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PRELIMINARY ECOLOGICAL APPRAISAL REPORT

HEOL-Y-SPLOTT, SOUTH CORNELLY

WELSHILL CIVILS & PLANT LTD.

DOCUMENT REF: WWE20252/PEA/FINAL | 21/12/2020

Client:	Welshill Civils & Plant Ltd.			
Site/Job:	Heol-y-Splott, South Cornelly			
Report title:	Preliminary Ecological Appraisal Report			
Report reference:	WWE20252/PEA/FINAL			

Grid Reference:	SS 82236 80102
Survey date(s):	19/08/2020 & 03/11/2020
Surveyed by:	Amy Williams Schwartz
Architect/Agent:	Technia Environment and Planning Ltd.
Planning reference:	-

VERSIONING AND QUALITY ASSURANCE

Rev	Status	Date	Author(s)	Reviewed by	Approved by
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В	Final	21/12/2020	Amy Williams Schwartz Ecologist	Richard Dodd CEcol MCIEEM Principal Ecologist	Richar Roll

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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

Wildwood Ecology was commissioned by Welshill Civils & Plant Ltd. (the client) to undertake a Purpose Preliminary Ecological Appraisal (PEA) of Heol-y-Splott, South Cornelly The site is the subject of a planning application for an aggregate recycling facility for the treatment and recycling of waste. Work undertaken A PEA was undertaken consisting of a desk study and field survey undertaken in August and November 2020 following the Chartered Institute of Ecology and Environmental Management (CIEEM) Preliminary Ecological Appraisal (2013) guidelines and standard Phase 1 Habitat Survey protocol (JNCC, 2010). The development may result in impacts on wildlife and habitats affecting the following protected species: **Bats** 0 Dormice Reptiles Key issues Great crested newts Nesting birds Hedgehogs Removal of invasive plant species (Japanese knotweed) present on site will be necessary to prevent its spread across the site. Specialist advice from an approved environmental contractor must be sought in relation to the lawful removal, the details for its removal should be presented in an appropriate eradication and mitigation plan. **Bats** The building to the south of the site is proposed to be removed for the creation of a new access to the site. The building has suitability for use as an occasional roost, both as a night roost for species such as lesser horseshoe and brown long-eared, and as a day roost for crevice-dwelling species. A further check will therefore need to be undertaken of the building during the bat survey season (May – end of September), which may involve the deployment of a static and/or endoscope checks of the wall cavities. Recommendations The boundaries of the site will remain as dark corridors for nocturnal species. If new/temporary lighting is to be installed onsite a lighting plan will be required to demonstrate that the lighting onsite is appropriate with respect to bats (BCT/ILP 2018 guidance). No night-time working during construction. **Dormice** No further surveys required. Further scrub removal is to be performed to open up the bund present on site, so a precautionary approach to its removal will be required to ensure that no dormice which may be present on site would be harmed: Any scrub present within the development footprint could be removed using hand tools during the winter under close ecological supervision (by a dormouse licensed ecologist) as dormice would still

be hibernating at ground level. From May onwards to August the roots could be removed as

(depending on conditions) dormice will then be active above ground.

Should dormice or signs of dormice be found during this process then all works must immediately
cease. A licence would then be required from Natural Resources Wales (NRW) before works could
resume, which may require up to year of surveys. Alternatively, a presence/absence survey could be
completed at the site in advance of the proposed development, to confirm or refute the potential
presence of dormice at the site and minimise the risk of any delays or offences once works commence.

Reptiles

- No further surveys required as previous surveys on the site in 2016 have confirmed presence of reptiles (slow worms) on site.
- Further scrub removal is to be performed to open up the bund present on site, and an area of tall ruderal is to be raised to form a screening bund, so a reptile mitigation strategy comprising of the following elements will be required:
- Vegetation clearance will be completed using hand tools only, in a directional manner (from the
 centre towards the edge of the site) and in two stages. The first cut will take the vegetation down to
 150mm and should be performed in the winter (to avoid disturbance to nesting birds), with the
 arisings raked up and removed from the footprint of the works or used to create habitat piles within
 the remaining untouched areas of the site.
- The vegetation can then be cut down to ground level and the roots removed during the active reptile season (March October) as reptiles will no longer be hibernating at the base of scrub.
- Raising of the area to form a screening bund should also take place during the active reptile season to avoid crushing any hibernating reptiles during movement of earth/rubble.
- All vegetation clearance works will be completed under the supervision of an ecologist.
- Vegetation within the footprint of the works will be maintained at a short sward height until construction is complete to ensure it is no longer suitable for reptiles to prevent them returning into the footprint of the works.
- No other cutting or removal of vegetation is to take place outside of the construction footprint to ensure that the remaining habitat is suitable for reptiles.
- Ground-breaking works, other than the removal of scrub and the cutting of grass, will not take place during the reptile brumation period of mid-October to February inclusive.

