REDSTART

HOOVER SITE, MERTHYR TYDFIL

PRELIMINARY ECOLOGICAL APPRAISAL (PEA) REPORT

May 2022

Project No: GC/004005 Doc Ref: GC4005-RED-74-XX-RP-L-0001 Rev:P01

CLIENT: Merthyr Tydfil County Borough Council
ISSUE DATE: May 2022

Hoover Site, Merthyr Tydfil
Preliminary Ecological Appraisal (PEA) Report

	NAME	POSITION	DATE
AUTHOR	Tara Okon	Graduate Ecologist	April 2022
CHECKER	Richard Poole	Senior Ecologist	May 2022
APPROVER	Geraint Pitman	Associate Director	May 2022

ISSUE RECORD

REV	DATE	DESCRIPTION/COMMENTS	AUTHOR/ PREPARED	APPROVED FOR ISSUE BY:
P01	05/05/2022	Report Issued	T.Okon	G. Pitman

GENERAL DISCLAIMER:

This report has been prepared by Redstart in favour of Merthyr Tydfil County Borough Council ("the Client") and is for the sole use and benefit of the Client in accordance with the agreement between the Client and Redstart dated January 2022 under which Redstart's services were performed. Other than in respect of liability which cannot be excluded by law, Redstart accepts no liability to any other party in respect of the contents of this report. This report is confidential and may not be disclosed by the Client or relied on by any other party without the express prior written consent of Redstart.

Whilst care has been taken in the construction of this report, the conclusions and recommendations which it contains are based upon information provided by third parties ("Third Party Information"). Redstart has for the purposes of this report relied upon and assumed that the Third Party Information is accurate and complete and has not independently verified such information for the purposes of this report. Redstart makes no representation, warranty or undertaking (express or implied) in the context of the Third Party Information and no responsibility is taken or accepted by Redstart for the adequacy, completeness or accuracy of the report in the context of the Third Party Information on which it is based.

FREEDOM OF INFORMATION:

Redstart understands and acknowledges the Authority's legal obligations and responsibilities under the Freedom of Information Act 2000 (the "Act") and fully appreciates that the Authority may be required under the terms of the Act to disclose any information which it holds. Redstart maintains that the report contains commercially sensitive information that could be prejudicial to the commercial interests of the parties. On this basis redstart believes that the report should attract exemption from disclosure, at least in the first instance, under Sections 41 and/or 43 of the Act. Redstart accepts that the damage which it would suffer in the event of disclosure of certain of the confidential information would, to some extent, reduce with the passage of time and therefore proposes that any disclosure (pursuant to the Act) of the confidential information contained in the report should be restricted until after the expiry of 24 months from the date of the report.

Contents

Drawings

Appendices

Non-Technical Summary

Site Location	Site Name: Hoover Site, Merthyr Tydfil. Approximated Central Grid Reference: SO 05765 04182
Proposed works	Ground Investigation works, demolition of existing buildings and removal of hardstanding ready for future development.
Purpose of survey/s	To identify any ecological constraints associated with the proposed site.
Dates of survey and names of surveyors	• Extended Phase 1 Habitat Survey – 6th April 2022 – Tara Okon (Graduate Ecologist) and Anwen Moon (Assistant Ecologist).
Overview of Results	• One statutory designated site lies within 2 km (5 km for bats) of the site. • Thirteen non statutory designated sites lie within 2 km of the site. Afon Taf/River Taff SINC lies at the westernmost edge of the survey boundary. • The closest Ancient Woodland (AW) lies approximately 400 m north-east of the site. • Six Tree Preservation Order trees/areas (TPOs) all located at the grounds of Pentrebach House lie within 100 m of the site. • Three Priority habitat types were identified within the survey area. These were 'Lowland mixed deciduous woodland' and 'Wet woodland' (semi-natural broadleaved woodland) at the western and north-eastern edges of the survey boundary, and river, namely the River Taff, at the western edge of the survey area. • Phase 1 habitats identified within the site survey area included: semi-natural broadleaved woodland, scrub, scattered (broadleaved) trees, poor semi-improved grassland, river, amenity grassland, ephemeral/short perennial, introduced shrub, and bare ground. • There was potential for bats to be roosting within Hoover factory buildings, including the cricket club and a water pumping station brick building east of Merthyr Road. There was high potential for woodland and riparian habitats associated with the River Taff SINC at the western edge of the site to support foraging and commuting bats. • The River Taff SINC is highly likely to support commuting and foraging otter and is also likely to support a range of fish species. • The site has potential to support the presence of hedgehog (and other small mammals), breeding birds, amphibians, and reptiles. • The Schedule 9 Wildlife & Countryside Act (WCA) species montbretia, wall cotoneaster, and Japanese knotweed were recorded within the site survey boundary.
Further survey	• Detailed ground level building/tree survey to look for evidence of bat presence or use; to assess potential access points, and to ascertain the level of potential for bats.
Recommendations	• Suitable pollution prevention measures should be employed to avoid pollution to the River Taff SINC and priority habitats 'Wet woodland' and Lowland mixed deciduous woodland' habitats. • Siting of plant and machinery should be on hard standing or discussed with an ecologist prior to commencement of works. • Avoidance or minimal clearance of Priority habitats 'Wet woodland' and 'Lowland mixed deciduous woodland' in the unlikely event that the proposed works will impact upon them to facilitate the works. • Night-time working should be avoided to reduce impact on bats and general bat mitigation measures should be followed for the duration of the works.

	• Pollution prevention measures as stated in recommendations for designated sites to avoid indirectly impacting otter and fish species within the River Taff SINC. • If vegetation clearance is needed to facilitate the works, a method statement for reptiles, amphibians, and small mammals will be required as a precautionary measure, likely to include timings of works and a two-stage cut. • Vegetation clearance/tree removal should be undertaken outside the bird breeding season (i.e., works should be conducted between September and February inclusive) or under ecological supervision. • The appointed contractor should provide an appropriate Invasive Species Method Statement for the proposed works which should be followed for the duration of the works. • All site personnel should receive a toolbox talk provided by an experienced ecologist prior to commencing work on site.
Opportunities for Enhancement	• Swift boxes installed in suitable locations on buildings within the future development • Install integrated bat roost boxes within houses of future development. • Install bat-friendly lighting within future housing development under guidance of licensed bat ecologist. • Landscape planting/seeding of pollinator friendly wildflower mixes along any newly created grassland verges within the development area. • Planting of native tree/hedgerow could be incorporated into the design for the future development.

1. Introduction

Redstart was commissioned by Merthyr Tydfil County Borough Council (MTCBC) to carry out a Preliminary Ecological Appraisal (PEA), including a desktop study and Phase 1 habitat survey of the site of the former Hoover factory in Merthyr Tydfil for proposed demolition works in preparation for future development. Approximate Central Grid Reference: SO 05765 04182.

The survey was carried out to identify ecological constraints associated with the proposed site, and this report includes details of the survey methodologies, results and discussion, and contains recommendations for further survey/mitigation where appropriate.

1.1 Site Description

The site is situated next to the A4054 Merthyr Road, in Pentrebach, Merthyr Tydfil at the location of the former Hoover factory.

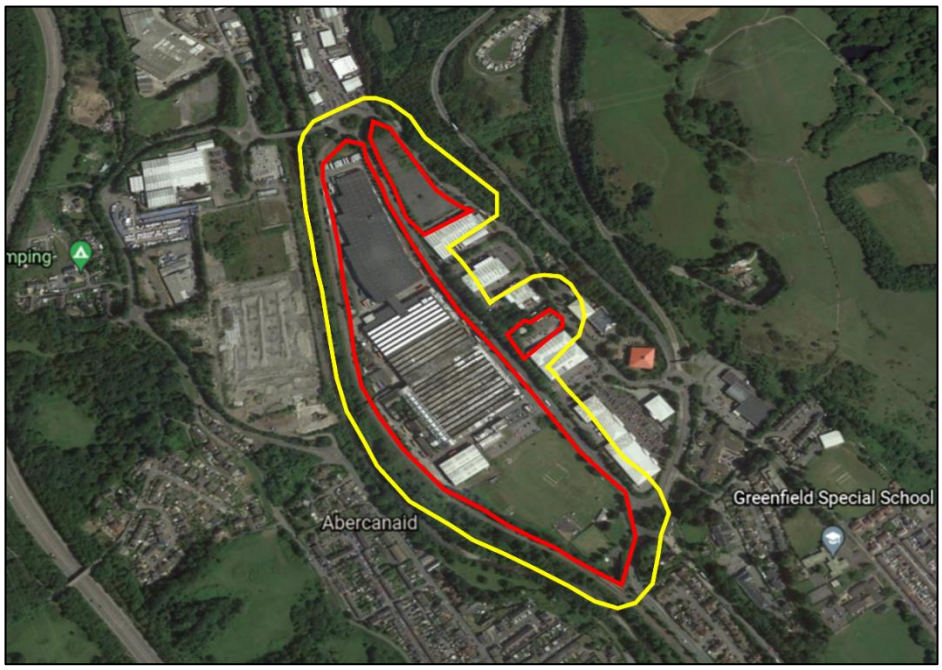
The wider landscape holds further commercial units and business properties to the east and west, as well as the residential areas of Abercanaid, Pentrebach, and Ysgubor Newydd, south, south-east, and north respectively. Merthyr's railway line and the River Taff both run parallel to the west of the site.

The surrounding landscape includes a mosaic of 'ffridd' and colliery spoil habitats, as well as grasslands, woodlands, heathland, and conifer plantation.

The Taff and Trevithick Trails also run roughly parallel to the site further west and east respectively.

The site boundary is illustrated in Figure 1 and hereafter referred to as the site. The site is highlighted with a red boundary and the site survey boundary with approximate 50 m buffer is highlighted in yellow.

Figure 1: Photograph of the site adapted from Google Earth (Accessed April 2022).



1.2 Proposed Works

The proposed works include:

- Ground investigation works
- Demolition of existing buildings
- Removal of hard standing areas
- Making good any remediation found
- Reconfiguring any services necessary in preparation for future development likely to comprise residential housing.

1.3 Planning Policy and Legislation

A full description of wildlife planning policy and legislation is provided in Appendix A.

2. Methodology

2.1 Desk Study

A desk study was undertaken in January 2021 to identify any existing ecological information relating to the proposed site and its surroundings. The following organisations were consulted:

A request to the South East Wales Biological Records Centre (SEWBReC) was made for information on any ecologically designated sites, habitats and protected species or species of conservation concern within a 2 km (5 km for bats) radius of the proposed site. This included a request for data for priority habitats and species listed under Section 7 of the Environment (Wales) Act 2016.

The Multi-Agency Geographic Information for the Countryside (MAGIC) website (MAGIC, 2022) as used to search for additional statutory designated sites e.g., Special Areas of Conservation (SAC) specifically designated for bats within 5 km of the site. Natural Resources Wales' (NRW) online designated site search was then utilised to obtain citations for relevant statutory site designations identified (NRW, 2022), and SEWBReC and MTCBC Replacement Local Development Plan (2016-2031) were consulted for the non-statutory Sites of Importance for Nature Conservation (SINC) citations (MTCBC, 2018).

Furthermore, MTCBC's Tree Preservation Order (TPO) and Conservation Area Interactive Map (Accessed January 2022), and Natural Resources Wales online Lle Ancient Woodland (AW) Inventory interactive map (NRW, 2021) were consulted to identify TPOs within 100 m, and AW areas within 1 km of the proposed site.

2.2 Field Survey

2.2.1 Extended Phase 1 Habitat Survey

Experienced Redstart surveyors carried out the survey based on Phase 1 habitat survey techniques (JNCC, 2010) on the 6th April 2022. The survey consisted of a thorough walkover of the survey area, mapping the habitat types, and listing floral species. The relative abundance of each plant species was recorded using the **A**bundant, **C**ommon, **F**requent, **O**ccasional, **R**are (ACFOR) scale. Dominant plant species were noted, as were any uncommon species or species indicative of particular habitat types, but there was no attempt to compile exhaustive species lists. Species nomenclature follows Stace (2010).

The habitats were also assessed for their potential to support protected/notable species of plants and/or animals and observation was made of any incidental signs of protected/notable species.

2.2.2 Preliminary Roost Assessments for Bats (External Assessment)

Redstart ecologists conducted an external ground level inspection of the trees and structures within a 50 m boundary of the site area during the PEA visit to the site. Ecologists inspected any features present for potential bat access and egress points, potential roosting sites and signs of bats themselves, using binoculars and torches where appropriate.

The survey methods were based on Bat Conservation Trust guidelines (3rd Edition) (Collins, J (ed), 2016).

2.3 Survey Constraints

Potential Roost Features (PRFs) within Hoover site buildings were noted from ground level but an extensive search of all buildings was not carried out at the time of the survey. It was considered likely that further PRFs may have been missed due to the height, size, and number of buildings on site and features not always being visible from ground level. Recommendations in relation to bats possibly roosting within buildings on site were therefore made in relation to features visible and those that may be present.

It should be noted that the survey took place in early April and some plant species may not have been detectable due to winter die-back.

