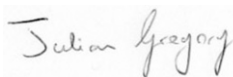
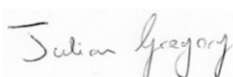


2024

**SGM Waste Management**

**Preliminary Ecological Appraisal (PEA)**



| DOCUMENT INFORMATION     |                                                                                 |                                                                                      |            |
|--------------------------|---------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|------------|
| Project                  | SGM Waste Management Site Expansion                                             |                                                                                      |            |
| Location                 | Address: Sluice Farm, Broadstreet Common, Cardiff CF3 2TN<br>Grid Ref: ST252793 |                                                                                      |            |
| Title                    | Preliminary Ecological Appraisal                                                |                                                                                      |            |
| Document Ref             | EV002154/                                                                       | Issue / Revision                                                                     | 1.0        |
| File reference           | EV002154/01                                                                     |                                                                                      |            |
| Start Date               | 09/12/2024                                                                      |                                                                                      |            |
|                          | Name                                                                            | Signature                                                                            | Date       |
| Assessment Undertaken by | Charley Kennedy                                                                 |    | 09.12.2024 |
| Document prepared by     | Charley Kennedy                                                                 |    | 10.12.2024 |
| Checked by               | Julian Gregory                                                                  |   | 19.12.2024 |
| Authorised by            | Julian Gregory                                                                  |  | 19.12.2024 |

| DOCUMENT CONTROL |       |             |
|------------------|-------|-------------|
| Rev.             | Date  | Description |
| 0                | 10/24 | Draft       |
| 1                |       | Issued      |
|                  |       |             |

### Disclaimer

No part of this document may be copied or reproduced by any means without prior written permission from EcoVigour. If you have received this report in error, please destroy all copies in your possession or control.

This document has been prepared for the exclusive use of the commissioning party/parties and unless otherwise agreed in writing by EcoVigour, no other party may use, make use of, or rely on the contents of the report.

No liability is accepted by EcoVigour for any use of this document, other than for the purposes for which it was originally prepared and provided.

Opinions and information provided in the document are on the basis of EcoVigour using due skill, care and diligence in the preparation of the same and no explicit warranty is provided as to their accuracy.

Third party biological records are for project team use only and are not to be released to the public domain.



## CONTENTS

---

|     |                                                            |    |
|-----|------------------------------------------------------------|----|
| 1   | Technical Summary .....                                    | 4  |
| 2   | Introduction .....                                         | 5  |
| 2.1 | Project Background .....                                   | 5  |
| 2.2 | Survey Area Description .....                              | 5  |
| 2.3 | Works Required .....                                       | 6  |
| 3   | Methodology .....                                          | 7  |
| 3.1 | Desk Study .....                                           | 7  |
| 3.2 | Walkover Survey .....                                      | 7  |
| 3.3 | Limitations .....                                          | 7  |
| 4   | Results .....                                              | 8  |
| 4.1 | Designated sites .....                                     | 8  |
| 4.2 | Ancient Woodlands & Tree Preservation Orders (TPO's) ..... | 9  |
| 4.3 | Watercourse and Waterbodies .....                          | 9  |
| 4.4 | Survey Figures .....                                       | 10 |
| 4.5 | Combined Field Survey and Data Summary .....               | 12 |
| 5   | Assessment and Recommendations .....                       | 15 |
| 5.1 | Designated Sites .....                                     | 15 |
| 5.2 | Habitats .....                                             | 16 |
| 5.3 | Bird Species .....                                         | 16 |
| 5.4 | Bat Species .....                                          | 16 |
| 5.5 | Reptiles & Amphibians .....                                | 17 |
| 5.6 | Great Crested Newt .....                                   | 18 |
| 5.7 | Terrestrial Mammal Species .....                           | 18 |
| 5.8 | Invasive Species .....                                     | 19 |
| 5.9 | Pollution Control and Drainage .....                       | 20 |
| 6   | References .....                                           | 21 |



## FIGURES

|                                                             |    |
|-------------------------------------------------------------|----|
| Figure 1: Approximate Survey Location. ....                 | 6  |
| Figure 2: Statutory Designated Sites Within 2km .....       | 8  |
| Figure 3: Non-Statutory Designated Sites Within 2km .....   | 9  |
| Figure 3: Local Watercourses and Waterbodies. ....          | 10 |
| Figure 4: Soil Bunds. ....                                  | 10 |
| Figure 5: Spoil Piles. ....                                 | 10 |
| Figure 6: Vegetation Along Reen Bank.....                   | 11 |
| Figure 7: Semi-Improved Grassland .....                     | 11 |
| Figure 8: Bare Ground Proposed for Concreting.....          | 11 |
| Figure 9: Bankside Vegetation (Southwestern Boundary). .... | 11 |
| Figure 10: Reen on the Southwestern Boundary. ....          | 11 |
| Figure 11: Dense Scrub and Grassland Habitat.....           | 11 |
| Figure 12: Scrub Habitat with Scattered Trees. ....         | 11 |
| Figure 13: Example of Structures On Site.....               | 12 |
| Figure 14: Reptile and Amphibian records.....               | 13 |
| Figure 15: Mammal records .....                             | 15 |

## TABLES

|                                                          |   |
|----------------------------------------------------------|---|
| Table 1: Technical Summary Table.....                    | 4 |
| Table 2: Non-Statutory Designated Sites within 2km ..... | 8 |



## 1 TECHNICAL SUMMARY

1.1.1 The summary below is based on the current understanding of the survey remit. Recommendations on future remit are based on best available information on potential future requirements. Further consultation may be required for future works undertaken by SGM.