Great crested newts

- No further surveys required.
- A precautionary approach to vegetation clearance as per guidelines for reptiles will prevent accidental killing/injury of amphibians during construction.

Nesting birds

• If habitats suitable for nesting birds are to be removed (e.g. trees and scrub) this 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 no disturbance to, or removal of habitat suitable for nesting birds (hedgerows, trees and scrub) will be undertaken within breeding bird season, unless advised by a suitably qualified ecologist.

Hedgehogs

- No further surveys are required
- Chemicals, materials, and fuel will be safely and appropriately stored during construction.
- No excavations to be left open without a means of escape, such as a plank set at 30°.
- Gaps (13cm x13cm) should be left at the base of all on-site fences/walls including site boundaries to allow passage of hedgehogs across the site.
- In addition, cautious working e.g. thoroughly checking and hand-cutting vegetation before machinery is used is advised to prevent killing or injury to hedgehogs.

Conclusions

- Providing that the recommendations outlined within this report are successfully implemented, it should be possible for the proposed development to proceed and for there to be no long-term impacts upon the key protected species present at the site.
- This ecological report will remain valid for a period of 18 months from the date of the last survey i.e. until May 2022.

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1 INTRODUCTION

1.1 Wildwood Ecology was commissioned by Welshill Civils & Plant Ltd. (the client) to undertake a Preliminary Ecological Appraisal (PEA) of Heol-y-Splott, South Cornelly (the site) centred at grid reference SS 82236 80102.

Site description

1.2 The aerial image of the site (Figure 1) shows the site to consist of areas of bare ground and spoil as well as grassland, scrub, and the edge of a woodland to the east of the site. Much of the grassland and scrub has now been cleared from the site and is now bare ground.



Figure 1 – Aerial image of the site (red line shows the site boundary). Image used under licence (©2020 Google). Imagery date 27/06/2018.

1.3 The distant aerial image of the site (Figure 2) shows the habitat surrounding the site to consist of a construction and landscaping materials depot to the immediate west, and several quarries (several disused) to the east and south of the site. The wider landscape includes pasture farmland, residential and amenity areas, industrial areas, and access roads including the M4, which lies to the north of the site.

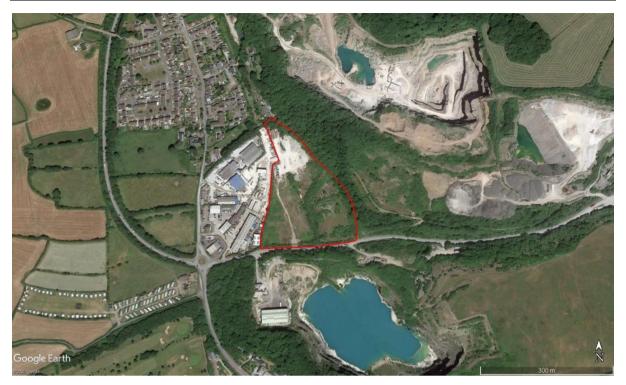


Figure 2 - Aerial image of the site (red line shows the site boundary). Image used under licence (©2020 Google). Imagery date 27/06/2018.

Proposed development

- 1.4 The site is the subject of a planning application for an aggregate recycling facility for the treatment & recycling of waste.
- 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

A biodiversity desk study was undertaken in relation to the site in September 2020. 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/boun	dary)
South East Wales Biodiversity Records Centre (SEWBReC)	Protected and priority speciesSites of local importance/designation	(2km) (1km)
Multi-Agency Geographic Information for the Countryside (MAGIC) ¹	International statutory designationsNational statutory designations	(5km) (2km)

- 2.2 The search buffers are considered to be sufficient to cover the potential zone of influence (ZoI²) 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 A PEA was previously undertaken at the site in April 2016 by Wildwood Ecology (see report WWE16048), as well as an updated PEA and reptile survey undertaken in May-June 2016 (see report WWE16048.RS).

