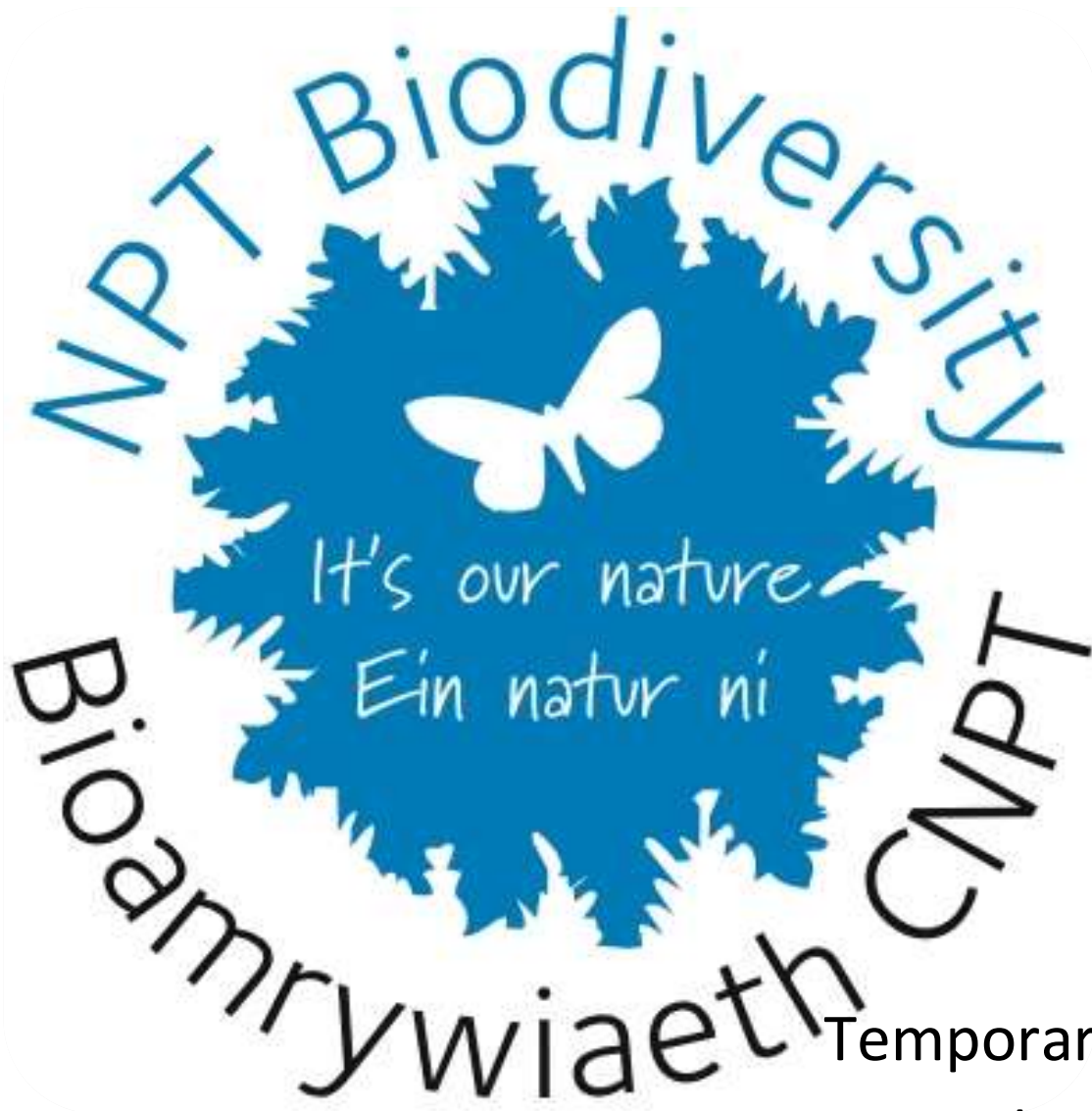




Temporary site car park
and top soil area for
Swansea Bay Technology
Centre
Ecological Assessment

5th October 2020

by

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DECLARATION

The information, advice and opinions which we have prepared and provided is true, and has been prepared and provided in accordance with the CIEEM's Code of Conduct. We confirm that the opinions expressed are our true and professional bona fide opinions.