1.1.2 Please refer to Section 5 for legislative context and more detailed description of recommendations.

**Table 1: Technical Summary Table**

| Feature or Species                | PEA Recommendations Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Bats</b>                       | <p>The site has potential to be utilised by foraging and commuting bats. Therefore, the presence of bats within the site is possible.</p> <p>The site features no suitable roosting locations for bat species. The trees have no notable features with potential to support roosting bats. No suitable cracks or wounds were noted on the trees, and no suitable locations for void-dwelling or direct-access species are present on site. The thermal properties and high levels of disturbance experienced by the structures on site further reduce any potential for roosting bats.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Bird Species</b>               | <p>Potential nesting bird habitat was identified on site. Vegetation clearance will be required in these areas; this should be carried out outside of the main bird breeding season i.e. undertaken between September and February. If this is not feasible, and proposed works are scheduled within the nesting season, any vegetation scheduled to be removed must be checked by an ecologist for active nests no more than 48 hours prior to the start of works, if the vegetation is too dense to be pre-checked then the removal will require ecological supervision.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Amphibian and Reptile</b>      | <p>The presence of reptiles and amphibians was not visually confirmed during the ecological assessment (presence or absence surveys have not been undertaken) and there are no historic records within the footprint of the works; however, amphibian records do exist within 1km of the works site. It is therefore highly likely that amphibians are utilising the works site. If, during the works, a reptile is found, <b>works will stop (this is a legal requirement)</b> and the project ecologist will be contacted.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Mammals</b>                    | <p>No features pertaining to badgers were noted during the survey, however one record of a badger was returned within 2km of the works site. The surrounding habitat is considered sub-optimal to support badger species. It is therefore considered unlikely that there are badgers in the wider area. Despite this, best practice is to be employed during works, particularly night works (although these are not envisaged).</p> <p>The habitat in the wider surrounding area is considered sub-optimal for Hazel Dormice. No hazel dormouse evidence was recorded on-site or within the surrounding area, and no hazel was present on site. The presence of dormice is therefore considered to be unlikely within the works footprint. If evidence of Dormice is discovered at any time during the project, works will cease, and the project ecologist will be contacted.</p> <p>No evidence of water voles or otters was noted during the ecological survey; however, access to the reën banks was restricted due to health and safety constraints. As a result, a fully comprehensive search could not be carried out. If any works proposals require working within 5m of the reën, a survey for these species is likely to be required. If water voles are confirmed to be present, then a licence will be required from NRW.</p> |
| <b>Invasive Species (INNS)</b>    | <p>Stands of hogweed were noted during the survey. Awareness amongst the operatives working on site is essential in managing any invasive species on site. Toolbox talks will be given to all operatives to be working on site, addressing how to identify the plants, and the correct actions to take should a new suspected invasive species be located.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Pollution Control Measures</b> | <p>During the drainage process of the works, measures must be implemented to ensure that silt pollution and other drainage impacts are mitigated. No drainage should occur into or in the direction of the reën.</p> <p>It must be ensured that any surface run-off, soil and debris from plant and machinery does not end up in the adjacent reën. All drainage on the site must take any potential run-off away from the reën.</p> <p>Due to the proximity of the works site to a SSSI, Natural Resources Wales should be consulted to check whether any additional assessments or permits are required.</p> <p>Toolbox talks can be used to inform personnel undertaking works on the correct site protocol with regards to refuelling and general site behaviour (i.e. <b>No refuelling on site, all equipment stored on spill nappies, no night works and no materials to be left on site</b>).</p>                                                                                                                                                                                                                                                                                                                                                                                                                                    |



## 2 INTRODUCTION

---

### 2.1 PROJECT BACKGROUND

---

- 2.1.1 EcoVigour Ltd was instructed to undertake a Preliminary Ecological Appraisal (PEA) of SGM Wastes, waste management site located on Sluice Farm, Broadstreet Common, Cardiff, to assess the ecological constraints associated with the change of use of the site to an Inert, Domestic, Commercial and Industrial Waste Management facility.
- 2.1.2 The objectives for the survey were:
- ◆ To undertake an ecological assessment of the site;
  - ◆ To identify ecological features within the site that could pose a constraint to the proposed works;
  - ◆ To identify opportunities for incorporating biodiversity enhancements into the development proposals;
  - ◆ To assess the site's potential to support protected species and make recommendations for further survey, where required to clarify potential ecological constraints;
  - ◆ To make recommendations for any valuable habitats to be considered, through retention or enhancement, or if this is not possible, by habitat mitigation or compensation;
  - ◆ To identify the presence of any invasive non-native species on site.
- 2.1.3 The ecological report has been prepared in accordance with the Chartered Institute of Ecology and Environmental Management (CIEEM) guidance document 'Guidelines for Preliminary Ecological Appraisal - Second Edition' (CIEEM, 2017). The objective of the report is to provide a preliminary ecological assessment of the site based on the currently anticipated design.
- 2.1.4 An initial ecological overview of the site is provided and potential ecological constraints and impacts of the current proposals are assessed. Recommendations for further surveys are provided where necessary.

### 2.2 SURVEY AREA DESCRIPTION

---

- 2.2.1 The site is located approximately 2km to the southeast of Trowbridge, Rumney. The survey area comprises an area of previously developed land, bordered by rural grassland habitat on all sides. Tarwick Reen is situated within 20m of the sites western boundary. The site is also situated within the Rhymney and Peterstone SSSI; despite the exclusion of the pre-developed land from the SSSI designation, some areas within the works site will abut the surrounding SSSI (this adjoining land has previously been used for agriculture, most recently the grazing of horses). The on-site habitat largely comprises semi-improved grassland, ruderal vegetation along the edge of Tarwick Reen, hard standing and bare ground. It is currently used as a waste management and disposal site, under a Waste Exemption, with plans to expand on the current usage.
- 2.2.2 Multiple plant species typical of the on-site habitat were noted during the ecological survey. These included but were not limited to: Bramble (*Rubus fruticosus agg.*), Yorkshire fog (*holcus lanatus*), Perennial rye-grass (*Iolium perenne*), Creeping buttercup (*Ranunculus repens*), Broad-leaved dock (*Rumex obtusifolius*), Dandelion (*Taraxacum officinalis agg.*), Bird's-foot clover (*Trifolium ornithopodioides*), Common nettle (*Urtica dioica*), and Ivy-leaved speedwell (*Veronica hederifolia*).
- 2.2.3 The approximate survey location is illustrated below:



**Figure 1: Approximate Survey Location.**

## 2.3 WORKS REQUIRED

### 2.3.1 The proposed works will broadly involve:

- ◆ The movement of existing soil bunds to expand the waste compound.
- ◆ The concreting of bare ground to create new hard standing areas.
- ◆ The construction of a covered area for the processing of waste.
- ◆ The construction of an attenuation pond.
- ◆ Drainage works, including the installation of a full retention hydrocarbon separator.
- ◆ Associated works to facilitate the expansion.



### 3 METHODOLOGY

---

#### 3.1 DESK STUDY

---

3.1.1 A desk study was conducted to assist with the overall site assessment. In terms of in-situ features, Statutory Designated Sites within 2km, non-statutory designated sites within 2km, Ancient Semi Natural Woodland (ASNW) within 500m and recorded species within 2km of the project boundary was requested. Broad habitat boundaries and types were identified from online aerial imagery.