Field survey

- 2.5 Field surveys were undertaken on the 19th August and 3rd November 2020.
- 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 UK or European legislation (see Appendix V);
 - 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*).

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).

Surveyor information

2.10 The PEA was undertaken by Amy Williams Schwartz. See Table 2 for further information.

Table 2 – Surveyor information.

Surveyor	Licences	Ecological experience
Amy Williams Schwartz Ph.D., M.Sc., B.Sc. (Hons.) Ecologist	Bat GCN	Experienced in surveying for a wide range of protected species including great crested newt, reptiles, and bats within a consultancy and volunteer capacity. PhD on wildlife/road interactions in the UK, and experienced in performing academic ecological research projects, as well as species identification.

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 2 international statutory designations for nature conservation within 5km of the site and 1 national statutory designation for nature conservation within 2km (see Table 3).

Designated sites (non-statutory)

3.2 There were 4 local non-statutory designations for nature conservation 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
Cornelly Quarry	SINC	Limestone cliffs/tiers reclaimed by scattered and dense continuous scrub. Also contains	Some of the eastern edge of
		broad-leaved semi-natural woodland.	the site is included
T. Tanal wat Man d	CINIC	Duesed leaved coursi material river discord	within the SINC
Ty Tanglwst Wood	SINC	Broad-leaved semi-natural woodland.	0.4km NE
Grove Common	SINC	Area of dense/continuous scrub with continuous bracken.	0.7km SE
Old Ballas Wood	SINC	Broad-leaved semi-natural woodland and improved grassland.	0.8km NE
Kenfig Pool and Dunes	NNR	A variety of coastal habitats including wetlands, dune slacks and a natural lake.	1.9km NW
Kenfig	SAC / SSSI	Multiple dune habitats and freshwater pool.	2.1km NW
Cefn Cribwr Grasslands	SAC	Molinia meadows with marsh fritillary.	4.9km NW

Priority and protected species

Table 4 summarises the priority and protected species records found within the local area within the last 10 years.

Table 4 – Priority and protected species records found in the vicinity of the site within the last 10 years.

Protected & priority		# of records (# species)			Further information (from
Groups	Species	Onsite	<500m	>500m	site)
	Common pipistrelle	-	-	1	Closest record: 1.0km NE for a transect/static detector record.
	Soprano pipistrelle	-	-	1	Closest record: 1.0km NE for a transect/static detector record.
	Brown long-eared bat	-	-	1	Closest record: 2.1km NW for a bat rescue record (bat found trapped in house).
	Unidentified long- eared bat	-	-	1	Closest record: 1.0km NE for a transect/static detector record.
Bats	Noctule	-	-	1	Closest record: 1.0km NE for a transect/static detector record.
	Serotine	-	-	1	Closest record: 1.0km NE for a transect/static detector record.
	Lesser horseshoe bat	-	-	4	Closest record: 1.0km NE for a transect/static detector record. Closest roost: 3.0km SE.
	Unidentified Myotis	-	-	1	Closest record: 1.0km NE for a transect/static detector record.
	TOTALS	-	-	11 (7+)	
	European otter	-	-	1	Closest record: 2.1km NW for a field observation.
	European badger	-	-	7	Closest record: 1.2km NW for a roadkill record.
Mammals (excluding bats)	Polecat	-	-	2	Closest record: 2.0km SW for a field observation.
	Weasel	-	-	3	Closest record: 1.3km E for a field observation.
	West European hedgehog	-	-	11	Closest record: 1.1km NW for a roadkill record.
	Brown hare	-	-	3	Closest record: 1.5km SW for a field observation of 5 hares.
	TOTALS	-	-	27 (6)	