Signed:

A handwritten signature in black ink, appearing to read 'M Price'.

Megan Price
Consultant Ecologist

The following report is considered a reasonable and true representation of the ecological situation on the site assessed. The report is however just a snapshot assessment therefore the authors are unable to guarantee that all biodiversity interest has been identified. In addition, if works are not undertaken as programmed re-assessment will be required. The survey information is considered applicable for one year from the date of the survey. The mitigation proposals are only applicable to works undertaken prior to the reptile hibernation season, if site clearance works are to be undertaken during winter months the mitigation proposals will need to be re-visited.

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EXECUTIVE SUMMARY

The site that is proposed to be used as the temporary site car park and top soil storage area has no ecological constraints to its proposed usage as long as the plan shown in drawing 26X003-HYD-XX-XX-DR-C-30-3001 is followed. If the site area changes from this then another ecological assessment will be required.

1 INTRODUCTION

1.1 SITE LOCATION

The site is located on Mardon Park, Central Avenue, Port Talbot.

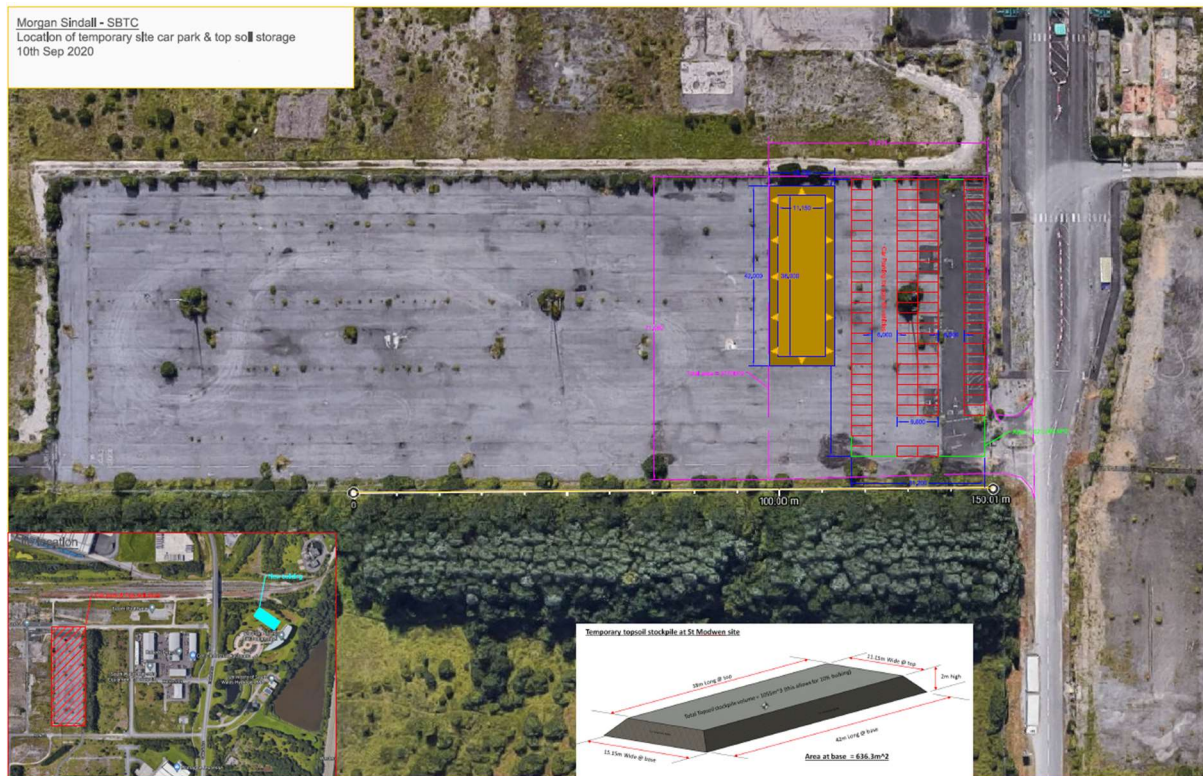


Figure 1 Location of proposed temporary site car park and topsoil storage area

1.2 DESCRIPTION OF DEVELOPMENT

The proposed area is to be used as a site car park and top soil storage area for the Swansea Bay Technology Centre development works that are taking place across the main road on the Technium Centre site.

