



NEATH PORT TALBOT COUNTY BOROUGH COUNCIL

LAND AT FORMER GIANTS GRAVE LANDFILL SITE

PRELIMINARY ECOLOGICAL APPRAISAL REPORT

AUGUST 2023

DATE ISSUED: August 2023
JOB NUMBER: CA12747
REPORT NUMBER: 002
VERSION: V1.0
STATUS: Final

NEATH PORT TALBOT COUNTY BOROUGH COUNCIL

LAND AT FORMER GIANTS GRAVE LANDFILL SITE

PRELIMINARY ECOLOGICAL APPRAISAL REPORT

AUGUST 2023

PREPARED BY:

Trent Cousins Ecologist

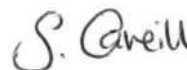


Abigail Coe Associate Director (Ecology)



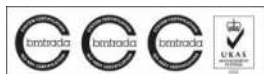
REVIEWED & APPROVED BY:

Sally Caveill Technical Director (Ecology)



This report has been prepared by Wardell Armstrong LLP with all reasonable skill, care and diligence, within the terms of the Contract with the Client. The report is confidential to the Client and Wardell Armstrong LLP accepts no responsibility of whatever nature to third parties to whom this report may be made known.

No part of this document may be reproduced without the prior written approval of Wardell Armstrong LLP.



Wardell Armstrong is the trading name of Wardell Armstrong LLP, Registered in England No. OC307138.

Registered office: Sir Henry Doulton House, Forge Lane, Etruria, Stoke-on-Trent, ST1 5BD, United Kingdom

UK Offices: Stoke-on-Trent, Birmingham, Bolton, Bristol, Bury St Edmunds, Cardiff, Carlisle, Edinburgh, Glasgow, Leeds, London, Newcastle upon Tyne and Truro. International Office: Almaty

ENERGY AND CLIMATE CHANGE
ENVIRONMENT AND SUSTAINABILITY
INFRASTRUCTURE AND UTILITIES
LAND AND PROPERTY
MINING AND MINERAL PROCESSING
MINERAL ESTATES
WASTE RESOURCE MANAGEMENT

CONTENTS

EXECUTIVE SUMMARY	1
1 INTRODUCTION.....	3
2 METHODOLOGY	6
3 RESULTS AND EVALUATION	10
4 DISCUSSION AND CONCLUSIONS	44
5 NET BENEFITS FOR BIODIVERSITY	53
6 CONCLUSION.....	54
7 REFERENCES	55

APPENDICES

Appendix 1 Summary of Legislative Framework and Planning Policy

DRAWINGS	TITLE	SCALE
CA12747-003	Site Location Plan	1:20,000@A3
CA12747-006	UKHAB Survey Results	1:3,000@A3
CA12747-007	Waterbody Location Plan	1:7,500@A3

EXECUTIVE SUMMARY

Wardell Armstrong LLP (WA) was commissioned by Neath Port Talbot County Borough Council to undertake a Preliminary Ecological Appraisal (PEA) in support of the first phase of a proposed solar development at Land to the north of Giants Grave Road. The project is located at Briton Ferry, Neath, Port Talbot.

The following conservation sites, habitats, and species (receptors) have been evaluated as being subject to potential adverse effects and hence can be constraints to the proposals:

- Non-statutory Conservation Sites – Crymlyn Burrows SINC, Neath Estuary SINC, Neath Canal SINC, Giants Grave SINC, Tennant Canal SINC, NPT Watercourses SINC, and Square Pond SINC;
- S.7 Reedbeds;
- Other Neutral Grassland;
- Ditches;
- Badger;
- Bats;
- Birds;
- Brown hare;
- Common amphibians;
- Common reptiles
- European hedgehog;
- Invertebrates;
- Otter;
- Water vole; and
- Japanese knotweed.

Additional assessments and surveys have been recommended as necessary to fully inform the planning application:

- Breeding bird surveys; and
- Ecological Impact Assessment once final design known.

The above scope may change if habitats on the peripheries of the Site are to be affected e.g. ditches and trees/scrub.

Mitigation¹ and compensation² are discussed in section 4 of the report but include the following:

¹ Mitigation are measures required in order to reduce the severity and magnitude of identified effects to an acceptable level.

- Retention of habitats around the peripheries of the Site including a buffer zone around the Site boundaries, between 7 – 10m wide, where no development should take place. The buffer zone to be maintained as a dark corridor (<0.5lux);
- Retention of dense stands of reeds within the Site;
- Enhancement of retained habitats and compensation for unavoidable habitat loss i.e. grassland;
- Pollution prevention measures at the ditches during construction and operation;
- Site access should utilise the existing track and avoid removing any scrub or ditch habitat on the peripheries of the Site;
- Reasonable Avoidance Measures to be implemented during construction under a Precautionary Working Method Statement for Protected/Notable Species; and
- Eradication of Japanese knotweed *Reynoutria japonica*.

Opportunities for ecological enhancements are set out in section 5 of this report. This includes management of retained grassland habitats to provide a range of conditions for invertebrates, suitable grassland and wetland planting, creation of ponds/scrapes and provision of bird nest boxes, wood-piles and loggeries for insects and hibernaculum habitats for the benefit of common reptiles and amphibians.

In conclusion, given the identified evidence of presence and/or likely presence of ecological constraints, further surveys and/or assessments are required to inform a full evaluation of adverse effects. The results of further protected species surveys and evaluations should be considered within an Ecological Impact Assessment (EclA) report, in line with standard industry practice (CIEEM 2018, updated 2022). This report should include a formal assessment of impacts and will be suitable to fully inform the planning application.

This report is valid for 18 months from the date the habitat survey was undertaken.

² Compensation is required where effects cannot be fully mitigated.

1 INTRODUCTION

1.1 Terms of Reference

1.1.1 Wardell Armstrong LLP (WA) was commissioned by Neath Port Talbot County Borough Council to undertake a Preliminary Ecological Appraisal (PEA) in support of the first phase of a proposed solar development at Land to the north of Giants Grave Road. The project is located at Briton Ferry, Neath, Port Talbot, centred on approximate National Grid Reference (NGR) SS 7342 9576.

1.1.2 This report has been produced with reference to current guidelines for UK Habitat (UKHAB) Classification V1.1 (Butcher et al., 2020), Guidelines for Preliminary Ecological Appraisal (CIEEM 2017³) and Biodiversity – Code of Practice for Planning and Development (BSI 2013⁴).

1.1.3 The Site, also known as 'Area B', is being considered as the second option for Phase 1 of a solar development to include installation of a solar farm and associated infrastructure.

1.2 Scope of Report

1.2.1 The purpose of the PEAR is in broad terms to undertake the following:

- Identify and report to the project team the likely ecological constraints associated with a project, such that the site design can adequately take account of ecological features;
- Identify any mitigation measures likely to be required, following the 'Mitigation Hierarchy'⁵;
- Identify any additional surveys that may be required to inform an Ecological Impact Assessment (EclA); and
- Identify the opportunities offered by a project to deliver ecological enhancement.

³ Chartered Institute of Ecology and Environmental Management (CIEEM 2017).

⁴ British Standard BS 42020:2013 (BSI 2013).

⁵ As defined in BS 42020:2013 (BSI 2013).

- 1.2.2 Certain species, habitats and nature conservation sites receive legislative protection which is detailed fully within Appendix 1. Other species/groups and habitats are notable due to their identification in national and/or local planning policy or via local records. An indicative assessment of potential adverse effects to such receptors is provided, although this is not a substitute for full EclA (CIEEM 2018, updated 2022) which may be required to fully inform any subsequent planning application along with additional surveys and assessments.
- 1.2.3 Provisional mitigation and enhancement opportunities are also discussed, where appropriate.
- 1.2.4 Opportunities for delivering Biodiversity Net Benefits as part of the proposed development at this Site are briefly highlighted in this report.

1.3 Background

- 1.3.1 As mentioned in paragraph 1.1.3, the Site is being considered as a second option for Phase 1 of a solar development. The first option considered an area of land located directly to the south of this Area B Site known as the 'southern extension area.' A desk study and an Extended UK Habitat Classification survey was undertaken on this land on 3rd April 2023. From a review of the initial results, it became apparent there would be numerous ecological constraints to consider should development go ahead on this area of land. This area comprised a mosaic of scrub, dry and marshy grassland, wet reedbeds, ditches and wet woodland. The ground levels within the open areas varied from dry banks to small areas of standing water. A large reed-fringed waterbody was also present. This area could support a variety of wildlife, particularly those species recorded in the adjacent Neath Estuary, Neath Canal and Giants Grave Sites of Importance for Nature Conservation (SINC). These included breeding birds including Cetti's warbler *Cettia cetti*, bats, invertebrates, amphibians, reptiles, badger *Meles meles* (foot-prints and latrine found during the survey), otter *Lutra lutra* and water vole *Arvicola amphibius*. This area could also potentially meet the criteria to be designated as a SINC.
- 1.3.2 Given the above, it was recommended that another area within the Former Giants Grave Landfill Site is considered for the solar farm development. An area located on

the landfill cap known as 'Area B' has therefore been selected and is the subject of this PEA.

1.4 Site Context

- 1.4.1 The Site is situated to the west of Briton Ferry as shown on Drawing Number CA12747-003 (Site Location Plan).
- 1.4.2 The Site forms part of the previously used Giants Grave Landfill Site. It is believed that the landfill site no longer receives any waste materials and was capped in the early 2010s following the approval of Site restoration details.
- 1.4.3 The Site is situated in an area bounded by the River Neath to the south-western edge, a small drainage canal to the south and south-east, reedbeds and scrub are located to the west and north of the Site and a railway line is also located to the north.
- 1.4.4 Briton Ferry is located to the south of the Site with the closest residential street roughly 500m to the south-east separated by a large wooded area.

1.5 Description of Development

- 1.5.1 The Site is being considered as a second option for Phase 1 of a solar development to include installation of a 2MW ground mounted solar installation and associated infrastructure.

2 METHODOLOGY

2.1 Desk Study

2.1.1 The desk study was informed by review of existing available information provided by Aderyn (Local Environmental Records Centre) Wales' Biodiversity Information and Reporting Database, via South East Wales Biodiversity Records Centre (SEWBReC) for a 2km search radius from the site boundary, increased to 5km to cover National Site Network (NSN) sites, given their National features of interest. Satellite and Ordnance Survey (OS) mapping has been used to gain contextual habitat information and identify aquatic features within 500m of the Site.

2.1.2 Specific information was sought for:

- Statutory designated sites;
- Locally non-statutory designated sites;
- Section 7 (S.7) Habitats and Species of Principal Importance⁶;
- Ancient Woodland⁷;
- Legally protected species; and
- Invasive species.

2.1.3 The Natural Resources Wales (NRW) Interactive Map Viewer Beta⁸ and NRW Site Checker⁹ website was utilised to gather data on the NSN sites.

