo 8
6	Waterbody under treatment connected to filter bed of common bulrush, as shown in photo's 10 and photo 11
7	Waterbody as shown in photo 9

Appendix B - Site Photographs

	
Photo 1: Hot Mill building (north side) with areas of grassland in foreground	Photo 2: Hot Mill building and structures (north side). Mosses and sedum on hard-standing with butterfly bush scattered along edges
	
Photo 3: One of several buildings within the Site (north side) brick built with flat topped roof (several have been found to be bat roosts)	Photo 4: Dense areas of butterfly bush along edges of Hot Mill
	
Photo 5: Grassland with abundant creeping thistle on northern side.	Photo 5: Grassland encroached by bramble on northern side.

Photographs (cont.)



Photo 7: Target note 4: Polluted waterbody



Photo 8: Target note 5: Polluted waterbody



Photo 9: Target note 7: Polluted waterbody



Photo 10: Target note 6: Waterbody - under treatment



Photo 11: Filter bed of common bulrush as part of water treatment area: Target note 6



Photo 12: One of the buildings (reheat office) identified as a bat roost (on north side)

Photographs (cont.)



Photo 13: mostly bare ground with some ephemeral and scattered scrub on south side



Photo 14: mostly bare ground on south side



Photo 15: Bare ground with gravel and ephemeral, mostly biting stonecrop and moss on south side



Photo 16: Hard-standing with some ephemeral and scattered scrub on south side



Photo 17: Bare ground with gravel on south side



Photo 18: Bare ground with some ephemeral, moss and butterfly bush on south side

Appendix C - Desk Study Records

The following tables present records of protected and notable species within 2 km of the Site boundary. These species records were obtained from South East Wales Biodiversity Records Centre. The scientific and common names for species are given, as well as their level of designation. Where a species is not listed, this does not indicate absence, but that the Record Centre does not currently hold records from the search area.

Table 14: Protected species records within 2 km of the site boundary

Scientific name	Common name	Designation	Most Recent	Any records within 100m
Amphibians				
<i>Triturus cristatus</i>	great crested newt	EPS(Sch2), WCA5, S7	2024	
Birds				
<i>Alcedo atthis</i>	kingfisher	WCA1.1	2024	☒
<i>Anas acuta</i>	pintail	WCA1.2, Amber, GB RDB(CR)	2019	
<i>Botaurus stellaris</i>	bittern	WCA1.1, S7, Red, GB RDB(VU)	2024	
<i>Cettia cetti</i>	cetti's warbler	WCA1.1	2024	
<i>Charadrius dubius</i>	little ringed plover	WCA1.1	2021	
<i>Circus aeruginosus</i>	marsh harrier	WCA1.1, Amber	2023	
<i>Circus cyaneus</i>	hen harrier	WCA1.1, S7, Red, GB RDB(VU)	2016	
<i>Falco columbarius</i>	merlin	WCA1.1, Red, GB RDB(EN)	2023	
<i>Falco peregrinus</i>	peregrine	WCA1.1	2024	
<i>Falco subbuteo</i>	hobby	WCA1.1	2019	
<i>Limosa limosa</i>	black-tailed godwit	WCA1.1, Amber, GB RDB(EN)	2006	
<i>Milvus milvus</i>	red kite	WCA1.1	2020	
<i>Numenius phaeopus</i>	whimbrel	WCA1.1, Amber, GB RDB(CR)	2018	
<i>Pandion haliaetus</i>	osprey	WCA1.1, Amber	2024	
<i>Phoenicurus ochruros</i>	black redstart	WCA1.1, Amber, GB RDB(EN)	1983	☒
<i>Tringa ochropus</i>	green sandpiper	WCA1.1, Amber, GB RDB(EN)	2020	
<i>Turdus iliacus</i>	redwing	WCA1.1, GB RDB(CR)	2023	☒
<i>Turdus pilaris</i>	fieldfare	WCA1.1, Amber, GB RDB(CR)	2019	☒
<i>Tyto alba</i>	barn owl	WCA1.1	2020	
<i>Upupa epops</i>	hoopoe	WCA1.1, Amber	2024	
Mammals				
<i>Arvicola amphibius</i>	water vole	WCA5, S7, GB RDB(EN)	2023	

