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PRELIMINARY ECOLOGICAL APPRAISAL REPORT

MARINE COLLIERY, CWM.

BLAENAU GWENT COUNTY BOROUGH COUNCIL

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Client:	Blaenau Gwent County Borough Council
Site/Job:	Marine Colliery, Cwm.
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Surveyed by:	Alex Wilson

VERSIONING AND QUALITY ASSURANCE

Rev	Status	Date	Author(s)	Reviewed by	Approved by
A	Draft	20/04/2021	Sofie Borek Assistant Ecologist	Richard Dodd CEcol MCIEEM Principal Ecologist	

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The evidence which we have prepared and provided is true and has been prepared and provided in accordance with the guidance of The Chartered Institute of Ecology and Environmental Management's Code of Professional Conduct. We confirm that the opinions expressed are our true and professional bona fide opinions.

SUMMARY

Purpose

- Wildwood Ecology was commissioned by Blaenau Gwent County Borough Council (the client) to undertake a Preliminary Ecological Appraisal (PEA) of Marine Colliery, Cwm..
- The site is the subject of a planning application to relocate the current council depot.

Work undertaken

- A PEA was undertaken consisting of a desk study and field survey undertaken in March 2021 following the Chartered Institute of Ecology and Environmental Management (CIEEM) Preliminary Ecological Appraisal (2013) guidelines and standard Phase 1 Habitat Survey protocol (JNCC, 2010).

Key issues

- The development may result in impacts on wildlife and habitats affecting the following protected species:
  - Bats
  - Dormouse
  - Otter
  - Badger
  - Reptiles
  - Nesting birds

Recommendations

Bats

- No further surveys required due to the lack of roosting opportunities for bats on site, however due to the presence of suitable foraging commuting and roosting habitat on the boundary of the site, these edge habitats will need to be protected from the effects of development. This will include minimising light spill onto the boundaries during and after the construction phase.
- A sensitive lighting plan will need to be produced to include a 10m dark buffer zone along the east and west boundaries of the site.

Hazel dormouse

- Depending on the scale and location of vegetation clearance a dormouse nest tube survey may be required to determine if dormice are present on site. If only small areas of vegetation are removed, a precautionary working approach and method statement will need to be followed during clearance.

Otter/badger

- Otters/ badgers may use the site occasionally to commute/ forage and, therefore it is recommended that any excavations works are covered overnight. If this is not possible then a ramp should be placed in the excavation to ensure that they can escape and not become entrapped. All chemicals (e.g. fuel, diesel etc.) are to be removed from site each day or stored in a secure lockable container overnight.
- Precautions must be taken during the construction phase to mitigate against run off and pollution to the Ebbw river (i.e. no fuelling to take place in the vicinity of the river, and bunding may be required).

	Reptiles • Due to the suitable habitat on site and in the surrounding habitat, a reptile presence or likely absence survey is required. This will determine if specific reptile mitigation is required as part of the development. • If reptiles are present on site, reptile mitigation such as fencing may be required, and suitable hibernacula should not be removed or disturbed during the hibernation period. **Nesting birds** • If habitats suitable for nesting birds are to be removed, then any vegetation clearance will take place outside of the bird nesting season. In the event that clearance work has to be undertaken during the nesting season (generally from 1st March until 31st August, although birds are known to nest outside of these dates in suitable conditions), a breeding bird survey will be required and must be carried out by a suitably qualified person. Any active nests identified should be protected until the young have fledged. Where a Schedule 1 species (as defined in the Wildlife and Countryside Act - http://www.jncc.gov.uk/page-3614 is involved, compensation for impacts, e.g., loss of nesting sites, should be devised and implemented. **Hedgehogs** • No surveys required. • Gaps (13cm x13cm) should be left at the bases of all on-site fences/walls including site boundaries to allow passage of hedgehogs across the site. In addition, cautious working is advised to prevent killing or injury to this species. **Invertebrates** • Enhancement measures should include native species planting to support a wide range of pollinators and other invertebrates.
Conclusions	• The full ecological impacts of the proposed development cannot be fully assessed following the PEA survey alone and further survey work is required. • This ecological report will remain valid for a period of 18 months from the date of the last survey – i.e. until September 2022.

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1 INTRODUCTION

1.1 Wildwood Ecology was commissioned by Blaenau Gwent County Borough Council (the client) to undertake a Preliminary Ecological Appraisal (PEA) of Marine Colliery, Cwm. (the site) centred at grid reference SO 18887 03886.

Site description

1.2 The aerial image of the site (Figure 1) shows the site to consist of an area of land that is sparsely vegetated and contains a series of paths. The site is situated directly south of the village Cwm, within the county of Blaenau Gwent.

1.3 The wider site consists of extensive areas of broadleaved woodland surrounding all boundaries of the site. The Ebbw River runs north south 40m west of the western site boundary. The A4046 runs north south 100m east of the eastern site boundary.