Any ecological survey can only identify what was present on site at the time it was conducted and habitat use by species can change over time. The length of time survey data remains valid will depend on a case-by-case basis, but it is generally considered that if site or proposed works do not commence within 2 years of the date of this report an update may be required.

3. Results

3.1 Designated Sites

3.1.1 Statutory Designated Sites

One statutory designated, nationally protected site (Sites of Special Scientific Interest (SSSI) lies within 2 km (5 km for bats) of the site. The designated features are summarised in Table 1 and site locations are mapped in GC4005-RED-74-XX-DR-L-3001– Designated Sites Map.

Table 1: Statutory Designated Sites within 2 km of the site.

Name	Designation	Designatory features	Approximate distance and direction from site
Cwm Glo a Glyndyrys	SSSI	Situated on the northeast and east facing slopes to the West of Merthyr Tydfil the site is of special interest due to its extensive areas of marshy grassland, species-rich neutral grassland and acid grassland, and for the association of these habitats with others including woodland and heath, as well as its outstandingly diverse assemblage of grassland fungi, including 32 species of waxcap *Hygrocybe* spp, A key part of the site is the series of remnant colliery spoil tips which support much of the fungi interest. Several relatively uncommon plant species are present, including whorled caraway *(Carum verticillatum),* petty whin *(Genista anglica)* and adder's tongue *(Ophioglossum vulgatum).* The marsh fritillary butterfly *(Eurodryas aurinia)* has been noted in the marshy grassland areas, where its food plant, devil's bit scabious *(Succisa pratensis)* occurs. Bird species recorded include nightjar *(Caprimulgus europaeus),* cuckoo *(Cuculus canorus),* tree pipit Anthus trivialis, and wood warbler *(Phylloscopus sibilatrix).* Great crested newts *(Triturus cristatus)* have been recorded in ponds on the site. Cwm Glo a Glyndyrys SSSI lies within the Merthyr Tydfil Landscape of Outstanding Historic Interest.	500 m west at closest point

3.1.2 Non- statutory Designated Sites

Thirteen non-statutory designated sites (i.e., Sites of Importance for Nature Conservation (SINCs)) lie within 2 km of the proposed works. Table 1 details the site designations, features and distance from the site for those SINCS closest to the site. See Drawing GC4005-RED-74-XX-DR-L-3001 for locations of designated sites closest to the Hoover Site, Merthyr Tydfil.

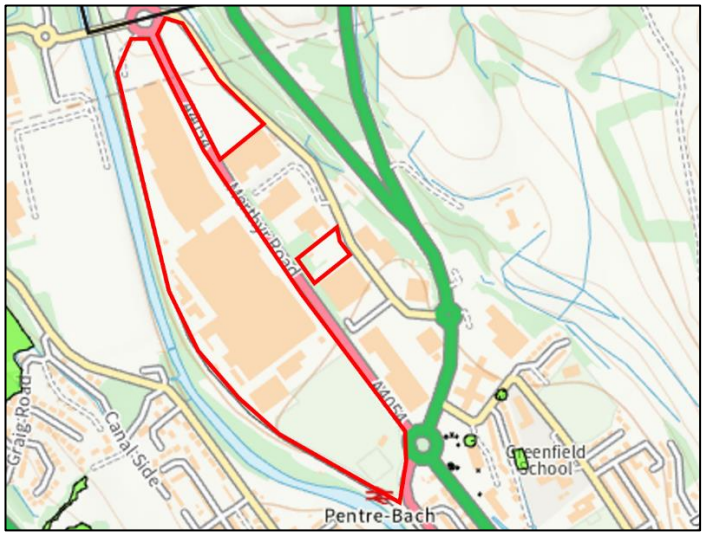
Table 2: Non-Statutory Designated Sites closest to the Hoover Site, Merthyr Tydfil.

Name	Designation	Designatory features	Approximate distance and direction from site
Afon Taf/River Taff	SINC	Major river in the County Borough. Includes areas of bankside habitats, particularly towards the south where the river corridor is less industrialised than further north. Associated habitats are chiefly semi-natural woodland, including areas of ancient semi-natural woodland and linear wet woodlands. Numerous neutral grasslands, scrub patches and bracken stands, as well as small areas of marshy grassland and tall herb vegetation. Notable features of the river course include cobble banks which support localised plants. Otter *(Lutra lutra)* occurs throughout the length of the river which is known to be of value to a wide variety of birds, fish, bats, and reptiles.	Within site survey boundary – western edge
Maes Abercanaid/Abercanaid Fields	SINC	Series of fields laying either side of the A470 containing mainly species-rich semi-improved grasslands and marshy grasslands. Also, some small areas of semi-natural oak/birch woodland, scattered scrub and trees. Site includes Webber's pond, a private nature reserve with well-developed marginal emergent vegetation, a section of the Glamorganshire Canal and an adjacent disused railway embankment which supports unimproved and semi-improved acid grassland, bracken slopes and trees.	210 m south-west
Maes Pentrebach/Pentrebach Fields	SINC	Linear series of species-rich semi-improved neutral grassland fields alongside disused railway embankment. The short-grazed grasslands are dominated by fine-leaved grasses and support abundant mesotrophic herbs. The site also contains scattered dense scrub and bracken slopes. An area of dry heathland dominated by ling heather is present in the north of the site, occurring in a mosaic with acid grassland.	270 m east
Cwm Glo a Glyndyrus	SINC	The SINC contains the Cwm-Glo a Glyndyrus SSSI which is of international significance for grassland fungi (see Table 1).	500 m west
Rhydycar West	SINC	Very extensive mosaic of 'ffridd' habitats and former mine spoil supporting a complex mosaic of semi-upland and lowland habitats, partly contained within conifer plantation. Great crested newt occurs in small pools; noctule *(Nyctalus noctula)* and pipstrelle *(pipistrellus)* bats have both been recorded. Nationally rare and scarce invertebrates are varied and common throughout the area.	500 m south-west
Pentrebach Tip	SINC	Large colliery spoil tip that has revegetated mainly with dry heathland, along with adjacent areas of valley side 'ffridd.' Dartford warbler *(Sylvia undata)* has been recorded from the site, along with brown hare *(Lepus europaeus)* and scarce olive earth-tongue fungus *(Microglossum olivaceum).*	620 m east
Glynmil	SINC	Mosaic of semi-upland 'ffridd' (valley side) habitats at the western edge of Merthyr Common, partly on old colliery spoil tips. Localised purple moor-grass pastures, with areas of acid flush and unimproved acid grassland, are present. Several ponds and numerous small streams run through the wooded areas.	640 m east
Graig Gethin	SINC	Wooded 'ffridd' (valleyside) slopes, supporting extensive ancient semi-natural oak woodland and bracken slopes with large trees, together with some scree areas supporting scattered patches of bilberry and lichen heath.	830 m south-west

3.1.3 *Tree Preservation Orders (TPO) and Ancient Woodland (AW)*

Six TPO trees/areas were identified within 100 m of the site according to MTCBC's arcgis online map (accessed April 2022). All were located within the grounds of Pentrebach House restaurant east of the southern end of the site with the closest situated approximately 70 m away (see Figure 2).

Figure 2: Closest TPOs (green circles with black outline) to Hoover site (highlighted red). Map adapted from mtcbc.maps.arcgis.com (accessed April 2022).



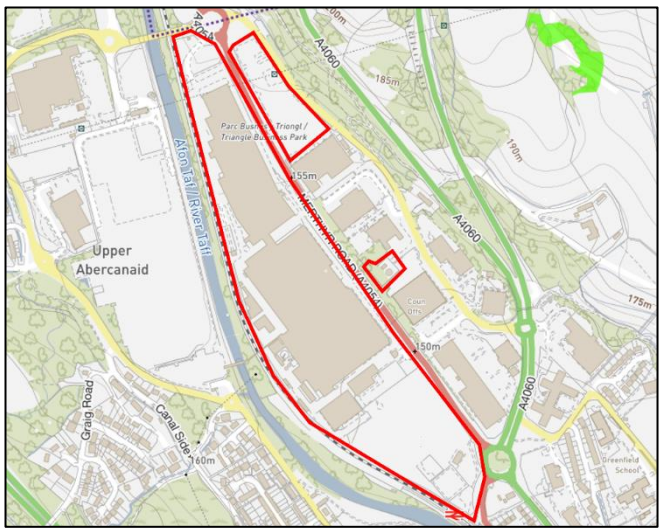
There were 19 Ancient Woodland (AW) sites within 1 km of the proposed works, which comprised 13 ancient semi natural woodland and 5 restored ancient woodland sites and one plantation on ancient woodland site.

Ancient Woodland (AW) sites within 500 m of the site are listed in Table 3. The closest ancient woodland area is approximately 400 m north-east of the site (see Figure 3).

Table 3: Ancient woodland sites within 500 m of the site.

Name/ID	Approximate distance and direction from site (closest point)
Ancient semi natural woodland - 18403	400 m north-east
Ancient semi natural woodland - 16788	410 m north-west
Ancient semi natural woodland - 16783	490 m south-west
Ancient semi natural woodland - 18400	500 m south

Figure 3: Closest AW (green polygon) to Hoover site (red boundary). Map adapted from Lle (NRW, 2021).



3.2 Habitats

The Phase 1 habitats recorded are summarised in Section 3.2.1 and locations illustrated on GC4005-RED-74-XX-M2-L-3001. A botanical list for each habitat is provided in Appendix B.

3.2.1 Phase 1 Habitats

Semi-Natural Broadleaved Woodland

The Priority habitat types 'Lowland mixed deciduous woodland' and 'wet woodland' identified as semi-natural broadleaved woodland within this report were recorded at the outer edges of the site survey boundary area in the north-east sector and on the banks of the River Taff at the western edge.

Species included commonly occurring ash (*Fraxinus excelsior*), silver birch *(Betula pendula)*, and willow species *(Salix* spp*.),* as well as occasional alder *(Alnus glutinosa),* hazel *(Corylus avellana),* oak species *(Quercus* sp*.),* pine species *(Pinus* sp*.).* and wild privet *(Ligustrum vulgare).* Understorey species on the eastern bank of the River Taff included locally abundant Japanese knotweed (*Fallopia japonica).*

Photograph 1: Semi-natural broadleaved woodland on the banks of the River Taff west of the Hoover site.

Plantation Woodland

A parcel of plantation woodland was located adjacent to the water pumping station east of Merthyr Road, and a strip of plantation woodland with introduced shrub and dense/scattered scrub understorey was located at the south-west border of the Hoover site.

Species within the plantation woodland habitats included commonly occurring ash, silver birch and sycamore *(Acer pseudoplatanus).* Understorey species included abundant common ivy (*Hedera helix*), as well as occasional hawthorn *(Crataegus monogyna),* and blackthorn *(Prunus spinosa).* Traveller's-joy *(Clematis vitalba)* was also locally abundant in the planation woodland adjacent to the pumping station east of Merthyr Road. Ground cover species included occasional herb-robert *(Geranium robertianum),* cleavers *(Galium aparine),* common nettle *(Urtica dioica),* and lords-and-ladies (*Arum maculatum).*

Tightly grouped strips of scattered trees interspersed with introduced shrub and saplings alongside the eastern carriageway of Merthyr Rd, and around commercial units east of Merthyr Road were mapped as plantation woodland for the purpose of this report.

An area of plantation woodland was present north of an extensive area of hardstanding previously used as a car park for Hoover employees in the north-east sector. Trees were of a similar age and stature and included commonly occurring silver birch, sycamore, and ash. Common ivy was commonly occurring, and ground flora while sparse, included occasional daffodil *(Narcissus pseudonarcissus subsp. pseudonarcissus).* (See Photograph 2).

Photograph 2: Plantation woodland in north-east sector.

Dense/Scattered Scrub and Scattered Trees

Dense scrub with patches of scattered scrub bordered the western edge of the amenity grassland (cricket grounds), as well as an area of revegetating bare ground in the southern sector of the site. Species included commonly occurring bramble *(Rubus fruticosus* agg.*),* willow species, common ivy, and willowherb species *(Epilobium* spp.*),* as well as occasional hogweed *(Heracleum sphondylium),* forsythia *(Forsythia suspensa x viridissima = F. x intermedia),* bracken (*Cornus sanguinea),* cherry laurel *(Prunus laurocerasus)* and bay *(Laurus nobilis).*

A roughly square patch of dense scrub with scattered trees was located next to the entrance gates for the Hoover factory west of Merthyr Road at the north-east corner of the amenity grassland area. Species included bramble, elder *(Sambucus nigra)* and cherry species *(Prunus* sp.*).*

Dense and scattered scrub surrounded an extensive area of hardstanding previously used as a car park for Hoover employees in the north-east sector. Small patches of scrub and scattered scrub also occurred in the central regions of the hardstanding. Species included abundant bramble and butterfly-bush *(Buddleja davidii),* locally abundant snowberry *(Symphoricarpos albus),* and commonly occurring dogwood *(Cornus sanguinea),* willow and birch species, as well as occasional dog-rose *(Rosa canina),* oak saplings, bracken, alder *(Alnus glutinosa),* and blackthorn. Moss species *(Bryophytes* spp.*)* were commonly occurring on hardstanding areas at the edges of the dense/scattered scrub (see Photograph 3).