2.1.4 The ecological desk study data and its relevant importance was reviewed by a full member of CIEEM.

⁶ Species or habitats of principal importance for the conservation of biodiversity listed on Section 7 (S.7) of the Environment (Wales) Act 2016

⁷ As defined by Natural England in their Inventory of Ancient Woodlands

http://www.gis.naturalengland.org.uk/pubs/gis/tech_aw.htm

⁸ Natural Resources Wales. Interactive Map Viewer [Online] Accessed 13.07.2021

<https://naturalresources.wales/evidence-and-data/maps/browse-map-of-data-about-the-natural-environment/?lang=en>

⁹ Natural Resources Wales. Find protected areas of land and sea [Online] Accessed

13.07.2021 <https://naturalresources.wales/guidance-and-advice/environmental-topics/wildlife-and-biodiversity/protected-areas-of-land-and-seas/find-protected-areas-of-land-and-sea/?lang=en>

2.2 Extended UKHab Classification Survey

- 2.2.1 WA carried out a UK Habitat (UKHab) Classification Survey of the Site on 16th May 2023. The survey was carried out by an experienced WA ecologist who is a full member of CIEEM and has completed numerous habitat surveys in a variety of habitats.
- 2.2.2 The survey followed the 'UK Habitat Classification' (Butcher et al., 2020) methodology with each of the main habitats classified according to the relevant criteria including vegetation composition expressed according to the DAFOR¹⁰ system.
- 2.2.3 In addition to the mapping and description of habitats, the survey was 'extended' to include the incidental observations of protected and/or notable species and the potential for such species to occur on Site (and in the surrounding landscape where relevant) were also recorded. The extended element of the survey was based on professional judgement.
- 2.2.4 Specific habitat features are mapped on Drawing Number CA12747-006 (UKHAB Survey Results) with appropriate reference numbers identifying features of particular note.

2.3 Evaluation and Assessment of Features

- 2.3.1 Evaluation of the importance / likely importance of ecological features and the likelihood of impacts affecting important features was made, where possible, using professional judgement in accordance with published guidance (CIEEM 2017).
- 2.3.2 Protected and S.7 species were evaluated to identify potential adverse effects in Table 2, based on the following criteria:
- Desk study records;
 - Evidence found during the UKHAB survey;
 - Presence, extent, quality and viability of suitable on-site habitat;
 - Ecological connectivity to viable off-site habitats; and
 - Perceived impacts of habitat loss/impact to individuals in relation to proposals.

¹⁰ D = dominant, A = abundant, F = frequent, O = occasional, R = Rare

2.3.3 A 'traffic light' system is used in Tables 1, 2 and 3 to highlight potential constraints and opportunities whereby:

- **Green:** No constraint or limited constraint unlikely to be of planning and/or legal significance.
- **Yellow:** Potential constraints which require further survey and/or mitigation and may be of planning and/or legal significance depending on the outcome of further survey/assessment.
- **Red:** Constraints which have already been identified by the PEA survey/desk-based assessment and are likely to be of planning and/or legal significance.

2.4 Nomenclature

2.4.1 Vascular plant names follow '*New Flora of the British Isles*' (Stace 2019) with vernacular names as provided in the Botanical Society of the British Isles website (BSBI, 2013)¹¹. All other flora and fauna names following the National Biodiversity Network (NBN) Atlas (NBN Atlas Partnership, 2021). The common and scientific name of species/taxa is provided (if available) when first mentioned in the text, with only the vernacular name referred to thereafter.

2.5 Limitations / Deviations

2.5.1 Ecological surveys are limited by factors that affect the presence of plants and animals such as time of year, weather, migration patterns and behaviour. The survey was undertaken in April (which is within the optimum recommended survey period for habitat surveys (April to August)) and therefore represents a valid sample of ecological evidence present on that date/season. The report is not designed, nor is it required to, present a complete inventory of flora/fauna.

2.5.2 The absence of desk study records is not relied upon to determine absence of a particular species/habitat. Often, the absence of records is a result of under-recording within the given search area and as such the experience of the ecologist concerned together with a range of additional factors, in particular the

¹¹ <http://rbg-web2.rbge.org.uk/BSBI/intro.php>

presence/absence of potentially supporting habitat; is used to infer likely presence/absence of ecological receptors.

- 2.5.3 During the UKHAB survey, several skylark breeding territories were identified within the main open grassland area on the landfill cap. Access into the grassland was therefore kept to a minimum to avoid disturbing nests. Interesting habitat features that were identified from aerial mapping e.g. the central ditch were accessed carefully. The rest of the broad habitats could be mapped from the track and perimeters of the Site.

2.6 Quality Assurance & Environmental Management

- 2.6.1 The surveys and assessments have been undertaken by and the report checked and verified by full members of CIEEM, who are bound by its code of professional conduct. All surveys and assessments have been undertaken with reference to the recommendations given in British Standard BS 42020, and as stated within specialist guidance, as appropriate and referenced separately.

3 RESULTS AND EVALUATION

3.1 Statutory and Non-Statutory Designated Sites

- 3.1.1 Desk study results for designated sites are evaluated in Table 1, below.
- 3.1.2 Designated sites which are considered potentially sensitive to the development proposals by virtue of their supported species or habitat assemblages, the distance/ecological connectivity to the Site and the nature of the perceived impacts are discussed in detail in the final sections of the report.
- 3.1.3 Designations for which potential adverse effects are not anticipated are excluded from further assessment.

Table 1: Designated Sites Evaluation.			
Site Name and Status ¹²	Reason for Designation/Identification	Approximate Distance and Location from the Site	Potential Adverse Effects
Earlswood Road Cutting and Ferryboat Inn Quarries SSSI	Designated as a SSSI for its exposures of late Carboniferous rocks. A nationally important site for interpreting Westphalian geological history.	Approximately 795m south of the Site at grid reference SS 732939	No – designated for geological reasons.
Pant-Y-Sais SSSI, NNR, LNR	Designated as a SSSI as it supports a range of fenland communities including <i>Sphagnum</i> and bryophyte dominated areas of poorer fen vegetation, <i>Molinia caerulea</i> communities, swamp areas with abundant <i>Typha latifolia</i> and <i>Typha angustifolia</i> , and developing fen carr. Formerly part of the same hydrological system as Crymlyn Bog. The Tennant Canal section acts as a refuge for aquatic plants, including <i>Butomus umbellatus</i> which is rare in the county. NNR and LNR citations not available.	Approximately 1568m west of the Site at grid reference SS 716942	No – due to distance and not hydrologically connected to the Site.
Crymlyn Bog	The Ramsar citation highlights the	Approximately 1234m west of the Site at	No – due to distance and not hydrologically

¹² **SPA** – Specially Protected Area, **SAC** – Special Area for Conservation, **Ramsar** – site designated under the Ramsar Convention, **SSSI** – Site of Special Scientific Interest, **SINC** – Site of Importance for Nature Conservation, **NNR** – National Nature Reserve, **LNR** – Local Nature Reserve, **KWS** – Key Wildlife Site

Ramsar, SAC, NNR	following: A wetland of International Importance. The largest example of valley floodplain topogenous mire in South Wales, and one of the largest surviving fens in the west of Britain. Supports a substantial population of the nationally rare slender cotton-grass <i>Eriophorum gracile</i>, and a rich invertebrate fauna including many rare and highly localised species. The site supports 199 vascular plant species including 17 regionally uncommon and one nationally rare. The SAC citation highlights the following: Transition mires and quaking bogs for which this is one of the best areas in the United Kingdom. Calcareous fens with <i>Cladium mariscus</i> and species of the <i>Caricion davallianae</i> for which this is one of the best areas in the United Kingdom. The total extent of this habitat in the United Kingdom is estimated to be less than 1000 hectares. Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i>	grid reference SS 69452 94855	connected to the Site.
-------------------------	---	--------------------------------------	-------------------------------

	(<i>Alno-Padion</i>, <i>Alnion incanae</i>, <i>Salicion albae</i>) for which the area is considered to support a significant presence. NNR citations not available.		
Eaglebush Valley LNR	11ha area of mixed ancient semi-natural habitats. Nuthatch <i>Sitta europaea</i>, tree creeper <i>Certhia familiaris</i>, coal tit <i>Periparus ater</i>, blue tit <i>Cyanistes caeruleus</i>, bullfinch <i>Pyrrhula pyrrhula</i> and greenfinch <i>Chloris chloris</i> are all found within the LNR.	Approximately 1363m east of the Site at grid reference SS 75273 96043	No – due to distance.
Crymlyn Burrows SINC	The SINC citation highlights the following: Coastal sand dune, together with associated slacks, seepages, grassland and scrub habitat. Important species include: sea stock <i>Matthiola sinuata</i>, merlin <i>Falco columbarius</i>, small blue, linnet, skylark <i>Alauda arvensis</i>, common lizard.	Approximately 1593m south of the Site at grid reference SS 72880 93385	Possible – located downstream of the river adjacent to the Site. Possible introduction of toxic synthetic and non-synthetic compounds should contamination be mobilised from the Site and enter the river and ultimately the designation during construction.
Neath Estuary SINC	The SINC citation highlights the following: coastal and floodplain grazing marsh, rivers, coastal saltmarsh and intertidal mudflats. A number of species associated such as peregrine <i>Falco peregrinus</i>,	Approximately 39m south of the Site at grid reference SS 73218 95162	Yes – potential effects on habitats and populations of protected and notable species found within the SINC.

	whimbrel <i>Numenius phaeopus</i> , kingfisher <i>Alcedinidae</i> , Cetti's warbler <i>Cettia cetti</i> , kestrel <i>Falco tinnunculus</i> , lapwing <i>Vanellinae</i> , curlew <i>Numenius</i> , black-headed gull <i>Chroicocephalus ridibundus</i> , herring gull <i>Larus argentatus</i> , skylark <i>Alauda arvensis</i> , starling <i>Sturnidae</i> , linnet <i>Linaria cannabina</i> , reed bunting <i>Emberiza schoeniclus</i> and otter <i>Lutrinae</i> .		
Neath Canal SINC	The SINC citation highlights the following: standing open waters and canals. Important species include; Cetti's warbler, reed warbler <i>Acrocephalus scirpaceus</i> , sedge warbler <i>Acrocephalus schoenobaenus</i> , reed bunting, kingfisher, common toad <i>bufo bufo</i> , emperor dragonfly <i>Anax imperator</i> , hairy dragonfly <i>Brachytron pratense</i> , common blue damselfly <i>Enallagma cyathigerum</i> , blue-tailed damselfly <i>Ischnura elegans</i> , common darter <i>Sympetrum striolatum</i> , broad-bodied chaser <i>Libellula depressa</i> , four-spotted chaser <i>Libellula quadrimaculata</i> , grass snake <i>Natrix natrix</i> , common lizard <i>Zootoca vivipara</i> ,	Approximately 25m south-east of the Site at grid reference SS 73316 95153	Yes – potential effects on habitats and populations of protected and notable species found within the SINC.

	slow-worm <i>Anguis fragilis</i> , adder <i>Vipera berus</i> , water vole <i>Arvicola amphibius</i> , otter.		
Giants Grave SINC	The SINC citation highlights the following: Mosaic habitats and long-horned bee <i>Eucera longicornis</i> . Other important species include; Long-fringed mining bee <i>Andrena congruens</i> , Perkin's mining bee <i>Andrena rosae</i> , Brown-banded carder bee <i>Bombus humilis</i> , Saxon wasp <i>Dolichovespula saxonica</i> , the digger wasp <i>Ectemnius sexcinctus</i> , Lathbury's nomad bee <i>Nomada lathburiana</i> , Broad-banded nomad bee <i>Nomada signata</i> , the wasp <i>Tiphia minuta</i> , the weevils: <i>Caenopsis waltoni</i> ; <i>Curculio glandium</i> . Cinnabar Moth <i>Tyria jacobaeae</i> , Grayling <i>Thymallus</i> , Grass snake, Adder, Slow-worm.	Approximately 69m south-east of the Site at grid reference SS 73500 95123	Yes – potential effects on habitats and populations of protected and notable species found within the SINC.
Earlswood Grasslands SINC	The SINC citation highlights the following: Native woodland, Lowland dry acid grassland, Lowland heathland, and Vascular plants. Important species include; bluebell <i>Hyacinthoides non-scripta</i> and yellow bartsia <i>Parentucellia</i>	Approximately 714m south of the Site at grid reference SS 73078 94494	No – due to distance