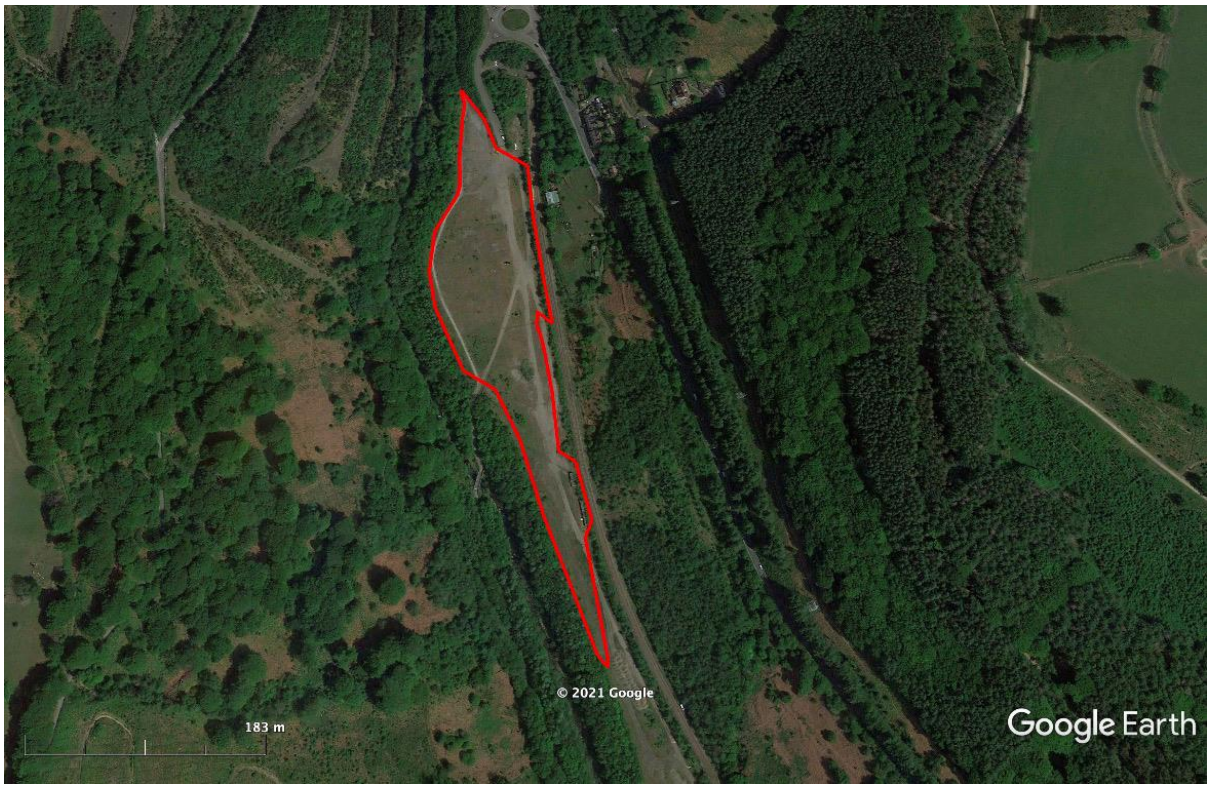


Figure 1 – Aerial image of the site (red line shows the site boundary). Image used under licence (©2021 Google). Imagery date 28/05/2020.

Figure 2 – Aerial image of the site and surrounding landscape (red line shows the site boundary). Image used under licence (©2021 Google). Imagery date 28/05/2020.

Proposed development

1.4 The site is the subject of a planning application to relocate the current council depot.

Purpose of this report

1.5 The purpose of this report is to provide sufficient information for the local planning authority to fully assess the potential ecological impacts of the proposed development, or to identify what further information is required before a full assessment can be made.

1.6 The result of the PEA has been used to inform whether further surveys are required, or to establish the need for, and extent of, any mitigation or compensation measures required as part of the proposed development.

2 METHODOLOGY

Desk study

2.1 A biodiversity desk study was undertaken in relation to the site in March 2021. The sources consulted and the type of information obtained are summarised in Table 1.

Table 1 – Sources of biodiversity and ecological records.

Source	Information requested (search buffer from site centre/boundary)
South East Wales Biodiversity Records Centre (SEWBReC)	• Protected and priority species (2km) • Sites of local importance/designation (1km)
Multi-Agency Geographic Information for the Countryside (MAGIC)[1]	• International statutory designations (5km) • National statutory designations (2km)

2.2 The search buffers are considered to be sufficient to cover the potential zone of influence (ZoI[2]) of the proposed development.

2.3 The impact of the proposed development on the biological integrity of any nearby designated protected sites has been fully considered.

2.4 No previous survey information was available for the site itself.

Field survey

2.5 A field survey was undertaken on 05 March 2021.

2.6 All habitats present within the site with the potential to support rare, protected, or otherwise notable species of flora or fauna (together with any direct signs) were noted.

2.7 In the context of this report, rare, protected, or otherwise notable species of flora or fauna were those considered to meet any of the following criteria:

- Species protected by legislation (see Appendix IV);
- UK Post 2010 UK Biodiversity Framework priority species or Local Biodiversity Action Plan (LBAP) species;
- Nationally rare or nationally scarce species;
- Species of Conservation Concern (e.g. JNCC Red List, RSPB/BTO Red or Amber Lists).

2.8 A PEA habitat map was drawn up incorporating target notes used to highlight features of particular ecological interest (see Appendix I).

2.9 The Wildlife and Countryside Act (1981) as amended, makes it an offence to release or allow to escape into the wild any animal, plant or micro-organism not ordinarily resident in the UK (as listed in Schedule 9 of the Act). Plant species listed in Schedule 9 were searched for during the survey. Examples include species such as Japanese knotweed (*Fallopia japonica*) and Himalayan balsam (*Impatiens glandulifera*).

Surveyor information

2.10 The PEA was undertaken by Alex Wilson. See Table 2 for further information.

[1] http://magic.defra.gov.uk/MagicMap.aspx
[2] ZoI definition – 'the areas/resources that may be affected by the biophysical changes caused by activities associated with a project' (CIEEM, 2016).

Table 2 – Surveyor information.

Surveyor	Licences	Ecological experience
Alex Wilson Ph.D., B.Sc. (Hons) MCIEEM Principal Ecologist	Bat Dormouse Barn owl	Holds a Ph.D (Visual constraints in bird behaviour). Experienced in undertaking ornithological surveys, and bat surveys. Is a licensed bat and dormouse ecologist in England and Wales. Supervisor and advisor to undergraduate and postgraduate ecological research projects.

Limitations and assumptions

2.11 The desk study and field survey will not produce a comprehensive list of plants and animals as this will be limited by factors that influence their presence (e.g. activity and dormancy periods). An assessment can however be made of the habitats within the survey area, their nature conservation value and potential to support protected or priority species.

2.12 No other limitations were encountered, or assumptions made during either the desk study or the field survey and it is considered that with the access gained and recording undertaken an accurate assessment of the site's ecological value has been made.

3 RESULTS

Desk study

Designated sites (statutory)

3.1 There were no international statutory designations within 5km of the site and one national statutory designation within 2km (see Table 3).

3.2 There are two protected areas (SSSIs or SACs) designated for their bat populations within 10km of the site; Usk Bat Sites (SAC) and Mynydd Llangatwg (SSSI) both 9km north of the site.

Designated sites (non-statutory)

3.3 There were seven local non-statutory designations within 1km of the site (see Table 3).

Table 3 – Summary of designated sites in range of the site.

Site name	Designation	Description / key reason for designation	Distance & direction
Ebbw River South Section	SINC	Designated as an important wildlife corridor due to its linear nature and extensive influence. Supports migratory and resident populations of fish of conservation significance including bullhead and brown trout. The site is also likely to support breeding otter, plus areas for foraging, laying up and territorial use. Additionally, sections of the Ebbw river support breeding dipper.	67m W
East of Penrhiwgwingi	SINC	A steeply sloping acid woodland comprised of oak (*Quercus spp.*) and beech (*Fagus sylvatica*). Areas of acid grassland and bracken are also present.	212m W
Mynydd Carn-y-Cefn and Cefn-yr-Arail	SINC	A large mosaic of habitats situated on a valley ridge that separates the Ebbw Fach and Ebbw Fawr valleys. Habitats include upland heath dominated by bilberry (*Vaccinium myrtillus*), crowberry (*Empeterum nigrum*) and ling (*Calluna vulgaris*), wet heath, mire communities with plant species including star sedge (*Carex echinata*) and long-stalked yellow sedge (*Carex lepidocarpa*), bracken stands, acid grassland, and upland sessile oak (*Quercus petraea*) and beech (*Fagus sylvatica*) woodland.	422m NE
Craig y Deri Pond	SINC	A sparsely vegetated pond located on a hillside at an altitude of 390m. The vegetation is confined to the outer margins of the pond with species including *Juncus bulbosus*, *Juncus effusus*, and *Agrostis stolonifera*.	637m E
Mynydd Manmoel, North of Manmoel	SINC	Designated for supporting a rich mosaic of habitats which are of great value to wildlife including acid grassland, marshy grassland, dry heathland, wet heathland and mire communities.	787m W
Pond Group 3	SINC	One of a series of five man-made ponds situated at Hafod y Dafal Farm. The ponds are interconnected by man-made streams and are supplied by natural drainage. Both frogs and	944m SE