There is not enough car parking available on the site and no space to store the top soil that is being stripped to go back on site once the works have been completed so this site is being leased from St Modwens to deal with this issue.

1.3 SCOPE OF SURVEY

The scope of the survey was to undertake an ecological survey and identify any ecological constraints to the development. This was to include:

- The identification and assessment of habitat types present within the site
- To identify and assess likely presence of fauna within the site, especially in relation to protected species
- To make recommendations for further survey work, if necessary
- An indicative assessment of the likely constraints and opportunities for biodiversity
- To include indicative recommendations of measures to avoid and minimise any adverse impacts upon habitat and species
- To identify any opportunities for enhancement of the ecological value of the site.

2 DESK STUDY

2.1 DESIGNATED SITES

2.1.1 STATUTORY SITES

The site does not lie within, nor is adjacent to any statutory protected sites, such as Special Areas of Conservation (SAC), Ramsar Site, Sites of Special Scientific Interest (SSSI), National Nature Reserve (NNR) or Local Nature Reserve (LNR). The closest statutory sites are Earlswood Road Cutting and Ferry Boat Inn Quarries SSSI and Crymlyn Burrows SSSI. Earlswood Cutting is approximately 1.2km and to the north of the site, and Crymlyn Burrows SSSI 1.3km to the North West.

2.1.2 NON-STATUTORY SITES

Neath Port Talbot Council have adopted the Sites of Importance for Nature Conservation (SINC) Guidelines as part of the adopted Local Development Plan, and the process of identifying sites that meet the criteria is an ongoing process. There are a number of sites that meet the criteria which are located within 500m of the site:

- Woodland SINC (Ancient Woodland) (405m to the east of the site), designated for woodland habitats.
- Watercourse next to the M4, an abandoned canal (150m to the east of the site), designated for watercourse habitats.
- Triangular Pond (500m to the north of the site), designated for pond habitat and important population of Deptford Pink.

- Jaffa Land (460m to the north of the site), brownfield habitat supporting various important plants including Deptford Pink, Distant Sedge and Brown Sedge.
- Marden Park (immediately adjacent to north of site designated for open mosaic habitat on previously developed land and supports various important plant species.

The closest Wildlife Trust Nature Reserve is situated in Baglan over 2km away from the site.

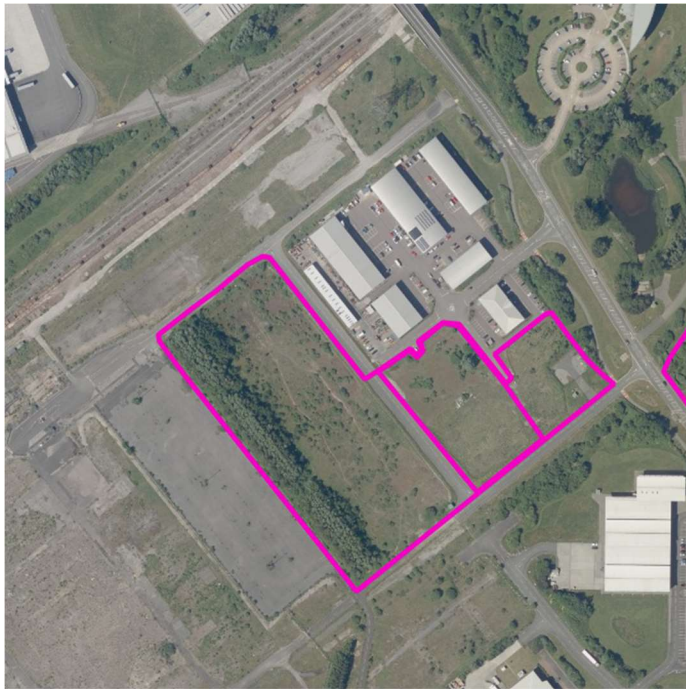


Figure 2 Location of Marden Park Site of Importance for Nature Conservatio

3 BASELINE SURVEY RESULTS

3.1 WALKOVER SURVEY

3.1.1 SURVEY METHOD

A walk over survey was carried out on the 30th September 2020 by Megan Price, Consultant Ecologist, NPTC. This survey looked for any species that would cause an ecological constraint to the proposed scheme.