	<i>viscosa</i>. There is suitable habitat for: brown hare <i>Lepus europaeus</i>, reptiles <i>Reptilia</i>, badger <i>Meles meles</i> and bats <i>Chiroptera</i>.		
Earlswood Area SINC	The SINC citation highlights the following: Native woodland, Scrub communities, Lowland meadows, Lowland heathland, ponds, Inland rock outcrop, Coastal sand dune, bracken and vascular plants. Important species include: rough horsetail <i>Equisetum hyemale</i>, common cudweed <i>Filago vulgaris</i>, yellow bartsia, lesser bulrush <i>Typha angustifolia</i>, fennel pondweed <i>Stuckenia pectinata</i>, broad-leaved helleborine <i>Epipactis helleborine</i>, great burnet <i>Sanguisorba officinalis</i>, lesser centaury <i>Centaureum pulchellum</i>, lesser water plantain <i>Baldellia ranunculoides</i>, reflexed saltmarsh <i>Puccinellia distans</i>, sea bindweed <i>Calystegia soldanella</i>, shoreweed <i>Littorella uniflora</i>, spindle <i>Euonymus europaeus</i>, thread-leaved water-crowfoot <i>Ranunculus trichophyllus</i>, three-nerved sandwort <i>Moehringia</i>	Approximately 775m south-west of the Site at grid reference SS 72346 93988	No – due to distance

	<i>trinervia</i> , wild madder <i>Rubia peregrina</i> .		
Tennant Canal SINC	Designated for its standing open water and canals. grass snake, common lizard, fen raft spider <i>Dolomedes plantarius</i> , otter, kingfisher, water shrew <i>Neomys fodiens</i> , variable damselfly <i>Coenagrion pulchellum</i> , emperor dragonfly, golden-ringed dragonfly <i>Cordulegaster boltonii</i> , broad-bodied chaser, ruddy darter <i>Sympetrum sanguineum</i> , hairy dragonfly. Habitat suitable for: water vole	Approximately 599m south-west of the Site at grid reference SS 74029 96958	Possible – there is a hydrological connection with the canal entering the tidal river Neath downstream to the south-west of the site.
Shelone Woods SINC	The SINC citation highlights the following: Native woodland, Scrub communities, Lowland dry acid grassland, Lowland heathland, Inland rock outcrop, Other bracken communities. Important species include: dunnoek <i>Prunella modularis</i> , mistle thrush <i>Turdus viscivorus</i> , lesser redpoll <i>Acanthis cabaret</i> , autumn hawkbit <i>Leontodon hispidus</i> , bluebell, broom <i>Cytisus scoparius</i> , brown bent <i>Agrostis vinealis</i> , common bird's-foot trefoil <i>Lotus corniculatus</i> , Enchanter's-nightshade <i>Circaea lutetiana</i> , Eyebright <i>Euphrasia</i> , Goldenrod <i>Solidago</i> , Heath	Approximately 608m south-east of the Site at grid reference SS 73634 94550	No – due to distance.

	bedstraw <i>Galium saxatile</i> , Heather <i>Calluna</i> , Heath-grass <i>Danthonia decumbens</i> , Wavy hair-grass <i>Deschampsia flexuosa</i> , Wood millet <i>Milium effusum</i> Habitat suitable for: Kestrel, Song thrush <i>Turdus philomelos</i> , Starling, House sparrow, Linnet, Bullfinch <i>Pyrrhula pyrrhula</i> , bats, reptiles, Bent-leaved beard-moss <i>Oxystegus recurvifolius</i> .		
NPT Ancient Semi-Natural Woodland SINC	No information available – the boundary covered the entirety of Neath Port Talbot County. Assumed any ancient semi-natural woodland within Neath Port Talbot.	There is a total of 27 ancient semi-natural woodlands within 2km of the Site. The closest is approximately 709m west of the Site at grid reference SS 72237 95278.	No – due to distance.
NPT Watercourses SINC	No information available – the boundary covered the entirety of Neath Port Talbot County. Assumed any watercourse within Neath Port Talbot.	The closest watercourse is Neath Canal approximately 25m south of the Site.	Yes – indirect effects during construction should a pollution event occur.
Square Pond SINC	The SINC citation highlights the following: Native woodland – wet woodland components, scrub communities, hedgerows, neutral grasslands, purple moor-grass and rush pasture. Important species include: otter, bittern <i>Botaurinae</i> ,	Approximately 59m north-east of the Site at grid reference SS 73898 96097	Possible – it is unclear whether the wet habitats in this SINC are hydrologically connected to the ditches in the Site and adjacent reedbeds.

	little egret <i>Egretta garzetta</i> , peregrine, kingfisher, song thrush, Cetti's warbler, starling, house sparrow, narrow leaved water-plantain <i>Alisma gramineum</i> , blunt-fruited water-starwort <i>Callitriche obtusangula</i> , <i>Calystegia x scanica</i> , yellow loosestrife <i>Lysimachia punctata</i> , spiked water-milfoil <i>Myriophyllum spicatum</i> , ivy-leaved duckweed <i>Lemna trisulca</i> , yellow water-lily <i>Nuphar lutea</i> , royal fern <i>Osmunda regalis</i> , unbranched bur-reed <i>Sparganium emersum</i> . Habitat suitable for: bats and a range of scarce invertebrates.		
Red Jacket Fen SINC	The SINC citation highlights the following: Scrub communities, lowland fen, reedbeds, ponds. Important species include: EPS: fen Raft Spider, otter. Sch1: kingfisher, Cetti's warbler, peregrine S.7: lesser redpoll, greenfinch <i>Chloris chloris</i> , reed bunting, spotted flycatcher <i>Muscicapa striata</i> , dunnock, bullfinch, northern water vole, grass snake, scarce burnished brass moth <i>Diachrysis chryson</i> , song thrush, blunt-leaved bog-moss	Approximately 1001m west of the Site at grid reference SS 72197 94539	No – due to distance and not in hydrological connectivity with the Site.

	<i>Sphagnum palustre</i>, slender cotton-grass <i>Eriophorum gracile</i>, orange underwing moth <i>Archiearis parthenias</i>, Haworth's minor moth <i>Celaena haworthii</i>, hairy dragonfly, variable damselfly, lesser water-plantain, flowering-rush <i>Butomus umbellatus</i>, tufted-sedge <i>Carex lenticularis</i>, greater tussock-sedge <i>Carex paniculata</i>, bottle sedge <i>Carex rostrata</i>, lesser centaury, marsh cinquefoil <i>Comarum palustre</i>, alder buckthorn <i>Rhamnus frangula</i>, whorled water-milfoil <i>Myriophyllum verticillatum</i>, royal fern, yellow bartsia, marsh lousewort <i>Pedicularis palustris</i>, common wintergreen <i>Pyrola minor</i>, fan-leaved water-crowfoot <i>Ranunculus circinatus</i>, greater spearwort <i>Ranunculus lingua</i>.		
Jersey Marine Woods SINC	The SINC citation highlights the following: Native woodlands, scrub communities, hedgerows, lowland meadows, purple moor-grass and rush pastures, other bracken communities. No available information on species present.	Approximately 1119m west of the Site at grid reference SS 71597 94879	No – due to distance.
Fabian Way Wildflower	The SINC citation highlights the following:	Approximately 1164m south-west of the	No – due to distance.

Verge SINC	Lowland meadows, species-rich neutral grasslands. Important species include: common bird's-foot trefoil, kidney vetch <i>Anthyllis vulneraria</i> , oxeye daisy <i>Leucanthemum vulgare</i> , pyramidal orchid <i>Anacamptis pyramidalis</i> , viper's-bugloss <i>Echium vulgare</i> . Habitat suitable for: small mammals, kestrel, small blue <i>Cupido minimus</i> .	Site at grid reference SS 71212 93268	
Pentrefynnon SINC	The SINC citation highlights the following: Native woodland – mix of native tree species, lowland meadows, purple moor-grass and rush pastures, open mosaic on previously developed land. Important species include: otter, song thrush, willow warbler <i>Phylloscopus trochilus</i> , house sparrow, linnet, bullfinch, celery-leaved Buttercup <i>Ranunculus sceleratus</i> , fan-leaved water-crowfoot, greater tussock-sedge. Habitat suitable for: bats, reptiles and amphibians.	Approximately 720m north of the Site at grid reference SS 73044 96914	No – due to distance.
Briton Ferry Waste Ground SINC	The SINC citation highlights the following: Lowland meadow, OMPDL, invertebrates – brown-banded carder bee <i>Bombus humilis</i> and small blue. Other important	Approximately 1337m south of the Site at grid reference SS 73624 93908	No – due to distance.

	species include: house sparrow, dunnoek, song thrush. Habitat suitable for: reptiles and bats.		
Garth Mor SINC	The SINC citation highlights the following: Native woodland. Important species include: song thrush. Habitat suitable for: bats, dunnoek and bullfinch.	Approximately 818m south of the Site at grid reference SS 74638 95651	No – due to distance.
Llandarcy Village Green SINC	The SINC citation highlights the following: Purple moor-grass and rush pastures. Important species include: bog stitchwort <i>Stellaria alsine</i> , meadow vetchling <i>Lathyrus pratensis</i> , greater bird's-foot trefoil <i>Lotus pedunculatus</i> , southern marsh-orchid <i>Dactylorhiza praetermissa</i> , yellow iris. Habitat suitable for: Great crested newt <i>Triturus cristatus</i> (terrestrial).	Approximately 1448m south of the Site at grid reference SS 71675 95357	No – due to distance.
Brunel Dock Reedbed SINC	The SINC citation highlights the following: Reedbed. Important species include: Cetti's warbler, reed bunting, song thrush, dunnoek.	Approximately 1577m south of the Site at grid reference SS 73696 93705	No – due to distance.
Brunel Dock Grassland SINC	The SINC citation highlights the following: Lowland meadows, Invertebrates - Long-winged conehead <i>Conocephalus fuscus</i> , small blue butterfly. Important species	Approximately 1563m south of the Site at grid reference SS 73590 93531	No – due to distance.

	include: wild liquorice <i>Astragalus glycyphyllos</i> , golden samphire <i>Limbarda crithmoides</i> , long-stalked glasswort <i>Salicornia europaea</i> , rock sea-lavender <i>Limonium binervosum</i> , linnet, common lizard, brown-banded carder bee, ivy bee <i>Colletes hederæ</i> , long-winged conehead, brown hare <i>Lepus europæus</i> . Habitat suitable for: Shrill carder bee <i>Bombus sylvarum</i> .		
The Waun, Cimla SINC	The SINC citation highlights the following: Native woodland, scrub communities, hedgerow, lowland meadows, purple moor-grass and rush pasture, bracken. Important species include: brown hare, barn owl <i>Tyto alba</i> , red kite <i>Milvus milvus</i> , tree pipit <i>Anthus trivialis</i> , dunnoek, cuckoo <i>Cuculidae</i> , spotted flycatcher, starling, house sparrow, linnet, bullfinch, lesser redpoll, yellowhammer <i>Emberiza citronella</i> , reed bunting, dark green fritillary <i>Speyeria aglaja</i> , small pearl-bordered fritillary <i>Boloria selene</i> , bog pimpernel <i>Anagallis tenella</i> , greater tussock-sedge, bottle	Approximately 1301m east of the Site at grid reference SS 76850 95288	No – due to distance.

	sedge, meadow thistle <i>Cirsium dissectum</i>, heath spotted-orchid <i>Dactylorhiza maculata</i>, narrow buckler-fern <i>Dryopteris carthusiana</i>, cotton-grasses <i>Eriophorum angustifolium</i>, wood horsetail <i>Equisetum sylvaticum</i>, alder buckthorn, petty whin, bog asphodel <i>Narthecium ossifragum</i>, royal fern, round-leaved crowfoot <i>Ranunculus omiophyllus</i>, saw-wort <i>Serratula tinctoria</i>, devil's-bit scabious <i>Succisa pratensis</i>, marsh violet <i>Viola palustris</i>. Habitat suitable for: Otter, bats and reptiles.		
Gwlyptir Mynachlog Nedd SINC	The SINC citation highlights the following: Reedbed, purple moor-grass and rush pastures, mosaic habitats. No species information available.	Approximately 1105m north of the Site at grid reference SS 74085 97301	No – due to distance.
Roman Way Reedbed SINC	The SINC citation highlights the following: Reedbed, Cetti's warbler, reed warbler, reed bunting.	Approximately 1647m north of the Site at grid reference SS 74578 97457	No – due to distance.
Coed Back A'r Cwm SINC	The SINC citation highlights the following: Native woodland, wych elm <i>Ulmus glabra</i>, wild cherry <i>Prunus avium</i>, wood anemone <i>Anemone nemorosa</i>.	Approximately 1984m north of the Site at grid reference SS 73697 98397	No – due to distance.
Dyffryn Woods SINC	The SINC citation highlights the following:	Approximately 1914m north-west of the	No – due to distance.