		palmate newts have been recorded using the ponds.	
Twyn y Bleiddiaid, South East of Manmoel	SINC	Designated for containing marshy grassland and semi-improved acid grassland which supports waxcap fungi.	981m S
Cwm Merddog Woodlands	SSSI	Comprised of an extensive area of beech (*Fagus sylvatica*) woodland near the westerly limit of its geographical range and part of the site is also the highest known station for beech in Britain. The lower slopes have extensive areas of acid flushes with an open carr community dominated by alder and willows *Salix spp.* The wetter areas and flushes have a rich flora of mosses, ferns and flowering plants including a number of interesting species that have not previously been recorded for this part of the county e.g. narrow buckler-fern *Dryopteris carthusiana*, greater tussock-sedge *Carex paniculata* and the heath spotted orchid *Dactylorhiza maculata*.	2km N
Mynydd Llangatwg	SSSI	The base-rich grassland, heather dominated blanket mire, and dry heath, are of special interest. The crags, woodland and grassland of the limestone escarpments support important assemblages of rare and scarce vascular plants, bryophytes and lichens. Below the surface lies an extensive and important cave system, noted for its geomorphological interest. Parts of the cave system are also of special interest for the lesser horseshoe bat. Additional habitat interest is provided by wet heath, acid grassland, modified blanket mire, and other less extensive habitats including a small raised mire.	9km N
Usk Bat Sites	SAC	Habitats of blanket bog, degraded raised bogs, dry heaths, and mixed woodland with caves supporting lesser horseshoe bats.	9km N

Priority and protected species

3.4 Table 4 summarises the priority and protected species records found within the local area.

Table 4 – Priority and protected species records found in the vicinity of the site.

Protected & priority		# of records (# species)			Further information (from site)
Groups	Species	Onsite	<500m	>500m	
Bats	Common pipistrelle	-	-	4	Closest record: Bat roost 996m from the site (2012)
	Soprano pipistrelle	-	-	2	Closest record: Bat roost 996m from the site (2012)
	Unidentified pipistrelle	-	-	1	Unspecified field record 1698m from the site (2019)

Protected & priority		# of records (# species)			Further information (from site)
Groups	Species	Onsite	<500m	>500m	
	Brown long-eared bat	-	-	1	Bat roost 1963m from the site (2010)
	Noctule	-	-	1	Bat roost 1963m from the site (2010)
	Lesser horseshoe bat	-	-	3	Closest record: Bat roost 2356m from the site (2007)
	Unidentified bat	-	-	2	Closest record: Foraging activity 1653m from the site (2004)
	TOTALS	-	-	*14 (5+)*	
Mammals *(excluding bats)*	European otter	-	-	1	Field signs (spraint) 2489m from the site (2011)
	European badger	-	-	2	Closest record: Gwent Badger Survey record 839m from the site (2006)
	West European hedgehog	-	-	5	Closest record: Roadkill 672m from the site (2014)
	Other	-	-	4	Species: Hare
	TOTALS	-	-	*12 (4)*	
Amphibians	Common frog	2	-	-	Closest record: Unspecified record 142m from the centre of the site (2014)
	TOTALS	2 (1)	-	-	
Reptile	Common lizard	-	-	6	Closest record: Confirmed breeding population 867m from the site (2006)
	Slow worm	-		4	Closest record: Possible breeding population 867m from the site (2006)
	TOTALS	-		*10 (2)*	
Birds	Schedule 1	-	1 (1)	40 (11)	Schedule 1 species (<500m): Peregrine 246m from the site. Schedule 1 species (>500m): Barn owl, brambling, common crossbill, fieldfare, goshawk, green sandpiper, hobby, merlin, peregrine, red kite and redwing
	Non-schedule 1	-	-	88 (22)	Non-schedule 1 species: Black-headed gull, bullfinch, cuckoo, curlew, dunnock, herring gull, house sparrow, kestrel, lapwing, lesser redpoll, linnet, marsh tit,

Protected & priority		# of records (# species)			Further information (from site)
Groups	Species	Onsite	<500m	>500m	
					nightjar, pied flycatcher, reed bunting, skylark, song thrush, spotted flycatcher, starling, tree pipit, wood warbler and yellowhammer
Invertebrates	Totals:	9 (4)	2 (2)	38 (9)	Species (<500m): Cinnabar, dingy skipper, small heath and small pearl-bordered fritillary Species (>500m): Broom moth, buff ermine, cinnabar, dingy skipper, marsh fritillary, pearl-bordered fritillary, small heath, small pearl-bordered fritillary, and wall
Plants	see further info	-	-	10 (2)	Species: Bluebell and Devil's-bit scabious both 726m from the site (2016)
Fish	see further info	-	-	1 (1)	Species: Eel 1952m from the site (1996)

Field survey

Timing and conditions

3.5 Prevailing weather conditions during the field survey are summarised within Table 5.

Table 5 – Summary of weather conditions during the PEA.

Date	Weather conditions			
	Temp [°C]	Cloud cover [Oktas]	Wind speed [Beaufort scale]	Rain
05/03/2021	4.5	1/8	4	Nil

3.6 The distribution and extent of habitats observed within the site is illustrated in the PEA plan (see Appendix I). An accompanying species list (including scientific names) can be found in Appendix III.

3.7 The habitats present onsite are described in detail in Table 6 using the standard Phase 1 survey habitat classification hierarchical alphanumeric reference codes (JNCC, 2010).

3.8 Please also refer to Table 6 for a list and description of the onsite target notes. The positions for these target notes are highlighted in the PEA plan in Appendix I.

3.9 The site was classified according to the following habitat types: ephemeral/short perennial, native species rich defunct hedge, acid/neutral scree, scrub, fence, and other habitat (hard standing and path).