3.1.2 LIMITATIONS

The survey was carried out outside the optimal period for vegetation surveys however given the nature of the site and the limited scope of works this is not considered to have had an impact on the results.

3.1.3 SURVEY RESULTS

The site is mainly hard standing, it was previously used as a car park however this has not been maintained or managed recently so there is a lot of buddleja (*Buddleja davidii*) growth growing through in areas where the tarmac has cracked.

On the north side of the site (adjacent to the Marden Park SINC) there is a bit of willow scrub growth coming through the fence line. There is also an occasional small willow tree growing on the carpark/ hard standing area.

3.2 PROTECTED SPECIES

3.2.1 MAMMALS

Most, if not all, British bat species are believed to be in decline, and all of the 17/18 species are protected by European and UK legislation: the Conservation of Habitats and Species Regulations 2010 as amended and Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). This affords complete legal protection to all bats and their roosts. The protection provided by these laws means that it is illegal to:

- Kill, injure or handle a bat
- Disturb bats when they are roosting
- Obstruct, damage or destroy the places where bats live (this applies even if the bats are not in residence)
- Possess, control, transport, sell, exchange or offer for sale/exchange any live or dead bat or any part of a bat
- Keep bats in captivity

A derogation licensing system is in place that may permit works that may impact bats if certain criteria are met. These licenses are issued by Natural Resources Wales.

Barbastelle (*Barbastella barbastellus*), Bechstein's (*Myotis bechsteinii*), Noctule (*Nyctalus noctula*), Common Pipistrelle (*Pipistrellus pipistrellus*), Soprano Pipistrelle (*Pipistrellus pygmaeus*), Brown long-eared (*Plecotus auritus*), Greater Horseshoe (*Rhinolophus ferrumequinum*), and Lesser Horseshoe bats (*Rhinolophus hipposideros*) are all listed under S7 Environment Act 2016, as species of principal importance for conservation of biological diversity in Wales. All bat species are also included in the Local Biodiversity Action Plan for Neath Port Talbot.

The life-cycle of the different species of bat varies but generally they all require the following:

- Hibernation roost sites ; to enable bats to enter into a period of torpor over winter these sites need to have a stable winter temperatures (e.g. caves, mines, adits or crevices and hollows in mature trees),
- Maternity/Nursery roost sites; these sites are where females give birth and rear their offspring in spring/summer,
- General roost sites for individuals or small numbers of bats, particularly males, through spring-autumn,
- Foraging grounds; areas that support good numbers of insects.
- Some species may also require social-gathering sites at certain times of the year, such as during the autumn mating season (however this requirement is not well understood at present).

Summer roosts, including maternity and male roosts, are often found in roof spaces and mature trees.

Assessment

Common Pipistrelle and Soprano Pipistrelles are present in the general area however there are no buildings on site that would support roosting bats, there are no trees on site that would support roosting bats and the sites value for foraging bats is limited.

Badger

Badgers (*Meles meles*) are social animals and live in family units, called 'clans'. The same pathways to feeding grounds are used by the family throughout their lives, even when obstacles such as fences, roads and buildings encroach on them. Badgers are omnivorous and eat a variety of foods, including earthworms (their main diet), small mammals, grubs, fruits, bulbs and berries. They normally chose wooded areas to sett in and often forage in improved pastures for earthworms. Their territories can range from 10ha -300ha with an average of about 50ha. Setts consists of a network of tunnels and chambers. A number of types of sett are recognized: the main sett (continuously used, including for breeding); annexe setts (smaller setts close to the main sett that are used temporarily or less frequently to the main sett, including by individuals of the clan that have been excluded from the main sett); outlier and subsidiary setts (usually only one or two holes, used infrequently and can be anywhere within the territory). The Badger is protected under the Protection of Badgers Act 1992, which includes protection of the sett, and Schedule 6 of the Wildlife and Countryside Act 1981 (as amended). Appendix III, Article 7 of the Bern Convention states that the British Badger population has high value in international conservation of the species. Some protection of Badgers is also given under the Hunting with Dogs Act 2004. Badgers are included in the Neath Port Talbot Biodiversity Action Plan.