Scientific name	Common name	Designation	Most Recent	Any records within 100m
<i>Chiroptera</i>	bat	EPS(Sch2)	2018	
<i>Eptesicus serotinus</i>	serotine	EPS(Sch2), WCA5, GB RDB(VU)	2018	
<i>Lutra lutra</i>	otter	EPS(Sch2), WCA5, S7	2023	
<i>Meles meles</i>	badger	BA	2020	
<i>Muscardinus avellanarius</i>	hazel dormouse	EPS(Sch2), WCA5, S7, GB RDB(VU)	2019	
<i>Myotis</i>	myotis bat species	EPS(Sch2), WCA5	2021	
<i>Myotis daubentonii</i>	daubenton's bat	EPS(Sch2), WCA5	2021	
<i>Myotis nattereri</i>	natterer's bat	EPS(Sch2), WCA5	2023	
<i>Nyctalus</i>	nyctalus bat species	EPS(Sch2), WCA5	2018	
<i>Nyctalus noctula</i>	noctule	EPS(Sch2), WCA5, S7	2023	
<i>Pipistrellus</i>	pipistrelle bat species	EPS(Sch2), WCA5, S7	2019	
<i>Pipistrellus pipistrellus</i>	common pipistrelle	EPS(Sch2), WCA5, S7	2023	
<i>Pipistrellus pipistrellus</i>	pipistrelle	EPS(Sch2), WCA5, S7	2016	
<i>Pipistrellus pygmaeus</i>	soprano pipistrelle	EPS(Sch2), WCA5, S7	2023	
<i>Plecotus</i>	long-eared bat species	EPS(Sch2), WCA5	2018	
<i>Plecotus auritus</i>	brown long-eared bat	EPS(Sch2), WCA5, S7	2019	
<i>Rhinolophus hipposideros</i>	lesser horseshoe bat	EPS(Sch2), WCA5, S7	2018	
Reptiles				
<i>Anguis fragilis</i>	slow-worm	WCA5, S7	1972	
<i>Natrix helvetica</i>	grass snake	WCA5, S7	1994	

Table 15: Noteworthy species records within 2 km of the site boundary

Scientific name	Common name	Designation
Amphibians		
<i>Bufo bufo</i>	common toad	WCA5, S7
<i>Lissotriton helveticus</i>	palmate newt	WCA5
<i>Lissotriton vulgaris</i>	smooth newt	WCA5
<i>Rana temporaria</i>	common frog	WCA5
Birds		
<i>Acanthis cabaret</i>	lesser redpoll	S7, Amber
<i>Actitis hypoleucos</i>	common sandpiper	Amber, GB RDB(VU)
<i>Alauda arvensis</i>	skylark	S7, Amber
<i>Anas crecca</i>	teal	Amber
<i>Anthus pratensis</i>	meadow pipit	Red
<i>Anthus trivialis</i>	tree pipit	S7, Red