Table 6 – Habitats and linear features present on site

Habitat type / Linear feature	Species present	Other observations
J1.3 Ephemeral/short perennial Complex habitat mix of ephemeral/short perennial, acid grassland and scattered scrub	Ribwort plantain, creeping buttercup, greater plantain, broad leaved dock, wild carrot, clover sp., bird's foot trefoil, soft rush, field wood rush, cocksfoot, sheep's fescue, bloody crane's bill, red campion, yarrow, ragwort, crested dogstail, daisy, glaucous sedge, common knapweed, dandelion, self heal, moss species, sedge species, jointed rush, common catsear, star sedge, pendulous sedge, matt grass.	-
J2.2.1 Native species-rich, defunct hedge Defunct hedge/scrub along boundary of site.	Birch species, hazel, ash, bramble, sessile oak, willow species, goat willow, rose species, alder, buddleia, larch, blackthorn, fir species, gorse, elder, dogwood, carline thistle, tufted vetch.	-
I1.2.1 Acid/neutral scree, natural Rubble pile located on site, possibly dredged from river.	Foxglove, bird's foot trefoil, ragwort, welsh poppy, cleavers, creeping cinquefoil, cocksfoot.	-
A2.2 Scattered scrub	Buddleia, bramble, purple moor grass, meadow buttercup, barren strawberry, common knapweed, beech, gorse, broom species, mullein species, foxglove, teasel, dogwood, rose species, crested dogs tail, cocksfoot, jointed rush, broad leaved dock, greater willowherb, creeping thistle, common nettle, evening primrose, bird's foot trefoil.	-
J5 Other habitat Hard standing to the north of the site (currently being used as a Covid testing facility), and paths running throughout the site.	-	-

J2.4 Fence Post and rail fence in north and east of site.	-	-

Invasive species

3.10 No invasive species were recorded on site.

Onsite fauna

3.11 The presence of the following species were observed or detected around the site during the survey: blue tit, robin, chaffinch, coal tit, black bird, buzzard, great tit, wren, bullfinch, goldfinch, wood pigeon, mole, and fox (scat).

4 INTERPRETATION AND ASSESSMENT

4.1 The proposed development will require displacement of onsite habitats and disturbance to their associated features. This section concerns an assessment of ecological impacts resulting from the proposed development.

4.2 The following interpretation and assessment is provided to ensure full compliance with both legislation and both local and national planning policy (see Appendix IV).

Designated sites

4.3 There were both statutory and non-statutory designated sites identified within the vicinity of the site (see Table 4). The closest statutory site was Cwm Merddog Woodlands 2km from the site, and the closest non-statutory site was Ebbw River South Section 67m from site.

4.4 Given the scale of the proposed development, and the lack of likely impacts beyond the site boundary, the nearby designated sites are sufficiently well separated so that no impacts on their designated features are anticipated as a result of the works.

Priority and protected habitats

4.5 The following priority habitats (as listed in Section 7 of the Environment (Wales) Act 2016) were present onsite: species rich hedgerow.

4.6 The acid grassland present on site is likely to support a rich flora (which will have been under-recorded in the species list due to the time of year the survey was undertaken), which in turn will support a wide variety of invertebrates.

4.7 The hedgerow present on site is an important habitat for a variety of species which may use it for shelter, commuting, and breeding.

Priority and protected species

4.8 The following priority species (as listed in Section 7 of the Environment (Wales) Act 2016) were present or likely to be present onsite:

Bats

4.9 The local records search returned a number of records for bat species in the vicinity of the site (see Table 5). The nearest records were of common species (soprano and common pipistrelle), approximately 1km from the site.

4.10 Within the site, no roosting features exist however the floral diversity on site will likely attract a range of insects, thus providing good foraging grounds for bats. The site is situated within an extensive area of woodland, with a rover running north/south 40m west from the site boundary. These habitats immediately adjacent to the site likely provide roosting and foraging opportunities for bats as well as commuting corridors.

4.11 Although there is no roosting potential for bats on site, there may be a negative impact on bat species as a result of the proposed development, due to the impacts of lighting and disturbance on bats utilising the adjacent habitat.

Hazel dormouse

4.12 The local records search returned no records for hazel dormouse in the vicinity of the site (see Table 5).

4.13 The species rich defunct hedgerow and scrub on the boundary of the site may provide suitable habitat for dormice, and although there are no records in the vicinity, the broadleaved woodland adjacent to the site also provides suitable habitat.

4.14 If the removal of scrub and hedgerow is required as part of the development there may be a negative impact on hazel dormouse as a result of the proposed development.

European otter

4.15 The local records search returned one record for European otter 2.5km from the site (see Table 5). A watercourse, the Ebbw river, runs north-south adjacent to the site however, so otter may be present in the immediate vicinity of the site.

4.16 There may be a negative impact on European otter as a result of the proposed development.

Great crested newt

4.17 The local records search returned no records for great crested newt in the vicinity of the site (see Table 5). No ponds are present within 250m of the site.

4.18 There is unlikely to be a negative impact on great crested newt as a result of the proposed development.

Reptiles

4.19 The local records search returned a number of records for reptile species in the vicinity of the site (see Table 5), including common lizard and slow worm breeding populations 800m from the site. The site provides good habitat for reptiles, in the form of unmanaged tussocky grassland, bare ground and scrub.

4.20 There may be a negative impact on reptile species as a result of the proposed development.

Nesting birds

4.21 The local records search returned a number of records for nesting bird species in the vicinity of the site, including some Schedule 1 designated species (see Table 5). In addition, several bird species were encountered onsite during the PEA.

4.22 Scrub and hedgerow on site provides suitable nesting and foraging habitat for birds. In addition, the grassland may provide foraging habitat for schedule 1 raptor species recorded in the vicinity, and nesting habitat for declining ground nesting birds.

4.23 If scrub and hedgerow are to be removed as part of the development, there may be a negative impact on nesting bird species as a result of the proposed development. In addition, the development may result in loss of foraging habitat for raptors and nesting habitat for ground nesting birds.

European badger

4.24 The local records search returned a number of records for European badger 800m from the site (see Table 5). No setts or evidence of badger were found on site during the PEA survey. Mammal paths are present on site however, along with suitable foraging habitat. Badgers also move around frequently, and the site contains suitable sett building habitat.

4.25 If a sett were present on site at the time of construction, there may be a negative impact on European badger as a result of the proposed development.

West European hedgehog

4.26 The local records search returned a number of records for west European hedgehog 800m from the site (see Table 5). There is suitable refugia and foraging habitat on site for hedgehogs.

4.27 There may be a negative impact on west European hedgehog as a result of the proposed development.

Invertebrates

4.28 The local records search returned a number of records for section 7 invertebrate species in the vicinity of the site (see Table 5), including, dingy skipper, small heath and small pearl-bordered fritillary within 500m of the site. The site likely contains suitable habitat for these species.

4.29 There may be a negative impact on invertebrate species as a result of the proposed development.

Invasive species

4.30 No invasive species were recorded on site during the PEA survey.

Impacts of proposed development

4.31 Table 7 summarises the impacts of the proposed development on protected species that are or may be present onsite.

Table 7 – Indicative potential impacts of the proposed development affecting onsite protected species.