Protected & priority		# of	records (# sp	pecies)	Further information (from
Groups	Species	Onsite	<500m	>500m	site)
	Common toad	-	-	5	Closest record: 1.4km SW for a field observation.
	Common frog	-	-	2	Closest record: 1.4km SW for breeding frogs.
Amphibians	Great crested newt	-	-	5	Closest record: 2.1km SW for field observations.
Amphibians	Palmate newt	-	-	2	Closest record: 1.4km SW for a field observation of a dead individual.
	Smooth newt	-	-	1	Closest record: 2.2km NW for field observations.
	TOTALS	-	-	15 (5)	
	Common lizard	-	-	2	Closest record: 2.2km NW for field observations.
Reptile	Slow worm	1	-	1	Closest record: on site.
Кериге	Grass snake	-	-	3	Closest record: 1.8km W for field observations.
	TOTALS	1	-	6 (3)	
Birds	Schedule 1	-	1 (1)	70 (26+)	Closest record: 0.5km W for an unspecified record of whooper swan. Other Schedule 1 species records include: barn owl, black redstart, brambling, Cetti's warbler, chough, common crossbill, common scoter, Dartford warbler, diver sp., fieldfare, goshawk, great northern diver, greenshank, hobby, kingfisher, Lapland bunting, Mediterranean gull, peregrine, purple sandpiper, quail, red kite, red-backed shrike, red-throated diver, redwing, and whimbrel.
	Non-schedule 1	1 (1)	2 (2)	150 (25)	Closest record: house sparrow on site from a previous survey. Other non-Schedule 1 species records include: bar-tailed godwit, black-headed gull, bullfinch, cuckoo, curlew, dunnock, golden plover, grasshopper warbler, herring gull, kestrel, lapwing, lesser redpoll, linnet, pintail, reed

Protected & priority		# of records (# species)			Further information (from
Groups	Species	Onsite	<500m	>500m	site)
					bunting, ring ouzel, ringed plover, skylark, song thrush, starling, tree pipit, turtle dove, yellow wagtail, and yellowhammer.
Invertebrates	Totals:	-	-	6 (6)	Closest record: 1.4km SW for records of cinnabar and grass rivulet. Other species records include: brown-banded carder bee, garden tiger, shrill carder bee, and small heath.
Plants	see further info	-	-	3 (1)	Closest record: bluebells 1.0km NE.

Field survey

Timing and conditions

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

Table 5 - Summary of weather conditions during the PEA.

	Weather conditions						
Date	Temp [°C]	Cloud cover [Oktas]	Wind speed [Beaufort scale]	Rain			
19/08/2020	23	5/8	1	Nil			
03/11/2020	11	3/8	2	Nil			

- 3.5 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 IV.
- 3.6 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).
- 3.7 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.
- 3.8 The site was classified according to the following habitat types: bare ground, scrub (dense/continuous), tall ruderal, spoil (artificial), broad-leaved semi-natural woodland, and recently felled woodland. Buildings and fencing were also present on site.

Table 6 - Habitats and linear features present onsite.

Habitat type / Linear feature	Species present	Other observations
J4 Bare ground Areas of bare ground with mixed ephemeral/short perennial. Some areas were formerly short swards of neutral grassland, or scrub.	St John's-wort, creeping buttercup, ragwort, rosebay willowherb, buddleia, teasel, viper's bugloss, rose sp., bramble, yarrow, scarlet pimpernel, ox-eye daisy, bird's-foot trefoil, wild strawberry, evening primrose, Molinia.	 Heaps of earth and spoil are present in areas (Target Note 1), with older heaps covered in scrub.
A2.1 Scrub (dense/continuous) Some areas around the centre and boundaries of the site are scrub.	Buddleia, bramble, goat willow, Japanese knotweed, cotoneaster, bracken, gorse.	 Much of the scrub formerly present on the eastern end of the site has been recently cleared.
C3.1 Tall ruderal Areas of tall ruderal are present around the edges of scrub and trees.	St John's-wort, teasel, viper's bugloss.	