Scientific name	Common name	Designation
<i>Apus apus</i>	swift	Red, GB RDB(EN)
<i>Ardea cinerea</i>	grey heron	Amber
<i>Aythya ferina</i>	pochard	Red, GB RDB(EN)
<i>Calidris alpina</i>	dunlin	Red, GB RDB(EN)
<i>Calidris canutus</i>	knot	Amber
<i>Charadrius hiaticula</i>	ringed plover	S7, Red, GB RDB(VU)
<i>Chloris chloris</i>	greenfinch	Red, GB RDB(EN)
<i>Chroicocephalus ridibundus</i>	black-headed gull	S7, Red, GB RDB(VU)
<i>Coccothraustes coccothraustes</i>	hawfinch	S7, Amber, GB RDB(EN)
<i>Cuculus canorus</i>	cuckoo	S7, Red, GB RDB(VU)
<i>Curruca communis</i>	whitethroat	Red
<i>Emberiza schoeniclus</i>	reed bunting	S7
<i>Falco tinnunculus</i>	kestrel	S7, Red, GB RDB(VU)
<i>Fulica atra</i>	coot	Amber
<i>Gallinago gallinago</i>	snipe	Amber
<i>Larus argentatus</i>	herring gull	S7, Red, GB RDB(EN)
<i>Larus canus</i>	common gull	Amber
<i>Larus fuscus</i>	lesser black-backed gull	Red
<i>Larus marinus</i>	great black-backed gull	Amber, GB RDB(EN)
<i>Linaria cannabina</i>	linnet	S7, Red
<i>Locustella naevia</i>	grasshopper warbler	S7, Red
<i>Lymnocyptes minimus</i>	jack snipe	Amber
<i>Mareca penelope</i>	wigeon	Amber
<i>Motacilla cinerea</i>	grey wagtail	Amber
<i>Motacilla flava</i>	yellow wagtail	S7, Red
<i>Muscicapa striata</i>	spotted flycatcher	S7, Red
<i>Numerius arquata</i>	curlew	S7, Red, GB RDB(EN)
<i>Oenanthe oenanthe</i>	wheatear	Amber
<i>Passer domesticus</i>	house sparrow	S7, Amber
<i>Passer montanus</i>	tree sparrow	S7, Red, GB RDB(VU)
<i>Phylloscopus trochilus</i>	willow warbler	Red
<i>Picus viridis</i>	green woodpecker	Amber
<i>Pluvialis squatarola</i>	grey plover	Red, GB RDB(VU)
<i>Prunella modularis</i>	dunnock	S7, Amber
<i>Puffinus puffinus</i>	manx shearwater	Amber
<i>Pyrrhula pyrrhula</i>	bullfinch	S7, Amber
<i>Regulus regulus</i>	goldcrest	Red
<i>Saxicola rubetra</i>	whinchat	Red
<i>Scolopax rusticola</i>	woodcock	Red, GB RDB(VU)
<i>Spatula clypeata</i>	shoveler	Amber
<i>Sturnus vulgaris</i>	starling	S7, Red, GB RDB(VU)
<i>Tadorna tadorna</i>	shelduck	Red, GB RDB(EN)
<i>Tringa erythropus</i>	spotted redshank	Amber, GB RDB(EN)

Scientific name	Common name	Designation
<i>Tringa totanus</i>	redshank	Red, GB RDB(VU)
<i>Turdus philomelos</i>	song thrush	S7
<i>Turdus viscivorus</i>	mistle thrush	Amber, GB RDB(VU)
<i>Vanellus vanellus</i>	lapwing	S7, Red, GB RDB(EN)
Fish		
<i>Anguilla anguilla</i>	eel	S7, OSPAR
Invertebrates		
<i>Acronicta psi</i>	grey dagger	S7
<i>Acronicta rumicis</i>	knot grass	S7
<i>Agathomyia wankowiczii</i>	agathomyia wankowiczii	NS
<i>Allophyes oxyacanthae</i>	green-brindled crescent	S7
<i>Amphipyra tragopoginis</i>	mouse moth	S7
<i>Anaglyptus mysticus</i>	anaglyptus mysticus	Notable:B
<i>Anagnota bicolor</i>	anagnota bicolor	Notable
<i>Andrena humilis</i>	buff-tailed mining bee	Notable:B
<i>Arctia caja</i>	garden tiger	S7
<i>Atethmia centrigo</i>	centre-barred sallow	S7
<i>Bombus humilis</i>	brown-banded carder bee	S7
<i>Bombus sylvarum</i>	shrill carder bee	S7, Notable:B
<i>Brachylomia viminalis</i>	minor shoulder-knot	S7
<i>Calamotropha paludella</i>	bulrush veneer	Notable:B
<i>Caradrina morpheus</i>	mottled rustic	S7
<i>Ceramica pisi</i>	broom moth	S7
<i>Chiasmia clathrata</i>	latticed heath	S7
<i>Diarsia rubi</i>	small square-spot	S7
<i>Dicraeus scibilis</i>	dicraeus scibilis	Notable
<i>Dicranomyia ventralis</i>	dicranomyia ventralis	Notable
<i>Ditaeniella grisescens</i>	ditaeniella grisescens	Notable
<i>Dolichopus signifer</i>	dolichopus signifer	NS
<i>Donacia clavipes</i>	donacia clavipes	Notable:B
<i>Ecliptopera silaceata</i>	small phoenix	S7
<i>Ennomos fuscantaria</i>	dusky thorn	S7
<i>Ennomos quercinaria</i>	august thorn	S7
<i>Eudonia delunella</i>	pied grey	Notable:B
<i>Geomyza apicalis</i>	geomyza apicalis	Notable
<i>Gymnetron villosulum</i>	gymnetron villosulum	Notable:B
<i>Hemistola chrysoprasaria</i>	small emerald	S7
<i>Hepialus humuli</i>	ghost moth	S7
<i>Hippodamia variegata</i>	adonis' ladybird	Notable:B
<i>Hoplodrina blanda</i>	rustic	S7