A further area of dense and scattered scrub was recorded in the north-west sector of the site, north of the Hoover factory buildings. Species included abundant bramble, commonly occurring ash and willow, as well as locally frequent occurring mullein *(Verbascum Thapsus),* occasional dogwood, dog-rose, rosebay willowherb *(Chamerion angustifolium),* and thistle species *(Cirsium* sp.*).*

In addition, an area of dense scrub sloping downwards to the east separated the footpath and plantation woodland alongside Merthyr Road from the water pumping station grounds. Species mainly comprised bramble and common ivy.

Photograph 3: Dense/scattered scrub around extensive area of hardstanding in north-east sector of site.

Scattered Trees - Broadleaved

Scattered trees were present throughout the site including alongside the amenity grassland boundaries in the southern sector and the eastern boundary of the Hoover factory grounds, west of Merthyr Road.

Scattered trees were also located east of Merthyr Road, parallel to the carriageway and near to the western boundary of the area of the former Hoover car park, and west of the water pumping station grounds.

Roundabout islands at the northernmost and southernmost reaches of the site survey boundary also included scattered trees.

Tightly grouped, larger areas of scattered trees interspersed with introduced shrub and saplings were mapped as plantation woodland for the purpose of this report.

Scattered tree species included abundantly occurring sycamore, and occasional alder, elder, blackthorn, silver birch, ash, hazel, pine species, and rarely occurring Leyland-cypress *(Cupressus macrocarpa x Xanthocyparis nootkatensis = X Cuprocyparis leylandii),* cherry and lime species (see Photograph 4).

Photograph 4: Scattered trees alongside eastern boundary of Hoover grounds, west of Merthyr Road.

Poor Semi-Improved Grassland

Strips of poor semi-improved grassland were located next to the footpaths either side of Merthyr Road, as well as alongside the boundary of the Hoover factory grounds west of Merthyr Road.

Further areas of poor semi-improved grassland included the roundabout islands at the northernmost and southernmost reaches of the survey boundary, edges of scrub within the area former car park in the north-east sector, and within a patch of land north of the main Hoover factory buildings, west of Merthyr Road.

Species included commonly occurring perennial rye-grass *(Lolium perenne),* dandelion *(Taraxacum officinale* agg.*),* daisy (*Bellis perennis),* ribwort plantain *(Plantago lanceolata)* and Yorkshire-fog *(Holcus lanatus),* as well as frequently occurring white clover (*Trifolium repens),* and occasional cock's-foot *(Dactylis glomerata),* common ragwort *(Senecio jacobaea),* creeping buttercup *(Ranunculus repens),* lesser celandine *(Ficaria verna),* knapweed species *(Centaurea* sp.*)*, and yarrow *(Achillea millefolium),* together with rarely occurring cuckooflower *(Cardamine pratensis),* and red dead-nettle *(Lamium purpureum)* (see Photograph 5).

Photograph 5: Poor semi-improved grassland west of Merthyr Road.

River

The Priority habitat 'river', namely the River Taff (SINC), at the westernmost edge of the site survey boundary flows parallel to the Hoover factory grounds and Merthyr railway line (west of Merthyr Road) from north to south. A corrugated concrete training wall was located on the west side of the river in the north-west sector.

On the day of the survey the water was clear, fast flowing, and shallow with rocky areas visible on the riverbed (see Photograph 6).

Photograph 6: River Taff west of Merthyr railway and Hoover factory grounds in southernmost sector of survey area.

Amenity Grassland

Amenity grassland comprising a cricket pitch and bowling green were located in the southern sector of the site. The sward was noticeably longer at the edges of the cricket pitch, particularly at the western edge where it transitioned into dense and scattered scrub.

Species included abundant perennial rye-grass, as well as commonly occurring creeping buttercup, dandelion, daisy, ribwort plantain, and Yorkshire-fog. Amenity grassland in the vicinity of the ditch around the outdoor bowling green also included barren strawberry *(Potentilla sterilis),* and cranesbill species *(Geranium* sp.*).*

Photograph 7: Amenity grassland comprising a cricket pitch in southern sector.

Ephemeral/Short Perennial

Patches of ephemeral/short perennial occurred within an area of bare ground previously used as a hardstanding area at the southernmost end of the Hoover factory grounds. Species included commonly occurring moss species *(Bryophyte* spp.*),* occasional bittercress species *(Cardamine* sp.*),* cranesbill species, selfheal *(Prunella vulgaris),* white clover, and thistle species.

Introduced Shrub

Introduced shrub in the form of a cherry laurel hedge formed a border around the outdoor bowling green (amenity grassland) where ground flora species included garden plant varieties such as forget-me-not *(Myosotis* sp.*),* vetch species *(Vincia* sp.*),* heart-leaved bergenia *(Bergenia cordifolia),* and montbretia *(Crocosmia pottsii x aurea = C. x crocosmiiflora).*

Further areas of introduced shrub were particularly prevalent outside the boundary of the Hoover site grounds in the southern sector running parallel to the A4054 Merthyr Road, as well as east of the carriageway within the site survey boundary. The dominant species were snowberry and cherry laurel, alongside commonly occurring dogwood species *(Cornus* spp.*)* and Wilson's honeysuckle *(Lonicera nitida).*

Snowberry was also present along the western edge of the former car park in the north-east sector of the site.

Buildings

Buildings within the site survey area comprised those associated with the Hoover factory, including a cricket club, west of Merthyr Road as well as the water pumping station east of Merthyr Road.

Further commercial units not associated with Hoover were present east of Merthyr Road.

Bare Ground

A small area of bare ground, previously used as an area of hardstanding, with patches of ephemeral/short perennial plant communities was located within the southernmost sector of the Hoover factory grounds.

Hardstanding

Extensive areas of hardstanding in the form of car parks (current and previous), roads, and loading areas associated with the Hoover factory were present throughout the site and the A4054 Merthyr Road ran parallel to the main buildings to the east.

3.3 Species

Results combining both results from data searches and observations during the PEA survey are presented below. Appendix C lists notable observations during the PEA survey as Target Notes and Appendix D lists protected/priority species and species of conservation concern within a 2 km radius of SO 05765 04182 (5 km for bats) within the last 10 years, from SEWBReC data searches.

3.3.1 European Protected Species

Bats

The desk study returned 320 records for bats within 5 km of site. A total of eight bat species were recorded with a further four categories distinguished for bats not identified to species level. A full list is provided in Appendix D.

The closest record to the site was for a common pipistrelle *(Pipistrellus pipistrellus)*, located approximately 348 m south of the site.

The closest known roost record was for common pipistrelle located approximately 606 m west of the site at Abercanaid.

Otter

No records for otter (*Lutra lutra*) were returned via data searches within the 2 km of the site.

The River Taff (SINC) located within the site survey boundary at the western edge is known to support the species (see 3.1.2 Table 2).

Hazel Dormouse

No records were returned for hazel dormouse (*Muscardinus avellanarius*) within the 2 km search area.

Habitats on site were considered unsuitable to support hazel dormouse.

Great Crested Newt

One record was returned for great crested newt *(Triturus cristatus)* within the 2 km search area. The record was located approximately 1920m, east-north-east on Merthyr Common.

Great crested newts *(Triturus cristatus)* have been recorded in ponds contained within Cwm Glo a Glyndyrys SSSI approximately 530 m west (see 3.1.1 Table 1) and within Rhydycar West SINC approximately 500 m south-west (Table 2).

No ponds or other suitable water bodies for breeding were located within 500 m of the site via data searches (MAGIC, 2022).

Habitats on site were considered unsuitable to support great crested newt.

3.3.2 UK Protected/Priority Species

Badgers

There were 2 records returned for Eurasian badger (*Meles meles*) within the 2 km search area. The closest of these records was for a road casualty found 629 m south-west of the site on the A470 northbound (Abercanaid to Rhydycar).

Habitats on site were considered unsuitable to support badger.

Fish

No records for protected and priority fish were returned via data searches within 2 km of the site in the last 10 years although the River Taff SINC within the site survey boundary is known to support a variety of fish species (see Table 2).

Birds

A total of 79 records for 26 species of priority and protected birds were returned from 2 km data searches, including seven Schedule 1 species comprising brambling *(Fringilla montifringilla),* goshawk *(Accipiter gentilis)*, hobby *(Falco Subbuteo),* peregrine *(Falco peregrinus)*, red crossbill *(Loxia curvirostra),* red kite *(Milvus milvus)*, and Western barn owl *(Tyto alba)*. The closest Schedule 1 record was for goshawk circling above the former Hoover factory roof.

Section 7 species listed in the Environment (Wales) Act 2016 included records for cuckoo *(Cuculus canorus)*, dunnock *(Prunella modularis)*, Eurasian bullfinch *(Pyrrhula pyrrhula)*, Eurasian skylark *(Alauda arvensis),* kestrel *(Falco tinnunculus),* and willow tit *(Poecile montana).* The closest record was for house sparrow *(Passer domesticus)* approximately 380 m west of the site at Abercanaid.

Twenty-one different bird species were recorded during the survey including the Section 7 species herring gull *(Larus argentatus),* dunnock *(Prunella modularis)*, song thrush *(Turdus philomelos),* and starling *(Sturnus vulgaris).* See Table 3 for a full list of bird species recorded during the site survey.

Gull species are known to nest on the roofs of the Hoover factory buildings (Verbal communication, 2022) (TN1). An historic gull colony on the site of the Hoover factory was also referred to with regards to a previous goshawk sighting over the site (SEWBReC, 2022).

On the day of the survey both the Section 7 species herring gull, as well as lesser black-backed gulls, were observed on roofs of the main Hoover factory buildings.

At least two old and possibly one new magpie *(Pica pica)* nest were noted in scattered trees on the roundabout island within the site survey boundary of the northern sector (TN2).

In addition, several old woodpigeon nests were noted within ivy-clad scattered trees alongside the eastern boundary of the Hoover grounds west of Merthyr Road (TN3). Woodpigeons were also noted exiting ivy-clad trees alongside the boundary east of Merthyr Road in the vicinity of the water pumping station area (TN4).

Table 3: Bird species recorded during the site survey.

Common name	Scientific name
Blackbird	*Turdus merula*
Blue tit	*Cyanistes caeruleus*
Buzzard	*Buteo buteo*
Carrion Crow	*Corvus corone*
Chiffchaff	*Phylloscopus collybita*
Dipper	*Cinclus cinclus*
Dunnock	*Prunella modularis*
Feral pigeon	*Columba livia*
Great tit	*Parus major*
Grey wagtail	*Motacilla cinerea*
Herring gull	*Larus argentatus*
Jackdaw	*Corvus monedula*
Lesser black-backed gull	*Larus fuscus*
Long-tailed tit	*Aegithalos caudatus*
Magpie	*Pica pica*
Mallard	*Anas platyrhynchos*
Pied wagtail	*Motacilla alba*
Song thrush	*Turdus philomelos*
Starling	*Sturnus vulgaris*
Woodpigeon	*Columba palumbus*
Wren	*Troglodytes troglodytes*

Habitats on site such as scrub, woodland, scattered trees, and buildings, were considered suitable to support a range of birds breeding, commuting, and foraging within the area.

Amphibians (excluding Great Crested Newt)

SEWBReC data searches returned four records for amphibians within 2 km of the site in the last 10 years. These were for common frog *(Rana temporaria)* and common toad *(Bufo bufo)*. The closest records were for common toad and common frog within Gethin Woodland Park, Merthyr Tydfil, which is located approximately 660 m south-west of the site.

No ponds or other suitable water bodies for breeding were located within the site survey boundary although terrestrial habitats were considered suitable to support the presence of common amphibian species.

Reptiles

Six records for three different species of reptiles were returned via data searches within 2km of the site in the last 10 years. Records were for common lizard *(Zootoca vivipara), grass snake* (*Natrix helvetica helvetica),* and slow-worm *(Anguis fragilis).* The closest of these records was for a grass snake found on the bank of the railway track near the former Hoover factor site.

Habitats on site were considered suitable to support the presence of common reptile species.

Small mammals (excluding hazel dormouse)

A total of 12 small mammal records were returned via SEWBReC data searches within 2 km of the site in the last 10 years comprising one for polecat *(Mustela putorius),* one for weasel *(Mustela nivalis),* and 10 for Western European hedgehog *(Erinaceus europaeus)*.

The closest of these records was for a polecat with five young photographed at Pentrebach Railway Station approximately 451 m south-east of the site.

Rabbit droppings and mole hills were observed within grassland and scattered scrub areas on site.

Habitats on site such as scrub, grassland, and woodland were considered to offer suitability for commuting and foraging small mammals, including hedgehog.

Marsh Fritillary (Euphydryas Aurinia)

A total of 14 records were returned via SEWBReC data searches within 2 km of the site within the last 10 years. The closest of these records was for an individual seen 711 m west of the site on the southbound verge of the A470 near Abercanaid in May 2020. All other records were located at Cwm Glo a Glyndyrys SSSI (see 3.1.1 Table 1).

Habitats on site were considered unsuitable to support marsh fritillary.