	Native woodland, grass snake, common lizard, blue ground beetle <i>Carabus intricatus</i> .	Site at grid reference SS 72775 99204	
--	---	---------------------------------------	--

3.2 Habitats

- 3.2.1 All habitats within the Site are described in Table 2, below, together with an indication of their S.7 status.
- 3.2.2 Habitats which could be subject to adverse effects (yellow or red) are discussed in the latter sections of the report. Habitats for which potential adverse effects are not anticipated are excluded from further assessment. The location and extent of habitats are shown on Drawing Number CA12747-006 (UKHAB Survey Results).
- 3.2.3 A review of OS data has identified one pond and ditches within 500m of the Site, in addition to the river, canal and tributaries as shown on Drawing Number CA12747-007 (Waterbody Location Plan).

Table 2: Habitat Descriptions and Evaluation					
Habitat Description	UK Hab Classification	Photograph		S.7	Potential Constraints
<u>Grassland</u> The majority of the Site comprises grassland that covers the landfill cap. According to the Planning Permission P2/3/92/0025/11 Condition 11 document ¹³ , this grassland was seeded on the cap in 2003. This document also states that the diversity of the sown mix has developed naturally and will continue to be cut twice a year, with arisings left, in April and September. Species present include common bird’s-foot trefoil (F), cock’s-foot (O), Yorkshire fog (O), smooth meadow-grass (F), creeping cinquefoil (O), tufted vetch (F), cut-leaved crane’s-bill (O), teasel (O), dandelion (O), creeping buttercup	<u>Primary Code</u> Other neutral grassland (g3c) <u>Secondary Codes</u> Scattered scrub (10) Scattered rushes (14) Re-created habitat (43) Landfill (44) Recent management (76)			X	Loss of grassland from placement of solar panels and associated infrastructure. Also shading effects that may affect the composition of the sward.

¹³ Neath Port Talbot Waste Management Co. Ltd (2013) *Planning Permission P2/3/92/0025/11 Condition 11*.

Table 2: Habitat Descriptions and Evaluation				
Habitat Description	UK Hab Classification	Photograph	S.7	Potential Constraints
(O), ribwort plantain (O), hogweed, hard rush (L/F), broad-leaved dock (O), meadow buttercup (O), sedge sp. (R), crane's-bill sp. (O), wild carrot (O), hawthorn sapling (R), red clover (O), false oat-grass (O), sweet vernal grass (O), silverweed (R), creeping thistle (O), crested dog's-tail (O), early purple orchid (R), common chickweed (O), cuckooflower (O), horsetail sp. (O) and yellow iris (R).				
<u>Grassland – rank grassland</u> An approximately 10m wide strip of taller, rank grassland with common reeds (A) is present to the east of the track on top of the landfill cap. Other species present include willowherb sp, (F), common nettle (O), hard rush (F), broad-leaved dock (O), horsetail sp. (O), willow sp. (R) and an umbellifer sp. (O).	<u>Primary code</u> Other neutral grassland (g3c) <u>Secondary code</u> Scattered rushes (14) Re-created habitat (43) Landfill (44) Recent		X	Possible loss of habitat to solar panels and associated infrastructure.

Table 2: Habitat Descriptions and Evaluation					
Habitat Description	UK Hab Classification	Photograph		S.7	Potential Constraints
Another strip of rank grassland is located along the northern boundary on the southern edge of a grass covered track. Similar species are present.	management (76) Tall or tussocky sward (161) Ditch (191)				

Table 2: Habitat Descriptions and Evaluation						
Habitat Description	UK Hab Classification	Photograph		S.7	Potential Constraints	
<u>Grassland - rank grassland</u> An area of taller rank grassland is located in the south-east corner of the Site. Species include umbellifer sp. (O), broadleaved dock (O), cock’s-foot (A), horsetail sp., hard rush (L/A) and creeping thistle (O).	<u>Primary Code</u> Other neutral grassland (g3c) <u>Secondary Codes</u> Scattered rushes (14) Tall or tussocky sward (161)				X	Possible loss due to solar panels and associated infrastructure.
<u>Reedbeds</u> There are small areas dominated by dense stands of common reed located across the landfill cap. The ground beneath the reeds is currently dry, although may be wetter at other times of the year. Other species present include hard rush (O), creeping thistle (O), teasel (O), broad-leaved dock (O) and horsetail (O). These reed areas are managed by	<u>Primary code</u> Reedbeds (f2e)				√	Possible loss due to solar panels and associated infrastructure.

Table 2: Habitat Descriptions and Evaluation				
Habitat Description	UK Hab Classification	Photograph	S.7	Potential Constraints
cutting.				
<u>Mixed scrub</u> An area of mixed scrub located in the south-east corner of the Site. Species present include buddleia (O), bramble (F), goat willow (F), pendulous sedge (O), common reeds (O) and Japanese knotweed (R). Mixed scrub is also located along the northern boundary of the Site to the north of a ditch. Species present include bramble (F), gorse (O), goat willow (F) and Japanese knotweed (O). Areas of mixed scrub, which include gorse and goat willow, are also located on the southern and western slopes of the landfill cap which are located off-site.	<u>Primary Code</u> Mixed scrub (h3h) <u>Secondary codes</u> -	 Scrub on slopes of landfill cap (off-site).	X	No – possible loss of small areas of scrub not considered to pose a significant constraint.

Table 2: Habitat Descriptions and Evaluation				
Habitat Description	UK Hab Classification	Photograph	S.7	Potential Constraints
		 Small patch of scrub in south-east corner of the Site.		
<u>Dense scrub</u> Several areas of dense scrub dominated by bramble are located across the Site.	<u>Primary Code</u> Bramble scrub (h3d)		X	No – possible loss of this low distinctiveness habitat not considered to pose a significant constraint.

Table 2: Habitat Descriptions and Evaluation				
Habitat Description	UK Hab Classification	Photograph	S.7	Potential Constraints
<u>Ditches</u> A ditch with steep banks is located along the northern boundary of the Site. Much of the ditch was dry, however the western section held approximately 5-10cm depth of water. Culverts that drain from the landfill cap enter the ditch. Hard rush (A) and yellow iris (O) were present within the ditch channel. Meadowsweet (O), bramble (F), willow sp. (R) and common reed (O) are present on southern bank. Mixed scrub is present along the northern bank with a reed bed located beyond (off-site). A ditch is also located along the eastern boundary of the Site. The ditch is currently dry but probably holds water at other times of the year. There is no vegetation within the ditch channel. Reeds and	<u>Primary Code</u> Standing Open Water and Canals (r1) <u>Secondary Code</u> Freshwater – man-made (39) Ditch (191)		X	Possible loss of ditch habitat or indirect effects from pollution events during construction.

Table 2: Habitat Descriptions and Evaluation				
Habitat Description	UK Hab Classification	Photograph	S.7	Potential Constraints
bramble dominate the banks. To the south, the ditch enters a dense patch of bramble that is encroaching from the eastern boundary into the field. A small ditch is also located in the centre of the Site which drains down the hill to the east. The ditch was damp, but not holding water at the time of the survey. There were pipes in the bottom of the ditch. The ditch is lined by scattered goat willow (F), common reed (F), teasel (O) and approximately a 5m strip of rank grassland. A small, dry drainage ditch is also located adjacent to the track. Species indicative of damp conditions are present within this ditch including hard rush (A),				

Table 2: Habitat Descriptions and Evaluation					
Habitat Description	UK Hab Classification	Photograph		S.7	Potential Constraints
horsetail sp. (O), common reed (O) and moss sp. (O). Other species include teasel (O), willowherb sp. (O) and creeping thistle (O). A small shallow ditch is also located to the east of the track on the top of the landfill cap within a strip of rank grassland. For a short section two small parallel ditches are present. Both ditches were dry.					
<u>Track</u> A gravel track enters the Site from the southern corner and continues onto the top of the landfill cap close to the western boundary. An approximately 1m wide grass strip is present in the centre of the track with similar species present to those in the surrounding grassland habitat.	<u>Primary Code</u> Developed land: Artificial unvegetated, unsealed surface (u1c) <u>Secondary Code</u> Track (115)				No – loss of this low distinctiveness habitat is not considered to pose a significant constraint.

3.3 Species

- 3.3.1 Sightings and/or evidence of protected and/or invasive species from the field survey are described in Table 3 below.
- 3.3.2 Protected and S.7 Priority species are evaluated in order to identify potential adverse effects in Table 3 below, based on the following criteria:
- Desk study records;
 - Evidence found during the UKHAB survey;
 - Presence, extent, quality, and viability of supporting on-site habitat;
 - Ecological connectivity to viable off-site habitats; and
 - Perceived impacts of habitat loss/impact to individuals in relation to proposals.
- 3.3.3 Records from the previous decade have been considered, although consideration has been given to older recorded where species may still occur in that locality.

Table 3: Species Evaluation				
Species/taxa	Desk Study	Status ¹⁴	Supporting Habitat	Potential Adverse Effects
Bats <i>Chiroptera</i>	Yes – 60 records of bats within 2km of the Site in the last 10 years, including: common pipistrelle <i>Pipistrellus pipistrellus</i>, soprano Pipistrelle <i>Pipistrellus pygmaeus</i>, Daubenton's bat <i>Myotis daubentonii</i>, noctule <i>Nyctalus noctule</i>, brown long-eared <i>Plecotus auratus</i>, Natterer's bat <i>Myotis nattereri</i>, whiskered bat <i>Myotis mystacinus</i> and unidentified bat species. Roost records within 2km of the Site include, but are not limited to: - Brown long-eared bat, maternity roost 16+ individuals (2021), and Soprano pipistrelle and Brown long-eared bat, hibernation roost, since removed and mitigated for (2020), at Skewen Vale of Neath Rail Bridge, approximately 1.1km north of the Site. - Soprano and common pipistrelle, non-breeding summer roost (2021), Jersey Marine Loop Line Bridge, approximately 1km north-west of the Site. - Soprano pipistrelle non-breeding summer roost (2021), River Clydach Bridge, approximately 1.8km north of the Site.	CHSR (2), WCA (5), S.7	Yes – foraging and commuting habitat including scrub, ditches and grassland, although the top of the landfill site is very open and exposed. Bats are likely to use the scrub and ditch areas and for foraging and commuting. Extensive habitat connectivity to wider area. Most trees/scrub on or adjacent to the site are young in age and unsuitable for roosting bats.	Possible – if foraging and commuting habitats are lost and trees/scrub are affected directly or indirectly i.e. through lighting.