Scientific name	Common name	Designation
<i>Hydaticus transversalis</i>	hydaticus transversalis	NS
<i>Hydraecia micacea</i>	rosy rustic	S7
<i>Leucania comma</i>	shoulder-striped wainscot	S7
<i>Litoligia literosa</i>	rosy minor	S7
<i>Lycia hirtaria</i>	brindled beauty	S7
<i>Malacosoma neustria</i>	lackey	S7
<i>Melanchra persicariae</i>	dot moth	S7
<i>Melanthia procellata</i>	pretty chalk carpet	S7
<i>Molophilus corniger</i>	molophilus corniger	Notable
<i>Neoascia geniculata</i>	neoascia geniculata	Notable
<i>Nephoterix angustella</i>	spindle knot-horn	Notable:B
<i>Odontomyia tigrina</i>	black colonel	Notable
<i>Oedemera (Oncomera) femoralis</i>	oedemera femoralis	NS, Notable:B
<i>Orthonama vittata</i>	oblique carpet	S7
<i>Orthosia gracilis</i>	powdered quaker	S7
<i>Oscinella angustipennis</i>	oscinella angustipennis	Notable
<i>Oulimnius troglodytes</i>	oulimnius troglodytes	NS
<i>Peltodytes caesus</i>	peltodytes caesus	NS
<i>Pherbellia dorsata</i>	pherbellia dorsata	Notable
<i>Phytoecia cylindrica</i>	phytoecia cylindrica	Notable:B
<i>Rhizedra lutosa</i>	large wainscot	S7
<i>Sapromyza quadricincta</i>	sapromyza quadricincta	Notable
<i>Scirtes orbicularis</i>	scirtes orbicularis	NS
<i>Scopula marginepunctata</i>	mullein wave	S7
<i>Scotopteryx chenopodiata</i>	shaded broad-bar	S7
<i>Spilosoma lubricipeda</i>	white ermine	S7
<i>Spilosoma lutea</i>	buff ermine	S7
<i>Tetanocera phyllophora</i>	tetanocera phyllophora	Notable
<i>Timandra comae</i>	blood-vein	S7
<i>Tyria jacobaeae</i>	cinnabar	S7
<i>Vanoyia tenuicornis</i>	long-horned soldier	NS, Notable
<i>Watsonalla binaria</i>	oak hook-tip	S7
<i>Xanthorhoe ferrugata</i>	dark-barred twin-spot carpet	S7
Mammals		
<i>Erinaceus europaeus</i>	hedgehog	S7, GB RDB(VU)
<i>Lepus europaeus</i>	hare	S7
<i>Micromys minutus</i>	harvest mouse	S7
<i>Mustela putorius</i>	polecat	S7
Plants		

Scientific name	Common name	Designation
<i>Brassica oleracea</i>	wild cabbage	NS
<i>Catabrosa aquatica</i>	whorl-grass	GB RDB(VU)
<i>Gastridium ventricosum</i>	nit-grass	NS
<i>Hyacinthoides non-scripta</i>	bluebell	WCA8
<i>Lepidium latifolium</i>	dittander	NS
<i>Myriophyllum verticillatum</i>	whorled water-milfoil	GB RDB(VU)
<i>Oenanthe fistulosa</i>	tubular water-dropwort	S7, GB RDB(VU)
<i>Oxybasis glauca</i>	oak-leaved goosefoot	GB RDB(VU), NS
<i>Poa infirma</i>	early meadow-grass	NS
<i>Polypogon monspeliensis</i>	annual beard-grass	NS
<i>Trifolium fragiferum</i>	strawberry clover	GB RDB(VU)
<i>Wolffia arrhiza</i>	rootless duckweed	GB RDB(VU), NS



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