3.1.2 The relevance of the reasons for designation of the protected sites within 2km of the site boundary has been considered during subsequent assessment of whether the proposed works will have any impact upon the biological integrity of such sites.

The desk study also included the following sources:

- ◆ Online aerial imagery resources;
- ◆ Joint Nature Conservation Committee (JNCC) and
- ◆ A review of OS mapping for waterbodies within 250-500 metres of the site.
- ◆ Data Search – Ref: 0245-685

3.1.3 Note: Records outlined below are not for the public domain and should not be forwarded to unauthorised third parties. The records below are intended for project purposes only.

#### 3.2 WALKOVER SURVEY

---

3.2.1 The walkover was conducted by Charley Kennedy (Junior Ecologist for EcoVigour Ltd) on 9<sup>th</sup> December 2024. The survey was conducted using methods outlined in the Joint Nature Conservation Committee (JNCC)'s 'Handbook for Phase 1 Habitat Survey – A Technique for Environmental Audit' (JNCC, 2010). The survey consisted of a visual survey of the site, identifying the broad habitat types present, identifying the suitability of the site to support protected and priority species.

3.2.2 Incidental observations of protected and/or priority species and the potential for such species to occur on site (and in the surrounding landscape where relevant) were also noted, however no specific protected/priority species surveys were undertaken as part of this preliminary ecological assessment. A search for plant species as included in Schedule 9 of the Wildlife and Countryside Act (1981) as amended, was made during the survey. Under the Act it is an offence to spread, or cause the spread of, these species.

#### 3.3 LIMITATIONS

---

3.3.1 Third party biological records do not represent a full species list for the area. The absence of records does not necessarily indicate absence of a species or habitat but rather that these have not been recorded or are perhaps under-recorded within the search area. The results of the survey and assessment undertaken by EcoVigour Ltd are representative at the time of survey.

3.3.2 This document does not contain a comprehensive list of botanical species on site with only plant species characteristic of each habitat and any incidental observations of notable plant species recorded. In addition, many plant species are only evident at certain times of the year; therefore, some plant species may have been undetected. No targeted ecological surveys were undertaken as part of this assessment to determine the presence of specific species.



## 4 RESULTS

### 4.1 DESIGNATED SITES

- 4.1.1 There are two statutory designated sites within 2km of the site boundary. The Severn Estuary is a designated SSSI, RAMSAR, SPA and SAC, situated approximately 205m to the south of the works site. The Severn Estuary is designated for its large tidal range, impacting the physical environment and biological communities present within the estuary. The estuary also features unusual estuarine communities, reduced species diversity and high productivity levels, and is particularly important for migratory fish and birds.
- 4.1.2 The works site encroaches on the Gwent Levels (Rhymney and Peterstone) SSSI, which surrounds the site on all sides. The Gwent Levels are designated for their high biodiversity levels, rare species and communities, many of which are entirely absent in other UK Levels systems. They are also designated for their aquatic invertebrate fauna and important plant species.

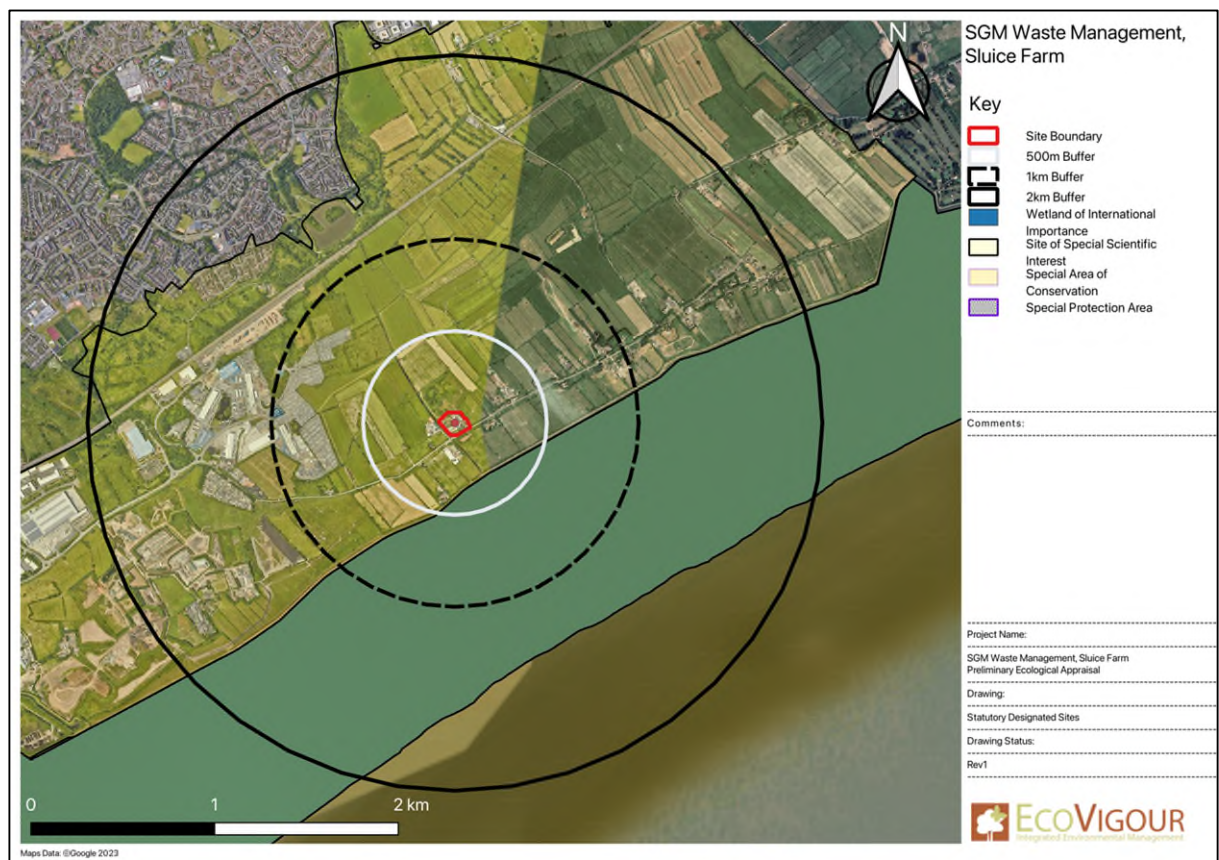
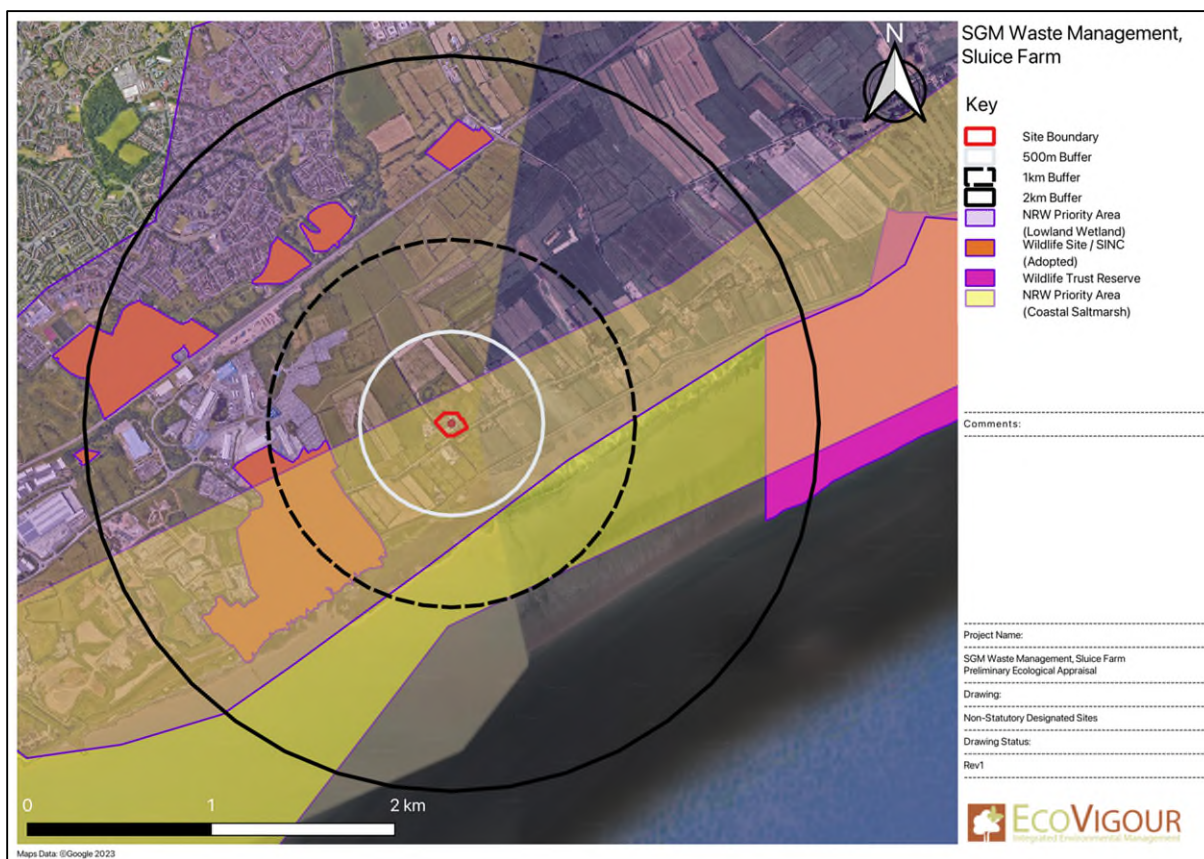


