ISSUING OFFICE:
Britannia House
Caerphilly Business Park
Van Road
Caerphilly
CF83 3GG

T: 01453 367450
E: info@wildwoodecology.com

ECOLOGICAL IMPACT ASSESSMENT

RHONDDA FACH TRAVEL ROUTE – PHASE 3

RHONDDA CYNON TAF COUNTY BOROUGH COUNCIL

DOCUMENT REF: WWE22181 P3 ECIA_FINAL | 04/12/2023

Client:	Rhondda Cynon Taf County Borough Council
Site/Job:	Rhondda Fach Travel Route – Phase 3
Report title:	Ecological Impact Assessment
Report reference:	WWE22181 P3 EcIA_FINAL

Grid Reference:	SS 97936 98042
Survey date(s):	Various, see main text
Surveyed by:	Various, see main text

VERSIONING AND QUALITY ASSURANCE

Status	Date	Author	Reviewed by	Approved by
Draft	30/11/2023	Jenny O'Neill Consultant Ecologist	Dr Mererid Howells MCIEEM CEnv	Dr Mererid Howells MCIEEM CEnv
Draft Rev B	04/12/2023	Jenny O'Neill Consultant Ecologist		
Final	04/12/2023	Jenny O'Neill Consultant Ecologist		

DISCLAIMER

This document has been prepared by Wildwood Ecology Limited for Rhondda Cynon Taf County Borough Council solely as an Ecological Impact Assessment. Wildwood Ecology Limited accepts no responsibility or liability for any use that is made of this document other than by the client for the purposes for which it was originally commissioned and prepared.

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

SUMMARY

Purpose
• Wildwood Ecology was commissioned by Rhondda Cynon Taf County Borough Council (the client) to undertake an Ecological Impact Assessment (EcIA) at Rhondda Fach Travel Route – Phase 3. • The site is the subject to plans to construct a section of the new Rhondda Fach Active Travel Route from residential areas at Blake Street and Richard Street to Maerdy north bridge.
Work undertaken
• A PEA was carried out of the full route in January 2022 consisting of an extended Phase 1 Habitat Survey. A previous PEA was carried out in January, March, and April 2019 of the full route. A walkover of Phase 3 was carried out in October 2023 to assess in further detail with comprehensive plans available. • All PEA surveys followed the Chartered Institute of Ecology and Environmental Management (CIEEM) Preliminary Ecological Appraisal (2017) guidelines and standard Phase 1 Habitat Survey protocol (JNCC, 2010). • A desk study was undertaken January 2019 and updated in May 2023. • A ground-level tree assessment was carried out in October 2023. • A badger visual survey was carried out along the full route in September 2023. • An otter survey was carried out at Phase 1, 2 & 3 in May 2023 and at Phase 4 and 5 in September 2023. • A great crested newt (GCN) habitat suitability index was carried out on suitable waterbodies in across the full route in May 2023 • eDNA testing for GCN was carried out on suitable waterbodies along the full route in June 2023. • An invasive species walkover was undertaken along the full route in September 2023.

Key Constraints

• The proposed development would result in impacts on the following designated sites, habitats, and protected species:
  ◦ **Designated sites**: Taff and Rhondda Rivers SINC.
  ◦ **Priority habitats**: River, lowland heathland, lowland dry acid grassland, broad-leaved woodland.
  ◦ **Species**: Amphibians, badger, bats – commuting and foraging, birds, fish, hazel dormouse hedgehog, invertebrates, otter, and reptiles.

Requirements
• A CEMP and PWMS will be required to detail pollution prevention controls to prevent impacts on the onsite designated sites, priority habitats, and protected species. • Mitigation and compensation measures for designated sites, habitats and species are detailed in Table 7, Section 5.
Conclusions
• Providing that the recommendations outlined in this report are implemented in full, the proposed development will adequately mitigate, compensate, and enhance the protected, priority and notable habitats and species within and adjacent to the site. • This ecological report will remain valid for a period of 18 months from the date of the last survey – i.e., until April 2025.

This report will remain valid for a maximum period of 18 months from the date of the last survey[1] - i.e. until December 2024. In the case of certain exceptions, data may only be valid for 12 months, examples include:

- Where a site may offer existing or new features which could be utilised by a mobile species within a short timeframe,
- Where a mobile species is present on site or in the wider area, and can create new features of relevance to the assessment,
- Where country-specific or species-specific guidance dictates otherwise.

Further surveys may be required to update the site information if planning is not obtained, or works do not commence within this time period.

[1] CIEEM (2019). *Advice Note: On the Lifespan of Ecological Reports and Surveys*. Chartered Institute for Ecology and Environmental Management, Winchester.

CONTENTS

List of figures

List of tables

1 INTRODUCTION

1.0 Wildwood Ecology was commissioned by Rhondda Cynon Taf County Borough Council (the client) to undertake an EcIA at Rhondda Fach Travel Route – Phase 3 (the site), centred at grid reference SS 97936 98042

Site description

1.1 The aerial image of the site (Figure 1) shows Phase 3 of the active travel route between Blake Street/Richard Street and Maerdy north bridge. The site consisted of habitats forming a mosaic of scrub, heathland, acid grassland, and woodland, with an existing path present alongside the Rhondda Fach River.