The protection afforded badgers under law was based mainly on the need to protect them from badger baiting and deliberate harm. The following would constitute an offence under the Protection of Badgers Act 1992.

- to wilfully kill, injure, take, possess or cruelly ill-treat a badger, or attempt to do so
- damaging or destroying a sett
- obstructing access to a sett
- disturbing a badger when occupying a sett
- plus, offences in relation to persecution.

Any development to be carried out within the vicinity of a sett may require a license from Welsh Government. Generally use of heavy machinery within 30m of an active sett would need a license.

Assessment

No signs of badgers were noted during the habitat survey on the site and records of Badger in the general area is limited. However, there is one record of signs of Badger close to the Triangular Pond not far from the site. The site is surrounded by development or previously developed land that holds little suitable connectivity habitat for this species to use.

It is not expected that Badgers are using the site and no sign of badger was recorded during the walk over survey.

Brown Hare

The Brown Hare (*Lepus europaeus*) is occasionally seen, but is an inconspicuous species in the Glamorgan countryside. Nationally the Brown Hare is thought to have undergone a substantial decline in numbers since the early 1960s. The Brown Hare is listed S7 of the Environment Act (2016), as a species of principal importance for conservation of biological diversity in Wales; and is included in the Local Biodiversity Action Plan for Neath Port Talbot.

Brown Hare have been recorded occasionally in coastal areas of Neath Port Talbot; utilising sand dune and large areas of brownfield land; otherwise it is more commonly found in areas of open upland habitat, especially on common land.

Survey/assessment

No Brown Hare were noted during the habitat survey. The habitat and the location of the site, situated in an area surrounded by development; was considered to hold limited suitability for this species. Brown Hare prefer large areas of open habitat. The surrounding developments, roads and buildings were considered to significantly reduce the suitability of the site for this species.

Other Species

Otter and Dormouse are both European Protected Species afforded protection under the Conservation of Habitats and Species Act 2010 and the Wildlife and Countryside Act 1981 (as amended). Both are listed under S7 of the Environment Act (2016), as species of principal importance for conservation of biological diversity in Wales; and are also included in the Local Biodiversity Action Plan for Neath Port Talbot.

Water Vole are afforded protection under the Wildlife and Countryside Act 1981 (as amended); is listed under S7 of the Environment Act (2016), as species of principal importance for conservation of biological diversity in Wales; and is also included in the Local Biodiversity Action Plan for Neath Port Talbot.

Hedgehog are listed under S7 of the Environment Act (2016), as species of principal importance for conservation of biological diversity in Wales

Survey/assessment

No Otter or Water Vole were noted during the habitat survey. The site does not support suitable habitat for Otter and Water Vole. There are no records for Water Voles in the vicinity and this species is rare in lowland areas in NPT, with only historic records relating to the Tennant and Neath Canals. It is considered unlikely that they will be present. The habitat on site provides very little foraging opportunity for Otter.

No survey has been undertaken for Dormouse. The site does not support habitat that would be used by Dormouse. There are no records for Dormouse in the vicinity of the site (with very few confirmed records in the county as a whole) and with limited connectivity of habitat it is considered unlikely that this species would be present.

No survey has been undertaken for Hedgehog. The site has limited potential to support hedgehog due to the large areas of hard standing. . There are records of Hedgehog in the vicinity of the site and it is therefore considered possible that this species would be present.

3.2.2 AMPHIBIAN AND REPTILES

Great Crested Newts

Adult Great Crested Newts (*Triturus cristatus*) spend most of the year on dry land, returning to ponds only to breed, generally between March/April and July. Britain supports a significant proportion of the European population and the species can be found throughout much of England and Wales, having a more restricted distribution in Scotland and apparently being absent from south-west England and western Wales. There are only 2 confirmed sites in Neath Port Talbot. The Great Crested Newt has a complex set of habitat requirements; including waterbodies for breeding, suitable foraging habitat including rough grassland, hedges and pasture; and suitable hibernation sites, such as under leaf litter and undergrowth or deadwood.