Figure 2: Statutory Designated Sites Within 2km

- 4.1.3 There are 9 non-statutory designated sites present within 2km of the works site. These are outlined in the table below:

Table 2: Non-Statutory Designated Sites within 2km

| Site Name                      | Designation                    | Distance from Works (m) |
|--------------------------------|--------------------------------|-------------------------|
| South Wales B-Lines            | B-Lines                        | 0                       |
| Saltmarsh Priority Area        | NRW Priority Coastal Saltmarsh | 0                       |
| Wentlooge Levels Grazing Marsh | NRW Priority Lowland Wetland   | 0                       |
| Marshfield                     | Adopted SINC                   | 1,326                   |
| Hendre Lake West               | Adopted SINC                   | 1,121                   |
| Hendre Road                    | Adopted SINC                   | 1,328                   |
| Hendre Lake                    | Adopted SINC                   | 1,103                   |
| Rumney Great Wharf             | Adopted SINC                   | 590                     |
| Peterstone Wentlooge           | Wildlife Trust Reserve         | 1,650                   |



**Figure 3: Non-Statutory Designated Sites Within 2km**

## 4.2 ANCIENT WOODLANDS & TREE PRESERVATION ORDERS (TPO's)

4.2.1 There are no ancient woodland sites situated within 2km of the works site.

## 4.3 WATERCOURSE AND WATERBODIES

- 4.3.1 There are two known watercourses within 500m of the work site available via OS Mapping information. The Rhosog Fawr Reen runs through the southern boundary of the works site, and Tarwick Reen is present approximately 8m to the west. Both of these reen systems feed into the Severn Estuary SSSI; therefore, extreme care must be taken to ensure that no adverse impacts to these watercourses are caused as a result of the works. Precautionary measures will be required to prevent any pollution or damage to the integrity of the surrounding SSSI sites.
- 4.3.2 The limits of the field study and desktop study cannot account for potential ephemeral ponds within a 500m proximity of the works.



**Figure 4: Local Watercourses and Waterbodies.**

#### 4.4 SURVEY FIGURES

- 4.4.1 The figures below/overleaf provide a visual summary of the walkover. This is not an extensive collection of the images collected from the survey. Additional images are available upon request.



**Figure 5: Soil Bunds.**



**Figure 6: Spoil Piles.**



***Figure 7: Vegetation Along Reen Bank.***



***Figure 8: Semi-Improved Grassland***



***Figure 9: Bare Ground Proposed for Concreting.***



***Figure 10: Bankside Vegetation (Southwestern Boundary).***



***Figure 11: Reen on the Southwestern Boundary.***



***Figure 13: Dense Scrub and Grassland Habitat.***



***Figure 12: Scrub Habitat with Scattered Trees.***



***Figure 13: Example of Structures On Site.***



## 4.5 COMBINED FIELD SURVEY AND DATA SUMMARY

---

### Habitat

- 4.5.1 A full updated Phase I survey of the entire survey area has not been undertaken to date.
- 4.5.2 The site largely comprises bare ground and hard standing, with patches of scrub and semi-improved grassland. Scrub and small tree are present around the sites eastern and western boundaries. The site is currently used for waste management, with high levels of disturbance occurring. Multiple spoil piles are present throughout the central area of the site, largely comprising rubble and concrete, and soil bunds are also frequent throughout the site. The habitat at the northern extent of the site comprises bramble scrub, with a large patch of grassland present to the north-east. Some mature trees are present on-site, however no features with potential for supporting bat species were noted.
- 4.5.3 The reens to the south-west and south-east of the site are bordered by bramble scrub and dense vegetation. Multiple grass species were noted along the reen banks; however, due to health and safety constraints, the bankside vegetation could not be closely inspected.