Species	Negative impact* (plus scale and nature of impact)
Bats	Bats are likely to utilise the site and adjacent habitat for foraging and commuting purposes. Negative impacts may include disturbance from construction works, loss of foraging habitat and light spill onto commuting corridors and roosting features within the adjacent woodland. Although disturbance from construction works would be temporary, the loss of foraging habitat and the impacts from light pollution would be permanent.
Common dormouse	Species rich hedgerow and scrub is present on the boundaries of the site, and the site lies adjacent to extensive broadleaved woodland. Although there are no records for dormice in the vicinity, this does not rule out their presence on site. Without mitigation, removal of scrub and hedgerow may result in negative impacts on dormice, including injury and/or death of individuals and loss of habitat.
European otter	There may be residual impacts as a result of the development, including pollution to the watercourse as a result of run off during construction, and general disturbance as a result of construction.
Great crested newt	Likely no negative impacts as a result of the development, due to the lack of waterbodies within the vicinity of the site. However if unrecorded waterbodies or populations are present, the site comprises suitable terrestrial habitat that could be utilised by GCN for hibernating, foraging and commuting. If GCN do utilise the site, the development may result in negative impacts such as loss of foraging habitat and injury/death of newts during construction works.
Reptiles	The site is highly suitable for reptiles therefore without mitigation the proposals will likely have a negative impact on reptiles, such as injury or death of individuals during construction, and loss of foraging and hibernation habitat.
Nesting birds	Scrub and hedgerows are present on the boundaries of the site, which provide suitable nesting habitat for birds. If this Without mitigation removal of this habitat would likely have a negative impact on nesting birds, with the potential for disruption or damage of active nests and young.
European badger	No badger setts were identified on site during the survey, however badgers frequently relocate and the site provides suitable sett building and foraging habitat. There is potential for negative impacts on badger if a sett is present during the construction works, including disruption to the sett, and/or injury to badgers. If setts aren't present the development will result in loss of foraging habitat for badgers.
West European hedgehog	The site is suitable for hedgehogs and without mitigation the development may have a negative impact on this species. Impacts could include death or injury during construction, loss of habitat and light pollution.

Species	Negative impact* (plus scale and nature of impact)
Invertebrates	A number of section 7 species have been recorded in the vicinity of the site which supports suitable habitat, therefore it is likely they may be utilising the site. the development may result in loss of breeding, and foraging habitat for these species.

*Ultimate assessment of the scale and nature of impacts is dependent upon on final design of proposed development and exact habitats affected.

5 CONCLUSIONS AND RECOMMENDATIONS

5.1 Wildwood Ecology was commissioned to undertake a Preliminary Ecological Appraisal (PEA) of Marine Colliery, Cwm.

5.2 The site is the subject of a planning application to relocate the current council depot.

Designated sites

5.3 Designated sites in the vicinity of the site (see Table 4) are sufficiently well separated so that no impacts on their designated features are anticipated as a result of the proposed development.

Protected species

5.4 Recommendations regarding protected species are shown in Table 8.

Table 8 – Recommendations.

Species	Recommendations
Bats	• No further surveys required due to the lack of roosting opportunities for bats on site, however due to the presence of suitable foraging commuting and roosting habitat on the boundary of the site, these edge habitats will need to be protected from the effects of development. This will include minimising light spill onto the boundaries during and after the construction phase. • A sensitive lighting plan will need to be produced to include a 10m dark buffer zone along the east and west boundaries of the site.
Common dormouse	• Depending on the scale and location of vegetation clearance a dormouse nest tube survey may be required to determine if dormice are present on site. If only small areas of vegetation are removed, a precautionary working approach and method statement will need to be followed during clearance.
European otter	• No surveys required. • Any excavation works should be covered overnight. If this is not possible then a ramp should be placed in the excavation to ensure that they can escape and not become entrapped. • All chemicals (e.g. fuel, diesel etc.) are to be removed from site each day or stored in a secure lockable container overnight. • Precautions must be taken during the construction phase to mitigate against run off and pollution to the Ebbw river (i.e. no fuelling to take place in the vicinity of the river, and bunding may be required).
Great crested newt	• No surveys required.
Reptiles	• Due to the suitable habitat on site and in the surrounding habitat, a reptile presence or likely absence survey is required. This will determine if specific reptile mitigation is required as part of the development. • If reptiles are present on site, reptile mitigation such as fencing may be required, and suitable hibernacula should not be removed or disturbed during the hibernation period.
Nesting birds	• If habitats suitable for nesting birds are to be removed, then any vegetation clearance will take place outside of the bird nesting season. In the event that clearance work has to be undertaken during the nesting season (generally from 1st March until 31st August, although birds are known to nest outside of these dates in suitable

	conditions), a breeding bird survey will be required and must be carried out by a suitably qualified person. Any active nests identified should be protected until the young have fledged. Where a Schedule 1 species (as defined in the Wildlife and Countryside Act - http://www.jncc.gov.uk/page-3614 is involved, compensation for impacts, e.g., loss of nesting sites, should be devised and implemented.
European badger	• Any excavation works should be covered overnight. If this is not possible then a ramp should be placed in the excavation to ensure that they can escape and not become entrapped. • All chemicals (e.g. fuel, diesel etc.) are to be removed from site each day or stored in a secure lockable container overnight.
West European hedgehog	• No surveys required. • Gaps (13cm x13cm) should be left at the bases of all on-site fences/walls including site boundaries to allow passage of hedgehogs across the site. In addition, cautious working is advised to prevent killing or injury to this species.
Invertebrates	• No surveys required. • Enhancement measures should include native species planting to support a wide range of pollinators and other invertebrates.

Biodiversity enhancement

5.5 Local Authorities have a duty (known as the 'Biodiversity and resilience of ecosystems duty') under the Environment (Wales) Act 2016 to seek to maintain and *enhance* biodiversity in the exercise of their functions.

5.6 Where possible the existing onsite habitat will be retained to ensure that species are not adversely affected by the development. Native species of local provenance will be used for any new planting on the site to support The Action Plan for Pollinators in Wales, 2013 (http://gov.wales/docs/desh/publications/130723pollinator-action-plan-en.pdf).

5.7 If possible the location of the development should avoiding boundary features that support a number of species, e.g. hedgerow and scrub, and dark corridors should be retained on site to reduce disturbance to nocturnal species such as bats, hedgehog and badger.

5.8 More in-depth recommendations on specifics for biodiversity enhancement can be provided once the layout plans are finalised.

Overall conclusion

5.9 The full ecological impacts of the proposed development cannot be fully assessed following the PEA survey alone and further survey work is required.

This ecological report will remain valid for a period of 18 months from the date of the last survey - i.e. until October 2022. Further surveys may be required to update the site information if planning is not obtained, or works do not commence within this time period.