The Great Crested Newt is a European protected species and is afforded protection under the Conservation of Habitats and Species Act 2010 and the Wildlife and Countryside Act 1981 (as amended). The protection under the listed legislation means that it is illegal to:

- Kill, injure or capture a great crested newt
- Disturb a great crested newt in its place of shelter or breeding
- Obstruct, damage or destroy the places where great crested newts live

- Possess, control, transport, sell, exchange or offer for sale/exchange any live or dead Great Crested Newt or any part of a Great Crested Newt.

Great Crested Newt is also listed under S7 of the Environment Act (2016), as species of principal importance for conservation of biological diversity in Wales; and are also included in the Local Biodiversity Action Plan for Neath Port Talbot.

Survey/assessment

No survey has been undertaken for Great Crested Newts. The site is surrounded by development or previously developed land that holds little suitable connectivity habitat for this species to use. The limited distribution of Great Crested Newts in Neath Port Talbot also suggest that the presence of this species on site is unlikely, the nearest record being well over 5km from the site.

Other Amphibians

The Common Toad (*Bufo bufo*) is widespread and native to Britain. The Toad's diet consists of insects, larvae, spiders, worms and slugs. Toads tend to breed in large water bodies, including lakes and slow moving rivers (especially behind weirs) where water quality is good. Although vegetation is necessary for spawning, heavily shaded sites tend to be avoided. Common Toads tend to occur in areas of mixed farmland, woodland, flowing and still water, scrub and worked out mineral extraction sites. On land, Toads bury themselves within soil or leaf litter or hide beneath dead wood and vegetation. Movements towards breeding ponds (usually their birth ponds) occur during spring, after dusk on mild, damp nights, when the air temperature is above 4°C. Road traffic mortality is a common threat at this time. Toads are also at risk from pond loss and destruction of breeding sites, particularly as they are 'site faithful'. Toads receive some protection under Appendix III of the Bern Convention and under Schedule 5 of the Wildlife and Countryside Act 1981.

Common Toad is also listed under S7 of the Environment Act (2016), as species of principal importance for conservation of biological diversity in Wales; and is also included in the Local Biodiversity Action Plan for Neath Port Talbot.

The other species of amphibian that occur in Neath Port Talbot; Common Frogs (*Rana temporaria*) , Palmate Newts (*Lissotriton helveticus*) and Smooth Newts (*Lissotriton vulgaris*) are afforded protection from Sale under the Wildlife and Countryside Act 1981 (as amended). All of these species have similar habitat requirements, in relation to suitable waterbodies for breeding and terrestrial habitat for foraging and hibernation.

Survey/assessment

No Toads or other amphibians were recorded during the habitat survey. The habitat on site has limited potential to support the above amphibian species.

Reptiles

Reptiles are widespread within Neath Port Talbot, particularly in the Port Talbot area. Reptiles recorded in the County Borough include the Adder (*Vipera berus*), Grass Snake (*Natrix natrix*), Slow Worm (*Anguis fragilis*) and Common or Viviparous Lizard (*Lacerta vivipara*). Heathlands, moorlands, acidic grasslands and some areas of brownfield land provide suitable open habitats for these reptiles. Reptiles are cold-blooded and maintain their body temperature externally by sunbathing and moving under cover. Reptiles give birth to their young between June and September and most species' young hatch from eggs. However, the Common Lizard gives birth to live young. Grass Snakes, usually associated with water, feed mainly on amphibians and fish, whilst Adder feed mainly on rodents and Lizards and are particularly associated with heathland, grassland and woodland edge habitats found on some of the slopes of the upland areas in Neath Port Talbot. Slow Worm are legless Lizards and, like Lizards, can drop their tail to escape from a predator. The Slow Worm is probably the most commonly encountered British reptile. They prefer to hide under stones, logs or pieces of discarded rubbish exposed to the sun. Slow Worms are also keen on compost heaps where they find warmth and plenty of food. They feed on slow moving prey, particularly small slugs. They are often found in gardens and any areas of land that provides enough cover and prey; often in grasslands with scrub. The widespread Common Lizard feeds mainly on spiders and insects; it can be found in more open habitats to the Slow Worm, including brownfield land and heathlands. All British reptiles are protected under of the Wildlife and Countryside Act 1981. The protection under this legislation means that it is illegal to:

- Kill or injure a reptile
- Trade/sell a reptile.