### Bird Species

- 4.5.4 Multiple records of birds were returned by SEWBRc within 2km of the development site. 102 “Priority Species” were returned, including peregrine (*Falco peregrinus*), kestrel (*Falco tinnunculus*), red kite (*Milvus milvus*), and barn owl (*Tyto alba*). 63 “Species of Conservation Concern” were also returned, including sand martin (*Riparia riparia*), wigeon (*Mareca penelope*), goldcrest (*Regulus regulus*) and mistle thrush (*Turdus viscivorus*). 13 “Locally Important Species” were returned, including jackdaw (*Coloeus monedula*), barnacle goose (*Branta leucopsis*) and wren (*Troglodytes troglodytes*).
- 4.5.5 No active nests were observed during the ecological walkover survey. The vegetated areas throughout the site feature very dense bramble coverage, which provide suitable nesting habitat for a number of ground-nesting species. The semi-mature trees present on site also feature suitable habitat for nesting bird species.

### Amphibian and Reptile Species

- 4.5.6 17 records of amphibian species were identified within 2km of the site. The closest of these records was submitted in 1998, approximately 864m from the works site; this comprises two adult single common frogs (*Rana temporaria*). No records were returned within 500m of the works site. Additional records within 2km of the site include common toads (*Bufo bufo*), smooth newt (*Lissotriton vulgaris*), and palmate newt (*Lissotriton helveticus*).
- 4.5.7 No records of Great Crested Newts (GCN) (*Triturus cristatus*) were returned within 2km of the works site.
- 4.5.8 9 records of reptiles were returned within 2km of the works site; the closest of these records comprises a grass snake approximately 1.2km away. The most recent record of a reptile was submitted in 2022 and comprises a grass snake. Additional records within 2km include adder (*Vipera berus*), slow-worm (*Anguis fragilis*), and common lizard (*Zootoca vivipara*). No records of reptile species have been returned within 500m of the works site.
- 4.5.9 No evidence of reptiles or amphibians was found during the survey. The habitats on-site and surrounding the survey area was assessed as “highly optimal” for supporting amphibian species due to the saturated nature of the ground and proximity of the site to reen habitats. The site has been assessed as optimal for supporting reptile species due to the presence of suitable refugia and basking areas on site and in the surrounding areas.

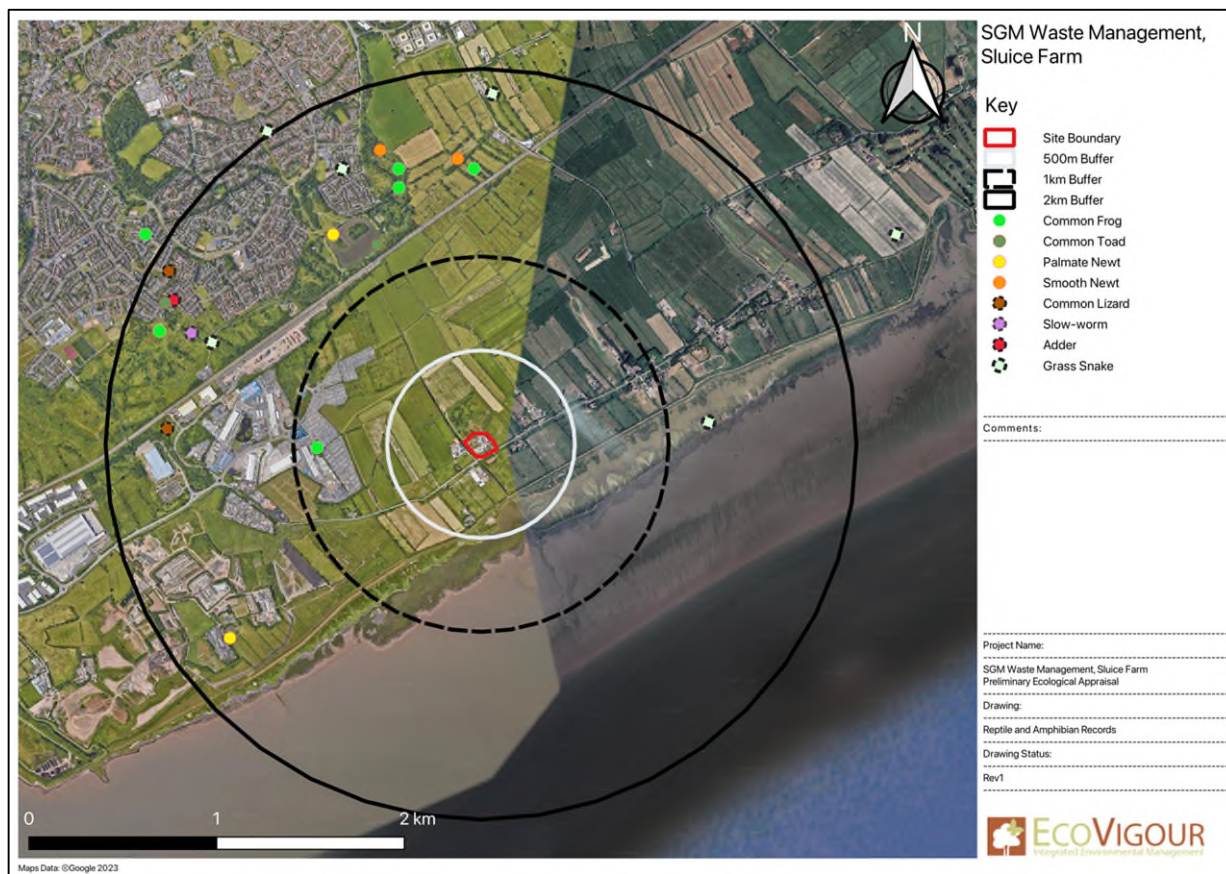


Figure 14: Reptile and Amphibian records.