	T	
I2.2 Spoil, artificial		
Several spoil piles of varying heights and		
are present around the site from		
previous operations.		
A1.1.1 Semi-natural, broad-leaved woodland	Goat willow, ivy, ash, hawthorn, blackthorn, sycamore, alder, bramble,	
Some woodland running adjacent to the	bracken, buddleia.	
site at the north and north-eastern	,	
edges, part of the Cornelly Quarry SINC.		
A4.1 Broad-leaved, recently-felled woodland	As A1.1.1	
Some areas of woodland and scrub on		
the eastern edge of the site have been		
recently cleared.		
J3.6 Buildings	-	The small outbuilding has signs of use by birds (an
Two permanent buildings are present		old nest), and the double-
on site, a small outbuilding overgrown		skinned wall is suitable
to the rear by vegetation, and a larger		for crevice-roosting bat
storage building.		species.
J2.4 Fence	-	

Invasive species

3.9 Stands of Japanese knotweed were identified onsite during the site visit in August, but the area has been subsequently cleared of vegetation.

Onsite fauna

3.10 The presence of the following species were observed or detected around the site during the surveys: meadow brown, silver y, red admiral, large white, small tortoiseshell, common blue, ruddy darter, rabbit, blackbird, carrion crow, goldfinch, blue tit.

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 UK and European legislation and both local and national planning policy (see Appendix V).

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 1.9km north-west of the site (Kenfig Pool and Dunes, NNR) and the closest non-statutory site was Cornelly Quarry (SINC); some of the eastern edge of the site is included within the SINC.
- 4.4 The site borders Cornelly Quarry SINC, but the proposed development footprint does not encroach upon the SINC. 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: semi-natural broad-leaved woodland.
- 4.6 The areas of woodland on site are outside of the proposed development footprint, and so are likely to be unaffected by the proposed construction.

Priority and protected species

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

Bats

- 4.8 The local records search returned a number of records for bat species in the vicinity of the site (see Table 5) the closest records were for at least 7 species of bat from a transect & static detector survey (common pipistrelle, soprano pipistrelle, long-eared bat, noctule, serotine, lesser horseshoe, and *Myotis* sp.).
- 4.9 It is likely that bats will use the areas of woodland and scrub present on site for foraging and commuting, and the woodland is likely to provide roosting opportunities for bats.
- 4.10 There are two buildings present on site, with the smaller outbuilding to the south proposed to be demolished to create a new access route. The smaller outbuilding to the south of the site is suitable for use by roosting bats, as a night roost for species such as lesser horseshoe and brown long-eared, and as a day roost with hibernation potential for crevice-dwelling species, as there are many gaps between the two layers of brick used in its construction.
- 4.11 Light levels on the site are currently moderate (see Figure 3), with minimal lighting on the site itself (a single pair of floodlights, although it is unclear how frequently these are turned on), but the site has light spill from nearby industrial and residential areas. If light levels were to be increased on site with the proposed development, then there is potential for more light-sensitive species to avoid utilising the site.

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Figure 3 - Radiance level at the centre of the site (red pin marked "1") are currently at $5.17 \times 10^{-9} \text{ W} / \text{cm}^2 \times \text{sr.}$ www.lightpollutionmap.info accessed 03/06/2020. Blue = low levels; green-yellow = moderate; orange/red = high levels.

4.12 There may be a negative impact on bat species as a result of the proposed development due to a reduction in suitable foraging/commuting habitat both through the removal of vegetation as well as an increase in light levels. There could also be a negative impact on roosting bats if bats are using the building to be demolished.

Common dormouse

- 4.13 The local records search did not return any records for common dormouse in the vicinity of the site, but this may be due to under-recording of this species, rather than a true absence.
- 4.14 The woodland and scrub areas present on site offer potential foraging and nesting opportunities for dormice, and there is good connectivity to other habitats nearby.
- 4.15 The current proposed development would require some further vegetation removal (but the majority of the proposed siting is on an area of bare ground) the majority of the remaining woodland and scrub adjacent to the site is likely to remain intact.
- 4.16 There may be a negative impact on common dormouse as a result of the proposed development if further suitable vegetation is to be removed during construction.

European otter

- 4.17 The local records search returned a record for European otter in the vicinity of the site (see Table 5) a field observation of a live animal 2.1km north-west of the site.
- 4.18 There is no running water and no permanent standing water on site, meaning that it is unlikely that otters will use the site for foraging, but may occasionally commute through the site.
- 4.19 There is unlikely to be a negative impact on European otter as a result of the proposed development.