Invertebrates (excluding Marsh Fritillary)

A total of 38 records were returned for protected and priority invertebrate species comprising 19 moth and two butterfly species. The closest of these records was for rosy rustic moth *(Hydraecia micacea)* 564 m south of the site at Abercanaid residential area.

Buff-tailed bumblebees *(Bombus terrestris)* were noted around grassland and scrub habitats on site during the survey.

Protected Plant Species

One record for a protected plant species was returned within 2 km of the site in the last 10 years. This record was for Stag's-horn clubmoss *(Lycopodium clavatum)* located approximately 1522 m south-east of the site at the former dry ski slope of Troed-y-Rhiw.

No protected plant species were recorded on site during the survey.

Invasive Species

The desk study returned a total of 28 records for invasive species within the 2 km search area. One record was for harlequin ladybird *(Harmonia axyridis)* and all other were for the Schedule 9 non-native invasive plant species Japanese knotweed *(Fallopia japonica).*

The closest record for Japanese knotweed was approximately 380 m west of the site at Abercanaid.

A grey squirrel *(Sciurus carolinensis)* drey was observed during the site survey within a tree east of Merthyr Road in the vicinity of the water pumping station (TN4).

The Schedule 9 non-native plant species montbretia, and wall cotoneaster *(Cotoneaster horizontalis)* were recorded within the grounds of the Hoover factory west of the Merthyr Road and locally abundant Japanese knotweed was noted on the eastern bank of the River Taff at the western edge of the site survey boundary (see TN5, TN6, TN7, and TN8).

The non-native invasive species butterfly-bush and cherry laurel were commonly recorded throughout the site.

3.4 Preliminary Roost Assessment (PRA)/ Ground Level Tree Assessment (GLTA)

Potential roost features for bats were identified within the site survey area. See Table 4 for results of the survey.

Potential Roost Feature (PRF) /description	Location	Photographs (PRF's highlighted with red circles)
Multiple gaps within rotting wooden boards and lifting roofing material (TN9)	Western elevation of Hoover cricket club building in southern sector of site.	 

Potential Roost Feature (PRF) /description	Location	Photographs (PRF's highlighted with red circles)
Multiple gaps within rotting wooden boards and lifting roofing material (TN9)	South-east corner of Hoover cricket club building in southern sector of site.	
Crack in brickwork (TN10)	Northern elevation of brick building associated with water pump east of Merthyr Road.	
Cracks in brickwork (TN10)	Western elevation of brick building associated with water pump east of Merthyr Road.	
Gap between brickwork and roofing material (TN11)	Eastern elevation of Hoover factory brick building	

Potential Roost Feature (PRF) /description	Location	Photographs (PRF's highlighted with red circles)
Void in metal cladding of column (TN12)	Eastern elevation of Hoover factory building in northern sector	
Multiple voids in damaged buildings e.g., lifting roofing material, gaps in corrugated asbestos cement sheets, voids in brickwork, missing/broken windows (TN13)	Western elevation of Hoover factory	 
Voids between roofing and walls of building (TN14)	Corrugated iron building at western edge of Hoover factory grounds	

4. Evaluation of Ecological Features and Potential Impacts

4.1 Designated Sites

4.1.1 Statutory Sites

One statutory designated site, Cwm Glo a Glyndyrys SSSI lies within 2 km of the site, however, due to its distance from the site (approximately 530 m west) it is unlikely to be impacted by the proposed works. As such statutory designated sites will not be discussed further within this report.

4.1.2 Non-Statutory Sites

There were 13 non-statutory designated sites within 2 km of the site, including seven within 1 km of the site. The closest of these was the River Taff SINC located west of the Hoover grounds within the site survey boundary. There is therefore, limited potential for this SINC to be indirectly adversely impacted by the development in terms of pollution to the watercourse e.g., through surface run-off, dust from materials and machinery, and/or fuel spills

Recommendations as listed in Section 6 should therefore be followed as precautionary measure.

Due to their distance from the site and the localised nature of the works it is unlikely that any further SINCs would be impacted by the proposed works.

4.2 TPOs and AWs

Six TPOs located within the grounds of Pentrebach House restaurant were located within 100 m of the site. The closest of these was approximately 70 m away, however, due its distance from the site and its separation from the area via the A4060 carriageway it is unlikely to be impacted by the proposed works. As such TPOs will not be further discussed within this report.

Nineteen Ancient Woodland sites were located within 1 km of the site with the closest of these located approximately 400 m north-east. Due to their distance from the site, it is considered unlikely that any AWs will be impacted by the proposed works. As such AWs will not be discussed further within this report.

Priority Habitat

Three priority habitat types were identified within the site survey boundary, namely ‘Lowland mixed deciduous woodland’ and ‘wet woodland’ identified within this report as semi-natural broadleaved woodland, and river, namely the River Taff.

The parcel of semi-natural broadleaved woodland in the north-east sector was separated from the main area of the proposed works by a road, while the River Taff and its associated woodland on the eastern bank was separated via the Merthyr railway line immediately west of the Hoover factory grounds.

There is therefore, some limited potential for the priority habitats ‘lowland mixed deciduous woodland,’ ‘wet woodland,’ and river to be indirectly adversely impacted by the development in terms of pollution e.g., through surface run-off and dust from materials and machinery, and/or fuel spills.

Priority habitats are of principal importance for the purpose of maintaining and enhancing biodiversity in Wales as listed under Section 7 of the Environment (Wales) Act 2016. This places a duty on Welsh

Ministers to “take all reasonable steps to maintain and enhance the types of habitat included in any list published under this section and, encourage others to take such steps”.

4.3 Bats

Multiple gaps were noted within the rotting boards and lifting roof material of the cricket club building in the southern sector where bats could possibly enter the property to roost.

Further, multiple voids were observed in the main Hoover factory buildings including some that had fallen into disrepair along the western edge of the site and were considered to offer some potential for roosting bats (see TN13).

No suitable roost features were noted within trees within the site survey boundary during the survey.

Surrounding habitat, such as the riparian woodland corridor associated with the River Taff SINC, was assessed as having high potential to support commuting and foraging bats.

Bats are protected under the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019, and it is an offence to deliberately disturb, damage or destroy a breeding or resting site of any European protected species.

4.4 Otter

The River Taff SINC located within the site survey boundary at the western edge is known to support the presence of otters (see Table 1).

There is therefore some potential for otters to be indirectly adversely impacted by the development in terms of pollution to the River Taff watercourse e.g., through surface run-off and dust from materials and machinery, and/or fuel spills.

4.5 Hazel Dormouse

No records were returned for hazel dormouse within 2 km of the site in the last 10 years and habitats on site were considered unsuitable to support their presence.

Habitats such as scattered trees, scrub, and plantation woodland offered little in terms of successional food resources for the species and canopy and understorey connectivity was frequently disrupted, while areas of semi-natural broadleaved woodland in the western and north-eastern outer reaches of the survey boundary were separated from the area of the proposed works via a railway line and road respectively.

In addition, further busy roads, extensive areas of hardstanding around commercial units, and large areas of amenity grassland isolate the site from other possibly more suitable habitat in the surrounding landscape. As such hazel dormouse will not be discussed further within this report.

4.6 Badgers

Amenity grassland in the form of a cricket pitch and a disused outdoor bowling green in the southern sector of the site, as well as a strip of semi-natural broadleaved woodland on the eastern bank of the River Taff immediately adjacent and below the Merthyr railway line were considered unsuitable for badger. Semi-natural broadleaved woodland in the north-east sector was separated from the Hoover grounds via a road and was further bordered by the A4060 carriageway at its eastern edge.

In addition, the site was isolated from more suitable habitat which may be present in the wider landscape by a series of busy roads, commercial units, and large areas of hardstanding, as well as a railway and river west of the site.

Badger will, therefore, not be discussed further within this report.

4.7 Fish

No records for protected or priority fish were returned via data searches although the River Taff SINC within the site survey boundary at the western edge is known to support a variety of fish species (see Table 2). There is therefore some potential for the proposed works to impact upon the watercourse indirectly adversely in terms of pollution e.g., through surface run-off, dust from materials and machinery, and/or fuel spills.

It is an offence under Section 2 of the Salmon and Freshwater Fisheries Act 1975 (as amended), to wilfully disturb spawn, spawning fish, or spawning areas.

4.8 Birds

The site was assessed as having high potential for nesting, commuting, sheltering, and foraging birds particularly with the scrub habitats and scattered trees.

In addition, a gull colony is known to exist on the roofs of the Hoover factory buildings (Verbal communication and SEWBReC, 2022). Both herring gull and lesser black-backed gull species were seen congregating on roofs during the survey.

Herring gull is listed under Section 7 of the Environment (Wales) Act 2016 and is also on the UK Red list of Birds of Conservation Concern 5 (BOCC5). Lesser black-backed gulls are Amber listed on BOCC5.

There is potential for the proposed works to cause disturbance to nesting birds if works are conducted during the breeding season (March to September inclusive).

Birds are protected under the Wildlife and Countryside Act 1981 (as amended) and it is an offence to damage or destroy a bird's nest whilst it is in use, or to kill or injure a bird, or to destroy an egg.

4.9 Amphibians (excluding Great Crested Newt)

Habitats on site such as the scrub and grassland edges were considered suitable to support common amphibian species for foraging and sheltering.

Works have potential to cause accidental injury or killing of these species during any vegetation clearance and a precautionary approach is recommended.

Amphibians (excluding great crested newt) are protected from unlawful sale under the WCA 1981 however, common toad is also listed under Section 7 of the Environment (Wales) Act 2016 as a species of principle importance for conserving biodiversity in Wales.

4.10 Reptiles

Habitats on site such as the railway sidings located immediately west of the Hoover factory grounds, as well as areas of scrub and longer grass were considered suitable to support common reptile species.

Common reptiles are protected against intentional killing and injury under the Wildlife and Countryside Act 1981 (as amended).

4.11 Small Mammals (excluding Hazel Dormouse)

Habitats within the site boundary, such as the amenity grassland, scrub areas, as well as the semi-natural woodland in the north-eastern sector of the site were considered to offer some suitability for a range of small mammals including commuting and foraging hedgehog.

Mammals are protected by the Wild Mammal (Protection) Act 1996 which makes it an offence to intentionally cause this species unnecessary suffering by certain methods including crushing and asphyxiation which could occur during site clearance.

Hedgehogs are a species of principal importance for the purpose of maintaining and enhancing biodiversity in Wales under Section 7 of the Environment (Wales) Act 2016.

4.12 Marsh Fritillary

Habitats on site were considered unsuitable to support marsh fritillary butterfly.

No suitable grassland habitat was present on site with only areas of amenity grassland used as recreational playing fields noted and the favoured foodplant of the larvae, namely devil's-bit-scabious *(Succisa pratensis)* was not recorded. As such marsh fritillary will not be further discussed within this report.

4.13 Invertebrates (excluding Marsh Fritillary)

Habitats on site were considered suitable to support a range of invertebrate species.

Priority and protected invertebrate records from the desk study were predominantly for moth species listed on Section 7 Environment (Wales) Act 2016 with generalist feeding requirements, such as a wide range of herbaceous and woody plants, bramble, sallow *(Salix* spp*.)* and birch scrub, and other broadleaved trees and shrubs. There is therefore some potential for such species to be present on site although the impact of the works is likely to be low as woodland, grassland, scrub, and colliery spoil within the wider landscape were considered to offer suitable alternative habitats for displaced species.

Brownfield sites are also known to support brown-banded carder bee *(Bombus humilis)* (Falk, 2015) where larger flower-rich grassland areas exist and a succession of suitable food plants such as legumes, knapweeds, and thistles, are available for the active season of the colonies from May through to September. However, only a limited number of such species were recorded during the survey and although some plants may not have been flowering at the time of the survey and were therefore undetectable, it was considered that other more suitable habitat for the species was likely to exist in the wider landscape e.g., species-rich semi-improved neutral grassland of Abercanaid Fields and Pentrebach Fields, approximately 210 m south-west and 270 m east respectively.

4.14 Protected and Priority Plants

No protected and priority plants were recorded during the site survey. As such protected and priority plants will not be discussed further within this report.

4.15 Invasive Species

The Schedule 9 non-native invasive species montbretia and wall cotoneaster were recorded within the grounds of the Hoover factory during the site survey (see TN5, TN6 and TN7).

In addition, Japanese knotweed was observed on the east bank of the River Taff west of the Hoover factory grounds within the site survey boundary area although this was separated from the site of the proposed works via Merthyr railway line (see T8).

There is therefore potential for the proposed works to disturb and spread Schedule 9 non-native invasive plants.

It is an offence to cause the unlawful spread of any invasive species as listed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended).

5. Conclusion

The Afon Taf/River Taff SINC lies within the site survey boundary at the westernmost edge.

The priority habitat types ‘river’, namely the River Taff, and ‘wet woodland’ (semi-natural broadleaved woodland) were present at the western edge of the site boundary, while ‘lowland mixed deciduous woodland’ (semi-natural broadleaved woodland) was present at the edge of the north-east sector site boundary.