## Bat Species

- 4.5.10 The surrounding habitat has potential to be utilised by foraging and commuting bats. Bats will utilise the linear features surrounding the site, including the reed and surrounding fields; however, there is no continuous treeline habitat to provide suitable coverage for bats to use whilst commuting. The environment surrounding the works sites is largely rural, with low levels of artificial lighting present within a 1km radius of the sites.
- 4.5.11 The structures present on site were surveyed for their potential to support roosting bat species. All structures are subject to high levels of disturbance. No voids are present in the structures, therefore there is negligible potential for the site to support void-dwelling species. Furthermore, the structures predominantly comprise large metal storage containers and thermally unsuitable materials, further reducing the sites overall suitability to support roosting bats.
- 4.5.12 The trees present within the site have been assessed as having negligible potential for roosting bats due to a lack of potential roosting features (PRFs) identified during the survey. No wounds, broken limbs or holes were noted on the surrounding trees.
- 4.5.13 40 records of bat species were returned by SEWBREC within 2km of the works site. The closest of these records comprised noctule (*Nyctalus noctule*) and a soprano pipistrelle (*Pipistrellus pygmaeus*) roost, approximately 1.3km from the site. No records were returned within 1km of the site. Additional species returned include brown long-eared bat (*Plecotus auritus*), common pipistrelle (*Pipistrellus pipistrellus*), Daubenton's bat (*Myotis daubentonii*), greater horseshoe bat (*Rhinolophus ferrumequinum*), lesser horseshoe bat (*Rhinolophus hipposideros*), Nathusius's pipistrelle (*Pipistrellus nathusii*), noctule (*Nyctalus noctula*) and whiskered bat (*Myotis mystacinus*), as well as multiple records of unidentified bat species.



### Marsh Fritillary

- 4.5.14 No records of Marsh Fritillary were returned by SEWBREC within 2km of the works site. No scabious species were recorded on site during the survey, therefore the works site and its surrounding environment is considered to be sub-optimal to support Marsh Fritillary.

### Invasive Non-Native Species

- 4.5.15 Stands of hogweed were noted throughout the site during the survey. The Wildlife and Countryside Act 1981 (as amended) lists this species on Schedule 9, Section 14, meaning it is an offence to cause hogweed to grow in the wild in England and Wales. Care must therefore be taken to ensure this species is appropriately removed from the works areas.

### Terrestrial Mammal Species

- 4.5.16 One record of hazel dormouse (*Muscardinus avellanarius*) was returned within 2km of the works site; this was recorded 1.45km from the works site in 2022. A further two records were returned within 2.5km of the works site in 2017 and 2018. No evidence of hazel dormouse was recorded within the footprint of the works during the ecological walkover, and no hazel was noted on site. Habitats on site were sub-optimal with limited species and areas and a lack of connectivity to suitable habitat.
- 4.5.17 One record of a badger (*Meles meles*) was returned within 2km of the works site; this was submitted in 2001, approximately 1.8km from the site. The closest terrestrial mammal record to the works site comprises two American minks (*Neovison vison*), recorded approximately 273m from the site in 1971. The most recent records were submitted in 2023, comprising two water voles (*Arvicola amphibius*) approximately 1.2km from the works site and two American minks approximately 1.3km from the works site. 7 records of otter (*Lutra lutra*) and associated field signs were returned by SEWBREC; the closest of these was returned approximately 825m from the works site in 2006.
- 4.5.18 Additional species returned by SEWBREC include common shrew (*Sorex Araneus*), grey squirrel (*Sciurus carolinensis*), hare (*Lepus europaeus*), hedgehog (*Erinaceus europaeus*), stoat (*Mustela erminea*) and weasel (*Mustela nivalis*).



Figure 15: Mammal records

## 5 ASSESSMENT AND RECOMMENDATIONS

This section provides a broad assessment of the information gathered and scopes out potential ecological vectors before remaining considerations and actions are proposed in the following recommendations and opportunities sections below.

### 5.1 DESIGNATED SITES

- 5.1.1 The site lies within the influence of multiple statutory designated sites, including the Severn Estuary SSSI, RAMSAR, SPA and SAC, and the Gwent Levels SSSI, which surrounds the site on all sides. It also encroaches on three non-statutory designated sites, including the South Wales B-Lines, a saltmarsh priority area and the Wentlooge Levels grazing marsh. As a result of this, the works must be carried out using methodology that will not compromise the integrity of the surrounding designated sites.
- 5.1.2 The Rhosog Fawr Reen runs through the southern boundary of the works site, and Tarwick Reen is present approximately 8m to the west. Both of these reen systems feed into the Severn Estuary SSSI; therefore, extreme care must be taken to ensure that no adverse impacts to these watercourses are caused as a result of the works. Precautionary measures will be required to prevent any pollution or damage to the integrity of the surrounding SSSI sites, and all water drained during the works process must be drained away from the SSSI. Suitable pollution control / water treatment measures will be required to ensure, pollution of the surrounding reens does not occur.



## 5.2 HABITATS

---

- 5.2.1 The site largely comprises bare ground and hard standing, with patches of scrub and semi-improved grassland. There are The site is currently used for waste management, with high levels of disturbance occurring. Multiple spoil piles are present throughout the central area of the site, largely comprising rubble and slate tiles, and soil bunds are also frequent throughout the site. The habitat at the northern extent of the site comprises bramble scrub, with a large patch of grassland present to the north-east. Some mature trees are present on-site, however no features with potential for supporting bat species were noted. Small areas of hogweed were noted throughout the scrub habitat.
- 5.2.2 De-vegetation works will likely be required within the site during the works duration. Any habitat proposed for clearance should be checked by a supervising ecologist prior to the commencement of works in order to ensure no protected or notable species are adversely affected during the works.