6 REFERENCES

Bat Conservation Trust and the Institution of Lighting Professionals (2018) Bats and artificial lighting in the UK; *Bats and the Built Environment* series (Guidance Note 08/18), The Bat Conservation Trust, London.

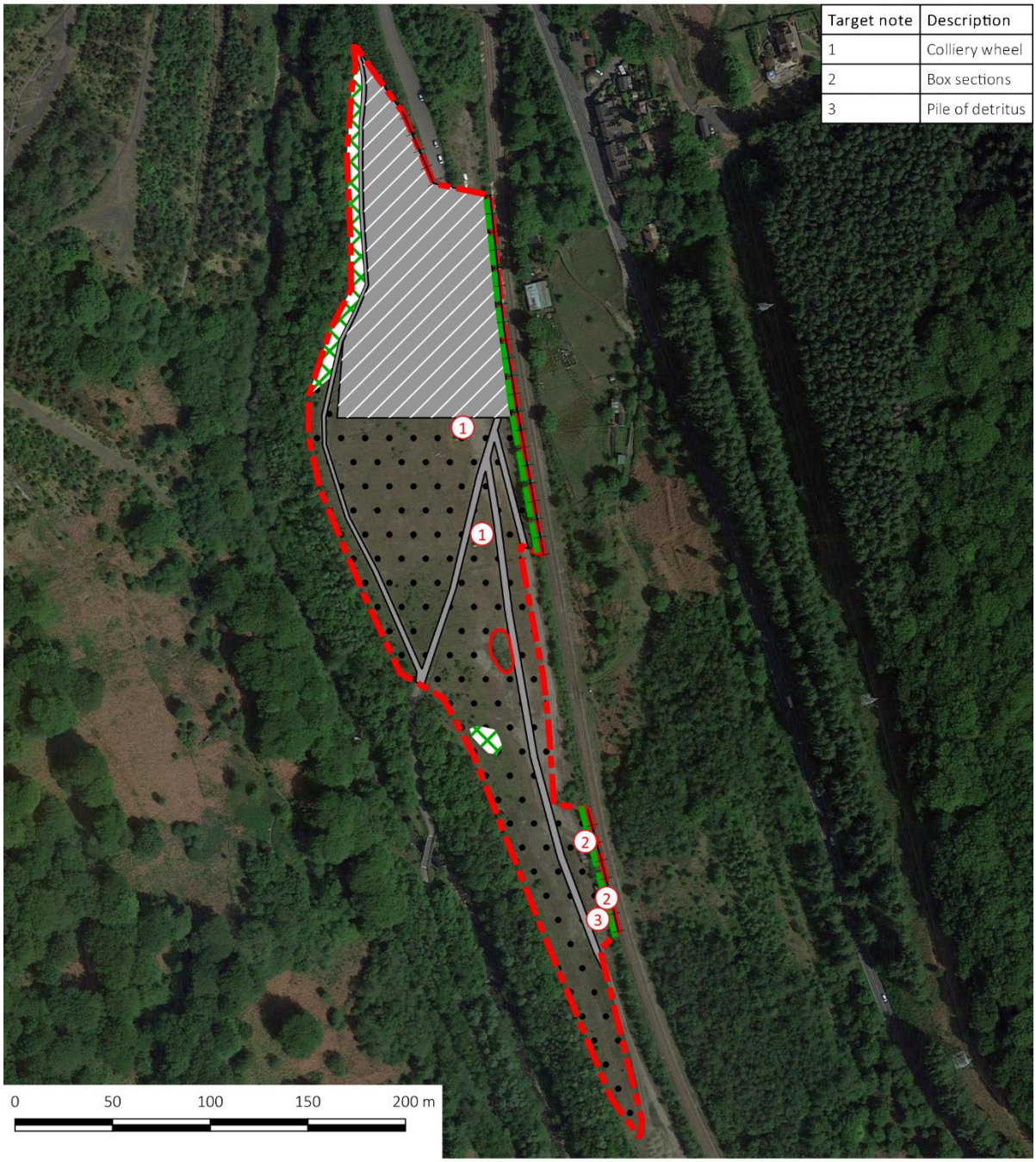
Collins, J. (ed.) (2016) Bat surveys for Professional Ecologists: Good Practice Guidelines (3rd edn). The Bat Conservation Trust, London.

Chartered Institute of Ecology and Environmental Management (April, 2013) Guidelines for Preliminary Ecological Appraisal. CIEEM, Winchester.

Institute for Environmental Assessment (1995). Guidelines for Baseline Ecological Assessment. E & FN Spon, Hong Kong.

Joint Nature Conservation Committee (2010). Handbook for Phase 1 habitat survey; A technique for environmental audit. Reprinted by JNCC, Peterborough.

APPENDIX I: PEA PLAN



APPENDIX II: SURVEY IMAGES

Figure 3 - Area of acid grassland (with temporary fencing).

Figure 4 - One of several paths/tracks running through the site.

Figure 5 - Scree pile - possibly dredged from the river at some point.

Figure 6 - Path/track flanked by areas of scrub.

Figure 7 - Edge of the site, where acid grassland meets woodland (offsite).

Figure 8 - Example of ephemeral/short perennial habitat.

APPENDIX III: SPECIES LIST

To be submitted to the appropriate Local Records Centre

Site Name: Marine Colliery, Cwm. **Provided by:** Wildwood Ecology Ltd
Grid ref: SO 18887 03886 **Verified by:** Alex Wilson

Common name	Scientific Name (if known)	Number	Comment
Flora			
Alder	*Alnus glutinosa*		
Ash	*Fraxinus excelsior*		
Barren strawberry	*Potentilla sterilis*		
Beech	*Fagus sylvatica*		
Birch species	*Betula ssp.*		
Bird's foot trefoil (common)	*Lotus corniculatus*		
Blackthorn	*Prunus spinosa*		
Bloody cranesbill	*Geranium sanguineum*		
Bramble	*Rubus fruiticosus*		
Broadleaved dock	*Rumex obtusifolius*		
Broom species	Genisteae ssp.		
Buddleia species	*Buddleja ssp.*		
Carline thistle	*Carlina vulgaris*		
Wild carrot	*Daucus carota*		
Cleavers	*Gallium aparine*		
Clover species	*Trifolium ssp.*		
Cocksfoot	*Dactylis glomerata*		
Catsear (common)	*Hypochaeris radicata*		
Common knapweed	*Centaurea nigra*		
Creeping buttercup	*Ranunculus repens*		
Creeping cinquefoil	*Potentilla reptans*		
Creeping thistle	*Cirsium arvense*		
Crested dog's tail	*Cynosurus cristatus*		
Crested dogstail	*Cynosurus cristatus*		
Daisy	*Bellis perennis*		
Dandelion	*Taraxacum officinale agg.*		
Dogwood	*Cornus sanguinea*		
Dogwood	*Cornus sanguinea*		
Elder	*Sambucus nigra*		
Evening primrose	*Oenothera biennis*		
Field wood rush	*Luzula campestris*		
Fir species	*Abies ssp.*		
Foxglove	*Digitalis purpurea*		
Glaucous sedge	*Carex flacca*		
Gorse	*Ulex europaeus*		
Greater plantain	*Plantago major*		
Greater willowherb	*Epilobium hirsutum*		
Hazel	*Corylus avellana*		
Jointed rush	*Juncus articulatus*		
Jointed rush	*Juncus articulatus*		
Larch	*Larix spp.*		
Meadow Buttercup	*Ranunculus acris*		
Moss species	Bryophyta ssp.		
Mullein species	*Verbascum ssp.*		