¹⁴ CHSR – Protected under Conservation of Habitats and Species Regulations 2017 (as amended), **WCA** – Protection under Wildlife and Countryside Act 1981 (as amended) (5) S.7, **BA** – Protection of Badgers Act 1992, **S.7** – Environment (Wales) Act 2016, **UKBR** - UK Red listed birds, **UKBA** - UK Amber listed birds

Table 3: Species Evaluation				
Species/taxa	Desk Study	Status ¹⁴	Supporting Habitat	Potential Adverse Effects
	- Unidentified bat species, unspecified roost (2021), Neath Loop Rail Bridge roost, approximately 1km north of the Site. - Noctule, 2 separate bat boxes (2022), Eaglebush Valley Woods, approximately 2km north-east of the Site. - Natterer's bat, mixed roost 20 female, 8 male (2019), Eaglebush Valley Woods, approximately 2km north-east of Site.			
Badger <i>Meles meles</i>	Yes – 7 records of Eurasian Badger within 2km of the Site in the last 10 years. 4 were observed dead at the roadside between 0.8 – 1.9km of the Site (2013-2017).	BA	Yes – Grassland and scrub could provide foraging habitat. Badger latrines, runs and footprints noted within the 'southern extension area'.	Possible.
Brown Hare <i>Lepus europaeus</i>	Yes – 1 record of brown hare within 2km of the Site in the last 10 years. Observed dead at the roadside approximately 0.76km from the Site (2020).	S.7	Yes – no individuals observed but suitable habitat in grassland and scrub.	Possible.
European Hedgehog <i>Erinaceus europaeus</i>	Yes – 34 records of European hedgehogs were recorded within 2km of the Site over the last 10 years. The closest was 0.34km east of the Site (2020). The most recent was in 2021, approximately 1.8km north-west.	S.7	Yes – grassland and scrub provide foraging and sheltering areas.	Possible.
Hazel dormouse <i>Muscardinus avellanarius</i>	No – no records of hazel dormouse were returned as part of the desk study. Dormouse not mentioned in any citations of nearby SSSIs and SINCs. Dormice are present within Neath	CHSR (2), WCA (5), S.7	Yes – scrub and reedbeds provide suitable habitat, although there is not a diverse range of food sources for dormouse present on site.	No – dormouse population is unlikely to be

Table 3: Species Evaluation				
Species/taxa	Desk Study	Status ¹⁴	Supporting Habitat	Potential Adverse Effects
	Port Talbot county. ¹⁵		There are small isolated pockets of woodland and scrub close to the Site. Overall the Site is isolated from large expanses of woodland being situated within a meander of the River Neath with the town of Briton Ferry separating this area from a larger expanse of woodland located to the east.	present within the Site.
Eurasian Otter <i>Lutra lutra</i>	Yes – 14 records of Eurasian otter within 2km of the Site in the last 10 years. Two live sightings at Tennant canal approximately 0.6km from the Site in 2017. Signs of Eurasian otter were observed 0.8km north of the Site in 2017.	CHSR (2), WCA (5), S.7	Yes – dry reedbeds, scrub, ditches and taller grassland could provide foraging and resting places for otter. The Site is adjacent to the Neath canal and close to the River Neath.	Yes – possible harm /disturbance during construction and loss of foraging/resting habitat.
Water vole <i>Arvicola amphibius</i>	Yes – 1 record of water vole within 2km of the Site in the last 10 years. Found dead on a track in 2016 approximately 1.2km north-east of the Site.	WCA (5), S.7.	Potential to be in ditch habitats within the site. Could also use habitats along canal, ditches and river located close to the site.	Yes - possible harm /disturbance during construction and loss of habitat.
White-clawed crayfish <i>Austropotamobius pallipes</i>	No – no records of white-clawed crayfish were returned as part of the desk study.	WCA (sale only), S.41	No – this species is found in freshwater in clean calcareous streams, rivers and lakes. The River Neath is tidal which also extends up the canal.	No

¹⁵ <https://peoplestrust.wpenginepowered.com/wp-content/uploads/2016/01/Current-Dormouse-Distribution-Map.png>

Table 3: Species Evaluation				
Species/taxa	Desk Study	Status ¹⁴	Supporting Habitat	Potential Adverse Effects
Common reptiles	Yes – 29 records of common reptile within 2km of the Site in the last 10 years. The closest of these records was of slow worm, 0.3km from the Site, in 2018. Grass snake and common lizard have also been recorded.	WCA (5), S.7	Yes – where mosaic of habitats on Site exist these could support reptiles include the south-facing banks (off-site), scrub, ditches and grassland. On the landfill cap itself, there appears to be a lack of features that reptiles can use for shelter and hibernation.	Possible harm / disturbance during construction.
Great Crested Newt (GCN) <i>Triturus cristatus</i>	Yes – 28 records of GCN were observed within 2km of the Site in the last 10 years. All of the records were between 1.7-1.9km from the Site, the most recent is from 2021. Neath Port Talbot County Borough Council's Biodiversity and Geodiversity Supplementary Planning Guidance ¹⁶ states that ' <i>Great Crested Newt - An LBAP species, and extremely rare within Neath Port Talbot, we will consider a confirmed record of a single individual Great Crested Newt as a 'good' population.</i> '	CHSR (2), WCA (5), S.7.	Yes – although ditches on site were mainly dry. The ditch along the northern boundary held very little water and is unlikely to be suitable for GCN at present. A large pond is located in the southern extension area to the south of the site. The pond is relatively isolated from other ponds in the local area, although there is a network of ditches and reedbeds to the north. A habitat suitability index calculated for the pond in the southern extension area indicates that the pond is of 'below average' suitability for GCN.	Unlikely effects.

¹⁶ Neath Port Talbot County Borough Council (2018) *Biodiversity and Geodiversity Supplementary Planning Guidance*

Table 3: Species Evaluation					
Species/taxa	Desk Study		Status ¹⁴	Supporting Habitat	Potential Adverse Effects
				The River Neath will be a significant barrier to dispersal from the known GCN records in the north-west.	
Other amphibians	Yes – 7 common toad, 3 common frog, 5 smooth newt and 37 palmate newt records. Observed between 1.5 – 2km from the Site.		S.7.	Yes – as above.	Possible.
Birds	Yes – 139 bird records within 2km search area including WCA Schedule 1 listed species, and RSPB UK red and amber listed birds of conservation concern. Records include, but are not limited to: Red kite <i>Milvus milvus</i> Spotted flycatcher <i>Muscicapa striata</i> Whimbrel <i>Numenius phaeopus</i> Starling <i>Sturnus vulgaris</i> Skylark <i>Alauda arvensis</i> Mistle thrush <i>Turdus viscivorus</i> Ringed plover <i>Charadrius hiaticula</i> Lapwing <i>Vanellus vanellus</i> Linnet <i>Linaria cannabina</i> Grasshopper Warbler <i>Locustella naevia</i> Pochard <i>Aythya ferina</i> Cuckoo <i>Cuculus canorus</i>		WCA (1), S.7, UKBR.	Yes – the grassland, reedbed, scrub and ditch habitats could support a diverse range of birds. Incidental bird observations recorded in the southern extension area included: robin, coot, wren, buzzard, willow warbler, song thrush, green woodpecker, wood pigeon, snipe/woodcock, long-tailed tit, little grebe, dunno, pheasant, blackcap, goldfinch and blackbird. Birds observed/heard in adjacent habitats included chiff chaff (woodland), cormorant, little egret, greylag geese (River Neath). Skylark were recorded on the landfill cap within	Yes – harm/disturbance to breeding birds. Loss of breeding, foraging and roosting habitat.

Table 3: Species Evaluation					
Species/taxa	Desk Study		Status ¹⁴	Supporting Habitat	Potential Adverse Effects
	Pied Flycatcher	<i>Ficedula hypoleuca</i>		the Site.	
	House sparrow	<i>Passer domesticus</i>			
	Turtle dove	<i>Streptopelia turtur</i>			
	Grey wagtail	<i>Motacilla cinerea</i>			
	Herring gull	<i>Larus argentatus</i>			
	Merlin	<i>Falco columbarius</i>			
	Woodcock	<i>Scolopax rusticola</i>			
	Lesser Redpoll	<i>Acanthis cabaret</i>			
	Whinchat	<i>Saxicola rubetra</i>			
Invertebrates	Yes – 191 invertebrate records within 2km of the Site in the last 10 years, including but not limited to: Buff-tailed Mining Bee <i>Andrena humilis</i> Grayling <i>Hipparchia semele</i> Long-horned Bee <i>Eucera longicorn's</i> Cinnabar <i>Tyria jacobaeae</i> Fen Raft Spider <i>Dolomedes plantarius</i>		WCA (5), S.7, LBAP	Mosaic of habitats including grassland, scrub, ditches and dry reedbeds could support a range of invertebrates.	Possible.
Protected and Notable Plant Species	Yes – vascular plant species recorded within 2km of the Site in the last 10 years, including but not limited to: Yellow Water-lily <i>Nuphar lutea</i> Spiked Water-milfoil <i>Myriophyllum spicatum</i> Common Sea-lavender <i>Limonium vulgare</i> Sea-purslane <i>Atriplex portulacoides</i> Nuttall's Waterweed <i>Elodea nuttallii</i> Lesser Sea-spurrey <i>Spergularia marina</i>		WCA (5)	None of these species were recorded within the Site during the survey.	None anticipated.

Table 3: Species Evaluation					
Species/taxa	Desk Study	Status ¹⁴	Supporting Habitat	Potential	Adverse
	Long-bracted Sedge <i>Carex extensa</i> Royal Fern <i>Osmunda regalis</i> Bluebell <i>Hyacinthoides non-scripta</i> Flowering-rush <i>Butomus umbellatus</i> Yellow Bartsia <i>Parentucellia viscosa</i> Bee Orchid <i>Ophrys apifera</i>				
Invasive non-native species	Yes – 13 species of invasive non-native species listed under Schedule 9 of the WCA. The closest record being 0.04km from the Site which was for butterfly bush <i>Buddleja davidii</i> .	WCA (9)	Japanese knotweed <i>Reynoutria japonica</i> recorded on the perimeters of the Site.	Yes.	

4 DISCUSSION AND CONCLUSIONS

4.1 Sensitive Receptors

4.1.1 The following conservation sites, habitats, and species (receptors) have been evaluated as being subject to potential adverse effects and hence can be constraints to the proposals:

- Non-statutory Conservation Sites – Cymlyn Burrows SINC, Neath Estuary SINC, Neath Canal SINC, Giants Grave SINC, Tennant Canal SINC, NPT Watercourses SINC; and Square Pond SINC;
- S.7 Reedbeds;
- Other Neutral Grassland;
- Ditches;
- Badger;
- Bats;
- Birds;
- Brown hare;
- Common amphibians;
- Common reptiles
- European hedgehog;
- Invertebrates;
- Otter;
- Water vole; and
- Japanese knotweed.

4.1.2 The nature of potential effects, requirements for further surveys and proposed mitigation/compensation are discussed below for each of the identified receptors.