Great crested newt

- 4.20 The local records search returned a number of records for great crested newt in the vicinity of the site (see Table 5) the closest record was a field observation 2.1km to the south-west of the site.
- 4.21 Areas of spoil/rubble and log piles present around the site may provide suitable shelter and hibernation opportunities for a variety of amphibians including great crested newt.
- 4.22 There may be a negative impact on great crested newt as a result of the proposed development due to destruction or degradation of areas used for foraging and shelter, as well as the risk of injury/killing during construction.

Reptiles

- 4.23 The local records search returned a number of records for reptile species in the vicinity of the site (see Table 5). Slow worm presence has been confirmed on site from previous surveys conducted in 2016, and there are records of common lizard and grass snake in the vicinity (2.2km NW and 1.8km W, respectively), although these species were not detected on site during the previous reptile surveys.
- 4.24 Much of the remaining habitat on the site that is not bare ground is suitable for reptiles (scrub, tall ruderal, and woodland edge).
- 4.25 Piles of rubble and brash (particularly around the newly cleared areas) present on site offer hibernation opportunities for reptiles.
- 4.26 There will be a negative impact on reptile species in the absence of mitigation as a result of the proposed development due to the risk of killing/injury during construction, and a loss of habitat.

Nesting birds

- 4.27 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.
- 4.28 At least 27 species of Schedule 1 bird have been recorded within the vicinity of the site, although it is unlikely that any of these species would be breeding on site.
- 4.29 The areas of woodland and scrub present on the site offer potential habitat for nesting birds, and evidence of nesting birds was found in the smaller outbuilding to the south of the site (see Figure 14).
- 4.30 There may be a negative impact on nesting bird species as a result of the proposed development due to the removal of scrub habitat suitable for nesting. Additionally, demolition of the building to the south of the site would result in fewer opportunities for birds, as it has previously been used for nesting.

European badger

- 4.31 The local records search returned a number of records for European badger in the vicinity of the site (see Table 5) the closest record was of a roadkill animal 1.2km north-west of the site.
- 4.32 No badger setts or tracks were observed on site during the survey, although there are close records, and it is possible that badgers may occasionally use the site for commuting or foraging.

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4.33 There is unlikely to be a negative impact on European badger as a result of the proposed development.

West European hedgehog

- 4.34 The local records search returned a number of records for west European hedgehog in the vicinity of the site (see Table 5) the closest record was of a roadkill animal 1.1km north-west of the site.
- 4.35 Areas of the site (particularly areas of scrub and woodland) are suitable for hedgehog foraging and commuting, as well as nesting, although only a minimal amount of additional scrub habitat is currently proposed to be removed, and much of the surrounding habitat will remain.
- 4.36 There may be a negative impact on west European hedgehog as a result of the proposed development due to risk of killing or injury during construction, as well as loss of habitat.

Invertebrates

- 4.37 The local records search returned a number of records for invertebrate species in the vicinity of the site (see Table 5) the closest records were of cinnabar and grass rivulet 1.4km to the southwest of the site.
- 4.38 There will still be areas of scrub and woodland present on site available for use by invertebrates, as well as a variety of suitable habitats in the surrounding area.
- 4.39 There is unlikely to be a negative impact on invertebrate species as a result of the proposed development.

Invasive species

- 4.40 There were several stands of Japanese knotweed found onsite. These are examples of invasive plant species included in Schedule 9 of the Wildlife and Countryside Act (1981), as amended.
- 4.41 Any Japanese knotweed found on site will need to be carefully destroyed and removed before construction begins to prevent the spread of this plant.

Impacts of proposed development

4.42 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	May be a negative impact on bats due to a reduction in suitable foraging/commuting habitat both through the removal of vegetation as well as an increase in light levels. Roosting opportunities could also be negatively impacted if bats are using the building to be demolished.
Common dormouse	May be a negative impact on dormice due to removal of scrub habitat suitable for foraging, commuting, and nesting.
European otter	Unlikely to be a negative impact.
Great crested newt	May be a negative impact on great crested newts if present due to the risk of killing/injury during construction as well as destruction or degradation of areas used for foraging/shelter.