All reptile species are listed under S7 of the Environment Act (2016), Act 2006, as species of principal importance for conservation of biological diversity in Wales; and are also included in the Local Biodiversity Action Plan for Neath Port Talbot.

Assessment

No survey for Reptiles has been undertaken. The desk study noted records for reptiles within 200m of the site; specifically Slow Worm and Common Lizard. With known populations using similar habitats in the area the presence of reptiles is considered likely; although the connectivity of the site is not necessarily considered ideal for these species.

3.2.3 BIRDS

All wild birds are protected under law when they are nesting, under the Wildlife and Countryside Act 1981 (as amended). In addition Schedule 1 species are protected at all times. It is an offence under the Wildlife and Countryside Act to:

- Kill, injure or take any wild bird.
- Take, damage or destroy a nest while it is in use or being built.
- Take or destroy eggs.
- Possess or control any wild bird (dead or alive) or any part of a wild bird which has been taken in contravention of the Act or the Protection of Birds Act 1954.
- Possess or control any egg or part of an egg which has been taken in contravention to the Act.
- Possess or control any live bird of prey of any species in the world (with the exception of vultures and condors) unless it is registered and ringed.
- Disturb any wild bird listed on Schedule 1 of the Act while it is nest building, or at a nest containing eggs or young, or disturb the dependent young of such a bird.
- In addition there are also offences relating to selling, trading, exhibiting, keeping in captivity and registering for possessing/controlling certain species.

The 2012 amendment to the Conservation of Habitats and Species Act 2010 included a duty for appropriate authorities, nature conservation bodies etc. to take appropriate steps in the exercise of their functions to secure: *“ the preservation, maintenance and re-establishment of a sufficient diversity and area of habitat for wild birds in the United Kingdom, including by means of the upkeep, management and creation of such habitat, as appropriate, having regard to the requirements of Article 2 of the new Wild Birds Directive.”*

In addition, a number of species are listed under S7 of the Environment Act (2016), as species of principal importance for conservation of biological diversity in Wales; included in the Local Biodiversity Action Plan for Neath Port Talbot, and listed as a species of conservation concern by the RSPB.

Survey/assessment

No specific bird survey was undertaken on the site. The habitat on site has limited potential to support nesting and foraging bird species.

3.2.5 INVERTEBRATES

Certain invertebrate species are afforded protection by legislation, including the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Act 2010; although species listed in the latter are not known to occur and neither are they likely to occur in Neath Port Talbot, being limited to south-east England. In addition, a number of species are listed under S7 of the Environment Act (2016), Act 2006, as species of principal importance for conservation of biological diversity in Wales and included in the Local Biodiversity Action Plan for Neath Port Talbot.

Survey/assessment

No survey has been undertaken for invertebrates. The area supports a number of important invertebrate species, including various butterflies, moths and bumblebees. Of specific interest is the Small Blue Butterfly (*Cupido minimus*), which is listed under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) (protected from sale); and listed under S7 of the Environment Act (2016). It is considered unlikely that important invertebrates could be present on site.

4 IMPACT ASSESSEMENT

4.1 IMPACTS ON DESIGNATED SITES

4.1.1 STATUTORY SITES

There are no statutory sites within or adjacent to the site and therefore the use of the site as a car park and topsoil storage area is unlikely to have any direct impacts.

4.1.2 NON-STATUTORY SITES

There is a non-statutory site adjacent to the site, however as long as the works on the site do not go beyond the red line boundary there will be no impact on this site.

4.2 IMPACTS ON HABITATS

The habitat on site is mainly old hard standing, the proposed works will remove the buddleja and willow trees present on site however this is not considered to have a detrimental impact on the surrounding habitats.