Nettle (common)	*Urtica dioica*		
Pendulous sedge	*Carex pendula*		
Purple moorgrass	*Molinia caerulea*		
Ragwort	*Senecio jacobaea*		
Red campion	*Silene dioica*		
Ribwort Plantain	*Plantago lanceolata*		
Rose species	*Rosa spp.*		
Star sedge	*Carex echinata*		
Sedge species	*Carex spp.*		
Selfheal	*Prunella vulgaris*		
Sessile oak	*Quercus petraea*		
Sheep's fescue	*Festuca ovina*		
Soft rush	*Juncus effusus*		
Teasel	*Dipsacus spp.*		
Tufted vetch	*Vicia cracca*		
Welsh poppy	*Meconopsis cambrica*		
Willow species	*#N/A*		
Yarrow	*Achillea millefolium*		
Fauna			
Black bird	*Turdus merula*		
Blue tit	*Cyanistes caeruleus*		
Bullfinch	*Pyrrhula pyrrhula*		
Buzzard	*Buteo buteo*		
Chaffinch	*Fringilla coelebs*		
Coal tit	*Periparus ater*		
Fox	*Vulpes vulpes*		
Goldfinch	*Carduelis carduelis*		
Great tit	*Parus major*		
Greenfinch	*Chloris chloris*		
Mole	*Talpa europaea*		
Robin	*Erithacus rubecula*		
Woodpigeon	*Columba palumbus*		
Wren	*Troglodytes troglodytes*		
Fungi			
Ruffle lichen species	*Parmotrema ssp.*		

APPENDIX IV: PLANNING POLICY AND LEGISLATION

The following local and national planning policy and both primary and European legislation relating to nature conservation and biodiversity status are considered of relevance to the current proposal.

Planning and biodiversity

Local Authorities have a requirement to consider biodiversity and geological conservation issues when determining planning applications under the following planning policies.

Planning Policy Wales (2021) and Technical Advice Note 5 (2009)

Planning Policy Wales (Edition 11, February 2021) sets out the land use planning policies of the Welsh Government, integrating with the Environment (Wales) Act (2016). The advice contained within Planning Policy Wales (PPW) is supplemented for some subjects by Technical Advice Notes (TANs).

TAN 5 (Welsh Government, 2009) specifically provides advice about how the land use planning system should contribute to protecting and enhancing biodiversity and geological conservation. The TAN provides advice for local planning authorities on the key principles of positive planning for nature conservation; nature conservation and Local Development Plans; nature conservation in development management procedures; development affecting protected internationally and nationally designated sites and habitats; and development affecting protected and priority habitats and species.

Under Section 2.4 within the TAN 5, 'when deciding planning applications that may affect nature conservation local planning authorities should':

- Pay particular attention to the principles of sustainable development, including respect for environmental limits, applying the precautionary principle, using scientific knowledge to aid decision making and taking account of the full range of costs and benefits in a long term perspective;
- Contribute to the protection and improvement of the environment, so as to improve the quality of life and protect local and global ecosystems, seeking to avoid irreversible harmful effects on the natural environment;
- Promote the conservation and enhancement of statutorily designated areas and undeveloped coast;
- Ensure that appropriate weight is attached to designated sites of international, national and local importance;
- Protect wildlife and natural features in the wider environment, with appropriate weight attached to priority habitats and species in Biodiversity Action Plans;
- Ensure that all material considerations are taken into account and decisions are informed by adequate information about the potential effects of development on nature conservation;
- Ensure that the range and population of protected species is sustained;
- Adopt a step-wise approach to avoid harm to nature conservation, minimise unavoidable harm by mitigation measures, offset residual harm by compensation measures and look for new opportunities to enhance nature conservation; where there may be significant harmful effects local planning authorities will need to be satisfied that any reasonable alternative sites that would result in less or no harm have been fully considered;

Legislation and biodiversity

Certain species of animals and plants found in the wild in the UK are legally protected from being harmed or disturbed. These species are listed in the Wildlife and Countryside Act 1981 (as amended) or are named as European Protected Species (EPS) in the Conservation of Habitats and Species Regulations 2017 (as amended). These two main pieces of legislation have been consulted when writing this report and are therefore described in detail within this section.

Other relevant legislation and policy documents that have been consulted include – The Environment (Wales) Act 2016; The Countryside and Rights of Way Act 2000; The Hedgerow Regulations 1997; Biodiversity Action Plans, both UK-wide (UKBAP) and Local plans (LBAPs), and The National Planning Policy Framework (NPPF).
There is also legislation that legally protects certain animals - for example, the Protection of Badgers Act (1992) protects badgers and their setts, and the Deer Act (1991) places restrictions on actions that can be taken against deer species.

Environment (Wales) Act 2016

Section 6 of the Act places a duty on public authorities to 'seek to maintain and enhance biodiversity' so far as it is consistent with the proper exercise of those functions. In so doing, public authorities must also seek to 'promote the resilience of ecosystems'. The duty replaces the section 40 duty in the Natural Environment and Rural Communities Act 2006 (NERC Act 2006), in relation to Wales, and applies to those authorities that fell within the previous duty.

Public authorities will be required to report on the actions they are taking to improve biodiversity and promote ecosystem resilience.

Section 7 replaces the duty in section 42 of the NERC Act 2006. The Welsh Ministers will publish, review and revise lists of living organisms and types of habitat in Wales, which they consider are of key significance to sustain and improve biodiversity in relation to Wales.

The Welsh Ministers must also 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.

Wildlife & Countryside Act 1981 (as amended)

The Wildlife & Countryside Act 1981 (as amended) [WCA] is the primary legislation for England and Wales for the protection of flora, fauna and the countryside. Part I within the Act deals with the protection of wildlife.

Most European Protected Species offences are now covered under the Conservation of Habitats and Species Regulations (as amended) (see below), but some 'intentional' acts are still covered under the WCA, such as obstructing access to a bat roost.

The WCA prohibits the release to the wild of non-native animal species listed on Schedule 9 (e.g. Signal Crayfish and American Mink). It also prohibits planting in the wild of plants listed in Schedule 9 (e.g. Japanese Knotweed and Rhododendron ponticum) or otherwise deliberately causing them to grow in the wild. This is to prevent the release of invasive non-native species that could threaten our native wildlife.