There is potential for bats to be roosting within buildings associated with the Hoover factory, including the cricket club building west of Merthyr Road, and within a water pumping station building east of Merthyr Road. There is high potential for habitats such as the riparian and woodland habitats associated with the River Taff SINC within the site survey boundary to support commuting and foraging bats.

There is high potential for the River Taff at the western edge of the site to support commuting and foraging otter.

The site also has potential to support the presence of hedgehog (and other small mammals), breeding birds, amphibians, and reptiles. Therefore, in the absence of mitigation the works have the potential to impact these species through damage/destruction of nesting or roosting sites, and disturbance through noise, vibration, and lighting.

There is some potential for works to impact upon fish species e.g., through pollution of the River Taff.

The Schedule 9 WCA invasive non-native plant species montbretia, wall cotoneaster, and Japanese knotweed were recorded during the survey. There is potential for these species to be disturbed and spread by the proposed works.

The recommendations provided in Section 6 should be followed to ensure that the proposed works at Hoover site, Merthyr, adhere to best practice guidelines and are compliant with current wildlife legislation.

6. Recommendations for Further Survey, Mitigation & Enhancement

6.1 Further Survey

6.1.1 Bats

Buildings and Trees

A detailed ground level building survey should be carried out to assess potential roost access points; and identify the level of potential for bat presence. This will be required to determine the nature of further surveys which may be required prior to the commencement of the proposed works.

If bats are found to be roosting within the Hoover Site buildings or any tree, then a European Protected Species (EPS) licence will be required with appropriate mitigation prior to work commencing on demolition or tree felling work.

6.2 Mitigation

6.2.1 Designated Sites – Non-Statutory Sites

Standard best practice and pollution control measures should be implemented in accordance with relevant guidance (e.g., CIRIA, 2001 and Environment Agency (2018). Guidelines for Pollution Prevention (GPP), particularly GPP 5 Works and maintenance in or near water, outlined in NetRegs (NetRegs, 2018) to ensure that the River Taff SINC located at the western edge of the site survey boundary is not indirectly adversely affected by silt, dust, uncontrolled surface water run-off, inappropriate storage of materials and/or inappropriate refuelling of machinery. These measures should be detailed in a Construction Environmental Management Plan (CEMP).

- All materials (especially if hazardous or toxic) should be stored securely at least 7 m away from the watercourse.
- All static machinery should be placed on drip-trays or oil absorbent nappies. Trays should be emptied regularly to ensure that they contain any spills.
- Refuelling of machinery should not be carried out on site.
- Location of site compounds should be discussed with an ecologist prior to commencement of the works

6.2.2 Priority Habitats

Lowland mixed deciduous woodland and Wet woodland, and River.

In the unlikely event that the proposed works will directly impact upon the semi-natural broadleaved woodland on the banks of the River Taff at the western edge of the site survey boundary, or woodland at the edge of the north-eastern boundary, avoidance or minimal clearance will be required.

Pollution prevention measures as stated in the recommendations relating to designated sites should be implemented to avoid pollution of the priority habitats, lowland mixed deciduous woodland, wet woodland, and river.

6.2.3 *Bats*

General Bat Mitigation

The following measures should be employed to reduce disturbance to bats utilising the site and surrounding habitats to forage and commute:

- If the proposed works are carried out during the time of year when bats are active (March to October inclusive), works should be carried out during daylight hours; commencing at least 1 hour following sunrise and finishing at least 1 hour before sunset, to avoid unnecessary disturbance to bats.
- There should be no night-time working. If night-time working is unavoidable then advice on how to reduce potential disturbance to bats should be sought from a suitably qualified ecologist.
- If a bat is discovered during any works, then work in that area should cease immediately, until advice is obtained from a suitably qualified ecologist.

6.2.4 *Otter*

Pollution prevention measures as stated in the recommendations relating to designated sites (see Section 6.2.1) should be implemented to avoid indirectly impacting otter through pollution of the River Taff watercourse.

6.2.5 *Reptiles/Amphibians*

Vegetation clearance should be carried out whilst reptiles are active (April to September inclusive).

Vegetation clearance and earthworks while reptiles are hibernating during the winter months (October to March) should be avoided unless prior exclusion of reptiles has taken place.

A method statement should be in place if any de-vegetation works are required to facilitate the initial Ground Investigation works as well as further works associated with the scheme to avoid injury or killing of reptiles and amphibians. Any clearance of vegetation should be undertaken carefully and methodically, working in one direction using hand tools only (chainsaws and strimmers for example). Vegetation over 30 cm tall should be subject to a two-stage cut with 24 hours between cuts to allow any reptiles to disperse.

6.2.6 *Hedgehog/Small Mammals*

The vegetation clearance methods for hedgehog are applicable to amphibians and reptiles and therefore a combined method statement should be produced.

If a hedgehog is found on site, it may be moved to a place of safety away from the development zone within semi-natural broadleaved woodland. If a mother and hoglets are found on site and disturbance is unavoidable, a wildlife rehabilitator should be contacted as the adult female may abandon the nest and juveniles may not survive independently of her. This is particularly important for late autumn young.

6.2.7 *Fish*

Pollution prevention measures as stated in the recommendations relating to designated sites (see Section 6.2.1) should be implemented to avoid indirectly impacting fish through pollution of the River Taff watercourse.

6.2.8 Birds

Demolition of Hoover site buildings and/or any vegetation/tree clearance associated with Ground Investigations or further works should be carried out outside of the breeding bird season (i.e., carried out between September to February inclusive) where possible.

If work needs to be carried out within the breeding bird season (i.e., March to August inclusive) a check for active bird nests should be carried out by a suitably experienced ecologist prior to any work commencing.

Gulls are currently known to nest on the roofs of the main Hoover factory buildings west of Merthyr Road and as gulls start returning to their colonies in late February it is recommended that in this instance demolition works are completed by the end of January.

If an active bird nest is discovered all work (within a radius to be agreed with an ecologist) should cease and the nest should be protected, until all young have fledged, or the nest is no longer active.

6.2.9 Invasive Species

An appropriate method statement to avoid the spread of non-native invasive Schedule 9 species such as montbretia, wall cotoneaster, and Japanese knotweed should be provided by the contractor and followed for the duration of the works.

6.2.10 Toolbox Talk

All site operatives should receive a toolbox talk prior to commencement of works. The toolbox talk should be delivered by a suitably experienced ecologist and cover the ecological constraints on site and mitigation required. A reminder of the requirement to follow an appropriate method statement for invasive species as a measure of good practice should be included.

6.3 Enhancement Opportunities

Planning Policy Wales 11 (Welsh Government, 2021) advocates the enhancement of biodiversity in relation to site.

Future development of the site area has potential to incorporate into the design a number of enhancement opportunities to improve the site for wildlife and biodiversity. These could include but are not limited to:

- Swift boxes installed in suitable locations on buildings within the future development
- Bat bricks installed in houses within the future development e.g., nhbs.com/habibat-bat-box-staffordshire-smooth-red-brick;nhbs.com/habibat-bat-box-plain-for-rendering; nhbs.com/habibat-bat-box-003-blended-facing
- Installation of bat-friendly lighting within any future development in consultation with a bat ecologist. LED lighting should be low level and directional, warm white, and with a colour temperature of 3000 degrees Kelvin or lower.
- Landscape planting/seeding of pollinator friendly wildflower mixes along any newly created grassland verges within the development area.
- Planting of native trees/hedgerows could be incorporated into the design for the future development.

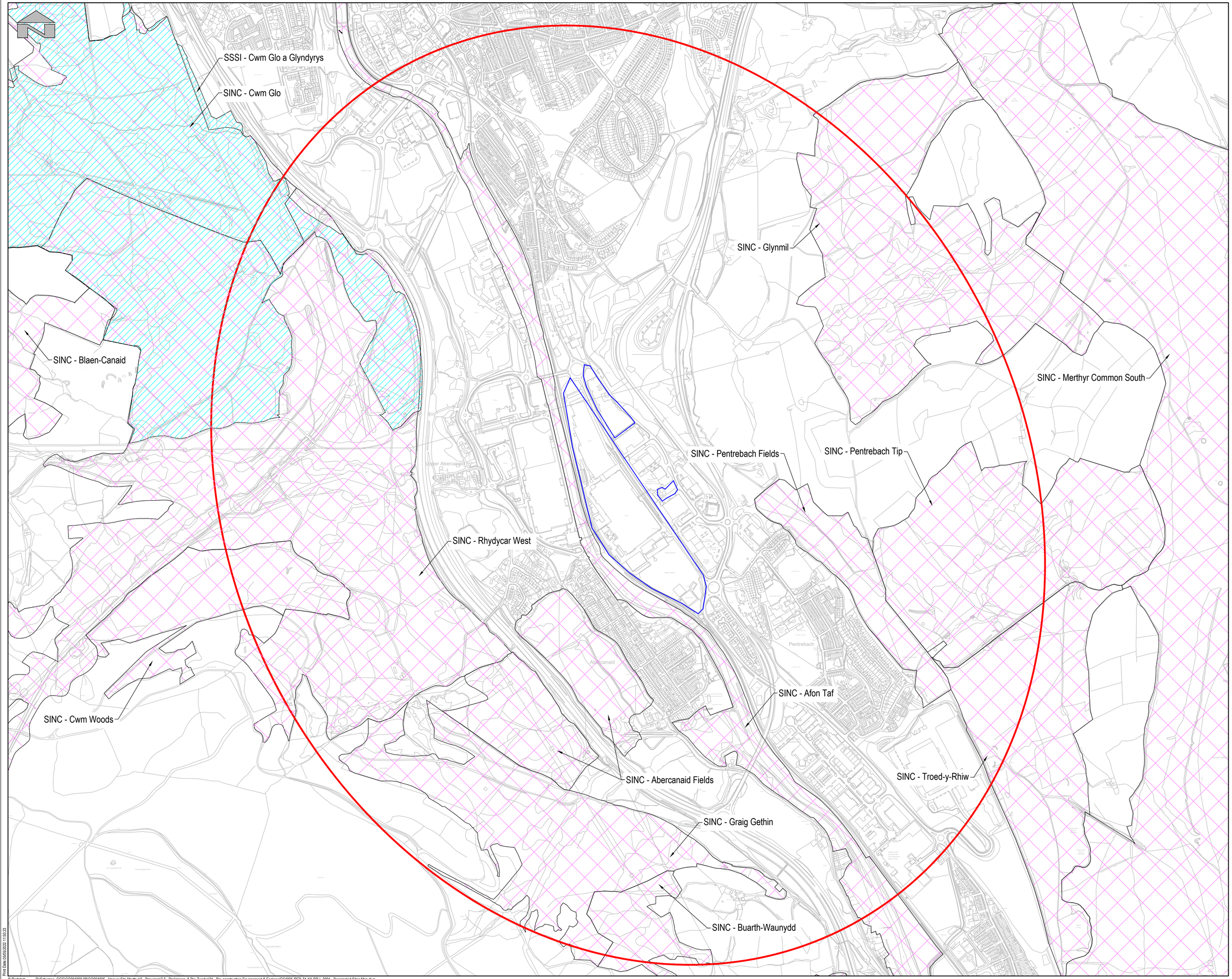
Advice should be sought from a suitably qualified ecologist on specification of boxes or suitable species compositions if the proposed enhancement opportunities are taken forward into the future development.

7. References

- CIEEM (2017) *Guidelines for Preliminary Ecological Appraisal, 2nd edition*. Chartered Institute of Ecology and Environmental Management, Winchester.
- Collins, J. (ed.) (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn)*. The Bat Conservation Trust, London.
- Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019
- Environment (Wales) Act, 2016.
- Falk, Steven (2015) *Field Guide to the Bees of Great Britain and Ireland,* Bloomsbury Natural History, London.
- Google Earth (2021).
- Joint Nature Conservation Committee (2010). *Handbook for Phase 1 habitat survey*. *A technique for environmental audit.*
- Merthyr Tydfil County Borough Council Replacement Local Development Plan (2016-2031) (MTCBC, 2018).
- Mitchell-Jones AJ and McLeish AP (2004). *The Bat Workers' Manual 3rd Ed*., JNCC, Peterborough.
- Multi-Agency Geographic Information System (MAGIC, 2022).
- Natural Resources Wales – Ancient Woodland Inventory (NRW, 2021).
- Natural Resources Wales – Designated Sites Search (NRW, 2021).
- NetRegs (2018) Best Practice Guidelines (GPP) - Available at http://www.netregs.org.uk/environmental-topics/pollution-prevention-guidelines-ppgs-and-replacement-series/ [Accessed April 2022]
- South East Wales Biodiversity Records Centre (SEWBReC) (2022). Biodiversity Information Search – Hoover Site Merthyr Tydfil [Ref: 0212-273].
- Stace, C. A. (2010). (3rd Edition) *New Flora of the British Isles*. Cambridge University Press
- Verbal communication (April 2022) – conversation with Hoover employee during site visit.
- Welsh Government (2021). *Planning Policy Wales. Edition 11*. [Online]. [Accessed April 2022]. Available at: http://www.gov.uk
- Wildlife and Countryside Act (1981) (as amended).