4.3 IMPACTS ON SPECIES

4.3.1 MAMMALS

There is considered to be no impact on the mammal species discussed above by this development.

4.3.3 AMPHIBIAN AND REPTILES

There is considered to be no impact on reptile or amphibian species as a result of this development.

4.3.4 BIRDS

There is a potential for common bird species to use the buddleja and willow trees to nest in, site clearance should be undertaken outside of nesting bird season (March-August inclusive) to prevent impacts.

4.3.5 INVERTEBRATES

There is considered to be no impact on invertebrates by this development.

5 CONCLUSION

5.1 WORK TIMING RESTRICTIONS

All vegetation clearance works will be undertaken outside of the bird nesting season (1st March – 31st July inclusive).

5.2 OTHER REQUIREMENTS

If the scope of the works changes from that stated in drawing 26X003-HYD-XX-XX-DR-C-30-3001 then another ecological assessment will be needed.

There can be no encroachment at all on the SINC adjacent to the site to the north.

6 REFERENCES

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APPENDIX A – GENERAL BIODIVERSITY TIMING CONSTRAINTS

SURVEY TIMINGS

Some surveys can only be undertaken at certain times of the year so can have implications for timetabling planning determination and development commencement. The following can be used as a general guide:

Survey for:	Type	J	F	M	A	M	J	J	A	S	O	N	D
Birds	Breeding			/	/	/	/	/					
	Wintering	/	/								/	/	/
Reptiles	Presence				/	/	/	/	/	/			
Great Crested Newts	Presence			/	/	/	/	/	/				
Badgers, Water Vole, Otter, Dormice	Presence	/	/	/	/	/	/	/	/	/	/	/	/
Bats	Roosts					/	/	/	/	/			
	Hibernating	/	/	/								/	/
Marsh Fritillary Butterfly	Presence						/			/	/		
Fen Raft Spider	Presence						/	/	/				
Plants	Presence					/	/	/	/				

Survey for:	Type	J	F	M	A	M	J	J	A	S	O	N	D
High Brown Fritillary Butterfly	Presence							/					
Habitat Survey						/	/	/	/	/			

/ = optimal period for survey

Please note that if a survey is undertaken outside of the optimal period it may be rejected and required to be re-done during the correct season. In addition, if applications are submitted without relevant surveys and in a season where surveys are not able to be undertaken the application will be unable to be determined.

MITIGATION TIMINGS

Biodiversity is often season specific. Certain species appear or are most active only during certain times of the year. Therefore, not only do surveys have to be undertaken at certain times but so do some mitigation works. Appropriately scheduling these sorts of works is key to the avoidance of delays. Some key timing constraints are shown in the below table:

Habitat or Species	Works Type	J	F	M	A	M	J	J	A	S	O	N	D
Badgers	Sett creation	/	/	/	/	/	/	/	/	/	/	/	/
	Sett closure (under licence)								/	/	/	/	
Birds	Vegetation clearance	/	/						/	/	/	/	/
Reptiles	Capture and translocation				/	/	/	-	-	/	/		

Habitat or Species	Works Type	J	F	M	A	M	J	J	A	S	O	N	D
	Vegetation clearance	/	/	/								/	/
Great Crested Newts	Newt trapping -pond and land (under licence)			/	/	/	/						
	Newt trapping - land (under licence)			/	/	/	/	-	-	-	-		
Habitat works	Planting and translocation	/	/	-	-					-	/	/	/
	Wildflower Meadow Cutting (hay-cut)				/					/			
Otters	Holt creation	/	/	/	/	/	/	/	/	/	/	/	/
Bats	Roost creation (separate to existing)	/	/	/	/	/	/	/	/	/	/	/	/
	Works to maternity roosts (under licence)	/	/	/	/					/	/	/	/
	Works to hibernation roosts (under licence)					/	/	/	/	/	/		

/= optimal time for works. - = sub-optimal time for works.

Please note that the above table is only a guide to the general timing constraints commonly encountered. For works involving protected species that require a licence

more specific timings may be put in place for the specific development. Further advice should be sought from the licensing body in this respect e.g. Natural Resources Wales or Welsh Government. Also, depending upon the species seeded, wildflower meadow cutting timings may vary.