Species	Negative impact* (plus scale and nature of impact)
Reptiles	In the absence of mitigation, there will be a negative impact on reptiles due to the risk of killing/injury during construction, and loss of habitat.
Nesting birds	May be a negative impact on nesting birds due to removal of scrub habitat suitable for nesting. Nesting opportunities may also be negatively impacted by building demolition.
European badger	Unlikely to be a negative impact.
West European hedgehog	May be a negative impact on hedgehogs due to the risk of killing/injury during construction, as well as loss of habitat.
Invertebrates	Unlikely to be a negative impact on a population level.
Invasive non-native species	Japanese knotweed is or has been present on site and has a negative impact on native biodiversity. Its removal is required as part of an approved strategy.

^{*}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 Heol-y-Splott, South Cornelly
- 5.2 The site is the subject of a planning application for an aggregate recycling facility for the treatment & recycling of waste.

Designated sites

5.3 Designated sites for nature conservation 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	 The building to the south of the site is proposed to be removed for the creation of a new access to the site. The building has suitability for use as an occasional roost, both as a night roost for species such as lesser horseshoe and brown long-eared, and as a day roost for crevice-dwelling species. A further check will therefore need to be undertaken of the building during the bat survey season (May – end of September), which may involve the deployment of a static and/or endoscope checks of the wall cavities. The boundaries of the site will remain as dark corridors for nocturnal species. If new/temporary lighting is to be installed onsite a lighting plan will be required to demonstrate that the lighting onsite is appropriate with respect to bats (BCT/ILP 2018 guidance). No night-time working during construction.
Common dormouse	 No further surveys required. Further scrub removal is to be performed to open up the bund present on site, so a precautionary approach to its removal will be required to ensure that no dormice which may be present on site would be harmed: Any scrub present within the development footprint could be removed using hand tools during the winter under close ecological supervision (by a dormouse licensed ecologist) as dormice would still be hibernating at ground level. From May onwards to August the roots could be removed as (depending on conditions) dormice will then be active above ground. Should dormice or signs of dormice be found during this process then all works must immediately cease. A licence would then be required from Natural Resources Wales (NRW) before works could resume, which may require up to year of surveys. Alternatively, a presence/absence survey could be completed at the site in advance of the proposed development, to confirm or refute the potential presence of dormice at the site and minimise the risk of any delays or offences once works commence.
European otter	No further surveys required.
Great crested newt	 No further surveys required. A precautionary approach to vegetation clearance as per guidelines for reptiles will prevent accidental killing/injury of amphibians during construction.

Reptiles	 No further surveys required as previous surveys on the site in 2016 have confirmed presence of reptiles (slow worms) on site. Further scrub removal is to be performed to open up the bund present on site, and an area of tall ruderal is to be raised to form a screening bund, so a reptile mitigation strategy comprising of the following elements will be required: Vegetation clearance will be completed using hand tools only, in a directional manner (from the centre towards the edge of the site) and in two stages. The first cut will take the vegetation down to 150mm and should be performed in the winter (to avoid disturbance to nesting birds), with the arisings raked up and removed from the footprint of the works or used to create habitat piles within the remaining untouched areas of the site. The vegetation can then be cut down to ground level and the roots removed during the active reptile season (March – October) as reptiles will no longer be hibernating at the base of scrub. Raising of the area to form a screening bund should also take place during the active reptile season to avoid crushing any hibernating reptiles during movement of earth/rubble. All vegetation clearance works will be completed under the supervision of an ecologist. Vegetation within the footprint of the works will be maintained at a short sward height until construction is complete to ensure it is no longer suitable for reptiles to prevent them returning into the footprint of the works. No other cutting or removal of vegetation is to take place outside of the construction footprint to ensure that the remaining habitat is suitable for reptiles. Ground-breaking works, other than the removal of scrub and the cutting of grass, will not take place during the reptile brumation period of mid-October to February inclusive.
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 1 st March until 31 st 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	No further surveys required.
West European hedgehog	 No further surveys are required Chemicals, materials, and fuel will be safely and appropriately stored during construction. No excavations to be left open without a means of escape, such as a plank set at 30°. Gaps (13cm x13cm) should be left at the base of all on-site fences/walls including site boundaries to allow passage of hedgehogs across the site. In addition, cautious working e.g. thoroughly checking and hand-cutting vegetation before machinery is used is advised to prevent killing or injury to hedgehogs.
Invertebrates	No further surveys required.
Invasive non- native species	 Removal of invasive plant species (Japanese knotweed) present on site will be necessary to prevent its spread across the site. Specialist advice from an approved environmental contractor must be sought in relation to the lawful removal, the details for its removal should be presented in an appropriate eradication and mitigation plan.