The provisions relating to animals in the Act only apply to 'wild animals'; these are defined as those that are living wild or were living wild before being captured or killed. It does not apply to captive bred animals being held in captivity.

There are 'defences' provided by the WCA. These are cases where acts that would otherwise be prohibited by the legislation are permitted, such as the incidental result of a lawful operation which could not be reasonable avoided, or actions within the living areas of a dwelling house.

Licensing: certain prohibited actions under the Wildlife and Countryside Act may be undertaken under licence by the proper authority. For example, scientific study that requires capturing or disturbing protected animals can be allowed by obtaining a licence – e.g. bat surveys.

Conservation of Habitats and Species Regulations 2017 (as amended)

The Conservation of Habitats and Species Regulations 2017 (as amended)(which are the principal means by which the EC Habitats Directive is transposed in England and Wales) update the legislation and consolidate all the many amendments which have been made to the Regulations since they were first made in 1994.

These regulations provide for the:

- protection of European Protected Species [EPS] (animals and plants listed in Annex IV Habitats Directive which are resident in the wild in Great Britain) including bats, dormice, great crested newts, and otters;
- designation and protection of domestic and European Sites - e.g. Site of Special Scientific Interest [SSSI] and Special Area of Conservation [SAC]; and
- adaptation of planning controls for the protection of such sites and species.

Public bodies (including the Local Planning Authority) have a duty to have regard to the requirements of the Habitats Directive in exercising their function – i.e. when determining a planning application.

There is no defence that an act was the incidental and unavoidable result of a lawful activity.

Licensing: it is possible for actions which would otherwise be an offence under the Regulations to be undertaken under licence issued by the proper authority. For example, where a European Protected Species has been identified and the development risks deliberately affecting an EPS, then a 'development licence' may be required.

<u>Species protection</u>

The following protected species information is relevant to this report. Legislation is only discussed in relation to planning and development; other offences may exist.

Amphibians

The common frog, common toad, common newt, and palmate newt receive limited protection under the Wildlife and Countryside Act 1981 (as amended), making it illegal to sell or trade them.

The Great Crested Newt and Natterjack Toad are fully protected under the Conservation of Habitats and Species Regulations 2017 (as amended) as European Protected Species. It is illegal to:

- Deliberately capture, injure, kill, or disturb either species,
- Intentionally or recklessly obstruct access to any structure/place used for shelter or protection, or
- Damage or destroy a breeding site or resting place.

Badger

Badgers are protected in the UK under the Protection of Badgers Act 1992. Under the act it is an offence to:

- Wilfully kill, injure, take, possess or cruelly ill-treat[3] a Badger, or attempt to do so;
- To intentionally or recklessly interfere with a sett[4] (this includes disturbing Badgers whilst they are occupying a sett, as well as damaging or destroying a sett or obstructing access to it).

The legislation aims to protect the species from persecution, rather than being a response to an unfavourable conservation status, as the species is in fact common over most of Britain; it is not intended to prevent properly authorised development.

Bats

All British bats are classed as European Protected Species and therefore receive protection under the Conservation of Habitats and Species Regulations 2017 (as amended), making it an offence inter alia to:

- Deliberately kill, injure or capture a bat;
- Deliberately disturb bats;
- Damage or destroy a breeding site or resting place of a bat.

In addition, all British bats are also listed under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) which contains further provisions making it an offence to intentionally or recklessly:

- Obstruct access to any structure or place which any bat uses for shelter or protection; or
- Disturb any bat while occupying a structure or place which it uses for that purpose.

If proposed development work is likely to destroy or disturb bats or their roosts, then a licence will need to be obtained from Natural England, which would be subject to appropriate measures to safeguard bats.

Birds

In the UK, the provisions of the Birds Directive are implemented through the Wildlife & Countryside Act 1981 (as amended), the Conservation of Habitats and Species Regulations 2017 (as amended). All wild birds, their nests and eggs are protected it an offence to:

- kill, injure, or take any wild bird;
- take, damage or destroy the nest of any such bird whilst it is in use or being built; or
- take or destroying an egg of any such wild bird.

The law covers all species of wild birds including common, pest or opportunistic species.

Special protection against disturbance during the breeding season is also afforded to those species listed on Schedule 1 of the Act.

[3] The intentional elimination of sufficient foraging area to support a known social group of Badgers may, in certain circumstances, be construed as an offence by constituting "cruel ill treatment" of a Badger

[4] A sett is defined as "any structure or place which displays signs indicating current use by a Badger". Advice issued by Natural England (June 2009) is that a sett is protected as long as such signs remain present, which in practice could potentially be for some time after the last actual occupation by Badger.

Dormice

The common dormouse is classed as a European Protected Species and therefore receive protection under the Conservation of Habitats and Species Regulations 2017 (as amended), making it an offence inter alia to:

- Deliberately capture, injure, or kill a dormouse;
- Deliberately disturb dormice;
- Damage or destroy a breeding site or resting place of a dormouse.

In addition, the dormouse is listed under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) which contains further provisions making it an offence to intentionally or recklessly:

- Obstruct access to any structure or place which a dormouse uses for shelter or protection; or
- Disturb a dormouse while occupying a structure or place which it uses for that shelter or protection.

Otters

The European Otter, *Lutra lutra* is a European Protected Species and therefore receive protection under the Conservation of Habitats and Species Regulations 2017 (as amended), making it an offence inter alia to:

- deliberately capture, injure or kill any wild otter;
- deliberately disturb wild otters;
- damage or destroy a breeding site or resting place of an otter.

In addition, the otter is listed under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) which contains further provisions making it an offence to intentionally or recklessly:

- disturbs an otter while it is occupying a structure or place which it uses for shelter or protection; or
- obstructs access to such a place.

If proposed development work is likely to destroy or disturb otters or their resting places, then a licence will need to be obtained from Natural Resource Wales, which would be subject to appropriate measures to safeguard otters.

Reptiles

Adders, slow worms, grass snakes and common lizards are protected against killing and injuring under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended). This legislation makes it illegal to intentionally kill or injure a common reptile. As a result, reptiles must be removed from areas of development and relocated onto suitable release sites before any site works can commence.

Smooth snakes and sand lizards are European Protected Species under schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and Schedule 2 of the Conservation of Habitats and Species Regulations 2017 (as amended). This makes it illegal to carry out the following activities:

- Deliberately or recklessly disturb, capture or kill these animals;
- Deliberately or recklessly take or destroy eggs of these animals;
- Damage or destroy a breeding site or resting place of such a wild animal; or

Keep, transport, sell or exchange, or offer for sale or exchange, any live or dead animal, or any part of, or anything derived from such a wild animal.

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