Drawings

- GC4005-RED-74-XX-DR-L-3001 – Designated Sites Map
- GC4005-RED-74-XX-M2-L-3001 – Phase 1 Habitat Map



Key:

- Site Boundary
- 2km Radius
- Site of Special Scientific Interest (SSSI)
- Site of Importance for Nature Conservation (SINC)

Rev	Drwn	Chk'd	App'd	Description	Date
P01	NP	TO	GP	First Issue.	05/05/2022

Purpose of Issue
S2 - Suitable for Information

Classification
Highly Confidential - Internal Use Only

Client
Rhondda Cynon Taf
County Borough Council

Project
Hoover Site, Merthyr Tydfil

Drawing
Designated Sites Map

Scale @ A1	Drawn	Checked	Approved
1:6,000	NP	TO	GP

Project No.	Date
GC/004005	APR 2022

Drawing Identifier (Project - Originator - Zone - Level - File Type - Role - Number) — BS1192 Compliant
GC4005-RED-74-XX-DR-L-3001 — revision P01

REDSTART
St David's House, Pascal Close, St Mellons, Cardiff, CF3 0LW
www.redstartwales.com

River Taff

Merthyr Railway Line

A4054 Merthyr Road

1 2 3 4 5 6 7 8 9 10 11 12 13 14

0 100 200 m

Key

- Target notes
- Survey area
- Site boundary
- Scattered trees
- Broadleaved woodland - semi-natural
- Broadleaved woodland - plantation
- Scrub - dense/continuous
- Scrub - scattered
- Poor semi-improved grassland
- Running water
- Amenity grassland
- Ephemeral/short perennial
- Introduced shrub
- Buildings
- Bare ground
- Hardstanding

Purpose of issue
S2 - Suitable for Information

Classification
Highly Confidential - Internal Use Only

Client
Merthyr Tydfil County Borough Council

Project
Hoover Site, Merthyr Tydfil

Drawing Title
Phase 1 Habitat Map

Drawn NP Checked TO Approved GP

Project No	Date	Scale	Size
GC/004005	April 2022	1:3,000	A3

Drawing identifier
GC4005-RED-74-XX-M2-L-3001

Revision: P01

REDSTART
St David's House, Pascal Close, St Mellons, Cardiff CF3 0LW
www.redstartwales.com

Appendix A – Legislation and Policy

European Protected Species

European Protected Species are those species listed on Schedule 2 of the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019. The list includes all species of bats, dormouse, great crested newt and otter. The species listed on Schedule 2 are afforded protection against:

- deliberate capture, injury or killing;
- deliberate disturbance;
- deliberate taking or destruction of the eggs;
- damage or destruction of a breeding site or resting place of such an animal.

Where a European protected species is present, a site may only proceed, under a licence issued by the relevant governing body i.e. Natural Resources Wales.

Birds Directive (Directive 2009/147/EC)

Annex 1 of the Birds Directive lists species and sub-species which are:

- in danger of extinction;
- vulnerable to specific changes in their habitat;
- considered rare because of small populations or restricted local distribution;
- requiring particular attention for reasons of the specific nature of habitat.

For these species Member States must conserve their most suitable territories in number and size as Special Protection Areas (SPAs). Species listed on Annex 1 of the Birds Directive include kingfisher and red kite.

Wildlife and Countryside Act 1981 (as amended)

Schedule 1

All naturally occurring British bird species are protected under the Wildlife and Countryside Act 1981 (as amended). The legislation protects all birds, their nests and eggs and it is an offence to:

- intentionally kill, injure and take any wild bird;
- intentionally take, damage or destroy the nest of any wild bird while it is in use or being built; or
- intentionally take or destroy the egg of any wild bird.

Birds listed on Schedule 1 of the above legislation (e.g. kingfisher and red kite) are afforded further protection and it is an offence to:

- intentionally or recklessly disturb the bird while nest building or while at (or near) a nest with eggs or young; or
- disturb the dependent young of such a bird.

Schedule 5

Section 9 of the Wildlife and Countryside Act 1981 (as amended) offers varying degrees of protection to species including otter, bats, dormice, amphibians and reptiles. Animals listed on Schedule 5 of the Act are protected against one or more of the following:

- intentional killing, injuring or taking (not applicable to bats);
- intentional or reckless damage or destruction, or obstruction of access to any structure or place which any wild animal included in Schedule 5 uses for shelter or protection;
- disturbance of any such animal while it is occupying a structure or place which it uses for that purpose;
- sell, offer or exposes for sale, or has in his possession or transports for the purpose of sale, any live or dead wild animal included in schedule 5, or any part of, or anything derived from such an animal.

Schedule 8

Plant species listed on Schedule 8 are protected under Section 13 of the Wildlife and Countryside Act 1981 (as amended). Section 13 protects plants from:

- intentional picking, uprooting or destruction;
- selling, offering for sale, possessing or transporting for the purpose of sale (live or dead, part or derivative);
- advertising (any of these) for buying or selling.

Schedule 9

Section 14 of the Wildlife and Countryside Act 1981 (as amended) makes it an offence to "plant or otherwise cause to grow in the wild any plant which is included in Part II of Schedule 9".

Protection of Badgers Act 1992

Badgers and their setts are protected under the Protection of Badgers Act 1992; the Act makes it an offence to:

- Kill, injure, take or attempt to kill, injure or take a badger; or
- Intentionally or recklessly damage, destroy or obstruct access to a badger sett, or disturb a Badger whilst it is occupying a sett.

Any works within 30m of badger setts can only be carried out under a licence issued by Natural England or Natural Resources Wales.

Environment (Wales) Act 2016

Section 7 of the Environment (Wales) Act 2016 lists the living organisms and types of habitat in Wales which are considered to be of key significance to sustain and improve biodiversity in relation to Wales.

The Act states that Welsh Ministers must take all reasonable steps to maintain and enhance the living organisms and types of habitat included in any list published under this section and encourage others to take such steps.

UK BAP

UK BAP priority species are those that have been identified as being the most threatened and requiring conservation action. This includes (but is not limited to) species such as common toad, otter, great crested newt, slow worm, common lizard, brown long-eared bat, noctule and soprano pipistrelle.

Red and Amber Lists

Red-listed bird species are those which:

- Are globally threatened;
- Have suffered a historical population decline in the UK during 1800–1995;
- Have suffered a severe (at least 50%) decline in the UK breeding population over the last 25 years, or longer-term period (the entire period used for assessments since the first review, starting in 1969);
- Have suffered a severe (at least 50%) contraction of the UK breeding range over the last 25 years, or the longer-term period;

Amber-listed bird species are those which:

- Have unfavourable conservation status in Europe (SPEC = Species of European Conservation Concern)
- Have suffered a historical population decline during 1800–1995, but recovering; population size has more than doubled over last 25 years
- Have suffered a moderate (25-49%) decline in the UK breeding population over the last 25 years, or the longer-term period
- Have suffered a moderate (25-49%) contraction of the UK breeding range over last 25 years, or the longer-term period
- Have suffered a moderate (25-49%) decline in the UK non-breeding population over last 25 years, or the longer-term period
- Are rare breeders; 1–300 breeding pairs in UK
- Are rare non-breeders; less than 900 individuals
- Are localised; at least 50% of the UK breeding or non-breeding population in 10 or fewer sites, but not applied to rare breeders or non-breeders
- Are internationally important; at least 20% of European breeding or non-breeding population in UK (NW European and East Atlantic Flyway populations used for non-breeding wildfowl and waders respectively)

Nationally Scarce

These are species occurring in 16-100 hectads in Great Britain.

Invasive Non-Native Species

Any non-native animal or plant that has the ability to spread causing damage to the environment, the economy, our health and the way we live.

Appendix B – Botanical List

Common Name	Scientific Name	ACFOR
Semi-natural broadleaved woodland		
Ash	*Fraxinus excelsior*	C
Silver birch	*Betula pendula*	C
Willow species	*Salix* spp.	C
Alder	*Alnus glutinosa*	O
Hazel	*Corylus avellana*	O
Oak	*Quercus* sp.	O
Pine species	*Pinus* sp.	R
Understorey		
Common ivy	*Hedera helix*	A
Blackthorn	*Prunus spinosa*	O
Hawthorn	*Crataegus monogyna*	O
Wild privet	*Ligustrum vulgare*	O
Japanese knotweed	*Fallopia japonica*	R/LA
Plantation woodland		
Ash	*Fraxinus excelsior*	C
Common ivy	*Hedera helix*	C
Silver birch	*Betula pendula*	C
Sycamore	*Acer pseudoplatanus*	C
Willow species	*Salix* spp.	C
Leyland-cypress	*Cupressus macrocarpa x Xanthocyparis nootkatensis = X Cuprocyparis leylandii*	R
Understorey		
Common ivy	*Hedera helix*	A
Bay	*Laurus nobilis*	O
Blackthorn	*Prunus spinosa*	O
Cherry laurel	*Prunus laurocerasus*	O
Dogwood	*Cornus sanguinea*	O
Hawthorn	*Crataegus monogyna*	O
Holly	*Ilex aquifolium*	O
Traveller's-joy	*Clematis vitalba*	O/LA
Wild privet	*Ligustrum vulgare*	O
Ground flora		
Bramble	*Rubus fruticosus* agg.	O
Cleavers	*Galium aparine*	O
Common nettle	*Urtica dioica*	O
Daffodil	*Narcissus pseudonarcissus* subsp. *pseudonarcissus*	O
Herb-robert	*Geranium robertianum*	O
Lords-and-ladies	*Arum maculatum*	O
Dense/scattered scrub with scattered trees		
Bramble	*Rubus fruticosus* agg.	A
Butterfly-bush	*Buddleja davidii*	A
Ash	*Fraxinus excelsior*	C
Common ivy	*Hedera helix*	C
Dogwood	*Cornus sanguinea*	C
Moss species	*Bryophytes* spp.	C
Silver birch	*Betula pendula*	C
Willowherb species	*Epilobium* spp.	C
Willow species	*Salix* spp.	C

Common Name	Scientific Name	ACFOR
Broad-leaved dock	*Rumex obtusifolius*	F
Cleavers	*Galium aparine*	F
Common nettle	*Urtica dioica*	F
Snowberry	*Symphoricarpos albus*	F/LA
Alder	*Alnus glutinosa*	O
Barren strawberry	*Potentilla sterilis*	O
Bay	*Laurus nobilis*	O
Blackthorn	*Prunus spinosa*	O
Bracken	*Pteridium aquilinum*	O
Cherry laurel	*Prunus laurocerasus*	O
Dog-rose	*Rosa canina*	O
Forsythia	*Forsythia suspensa x viridissima = F. x intermedia*	O
Hawthorn	*Crataegus monogyna*	O
Hogweed	*Heracleum sphondylium*	O
Male-fern	*Dryopteris filix-mas*	O
Mullein	*Verbascum Thapsus*	O/LF
Oak species (sapling)	*Quercus* sp.	O
St John's-wort species	*Hypericum* sp.	O
Rose species	*Rosa* sp.	O
Rosebay willowherb	*Chamerion angustifolium*	O
Soft-rush	*Juncus effusus*	O
Thistle species	*Cirsium* sp.	O
Cherry species	*Prunus* sp.	R
Elder	*Sambucus nigra*	R
Gorse	*Ulex europaeus*	R
Holly	*Ilex aquifolium*	R
Wall cotoneaster	*Cotoneaster horizontalis*	R
Scattered trees		
Sycamore	*Acer pseudoplatanus*	A
Alder	*Alnus glutinosa*	O
Ash	*Fraxinus excelsior*	O
Blackthorn	*Prunus spinosa*	O
Elder	*Sambucus nigra*	O
Hazel	*Corylus avellana*	O
Hawthorn	*Crataegus monogyna*	O
Oak species	*Quercus* sp.	
Silver birch	*Betula pendula*	O
Willow species	*Salix* sp.	O
Acer species	*Acer* sp.	R
Cherry	*Prunus* sp.	R
Lime	*Tilia platyphyllos x cordata = T. x europaea*	R
Poor semi-improved grassland		
Perennial rye-grass	*Lolium perenne*	C
Dandelion	*Taraxacum officinale* agg.	C
Daisy	*Bellis perennis*	C
Ribwort plantain	*Plantago lanceolata*	C
Yorkshire-fog	*Holcus lanatus*	C
White clover	*Trifolium repens*	F
Broad-leaved dock	*Rumex obtusifolius*	O
Bryophyte species	*Byophyta* sp.	O/LA
Cleavers	*Galium aparine*	O