4.2 Non-Statutory Conservation Sites

4.2.1 Crymlyn Burrows SINC, Neath Estuary SINC, Neath Canal SINC, Giants Grave SINC, Tennant Canal SINC, NPT Watercourses SINC, and Square Pond SINC could potentially be affected by the proposed development. These sites are designated for

various reasons, including coastal and freshwater habitats and proetid and notable flora/fauna species. Further assessment may be needed to assess any significant effect of impacts arising from the proposed development as part of an EcIA.

- 4.2.2 It is recommended that appropriate pollution prevention measures are implemented during the construction and operational phases of the development where required to prevent pollution events that may affect the on-site ditches which may go on to affect the SINC habitats and species off-site.

4.3 Habitats

S.7 Reedbed

- 4.3.1 There are several dense stands of common reed located on the landfill cap. Reedbed is a S.7 habitat.
- 4.3.2 It is recommended that the proposed solar development is designed to avoid these areas.

Other neutral grassland

- 4.3.3 Should areas of grassland be lost, it is recommended that retained areas of grassland are enhanced and managed to increase its biodiversity value to mitigate for grassland loss. This could include mechanical and/or over sowing to increase species diversity, introduction of parasitic species on grass e.g. yellow rattle *Rhinanthus minor* and appropriate management timing and methods.

Ditches

- 4.3.4 It is recommended that appropriate pollution prevention measures are implemented during the construction and operational phases of the development where required to prevent pollution events that may affect the ditches.

4.4 Protected Species

Badger

- 4.4.1 There are records of badger in the local area and badger foot-prints, latrines and pathways were observed in the 'southern extension area' during the UKHab survey. No setts or definite signs of badger were observed within the Site. Badger could potentially use the habitats within the Site for foraging.
- 4.4.2 No further surveys are considered necessary however in order to ensure compliance with the relevant legislation, it is recommended that a check for the presence of

mammal burrows with an entrance diameter exceeding 100mm should be undertaken prior to the onset of works. In the event that such mammal burrows are recorded clearance operations should cease until advice has been sought from a suitably qualified ecologist. Reasonable Avoidance Measures to prevent harm / disturbance to badger should be included within a Precautionary Working Method Statement for Protected/Notable species which should be implemented on Site during construction.

- 4.4.3 If badgers are present, they should be able to continue using the Site post-construction. Should additional security fencing be needed, although the Site is secure at present, then gaps should be left at the base of the fence to allow badger to access the solar farm development.

Bats

- 4.4.4 There are suitable foraging habitats for bats present within the Site. Due to the open, exposed nature of the landfill cap, it is not anticipated that bats would be using this habitat regularly for foraging with many species more likely to be associated with the scrub, ditches and immediately adjacent grassland habitats on the peripheries of the Site.
- 4.4.5 As such, it is recommended that there should be a buffer zone around the Site boundaries, between 7 – 10m wide, where no development should take place. The buffer zone should be maintained as a dark corridor (<0.5lux) with no light spill or glare from the development affecting the habitats within the buffer. This should ensure that the local bat population will be able to continue to forage and commute around the proposed solar farm development.
- 4.4.6 Site access should utilise the existing track and avoid removing any scrub or ditch habitat on the peripheries of the Site.
- 4.4.7 Should vegetation clearance be required on the peripheries of the Site, particularly if significant gaps are introduced (i.e. over 7m) then bat activity surveys may be required to inform an impact assessment.

Birds

- 4.4.8 Skylarks were heard over the landfill cap during the UKHab survey of the 'southern extension area' in April. It was therefore recommended that a breeding bird survey of the Site was undertaken to determine which species are using the open grassland and where to inform the design of the solar farm development. The first breeding

bird survey was undertaken immediately prior to the UKHab survey of the Site which confirmed several skylark breeding territories on top of the cap.

- 4.4.9 The breeding bird survey results and recommendations will be included in a breeding bird report.

Brown hare

- 4.4.10 No brown hares were observed during the UKHab survey, however suitable habitat is present. It is recommended that Reasonable Avoidance Measures to prevent harm / disturbance to brown hare are included within a Precautionary Working Method Statement for Protected/Notable species which should be implemented on Site during construction.

- 4.4.11 Brown hare could be discouraged from construction areas by vegetation management. Suitable vegetation will be maintained at a short sward length prior to construction.

- 4.4.12 Any excavations from construction activities should either be infilled overnight or mammal ramps placed within, if left open, to allow egress. Excavations should be checked in the morning for hare before works commence.

- 4.4.13 If brown hares are present, they should be able to continue using the Site post-construction. Should additional security fencing be needed, although the Site is secure at present, then gaps should be left at the base of the fence to allow brown hares to access the solar farm development.

Great crested newt / Common amphibians

- 4.4.14 For reasons explained in Table 3, great crested newts are considered highly unlikely to be present within the Site. There is a possibility that common amphibians may use the grassland, scrub and ditch habitats within the Site.

- 4.4.15 As stated above, it is recommended that appropriate pollution prevention measures are implemented during the construction and operational phases of the development where required to prevent pollution events. The ditches should also be included within a buffer zone around the Site boundaries, between 7 – 10m wide, where no development should take place.

- 4.4.16 It is recommended that Reasonable Avoidance Measures to prevent harm / disturbance to amphibians are included within a Precautionary Working Method

Statement for Protected/Notable species which should be implemented on Site during construction.

4.4.17 A detailed Precautionary Working Method Statement should include measures such as:

- Amphibians will be discouraged from construction areas by vegetation management.
- Materials / debris, which could be used by amphibians as refuges, will not be stored in close proximity to site clearance areas while amphibians are active.
- If amphibians are discovered during the site clearance activities, these individuals will be translocated into suitable retained habitat.

4.4.18 Any suitable vegetation or debris present within the affected areas, which could be used by amphibians as refuges, should be removed. The removal of debris should be undertaken before amphibians start to hibernate in late September / October or after amphibians emerge from hibernation in March and April.

4.4.19 Amphibians should be able to continue to use habitats within the Site post-construction.

Common Reptiles

4.4.20 There are records of common reptiles within 2km of the Site and they are included as the citations for the nearby Neath Canal and Giants Grave SINC. It is possible that reptiles may have colonised the restored landfill cap from these local populations and it is considered that the most favourable habitat would be on the south-facing slopes of the landfill cap where a mosaic of scrub and grassland is present. These slopes are located outside the Site boundary and are unlikely to be affected by the development. It is recommended that access to the Site should utilise the existing track and avoid the removal of existing scrub and ditch habitats along this track in the south-east corner.

4.4.21 It is possible that common reptiles may use the grassland habitat on the top of the landfill cap, although there are no obvious features which could be used as refugia/hibernacula within the grassland aside from the scattered shrubs/small patches of dense scrub in the middle of the Site, the single semi-mature tree close to the western boundary and the encroaching scrub along the eastern boundary. It is recommended that these areas are avoided and buffered from development.

- 4.4.22 It is recommended that Reasonable Avoidance Measures to prevent harm to any common reptiles that may be present be included within a Precautionary Working Method Statement for Protected/Notable species which should be implemented on Site during construction.
- 4.4.23 Such measures could include toolbox talks and supervision of works by an experienced Ecological Clerk of Works (ECoW) and/or discouraging reptiles from the working area by appropriate vegetation management. The vegetation within the working area should be cleared or cut to ground level in a 2-stage approach two weeks before the commencement of the construction works and maintained in this condition until the commencement of the construction works in order to discourage reptiles from these areas.
- 4.4.24 Any debris present within the affected areas, which could be used by reptiles as refuges, should be removed. The removal of debris should be undertaken before reptiles start to hibernate in late September or after reptiles emerge from hibernation in March and April.
- 4.4.25 Common reptiles should be able to continue to use habitats within the Site post-construction.

European hedgehog

- 4.4.26 No hedgehogs were observed during the UKHab survey, however suitable habitat is present. It is recommended that Reasonable Avoidance Measures to prevent harm / disturbance to hedgehog are included within a Precautionary Working Method Statement for Protected/Notable species which should be implemented on Site during construction.
- 4.4.27 Care should be taken during site clearance as hedgehog may inhabit areas where there is cover to hibernate/breed especially areas of dense scrub and brash piles. Ideally, clearance of key habitats should be timed to avoid breeding and hibernation periods.
- 4.4.28 If excavations need to be left open overnight, it is recommended that an escape route such as a wooden plank is provided so animals can escape, otherwise they should be covered to prevent access.
- 4.4.29 If hedgehogs are present, they should be able to continue using the Site post-construction. Should additional security fencing be needed, although the Site is

secure at present, then gaps should be left at the base of the fence to allow hedgehog to access the solar farm development.

Invertebrates

- 4.4.30 There are numerous records for invertebrates within 2km of the Site. The open grassland on the landfill cap could provide suitable habitat for invertebrates, including S.7 species such as long-horned bee, as well as the dense stands of reed, encroaching scrub and ditches.
- 4.4.31 The buffer zone which has been recommended around the Site boundaries and the retention of the dense stands of reeds located throughout the Site should assist with retaining existing invertebrate populations at the Site.
- 4.4.32 Invertebrates would be able to continue to use the Site post-construction. There is a possibility that the solar panels may shade out parts of the grassland and thereby affect the availability of invertebrate foodplants.
- 4.4.33 Grassland habitats not subject to development can be managed to increase their value for invertebrates and to mitigate for loss of grassland. According to the Planning Permission P2/3/92/0025/11 Condition 11 document¹⁷, this grassland will continue to be cut twice a year, with arisings left, in April and September. A change in management regime could create a range of different habitat conditions for invertebrates.
- 4.4.34 It is recommended that the areas of scrub, dense reeds and ditches are retained protected and enhanced for invertebrates, where possible, within an appropriate buffer as described above.

Otter

- 4.4.35 Otters are included in the Neath Estuary and Neath Canal SINC citations. There is potential for otter to use the Site for resting, most likely in above ground couches within the dense stands of reeds, denser areas of tall grassland and encroaching scrub.
- 4.4.36 As such, to retain suitable resting habitat for otter and to minimise disturbance to otter that may be using the adjacent estuary, canal and reedbed habitats, it is recommended that there should be a buffer zone around the Site boundaries, between 7 – 10m wide, where no development should take place. The buffer zone

¹⁷ Neath Port Talbot Waste Management Co. Ltd (2013) *Planning Permission P2/3/92/0025/11 Condition 11*.

should be maintained as a dark corridor (<0.5lux) with no light spill or glare from the development affecting the habitats within the buffer. This should ensure that the local otter population will be able to continue to disperse, rest and forage around the proposed solar farm development. It is also recommended that the dense stands of reeds located throughout the Site are retained.

- 4.4.37 It is recommended that Reasonable Avoidance Measures to prevent harm / disturbance to otter are included within a Precautionary Working Method Statement for Protected/Notable species which should be implemented on Site during construction.

Water vole

- 4.4.38 Water voles are included in the Neath Canal SINC citation and could potentially have dispersed into the ditches along the northern and eastern boundaries of the Site, although these were largely dry at the time of the survey and were constructed as part of the restoration works at the landfill cap. The dry ditches elsewhere in the Site are considered unsuitable due to size, lack of water and isolation from other watercourses.
- 4.4.39 As such, to retain suitable habitat for water vole, should they be present, and to minimise the risk of harm and disturbance, it is recommended that there should be a buffer zone adjacent to the ditches on the boundaries, between 7 – 10m wide, where no development should take place. The buffer zone should be maintained as a dark corridor (<0.5lux) with no light spill or glare from the development affecting the habitats within the buffer. This should ensure that the local water vole population will be able to continue to use the ditches around the proposed solar farm development, if present.
- 4.4.40 Should the ditches be affected by the proposed development then it is recommended that a water vole survey be undertaken on this habitat.