## 5.3 BIRD SPECIES

---

- 5.3.1 Potential nesting bird habitat was identified on site. Should vegetation clearance be required in these areas, this should be carried out outside of the main bird breeding season i.e. undertaken between September and February. If this is not feasible, and proposed works are scheduled within the nesting season, any vegetation scheduled to be removed must be checked by an ecologist for active nests no more than 48 hours prior to the start of works.
- 5.3.2 Works are proposed to occur outside of the nesting season, however due to the dense nature of the scrub habitat to the north of the site, disturbance to birds is possible. If active nests are discovered, a suitable buffer zone will be installed around the nest, this buffer zone will be decided by an ecologist taking species and vegetation density into consideration. A minimum 5m buffer zone should be established around the nest(s) and no de-vegetation or other heavy machinery work should be carried out within the buffer zone(s) until it is confirmed that the nest(s) is completed and that the young have fledged.
- 5.3.3 The Wildlife and Countryside Act 1981 (as amended) is the principal legislation affording protection to UK wild birds. All birds, their nest and eggs are protected by law under this legislation, it is an offence (with certain exceptions), to recklessly or intentionally:
- ◆ Intentionally kill, injure or take any wild bird.
  - ◆ Intentionally take, damage or destroy the nest of any wild bird while it is in use or being built.
  - ◆ Intentionally take or destroy the egg of any wild bird.
  - ◆ Intentionally or recklessly disturb any wild bird listed on Schedule 1 while it is nest building, or at a nest containing eggs or young, or disturb the dependent young of such a bird.
- 5.3.4 **Note:** Nesting birds found outside of nesting season are protected by the same level of protection as that within the standard nesting period.

## 5.4 BAT SPECIES

---

- 5.4.1 All British bats and any place used for shelter or protection, or breeding site or resting place (their roosts) are fully protected by law under the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2017 (as amended).
- 5.4.2 Together these protect bats from:
- ◆ Selling, offering for sale, possessing or transporting for the purpose of the sale or publishing advertisements to buy or sell a protected species.
  - ◆ Deliberate, intentional or reckless killing, injury or taking of bats.



- ◆ Damage to or destruction of or, obstruction of access to any place of shelter, breeding (roost) or rest.
- ◆ Disturbance of an animal occupying a structure or place.
- ◆ The deliberate disturbance of any bat species in such a way as to be significantly likely to affect;
  - their ability to survive, hibernate, migrate, breed, or rear or nurture their young; or
  - the local distribution or abundance of that species.

5.4.3 The site has potential to be utilised by foraging and commuting bats. The surrounding environment is suitable for both foraging and commuting activity; this is further reinforced by the watercourses present along south-eastern and south-western the site boundaries. Therefore, the presence of bats within the site is possible.

5.4.4 The site features no suitable roosting locations for bat species. The trees have no notable features with potential to support roosting bats. No suitable cracks or wounds were noted on the trees, and no suitable locations for void-dwelling or direct-access species are present on site. The thermal properties and high levels of disturbance experienced by the structures on site further reduce any potential for roosting bats.

## 5.5 REPTILES & AMPHIBIANS

---

5.5.1 The presence of reptiles and amphibians was not visually confirmed during the ecological assessment (presence or absence surveys have not been undertaken) and there are no historic records within the footprint of the works; however, amphibian records do exist within 500m of the site. The site is also bordered by two reens, which provide favourable habitat conditions for amphibian species. It is therefore highly likely that amphibians are utilising the works sites.

5.5.2 Reptiles and amphibians may be found in the environment surrounding the site. If, during the works, a reptile is found, **works will stop (this is a legal requirement)** and the project ecologist will be contacted. To aid accurate species identification, a photograph of the animal should be taken and sent to the project ecologist.

5.5.3 Care must be taken to avoid killing or injuring reptiles & amphibians. All commonly occurring reptile species (common lizard, slow worm, grass snake and adder) are protected by UK law, making it an offence to injure or kill them. Care must be taken to avoid killing or injuring reptiles & amphibians. All reptile species are partially protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). This legislation protects reptiles from:

- ◆ Reckless or intentional killing and injury.
- ◆ Selling, offering for sale, possessing or transporting for the purpose of the sale or publishing advertisements to buy or sell a protected species.

5.5.4 Where these animals are confirmed as present on land that is to be affected by development, guidance recommends that:

- ◆ The animals should be protected from injury or killing during construction operations;
- ◆ Mitigation should be provided to maintain the conservation status of the species locally.
- ◆ If any injured reptiles are found during the works on site, these will be carefully placed into a clean bucket containing some vegetation and covered over in a quiet place away from the works and an ecologist or local wildlife hospital must be contacted immediately.

5.5.5 If any non-protected amphibian species are found during the works, then these will be moved to safety by the supervising ecologist.



## 5.6 GREAT CRESTED NEWT

---

- 5.6.1 There was no evidence of GCN found on site during the survey, and no records of great crested newts were found within 2km of the survey site. It is therefore highly unlikely that GCN are utilising the sites or the surrounding area during the aquatic or terrestrial stages of their lifecycle.
- 5.6.2 As a European Protected Species (EPS), GCN receive full protection under the Wildlife and Countryside Act 1981 (as amended), the 2017 Conservation and Species Regulations (as amended) and the Countryside and Rights of Way Act (CROW) 2000, which make it illegal to:
- ◆ Sell, offer for sale, possess, advertise, or transport for the purpose of sale;
  - ◆ Intentionally or deliberately capture, injure, or kill GCN;
  - ◆ Deliberately disturb GCN;
  - ◆ Damage or destroy a breeding site or resting place;
  - ◆ Intentionally or recklessly disturb GCN from, or damage, destroy or obstruct access to, a place used for shelter or protection.

## 5.7 TERRESTRIAL MAMMAL SPECIES

---

- 5.7.1 The Wild Mammals Protection Act (1996) makes it an offence to crush or asphyxiate any wild mammal. This may apply during site clearance works, particularly where small mammals such as hedgehog, rabbit and fox are present, as such animals could be crushed or asphyxiated in their burrows or nests by heavy machinery.

### European Badger

- 5.7.2 The Protection of Badgers Act 1992 (as amended) is the main legislation protecting badgers and their habitat in the United Kingdom. Under the Act it is illegal to:-
- ◆ Wilfully kill, injure or take a badger or attempt to do so.
  - ◆ Cruelly ill-treat a badger.
  - ◆ Interfere with a sett by doing any of the following:
    - (i) damage a badger sett or any part of it,
    - (ii) destroy a badger sett,
    - (iii) obstruct access to a badger sett,
    - (iv) cause a dog to enter a sett,
    - (v) disturb a badger while it is occupying a sett,

- 5.7.1 No features pertaining to badgers were noted during the survey, however one record of a badger was returned within 2km of the works site. The surrounding habitat is considered sub-optimal to support badger species due to the saturated nature of the ground and high levels of disturbance. It is therefore considered unlikely that there are badgers in the wider area. Despite this, best practice is to be employed during works, particularly night works (although these are not envisaged).