Common Name	Scientific Name	ACFOR
Cock's-foot	*Dactylis glomerata*	O
Common nettle	*Urtica dioica*	O
Common ragwort	*Senecio jacobaea*	O
Cranesbill species	*Geranium* sp.	O
Creeping buttercup	*Ranunculus repens*	O
Garlic mustard	*Alliaria petiolata*	O
Herb-robert	*Geranium robertianum*	O
Knapweed species	*Centaurea* sp.	O
Lesser celandine	*Ficaria verna*	O
Common ragwort	*Senecio jacobaea*	O
Thistle species	*Cirsium* sp.	O
Yarrow	*Achillea millefolium*	O
Coltsfoot	*Tussilago farfara*	R
Cranesbill species	*Geranium* sp.	R
Cuckooflower	*Cardamine pratensis*	R
Daffodil	*Narcissus pseudonarcissus* subsp. *pseudonarcissus*	R
Red dead-nettle	*Lamium purpureum*	R
Amenity grassland		
Perennial rye-grass	*Lolium perenne*	A
Creeping buttercup	*Ranunculus repens*	C
Dandelion	*Taraxacum officinale* agg.	C
Daisy	*Bellis perennis*	C
Ribwort plantain	*Plantago lanceolata*	C
Yorkshire-fog	*Holcus lanatus*	C
Broad-leaved dock	*Rumex obtusifolius*	O
Barren strawberry	*Potentilla sterilis*	O
Cranesbill species	*Geranium* sp.	O
Montbretia	*Crocosmia pottsii x aurea = C. x crocosmiiflora*	O
Thistle species	*Cirsium* sp.	O
White clover	*Trifolium repens*	O
Forget-me-not species	*Myosotis* sp.	R
Heart-leaved bergenia	*Bergenia cordifolia*	R
Vetch species	*Vicia* sp.	R
Ephemeral/short perennial		
Bryophyte species	*Bryophyta* sp.	C
Bittercress species	*Cardamine* sp.	O
Cranesbill species	*Geranium* sp.	O
Daisy	*Bellis perennis*	O
Dandelion	*Taraxacum officinale* agg.	O
Selfheal	*Prunella vulgaris*	O
Thistle species	*Cirsium* sp.	O
White clover	*Trifolium repens*	O
Introduced shrub		
Cherry laurel	*Prunus laurocerasus*	A
Snowberry	*Symphoricarpos albus*	A
Dogwood species	*Cornus* spp.	C
Wilson's honeysuckle	*Lonicera nitida*	C

Appendix C - Target Notes

Target Note	Grid Reference	Description	Photograph
1	SO 05762 04118	Hoover factory main building – gull colony known to nest on roof	
2	SO 05569 04667	Magpie nests – old and possibly one new	
3	SO 05816 04199	Old woodpigeon nests in ivy-clad scattered trees	NO IMAGE
4	SO 05838 04211	Grey squirrel drey in dense ivy-clad tree Woodpigeons seen exiting ivy-clad trees	
5	SO 05984 03865	Montbretia stands alongside cherry laurel hedge around outdoor bowling rink	
6	SO 05727 04445	Wall cotoneaster along edge of old car park for Hoover employees	

Target Note	Grid Reference	Description	Photograph
7	SO 05599 04295	Wall cotoneaster in poor semi-improved grassland strip	
8	SO 05980 03778	Japanese knotweed on east bank of River Taff	
9	SO 05981 03896	Cricket club building with bat potential	
10	SO 05859 04231	Water pumping station building with bat potential	
11	SO 05841 04138	Eastern elevation of Hoover factory brick building – bat potential	
12	SO 05692 04346	Eastern elevation of Hoover factory building (north sector) – bat potential	

Target Note	Grid Reference	Description	Photograph
13	SO 05644 04189	Western elevation – buildings in general state of disrepair – bat potential	
14	SO 05661 04129	Corrugated iron building – bat potential	

Appendix D - Local Biological Record Centre (BIS) Data

Bats Within 5 km				
Common Name	**Scientific Name**	**Legislation / Conservation Status**	**No. of Records**	**Most Recent Record**
Bats	*Chiroptera*	EPS, WCA5, S7, LBAP (ANG, DEN, FLI, RCT, SNP, TRA, TRF)	16	August 2020
Brown long-eared bat	*Plecotus auritus*	EPS, HDir, WCA5, S7, UKBAP, Bonn, Bern, RD2 (UK), LBAP (ANG, CLY, CON, DEN, FLI, GWY, POW, SNP, TRA, TRF, VOG)	11	September 2020
Common pipistrelle	*Pipistrellus pipistrellus*	EPS, HDir, WCA5, S7, Bonn, Bern, LBAP (ANG, BBNP, CER, CLY, CON, CRM, DEN, FLI, GWY, PEM, POW, SNP, TRA, TRF, VOG)	143	August 2021
Daubenton's bat	*Myotis daubentonii*	Bern, EPS, HDir, RD2(UK), WCA5, LBAP[ANG, CLY, CON, DEN, FLI, GWY, POW, SNP, TRA, TRF]	2	January 2020
Lesser horseshoe bat	*Rhinolophus hipposideros*	EPS, HDir, WCA5, S7, UKBAP, Bonn, Bern, RD2 (UK), LBAP (ANG, BBNP, CLY, CON, CRM, DEN, FLI, GWY, MON, PEM, POW, SNP, TRA, TRF, VOG, WRE)	2	January 2020
Long-eared bat species	*Plecotus*	Bern, EPS, HDir, WCA5, LBAP[ANG, DEN, FLI, SNP, TRA, TRF]	3	August 2017
Natterer's bat	*Myotis nattereri*	EPS, HDir, WCA5, Bonn, Bern, RD2 (UK), LBAP (ANG, CLY, CON, DEN, FLI, GWY, POW, SNP, TRA, TRF)	1	July 2018
Noctule bat	*Nyctalus noctula*	EPS, HDir, WCA5, S7, UKBAP, Bonn, Bern, RD2 (UK), LBAP (ANG, CLY, CON, DEN, FLI, GWY, POW, SNP, TRA, TRF, VOG)	14	August 2017
Pipistrelle bat species	*Pipistrellus*	EPS, WCA5, LBAP (ANG, DEN, FLI, SNP, TRA, TRF)	52	July 2020
Serotine	*Eptesicus serotinus*	EPS, HDir, WCA5, Bonn, Bern, RD2 (UK), LBAP (GWY, POW, TRA, TRF)	1	September 2015
Soprano pipistrelle	*Pipistrellus pygmaeus*	EPS, HDir, WCA5, S7, UKBAP, Bonn, Bern, RD2 (UK), LBAP (ANG, BBNP, CLY, DEN, FLI, GWY, PEM, POW, SNP, TRA, TRF, VOG)	54	August 2020
Unidentified bat	*Myotis*	EPS, HDir, WCA5, Bonn, Bern, LBAP (ANG, DEN, FLI, SNP, TRA, TRF)	21	August 2017

Common Name				
Common Name	**Scientific Name**	**Legislation / Conservation Status**	**No. of Records**	**Most Recent Record**
Amphibians				
Common frog	*Rana temporaria*	HDir, WCA5, Bern, LBAP (ANG, CLY, CON, FLI, POW, TRA)	2	February 2021
Common toad	*Bufo bufo*	WCA5, S7, UKBAP, Bern, LBAP (ANG, CLY, CON, DEN, FLI, GWY, POW, TRA, VOG)	2	September 2015
Great crested newt	*Triturus cristatus*	Bern, EPS, HDir, RD2(UK), S7, WCA5, LBAP[ANG, BBNP, CLY, CON, DEN, FLI, MON, POW, SNP, TRA, TRF, VOG, WRE]	1	September 2015
Birds				
Brambling	*Fringilla montifringilla*	WBA, WCA1.1, LBAP[CON]	1	February 2011
Common reed bunting	*Emberiza schoeniclus*	Bern, S7, UKBA, WBA, LBAP[BBNP, CER, CLY, CON, DEN, FLI, GWY, PEM, POW, VOG]	1	March 2013
Cuckoo	*Cuculus canorus*	S7, UKBR, WBR, LBAP[CON, DEN, FLI, GWY, VOG]	5	2017

Common Name	Scientific Name	Legislation / Conservation Status	No. of Records	Most Recent Record
Curlew	*Numenius arquata*	BDir2.2, S7, UKBR, WBR, LBAP[ANG, BBNP, CLY, CON, CRM, DEN, FLI, GWY, PEM, POW, SNP, VOG], LI[VC43]	1	February 2012
Dunnock	*Prunella modularis*	Bern, S7, UKBA, LBAP[CON, POW, VOG]	1	December 2020
Eurasian bullfinch	*Pyrrhula pyrrhula*	S7, UKBA, WBR, LBAP[BBNP, CER, CLY, CON, DEN, FLI, GWY, PEM, TRF, VOG]	3	December 2020
Eurasian skylark	*Alauda arvensis*	BDir2.2, S7, UKBR, WBA, LBAP[ANG, BBNP, CER, CLY, CON, CRM, DEN, FLI, GWY, PEM, POW, SNP, TRF, VOG]	5	2017
European herring gull	*Larus argentatus*	BDir2.2, S7, UKBR, WBR, LBAP[CON, GWY, POW, VOG]	7	May 2017
European pied flycatcher	*Ficedula hypoleuca*	S7, UKBR, WBR, LBAP[CON, GWY, POW, SNP, VOG]	1	May 2012
Goshawk	*Accipiter gentilis*	CITES, WCA1.1, WCA9, LBAP[CLY, CON, POW, VOG]	6	2016
Hobby	*Falco subbuteo*	Bern, CITES, WCA1.1, LBAP[CON, GWY, POW, VOG], LI[VC43]	1	April 2016
House sparrow	*Passer domesticus*	S7, UKBR, WBA, LBAP[CLY, CON, FLI, GWY, VOG]	5	December 2020
Kestrel	Falco tinnunculus	Bern, CITES, S7, UKBA, WBR, LBAP[ANG, CLY, CON, DEN, FLI, GWY, PEM, POW, VOG], LI[VC43]	5	October 2018
Lesser redpoll	Acanthis cabaret	S7, UKBR, WBA, LBAP[CON, DEN, POW, VOG]	1	2017
Linnet	Linaria cannabina	Bern, S7, UKBR, WBR, LBAP[ANG, BBNP, CER, CLY, CON, DEN, FLI, GWY, PEM, VOG]	3	2017
Nightjar	Caprimulgus europaeus	BDir1, Bern, S7, UKBA, WBA, LBAP[BBNP, CER, CLY, CON, CRM, DEN, FLI, GWY, MON, PEM, POW, SNP, VOG], LI[VC43]	2	May 2016
Peregrine	*Falco peregrinus*	BDir1, Bern, CITES, WCA1.1, LBAP[ANG, CLY, CON, GWY, PEM, POW, TRF, VOG], LI[VC43]	3	2015
Red crossbill	*Loxia curvirostra*	Bern, WCA1.1, LBAP[CON, POW], LI[VC43]	1	April 2012
Red kite	*Milvus milvus*	BDir1, CITES, WBA, WCA1.1, WCA9, LBAP[CON, CRM, GWY, POW]	9	November 2020
Song thrush	*Turdus philomelos*	BDir2.2, Bern, S7, UKBR, WBA, LBAP[ANG, BBNP, CER, CLY, CON, DEN, FLI, GWY, PEM, POW, SNP, TRF, VOG, WRE]	2	February 2016
Spotted flycatcher	*Muscicapa striata*	Bern, S7, UKBR, WBR, LBAP[BBNP, CER, CLY, CON, DEN, FLI, GWY, PEM, POW, VOG]	1	May 2016
Starling	*Sturnus vulgaris*	BDir2.2, Bern, S7, UKBR, WBR, LBAP[BBNP, CON, FLI, GWY, VOG]	2	December 2020
Tree pipit	*Anthus trivialis*	Bern, S7, UKBR, WBA, LBAP[CON, DEN, FLI, GWY, POW, VOG]	5	June 2018
Western barn owl	*Tyto alba*	Bern, CITES, WCA1.1, WCA9, LBAP[ANG, CLY, CON, CRM, DEN, FLI, GWY, PEM, POW, SNP, TRA, VOG, WRE], LI[VC43]	3	February 2021
Willow tit	*Poecile montana*	Bern, S7, UKBR, WBR, LBAP[BBNP, CON, DEN, FLI, GWY, POW, VOG], LI[VC43]	1	December 2015
Wood warbler	*Phylloscopus sibilatrix*	S7, UKBR, WBR, LBAP[CON, GWY, SNP, VOG]	4	May 2018
Invertebrates				
Autumnal rustic	*Eugnorisma glareosa*	S7, LBAP[GWY, VOG]	1	September 2015
Blood-vein	*Timandra comae*	S7, LBAP[VOG]	1	June 2015
Broom moth	*Ceramica pisi*	S7, LBAP[GWY, VOG]	1	June 2015