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 Cuttings from scrub removal (of native species) could be placed to form brash/habitat piles in the eastern end of the site to provide an increase in opportunities for nesting/hibernation for a variety of species.

Overall conclusion

5.8 Providing that the recommendations outlined within this report are successfully implemented, it should be possible for the proposed development to proceed and for there to be no long-term impacts upon the key protected species present at the site.

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

6 REFERENCES

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APPENDIX I: PEA PLAN



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Figure 4 - PEA plan showing habitats and features present on site.

APPENDIX II: PROPOSED DEVELOPMENT PLAN



Figure 5 - Proposed development plan for the site.

APPENDIX III: SURVEY IMAGES







the site.



Figure 8 - Scrub along the western boundary of the site.



Figure 9 - Looking north along the western boundary of the site.



Figure 10 - Looking north-west from the south-eastern Figure 11 - Eastern border of the site, with recently cleared corner of the site.



scrub and trees.



Figure 12 - Small outbuilding at the south of the site.



Figure 13 - Closer view of a section of the small outbuilding.



Figure 14 - Old birds' nest within the outbuilding.



Figure 15 - Cavity between skins on small outbuilding suitable for bat roosting.





Figure 16 - Line of scrub running roughly through the Figure 17 - Pile of earth and spoil. centre of the site.





site.

Figure 18 - Bare ground and scrub towards the north of the Figure 19 - Debris towards the north-east of the site.



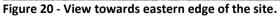




Figure 21 - New brash piles at the eastern edge of the site.

APPENDIX IV: SPECIES LIST

To be submitted to the appropriate Local Records Centre

Site Name: Heol-y-Splott, South Cornelly Provided by: Wildwood Ecology Ltd

Grid ref: SS 82236 80102 Verified by: Richard Dodd

6	Scientific Name	Nissa	C
Common name	(if known)	Number	Comment
	Invertebrates		
Common blue	Polyommatus icarus		
Large white	Pieris brassicae		
Meadow brown	Maniola jurtina		
Red admiral	Vanessa atalanta		
Ruddy darter	Sympetrum sanguineum		
Silver Y	Autographa gamma		
Small tortoiseshell	Aglais urticae		
	Mammals		
Rabbit	Oryctolagus cuniculus		Live and droppings
	Birds		
Blackbird	Turdus merula		
Blue tit	Cyanistes caeruleus		
Bullfinch	Pyrrhula pyrrhula		
Carrion crow	Corvus corone		
Goldfinch	Carduelis carduelis		
	Plants		
Alder	Alnus glutinosa		
Ash	Fraxinus excelsior		
Bird's-foot trefoil	Lotus corniculatus		
Bracken	Pteridium aquilinum		
Bramble	Pteridium aquilinum		
Buddleia	Buddleja davidii		
Cotoneaster	Cotoneaster sp.		
Creeping buttercup	Ranunculus repens		
Evening primrose	Oenothera biennis		
Goat willow	Salix caprea		
Gorse	Ulex europaeus		
Hawthorn	Crataegus monogyna		
lvy	Hedera helix		
Japanese knotweed	Reynoutria japonica		
Ox-eye daisy	Leucanthemum vulgare		
Pampas grass	Cortaderia selloana		
Ragwort	Jacobaea vulgaris		
Rose sp.	Rosa sp.		
Rosebay willowherb	Chamaenerion angustifolium		
Rush	Juncus spp.		
Scarlet pimpernel	Anagallis arvensis		
St John's-wort	Hypericum perforatum		
Sycamore	Acer pseudoplatanus		
Teasel	Dipsacus sp.		
Viper's bugloss	Echium vulgare		
Wild strawberry	Fragaria vesca		
Yarrow	Achillea millefolium		

APPENDIX V: 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 (2018) and Technical Advice Note 5 (2009)

Planning Policy Wales (Edition 10, December 2018) 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.

Species protection

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-treat³ a Badger, or attempt to do so;
- To intentionally or recklessly interfere with a sett⁴ (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.