4.5 Non-native Invasive Species

- 4.5.1 The non-native invasive species Japanese knotweed *Reynoutria japonica*, which is listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended), was recorded occasionally at the Site along the northern and eastern boundaries and on the southern slopes. In the interests of preserving native habitats and preventing spread into the wild beyond the Site boundary (which would be an offence), it is

recommended that these species are eradicated under the guidance of a specialist contractor.

4.6 General Recommendations

- 4.6.1 If the Site boundary alters and any other habitats are identified to be lost or affected by the development, then further surveys for habitats and protected species may be required.
- 4.6.2 Night-time work should be avoided whenever possible to limit the potential for disturbance to nocturnal animals.

5 NET BENEFITS FOR BIODIVERSITY

5.1 Biodiversity Enhancement

5.1.1 In accordance with the requirements of the Planning Policy Wales (2021) and BSI 42020:2013, ecological enhancements should be proposed which will result in a net benefit for biodiversity.

5.1.2 There are a variety of simple and cost-effective measures that could be implemented as part of the development proposals to enhance the Site for a range of wildlife including bats, common reptiles and breeding birds, including species which are UK BAP and Welsh S.7 Priority listed species. These include, but are not limited to, the following:

- Management of grassland habitats to create a range of conditions for invertebrates and other wildlife including keeping some areas of grassland tall on a rotational basis;
- Seeding of wetland species along the margins of the ditches;
- Creation of a pond and/or scrapes potentially in the south-west corner of the Site to provide additional aquatic habitat for invertebrates and amphibians;
- Creation of hibernacula for reptiles and amphibians on the northern and eastern peripheries and on the south-facing slopes, if possible; and
- Provision of wood piles / loggeries would benefit invertebrates, reptiles and amphibians.

6 CONCLUSION

6.1.1 Given the identified evidence of presence and/or likely presence of ecological receptors which may be adversely impacted by the development scheme, further surveys and/or assessments have been recommended to inform a full evaluation of adverse effects. Consequently, additional protected species survey (breeding bird survey) and assessment reports will be required to compliment the planning application. Additionally, the results of further protected species surveys and evaluations should be considered within an EclA report, in line with standard industry practice (CIEEM 2018, updated 2022). This report should include a formal assessment of impacts and will be suitable to fully inform the planning application.

6.2 Report Validity

- 6.2.1 In general, this report remains valid for a period of 18 months following the date of the habitat survey.
- 6.2.2 If the Site boundary is subsequently modified and any other habitats are identified to be lost or affected by the development, then further surveys for habitats and protected species may be required.

7 REFERENCES

Botanical Society of the British Isles (2013) *Online atlas of the British and Irish Flora*.
<https://plantatlas.brc.ac.uk/>

Butcher, B., Carey, P., Edmonds, R., Norton, L. and Treweek, J. (2020). *The UK Habitat Classification User Manual Version 1.1* at <http://www.ukhab.org/>

CIEEM (2017) *Guidelines for Preliminary Ecological Appraisal, 2nd edition*. Chartered Institute of Ecology and Environmental Management, Winchester.

CIEEM (2018) *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine, version 1.2 updated 2022*. Chartered Institute of Ecology and Environmental Management, Winchester.

National Biodiversity Network (2017) *NBN Atlas* <http://data.nbn.org.uk/>

Neath Port Talbot Waste Management Co. Ltd (2013) *Planning Permission P2/3/92/0025/11 Condition 11*.

Stace, C. A. (2021) *New Flora of the British Isles*. Cambridge University Press.

APPENDICES

Appendix 1

Summary of Legislative Framework and Planning Policy

Appendix 1: Summary of Legislative Framework and Planning Policy

Summary of Legislation

Protection for animals included on Schedule 2 of The Conservation of Habitats and Species Regulations 2017 (as amended)		
A person commits an offence if they:		
Regulation 43	Part 1(a)	Deliberately captures, injures or kills any wild animal of a European protected species
	Part 1(b)	Deliberately disturbs wild animals of any such species. (1A) For the purpose of paragraph (1)(b), disturbance of animals includes in particular any disturbance which is likely a) to impair their ability i. to survive, breed or reproduce or to rear or nurture their young; or ii. in the case of animals of a hibernating or migratory species, to hibernate or migrate. b) to affect significantly the local distribution or abundance of the species to which they belong
	Part 1(c)	Deliberately take or destroy the eggs of such an animal
	Part 1(d)	Damage or destroy a breeding site or resting place of such an animal
	Part 3	To: a) be in possession of, or to control, b) transport, c) sell or exchange, or d) to offer for sale or exchange. (4) For the purpose of (3) this applies to: a) any live or dead animal or part of animal i) which has been taken from the wild, and ii) which is a species or subspecies listed in Annex IV(a) to the Habitats Directive; and b) anything derived from such an animal or any part of such an animal.
Protection for animals included on Schedule 5 of the Wildlife and Countryside Act 1981 (As Amended)		
Section 9	Part 1	Intentionally kill, injure, take a scheduled animal
	Part 2	Possess or control (live or dead animal, part or derivative)
	Part 4 (a)	Intentionally or recklessly damage, destroy or obstruct access to any structure or place used by a scheduled animal for shelter or protection
	Part 4 (b)	Intentionally or recklessly disturb an animal occupying such a structure or place
	Part 5 (a)	Sell, offer for sale, possess or transport for the purpose of sale (live or dead animal, part or derivative)
	Part 5 (b)	Advertise for buying or selling such things

A large number of species are also included under Section 7 of the Environment (Wales) Act 2016 as Species of Principal Importance which places the “biodiversity

duty” on the Welsh Government (and therefore public authorities) for the purpose of maintaining and enhancing biodiversity in relation to Wales. This stems from a review of the now superseded UK Biodiversity Action Plan and the continued need for global action on conserving biodiversity as result of the Convention on Biological Diversity.

Bats

All UK bat species are afforded full protection (including their habitats) through inclusion on Schedule 2 of The Conservation of Habitats and Species Regulations 2017 (as amended) and further partial protection by Schedule 5 of the Wildlife and Countryside Act 1981 (as amended).

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 (*Rhinolophus hipposideros*) bats are listed under Section 7 of The Environment (Wales) Act 2016 to be taken into account as part of the biodiversity duty on local planning authorities. Species included in this list are considered by the Welsh Ministers to be “of principal importance for the purpose of maintaining and enhancing biodiversity in relation to Wales”.

Badgers

Badgers are afforded full protection under the Protection of Badgers Act 1992, which makes it an offence to:

- Wilfully kill, injure or take a badger;
- Possess or control any live or dead badger or any part, or anything derived from, a dead badger;
- cruelly ill-treat a badger, or attempt to do so;
- To interfere with a sett by:
 - damaging or destroying it;
 - obstructing access to, or any entrance of, a badger sett;
 - causing a dog to enter a badger sett;

- disturbing a badger when it is occupying a sett;
- Sell a live badger or offer one for sale.

It is also an offence to mark, attach any ring, tag or other marking device to a badger unless authorised under licence.

Great Crested Newts and Other Amphibians

Great crested newts are afforded full protection (including their habitats) through inclusion on Schedule 2 of The Conservation of Habitats and Species regulations 2017 (as amended) and further partial protection by Schedule 5 of the Wildlife and Countryside Act 1981 (as amended).

Under the Wildlife and Countryside Act 1981, other amphibians, including smooth and palmate newts, common frogs and common toad cannot be sold or be offered for sale.

Great crested newts and common toad are listed under Section 7 of The Environment (Wales) Act 2016 to be taken into account as part of the biodiversity duty on local planning authorities. Species included in this list are considered by the Welsh Ministers to be “of principal importance for the purpose of maintaining and enhancing biodiversity in relation to Wales” within Section 7 of The Environmental (Wales) Act 2016.

Hedgehog

Hedgehogs are protected under Section 1 of the Wild Mammals (Protection) Act 1996, which makes it an offence too mutilate, kick, beat, nail or otherwise impale, stab, burn, stone, crush, drown, drag or asphyxiate any wild mammal with intent to inflict unnecessary suffering to this species. Hedgehog is listed under Section 7 of The Environment (Wales) Act 2016 to be taken into account as part of the biodiversity duty on local planning authorities. Species included in this list are considered by the Welsh Ministers to be “of principal importance for the purpose of maintaining and enhancing biodiversity in relation to Wales”.

Reptiles

Six native reptiles occur in Britain: the adder (*Vipera berus*), the grass snake (*Natrix natrix*), the smooth snake (*Coronella austriaca*), the sand lizard (*Lacerta agilis*), the common lizard (*Zootoca vivipara*) and the slow worm (*Anguis fragilis*).

The smooth snake and sand lizard are afforded full protection (including their habitats) through inclusion on Schedule 2 of The Conservation of Habitats and Species regulations 2017 (as amended) and further partial protection by Schedule 5 of the Wildlife and Countryside Act 1981 (as amended).

Five of the six native reptile species (excluding smooth snake) are listed under Section 7 of The Environment (Wales) Act 2016 to be taken into account as part of the biodiversity duty on local planning authorities. Species included in this list are considered by the Welsh Ministers to be “of principal importance for the purpose of maintaining and enhancing biodiversity in relation to Wales”.

Birds

All wild birds, their nests and eggs are protected under Part 1 Section 1 of the Wildlife and Countryside Act, 1981 (as amended), which makes it an offence (with certain limited exceptions and in the absence of a licence) to:

- Kill or injure any wild bird;
- Take, damage or destroy the nest of any wild bird whilst it is in use or being built (this includes several species of birds whose nests are reused under Schedule ZA1);
- Take or destroy the egg or any wild bird.

It is also an offence to possess any live or dead wild bird or egg, or anything derived from a wild bird or egg. Restrictions on trade and advertising also apply.

Bird species listed on Schedule 1 of the Wildlife and Countryside Act, 1981 (as amended) are afforded additional protection against intentional or reckless disturbance whilst it is building a nest, or at a nest containing eggs, young or disturbance to the young.

Further a number of bird species are listed under Section 7 of The Environment (Wales) Act 2016 to be taken into account as part of the biodiversity duty on local planning authorities. Species included in this list are considered by the Welsh Ministers to be “of principal importance for the purpose of maintaining and enhancing biodiversity in relation to Wales” within Section 7 of The Environmental (Wales) Act 2016.

In addition to this legal protection, leading governmental and non-governmental conservation organisations in the UK have reviewed the population status of the birds regularly found here and produced a list of Birds of Conservation Concern. Of the 245 species assessed, 70 were placed on the red list of high conservation concern, 103 on the amber list of medium conservation concern and 72 on the green list of low conservation concern. Consideration is therefore given to those species listed as being of conservation concern although they have no greater legislative protection.

Invasive Species

A number of animal and plant species are listed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) and The Invasive Alien Species (Enforcement and Permitting) Order 2019. It is an offence to:

- Allow the release or allow to escape into the wild any animal which is of a kind which is not ordinarily resident in and is not a regular visitor to Great Britain in a wild state; or included in Part I of Schedule 9; and
- If any person plants or otherwise causes to grow in the wild any plant which is included in Part II of Schedule 9.

Under Schedule 9A of the act species control agreements and orders can be made in accordance with The Invasive Alien Species (Enforcement and Permitting) Order 2019.