Common Name	Scientific Name	Legislation / Conservation Status	No. of Records	Most Recent Record
Brown-banded carder-bee	*Bombus humilis*	S7, LBAP[CER, CON, FLI, GWY, PEM, POW, VOG]	1	July 2016
Buff ermine	*Spilosoma lutea*	S7, LBAP[GWY, VOG]	1	June 2015
Dark-barred twin-spot carpet	*Xanthorhoe ferrugata*	S7, LBAP[GWY, VOG]	3	2015
Dusky brocade	*Apamea remissa*	S7, LBAP[GWY, VOG]	1	June 2015
Ear moth	*Amphipoea oculea*	S7, LBAP[GWY, VOG]	1	August 2015
Flounced chestnut	*Agrochola helvola*	S7, LBAP[GWY, VOG]	1	September 2015
Grayling	*Hipparchia semele*	RD1(UK)VU, S7, LBAP[BRG, CDF, GWY, RCT, VOG], LI[SEWBReC, VC43]	1	August 2021
Green-brindled crescent	*Allophyes oxyacanthae*	S7, LBAP[GWY, VOG]	1	September 2015
Knot grass	*Acronicta rumicis*	S7, LBAP[GWY, VOG]	1	June 2015
Marsh fritillary	*Euphydryas aurinia*	Bern, HDir, RD1(UK)VU, S7, WCA5, LBAP[ANG, BBNP, CER, CON, CRM, GWY, PEM, POW, SNP, TRA, VOG], LI[SEWBReC]	14	May 2020
Neglected rustic	*Xestia castanea*	S7, LBAP[GWY]	1	August 2015
Rosy rustic	*Hydraecia micacea*	S7, LBAP[GWY, VOG]	1	August 2015
Sallow	*Cirrhia icteritia*	S7, LBAP[GWY, VOG]	1	August 2015
Shaded broad-bar	*Scotopteryx chenopodiata*	S7, LBAP[GWY, VOG]	1	August 2021
Shoulder-striped wainscot	*Leucania comma*	S7, LBAP[GWY, VOG]	1	June 2015
Small heath	*Coenonympha pamphilus*	RD1(UK)NT, S7, LBAP[GWY, VOG]	1	August 2021
Small phoenix	*Ecliptopera silaceata*	S7, LBAP[GWY, VOG]	1	August 2015
Small square-spot	*Diarsia rubi*	S7, LBAP[GWY, VOG]	2	August 2016
White ermine	*Spilosoma lubricipeda*	S7, LBAP[GWY, VOG]	1	June 2015
Mammals				
Eurasian badger	*Meles meles*	Bern, PBA, LBAP[CLY, CON, DEN, FLI, PEM, POW, TRF, WRE]	2	May 2018
Polecat	*Mustela putorius*	Bern, HDir, RD2(UK), S7, LBAP[BGW, BRG, CON, FLI, GWY, NEW, POW, SNP, VOG]	1	June 2017
Weasel	*Mustela nivalis*	Bern, NRW, LBAP[ANG, BGW, BRG, CON, FLI, NEW, POW]	1	March 2014
West European hedgehog	*Erinaceus europaeus*	Bern, S7, LBAP[ANG, BGW, BRG, CON, FLI, GWY, NEW, POW, RCT, VOG]	10	June 2021
Reptiles				
Common lizard	*Zootoca vivipara*	WCA5, S7, UKBAP, Bern, LBAP (ANG, CLY, CON, DEN, FLI, GWY, POW, SNP, TRA, TRF, VOG)	2	July 2015
Grass snake	*Natrix helvetica*	Bern, S7, WCA5, LBAP[ANG, CLY, CON, DEN, FLI, GWY, POW, SNP, TRA, VOG]	1	February 2016
Slow-worm	*Anguis fragilis*	WCA5, S7, UKBAP, Bern, LBAP (ANG, CLY, CON, DEN, FLI, GWY, POW, SNP, TRA, VOG)	3	May 2021
Plants				
Stag's-horn clubmoss	*Lycopodium clavatum*	CITES, HDir, S7, LI[LR, LS, VC50, VC51, VC52]	1	February 2018

Species of Conservation Concern within 2 km				
Common Name	**Scientific Name**	**Legislation / Conservation Status**	**No. of Records**	**Most Recent Record**
Birds				
Cormorant	*Phalacrocorax carbo*	WBA, LBAP[CON, GWY, POW]	1	April 2012
Dipper	*Cinclus cinclus*	Bern, UKBA, WBA, LBAP[BRG, CLY, CON, MTR, POW, RCT, TRA]	2	December 2015
European green woodpecker	*Picus viridis*	Bern, WBA, LBAP[CLY, CON, DEN, FLI, GWY, PEM, POW, SNP]	5	December 2020
Greenfinch	*Chloris chloris*	Bern, WBA, LBAP[CON, POW]	2	March 2016
Grey heron	*Ardea cinerea*	WBA, LBAP[BRG, RCT]	5	January 2019
Grey wagtail	*Motacilla cinerea*	Bern, UKBR, WBA, LBAP[CLY, CON, POW, TRA]	1	August 2014
Lesser black-backed gull	*Larus fuscus*	BDir2.2, UKBA, WBA, LBAP[CON, GWY, PEM, POW, SNP]	10	2017
Long-tailed tit	*Aegithalos caudatus*	WBA	5	December 2020
Mallard	*Anas platyrhynchos*	BDir2.1, UKBA, WBA, LBAP[CON, GWY]	2	April 2012
Meadow pipit	*Anthus pratensis*	Bern, UKBA, WBA, LBAP[CON]	2	2019
Mistle thrush	*Turdus viscivorus*	BDir2.2, Bern, UKBR, WBA	6	December 2020
Redstart	*Phoenicurus phoenicurus*	Bern, UKBA, WBA, LBAP[CON, GWY, POW, SNP]	3	May 2017
Snipe	*Gallinago gallinago*	BDir2.1, UKBA, WBA, LBAP[ANG, CON, DEN, FLI, GWY, POW], LI[VC43]	1	January 2016
Swallow	*Hirundo rustica*	Bern, WBA, LBAP[ANG, CON, GWY, POW, VOG]	9	2015
Swift	*Apus apus*	UKBA, WBA, LBAP[BRG, RCT, VOG]	5	May 2017
Wheatear	*Oenanthe oenanthe*	Bern, WBA, LBAP[BRG, CON, POW]	3	March 2012
Whinchat	*Saxicola rubetra*	Bern, UKBR, WBR, LBAP[BRG, CON, DEN, FLI, GWY, PEM, POW, RCT]	1	May 2012
Whitethroat	*Sylvia communis*	WBR, LBAP[CON, POW]	3	2017
Willow warbler	*Phylloscopus trochilus*	UKBA, WBR, LBAP[CON]	14	2017
Woodcock	*Scolopax rusticola*	BDir2.1, UKBR, WBR, LBAP[CON, DEN, FLI, GWY, POW], LI[VC43]	1	January 2016
Invertebrates				
Scarce grass-veneer	*Crambus pratella*	RD2(UK)NB	1	June 2015
Plants				
Balding pincushion	*Ulota calvescens*	RD1(Wales)EN, LI[LR, VC45, VC48, WWBIC]	2	2015

Species of local concern within 2 km				
Common Name	**Scientific Name**	**Legislation / Conservation Status**	**No. of Records**	**Most Recent Record**
Invertebrates				
Bilberry bumblebee	*Bombus monticola*	LBAP[FLI, MTR]	1	May 2019
Common carder bee	*Bombus pascuorum*	LBAP[FLI, MTR]	2	September 2015
Coronet	*Craniophora ligustri*	LBAP[BRG]	1	June 2015
Early bumblebee	*Bombus pratorum*	LBAP[FLI, MTR]	1	June 2018
Large ranunculus	*Polymixis flavicincta*	LBAP[BRG]	2	2012
Plants				
Bee orchid	*Ophrys apifera*	CITES, LBAP[CLY, GWY, TRA, TRF], LI[LR, LS, SEWBReC, VC47, VC48, VC49]	1	June 2019
Bent-leaved beard-moss	*Leptodontium flexifolium*	RD1(Wales)LC, LI[LR, LS, VC35, VC41, VC42, VC44, VC45, VC46, VC51, VC52, WWBIC]	1	November 2015
Brunton's dog-tooth	*Cynodontium bruntonii*	RD1(Wales)LC, LI[LR, VC35, VC52]	1	September 2013
Campylium protensum	*Campylium protensum*	RD1(Wales)LC, LI[LR, VC49]	2	2015
Ciliated fringewort	*Ptilidium ciliare*	RD1(Wales)LC, LI[LR, VC41]	4	November 2015
Common feather-moss	*Kindbergia praelonga*	RD1(Wales)LC, LBAP[CON]	11	2015
Fragrant agrimony	*Agrimonia procera*	LBAP[BRG, GWY], LI[LR, LS, SEWBReC, VC43, VC47, VC48, VC49, VC50, VC51]	2	August 2021
Glass-wort feather-moss	*Scleropodium touretii*	RD1(Wales)LC, LBAP[CON, FLI], LI[LR, LS, VC35, VC41, VC42, VC43, VC47, VC48, VC50, VC51]	1	December 2014
Great plait-moss	*Hypnum cupressiforme var. lacunosum*	RD1(Wales)LC, LI[LR, VC45, WWBIC]	9	November 2015
Inclined distichium	*Distichium inclinatum*	RD1(Wales)LC, LI[LR, LS, VC41, VC42, VC44, VC45, VC46, VC50, VC52, WWBIC]	2	2015
Least crystalwort	*Riccia subbifurca*	RD1(Wales)LC, LI[EX, LR, VC35, VC41, VC42, VC44, VC46, VC47, VC48, VC49, VC52, WWBIC]	1	November 2015
Lindberg's plait-moss	*Calliergonella lindbergii*	RD1(Wales)LC, LBAP[CON, FLI]	1	February 2018
Marsh forklet-moss	*Dichodontium palustre*	RD1(Wales)LC, LI[LR, LS, VC35, VC51, VC52]	1	September 2013
Pill bryum	*Bryum violaceum*	RD1(Wales)LC, LI[LR, VC48, VC49, VC50]	1	February 2018
Slender haircap	*Polytrichastrum longisetum*	RD1(Wales)LC, LBAP[DEN], LI[LR, VC35, VC42, VC43, VC44, VC46, VC50, VC51, WWBIC]	1	November 2015
Small cudweed	*Filago minima*	LBAP[BRG, CON, DEN], LI[LR, LS, SEWBReC, VC43, VC47, VC48, VC49, VC50, VC51, VC52]	1	August 2021
Weissia controversa var. crispata	*Weissia controversa var. crispata*	RD1(Wales)LC, LBAP[DEN], LI[LR, VC41, VC42, VC44, VC49, VC50, VC52, WWBIC]	2	December 2014

Invasive Non- Native Species within 1 km				
Common Name	**Scientific Name**	**Legislation / Conservation Status**	**No. of Records**	**Most Recent Record**
Invertebrates				
Harlequin ladybird	*Harmonia axyridis*	INNS	1	October 2018
Plants				
Japanese knotweed	*Fallopia japonica*	WCA9, INNS	27	June 2021

Legislation: Abbreviations			
BAP	UK Biodiversity Action Plan	**S7**	Environment (Wales) Act 2016 (Section 7)
BDir1	EU Birds Directive Annexe 1	**UKBA**	RSPB UK Birds Amber List (not based on IUCN criteria)
BDir2.1	EU Birds Directive Annexe 2.1	**UKBR**	RSPB UK Birds Red List (not based on IUCN criteria)
BDir2.2	EU Birds Directive Annexe 2.2	**WBA**	RSPB Welsh Birds Amber List (not based on IUCN criteria)
Bern	Bern Convention on the Conservation of European Wildlife and Natural Habitats	**WBR**	RSPB Welsh Birds Red List (not based on IUCN criteria)
Bonn	Bonn Convention on the Conservation of Migratory Species of Wild Animals	**WCA1.1**	Wildlife & Countryside Act 1981 Schedule 1.1 (Birds which are protected at all times)
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora	**WCA1.2**	Wildlife & Countryside Act 1981 Schedule 1.2 (Birds which are protected at certain times)
EPS	European Protected Species	**WCA5**	Wildlife & Countryside Act 1981 Schedule 5 (Animals protected from killing and taking, possession, disturbance and sale)
HDir	EU Habitats Directive	**WCA8**	Wildlife & Countryside Act 1981 Schedule 8 (Plants which are protected)
INNS	Invasive Non-native Species	**WCA9**	Wildlife & Countryside Act 1981 Schedule 9 (Non-native animals and plants which are established in the wild)
LBAP	Local Biodiversity Action Plan species for the listed area	**WVP**	IUCN Threat Listing of Welsh Vascular Plants
LI	Locally Important within the listed area	**LI (SEWBReC)**	Locally Important Species (as identified by local specialists) in SEWBReC area.
LBAP [RCT]	Rhondda Cynon Taf County Borough Council Local Biodiversity Action Plan	**LI (VC##)**	Locally Important Species (as identified by local specialists) in Vice County ##
NRW	Natural Resources Wales Priority Species	**LI (VC##, LS)**	Locally Scarce in Vice County ##
PBA	Protection of Badgers Act 1992	**LI (VC##, LR)**	Locally Rare in Vice County ##
RD1(UK)	Red Data Book listing for the UK based on IUCN guidelines (CE= Critically Endangered, EN= Endangered, VU= Vulnerable, NT= Near Threatened, LC=Least Concern)	**LI (VC##, EX)**	Extinct in Vice County ##
RD1 (Wales)	Red Data Book listing for Wales based on IUCN guidelines	**LI (VC##, UR)**	Under Recorded in Vice County ##
RD2(UK)	Red Data Book listing for the UK not based on IUCN guidelines	**##**	Vice County number. For more information on Vice Counties visit: https://www.ukbutterflies.co.uk/webpage.php?name=site_terms

REDSTART

St David's House
Pascal Close
St Mellons
Cardiff
CF3 0LW

www.redstartwales.com