### Hazel Dormice

- 5.7.3 The habitat in the wider surrounding area is considered sub-optimal for Hazel Dormice, with only one dormouse record returned within 1km of the works site. No hazel dormouse evidence was recorded on-site or within the surrounding area, and no hazel was present on site. The presence of dormice is therefore considered to be unlikely within the works footprint.
- 5.7.2 If evidence of Dormice is discovered at any time during the project, works will cease, and the project ecologist will be contacted.
- 5.7.4 Dormice are designated and protected as European protected species (EPS). EPS are protected under the Conservation of Habitats and Species Regulations 2017.



It is an offence to:

- ◆ deliberately kill, injure, disturb or capture them,
- ◆ damage or destroy their breeding sites and resting places - even if otters are not present,
- ◆ possess, control or transport them (alive or dead).

It is also an offence under the Wildlife and Countryside Act 1981 to intentionally or recklessly:

- ◆ disturb dormice while they occupy a structure or place used for shelter or protection,
- ◆ obstruct access to a place of shelter or protection.

#### Water Voles

- 5.7.3 No evidence of water voles was noted during the ecological survey; however, access to the reen banks was restricted due to health and safety constraints. As a result, a fully comprehensive search could not be carried out. Two records of water voles were returned approximately 1.2km from the works, therefore the presence of this species within the surrounding reens cannot be entirely ruled out.
- 5.7.4 Water voles are fully protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) which prohibits the deliberate killing or injury of individuals, damaging, destroying or blocking access to their places of protection (either intentionally or through ignorance), disturbing them in a place of shelter, or possessing them. The habitats of common water voles are not specifically protected. Water voles are listed as a priority species in Wales under Section 7 of the Environment (Wales) Act 2016.
- 5.7.5 If any works proposals require working within 5m of the reen, a survey for this species is likely to be required. If water voles are confirmed to be present, then a licence will be required from NRW.

#### Otter

- 5.7.6 Records of otter (*Lutra lutra*) and associated field signs were returned by SEWBREC within 2km of the works site; the closest of these was returned approximately 825m from the site in 2006. Due to the proximity of the works site to these records, as well as the presence of the reens along the site boundaries, the presence of otter in the surrounding area cannot be ruled out.
- 5.7.7 Otters are a 'European Protected Species'. Their breeding sites or resting places are fully protected under UK legislation. Otter is a priority species in Wales Under Section 7 of the Environment (Wales) Act 2016. Should the proposed works disturb or encroach on potential otter habitat, precautionary measures and further surveys will be required.

#### **5.8 INVASIVE SPECIES**

---

- 5.8.1 Stands of hogweed were noted during the survey. Awareness amongst the operatives working on site is essential in managing any invasive species on site. Toolbox talks will be given to all operatives to be working on site, addressing how to identify the plants, and the correct actions to take should a new suspected invasive species be located.
- 5.8.2 Should any additional Schedule 9 species be identified during the works, precautionary measures must be taken to prevent the spread of these species during the works.



## 5.9 POLLUTION CONTROL AND DRAINAGE

---

### Pollution Control

- 5.9.1 All works will be conducted in line with industry standard best practice, Guidance for Pollution Prevention (GPPs). This includes:
- ◆ Any chemicals required will be stored in designated places and banded to prevent leakages;
  - ◆ Spill kits will be on site to deal with any leakage of fuel, wet concrete or chemicals;
  - ◆ Vehicles will be inspected regularly to identify leaks and fuelling will be carried out off site;
  - ◆ On completion of the works the working area will be reinstated on a like-for-like basis.
- 5.9.2 During the drainage process of the works, measures must be implemented to ensure that silt pollution and other drainage impacts are mitigated. No drainage should occur into or in the direction of the reens.
- 5.9.3 It must be ensured that any surface run-off, soil and debris from plant and machinery does not end up on the adjacent reens. All drainage on the site must take any potential run-off away from the reens.
- 5.9.4 Due to the proximity of the works site to a SSSI, Natural Resources Wales should be consulted to check whether any additional assessments or permits are required.
- 5.9.5 Toolbox talks can be used to inform personnel undertaking works on the correct site protocol with regards to refuelling and general site behaviour (**i.e. No refuelling on site, all equipment stored on spill nappies, no night works and no materials to be left on site**).



## 6 REFERENCES

---

CIEEM (2017). *Guidelines for Preliminary Ecological Appraisal – Second Edition*.

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

*Conservation of Habitats and Species Regulations 2017*. [online] :  
<http://www.legislation.gov.uk/uksi/2017/1012/contents/made> [Accessed 08.2022].

*Environmental Protection Act 1990*. [online] Available at: <http://www.legislation.gov.uk/ukpga/1990/43/contents> [Accessed 08.2022].

*Environment (Wales) Act 2016*. [online] Available at: <http://www.legislation.gov.uk/anaw/2016/3/contents/enacted> [Accessed 08.2022].

English Nature (2004). *Reptiles: Guidelines for Developers*. Published by English Nature.

Environment Agency (2006). *The knotweed code of practice – Managing Japanese knotweed on development sites*.

Environmental Permitting (England and Wales) Regulations 2007. Environmental Protection (Duty of Care) Regulations 1991.

Google Maps (<https://www.google.co.uk/maps>) – accessed 08/2022

Joint Nature Conservation Committee (2010). *Handbook for Phase 1 Habitat Survey; A Technique for Environmental Audit*.

*Ordnance Survey Maps (2021)*. [online] Available at: <https://osmaps.ordnancesurvey.co.uk/> [Accessed 08 2022].

*Protection of Badgers Act 1992*. [online] Available at: <http://www.legislation.gov.uk/ukpga/1992/51/contents> [Accessed 08 2022].

*Wildlife and Countryside Act 1981*. [online] <http://www.legislation.gov.uk/ukpga/1981/69/contents> [Accessed 08 2022].

Institute for Ecology and Environmental Management (2012). *Guidelines for Preliminary Ecological Appraisal*.

<https://jncc.gov.uk>

Joint Nature Conservation Committee (2010) *Handbook for Phase 1 Habitat Survey - A Technique for Environmental Audit*, Revised print, Joint Nature Conservation Committee, Peterborough.

Rose, F. (1991). *The Wild Flower Key*. British Isles - N. W. Europe. Published by the Penguin Group. Penguin Books Ltd.

Stace, C. (2010). *New Flora of the British Isles* (third edition). Cambridge University Press.