Planning policy

All statutory and non-statutory designated sites, along with species covered by national legislation and those under Section 7 of the Environment (Wales) Act 2016, are considered through Planning Policy Wales 2021 which provides a guide for Local Planning Authority (LPA) decision making, including statements such as “ensure

statutorily and non-statutorily designated sites are properly protected and managed”, “safeguard protected and priority species and existing biodiversity assets from impacts” and “secure enhancement of and improvements to ecosystem resilience by improving diversity, condition, extent and connectivity of ecological networks.”

There is also the “biodiversity duty” placed upon LPAs through the Environment (Wales) Act 2016 to enhance biodiversity and ensure the resilience of ecosystems. This will be considered by the LPA when making planning decisions to ensure that they meet their own reporting duties.

Local Planning Policy

Neath Port Talbot Council Borough Council Local Development Plan (2011-2026)

Adopted January 2016

Relevant policies include:

Extracts:

Policy EN 6 Important Biodiversity and Geodiversity Sites

Development proposals that would affect Regionally Important Geodiversity Sites (RIGS), Local Nature Reserves (LNRs), Sites of Interest for Nature Conservation (SINCs), sites meeting SINC criteria or sites supporting Local Biodiversity Action Plan (LBAP) or S42 habitats or species will only be permitted where:

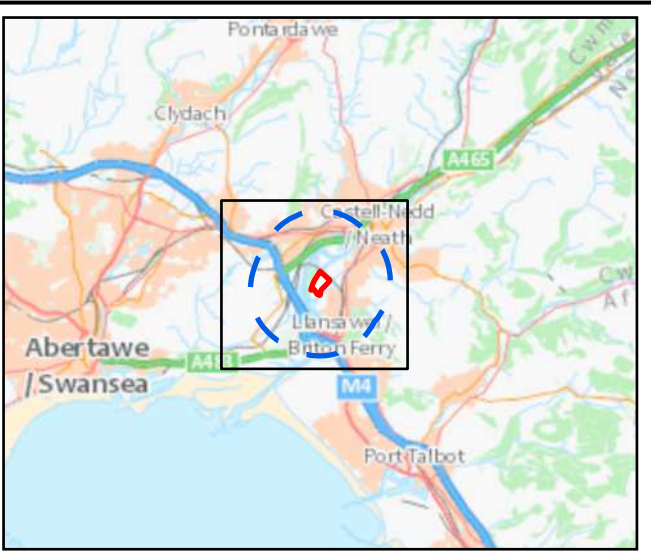
1. They conserve and where possible enhance the natural heritage importance of the site; or
2. The development could not reasonably be located elsewhere, and the benefits of the development outweigh the natural heritage importance of the site. Mitigation and/or compensation measures will need to be agreed where adverse effects are unavoidable.

Policy EN 7 Important Natural Features

Development proposals that would adversely affect ecologically or visually important natural features such as trees, woodlands, hedgerows / field boundaries, watercourses or ponds will only be permitted where:

1. Full account has been taken of the relevant features in the design of the development, with measures put in place to ensure that they are retained and protected wherever possible; or
2. The biodiversity value and role of the relevant feature has been taken into account and where removal is unavoidable, mitigation measures are agreed.

DRAWINGS



KEY

Site Boundary

2km Search Area Buffer

Notes:

Boundaries are indicative.

Contains OS data © Crown Copyright and database right 2020, © 2023 Microsoft Corporation © 2023 Maxar ©CNES (2023) Distribution Airbus DS

A	FIRST ISSUE	16/08/23	RCB	AC	SC
REVISION	DETAILS	DATE	DRAWN	CHKD	APPD
CLIENT					
NEATH PORT TALBOT COUNTY BOROUGH COUNCIL					
PROJECT					
LAND AT FORMER GIANTS GRAVE LANDFILL SITE					
DRAWING TITLE					
SITE LOCATION PLAN					
DRG No.		REV			
CA12747-003		A			
DRG SIZE		SCALE		DATE	
A3		1:20,000		16/08/2023	
DRAWN BY		CHECKED BY		APPROVED BY	
MAB		AC		SC	





KEY

- Site Boundary
- f2e - reedbeds
- g3c - other neutral grassland
- h3d - bramble scrub
- h3h - mixed scrub
- u1c - artificial unvegetated unsealed surface
- r1 - standing open water and canals

Notes:

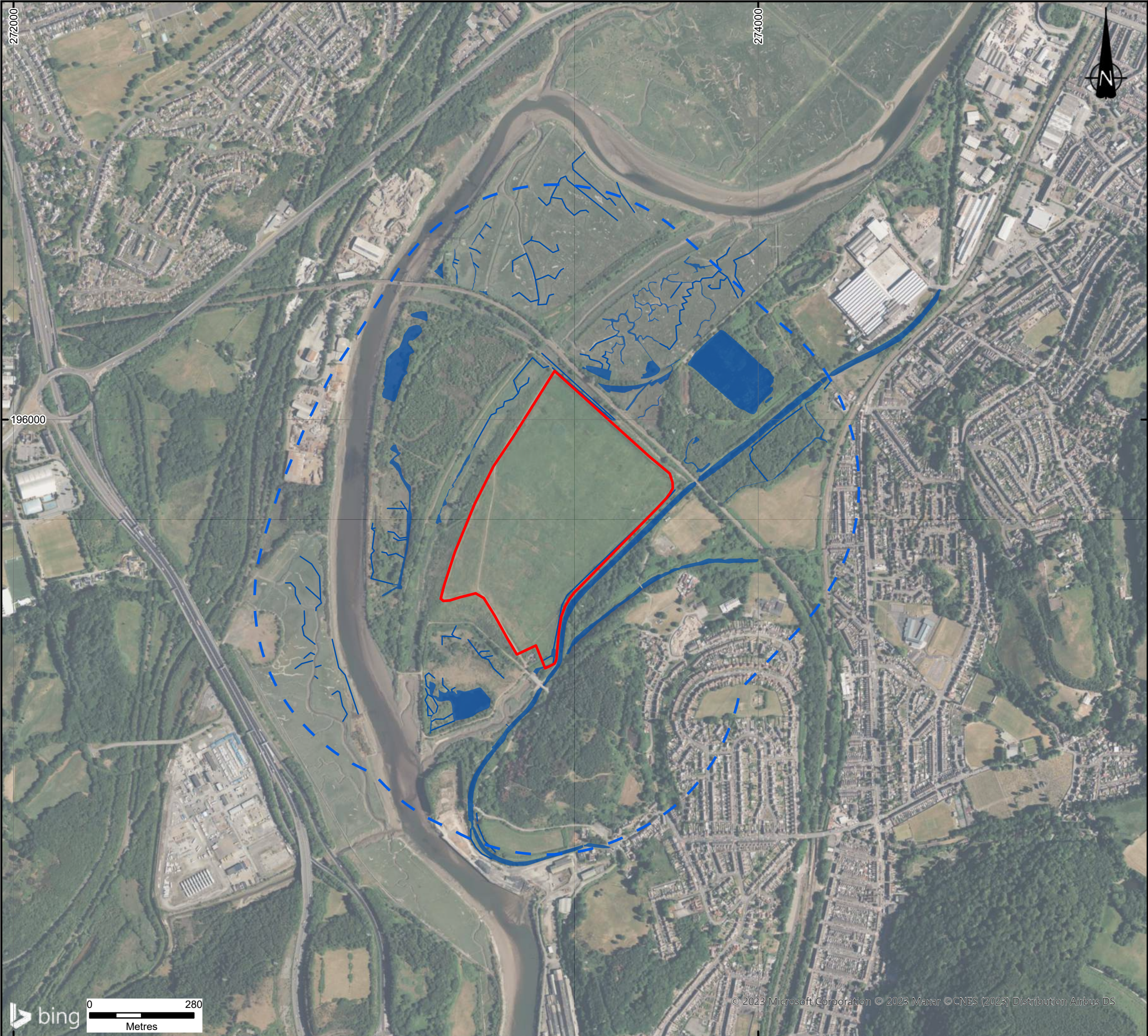
Boundaries are indicative. Aerial imagery shown for context purposes only.

© UKHAB LTD, under licence. No onward licence implied or provided. All rights reserved <https://ukhab.org/commercial-eula/>

A	FIRST ISSUE	16/08/23	RCB	AC	SC
REVISION	DETAILS	DATE	DRAWN	CHKD	APPD
CLIENT					
NEATH PORT TALBOT COUNTY BOROUGH COUNCIL					
PROJECT					
LAND AT FORMER GIANTS GRAVE LANDFILL SITE					
DRAWING TITLE					
UK HABITAT PLAN					
DRG No		CA12747-006		REV	
				A	
DRG SIZE		SCALE		DATE	
A2		1:2,500		16/08/2023	
DRAWN BY		CHECKED BY		APPROVED BY	
RCB		AC		SC	







KEY

Site Boundary

 500m Buffer

Notes:

Boundaries are indicative. Aerial imagery shown for context purposes only.

Contains Ordnance Survey data. © Crown Copyright and database right 2023

A	FIRST ISSUE	16/08/23	RCB	AC	SC
REVISION	DETAILS	DATE	DRAWN	CHKD	APPD
CLIENT					
NEATH PORT TALBOT COUNTY BOROUGH COUNCIL					
PROJECT					
LAND AT FORMER GIANTS GRAVE LANDFILL SITE					
DRAWING TITLE					
WATERBODY LOCATION PLAN					
DRG No.			REV		
CA12747-007			A		
DRG SIZE		SCALE		DATE	
A3		1:10,000		16/08/2023	
DRAWN BY		CHECKED BY		APPROVED BY	
GER		AC		SC	





STOKE-ON-TRENT

Sir Henry Doulton House
Forge Lane
Etruria
Stoke-on-Trent
ST1 5BD
Tel: +44 (0)1782 276 700

BIRMINGHAM

Two Devon Way
Longbridge Technology Park
Longbridge
Birmingham
B31 2TS
Tel: +44 (0)121 580 0909

BOLTON

41-50 Futura Park
Aspinall Way
Middlebrook
Bolton
BL6 6SU
Tel: +44 (0)1204 227 227

BRISTOL

Temple Studios
Temple Gate
Redcliffe
Bristol
BS1 6QA
Tel: +44 (0)117 203 4477

BURY ST EDMUNDS

Armstrong House
Lamdin Road
Bury St Edmunds
Suffolk
IP32 6NU
Tel: +44 (0)1284 765 210

CARDIFF

Tudor House
16 Cathedral Road
Cardiff
CF11 9LJ
Tel: +44 (0)292 072 9191

CARLISLE

Marconi Road
Burgh Road Industrial Estate
Carlisle
Cumbria
CA2 7NA
Tel: +44 (0)1228 550 575

EDINBURGH

Great Michael House
14 Links Place
Edinburgh
EH6 7EZ
Tel: +44 (0)131 555 3311

GLASGOW

24 St Vincent Place
Glasgow
G1 2EU
Tel: +44 (0)141 428 4499

LEEDS

36 Park Row
Leeds
LS1 5JL
Tel: +44 (0)113 831 5533

LONDON

Third Floor
46 Chancery Lane
London
WC2A 1JE
Tel: +44 (0)207 242 3243

NEWCASTLE UPON TYNE

City Quadrant
11 Waterloo Square
Newcastle upon Tyne
NE1 4DP
Tel: +44 (0)191 232 0943

TRURO

Baldhu House
Wheal Jane Earth Science Park
Baldhu
Truro
TR3 6EH
Tel: +44 (0)187 256 0738

International office:

ALMATY

29/6 Satpaev Avenue
Hyatt Regency Hotel
Office Tower
Almaty
Kazakhstan
050040
Tel: +7(727) 334 1310