1.2 The wider landscape includes the river and river corridor, woodland blocks, open hillside and ffridd areas, along with areas of residential housing and other associated infrastructure.

Figure 1 – Aerial image of the site (dark pink dotted line shows Phase 3 section of route). Image used under licence (©2023 Google). Imagery date 20/07/2021.

Proposed development

1.3 The site is subject to plans to construct a section of the proposed route from residential areas at Blake Street and Richard Street to Maerdy north bridge, as part of the new Rhondda Fach Active Travel Route including:

- Clearance of vegetation and trees (scrub, heathland, grassland, immature/semi-mature trees);
- Engineering works to create an appropriate gradient for the access route;
- Excavation of topsoil and hard materials.
- Replacement bridge adjacent to the onsite pond (see Appendix III for preliminary design).

Purpose of this report

1.4 The purpose of this report is to provide sufficient information for the Local Planning Authority to fully assess the ecological impacts of the proposed development, or to identify what further information is required before a full assessment can be made.

1.5 The key objectives of this EcIA are to:

- identify the likely ecological constraints associated with the proposed development.
- identify mitigation measures likely to be required, following the 'Mitigation Hierarchy.'
- identify the opportunities for the proposed development to deliver ecological enhancement.

2 METHODOLOGY

2.0 This report has been informed by the following, with detailed methodology provided in Appendix I:

- Full desk study and records search – May 2023
- Phase 1 habitat survey – January 2022 (full route), October 2023 (walkover)
- Badger visual survey – September 2023
- GCN HSI – May 2023
- GCN eDNA – June 2023
- GLTA – October 2023
- Invasive species walkover - September 2023
- Otter survey – May 2023, September 2023

2.1 This report has been written in cognisance of the CIEEM Guidelines on: Ecological Report Writing (2017), Preliminary Ecological Appraisal (2017) and Ecological Impact Assessment (2018).

Desk study

2.2 A desk study was undertaken in relation to the wider site in May 2023, this is presented in a separate document (document reference: WWE22181 RFATR DESK STUDY_FINAL, 2023), which should be read in conjunction with this report.

2.3 A previous desk study was carried out by Wildwood Ecology in January 2019 (document reference: WWE19003 PEA REV A – Desk study report, 2019).

Scoping of HRA

2.4 The desk study included a screening of SACs within 25km of site and RAMSAR sites within 50km, along with assessment of associated negative pressure codes. Full details are provided within the separate desk study document (document reference: WWE22181 RFATR DESK STUDY_FINAL, 2023).

Limitations

2.5 A small section of semi-improved grassland was not accessible (fenced) during the survey. However, the habitat was clearly visible through the fence and with use of binoculars, and it is considered that a reasonable assessment of habitat could be made. This area is shown in the PEA map, Appendix II.

2.6 It was not possible to access Pond A during GCN eDNA surveys, which was assessed as being of good suitability for GCN during HSI assessment. The pond was located on private land, and it was not possible to gain access after the initial HSI survey due to a lack of contact from the landowner. However, as negative eDNA samples were taken at six other waterbodies across the site, along with a lack of records in the area, it is considered that a reasonable assessment of GCN presence/ absence can be made. Details of pond locations are shown in Appendix V.

2.7 During the badger survey, there were some limited areas where access was not possible due to either very dense vegetation, steep banks, or fenced areas. In these areas binoculars were used to check for mammal paths, gaps under fencing, or badger hairs on fencing in these areas and it is considered that a reasonable assessment of badger presence/ absence can be made. Details of inaccessible areas are shown in Appendix IV.

2.8 During the otter survey, there were areas where access was not possible due to either dense vegetation or steep riverbanks. In these areas binoculars were used to check for otter signs, and inspection of bankside vegetation made for paths leading from the river. The river is prone to high water levels and in the week leading up to the Phase 4 & 5 survey there was a period of high rainfall, which may have resulted in otter field signs being washed away. Despite limitations otter signs were found during surveys, and along with the optimal habitat present onsite, it is considered that a reasonable assessment of otter presence/ absence can be made. Details of inaccessible area are shown in Appendix VI.

3 RESULTS

Desk study

3.0 The separate desk study report (document reference: (document reference: WWE22181 RFATR DESK STUDY_FINAL, 2023) should be read in conjunction with this report and contains the relevant desk study results and recommendations.

Field survey

Timing and conditions

3.1 Prevailing weather conditions during the field surveys are summarised within Table 1.

Table 1 – Summary of weather conditions during the field surveys.

	Weather conditions			
	Temp [°C]	Cloud cover [Oktas]	Wind speed [Beaufort scale]	Rain
25/01/2022 PEA	3	8	1	Nil
17/10/2023 Phase 3 PEA walkover	10	3	2	Nil
17/10/2023 Phase 3 GLTA	10	3	2	Nil
12/05/2023 Otter survey Phase 1, 2 & 3	14	2	2	Nil
28/09/2023 Otter survey Phase 4 & 5	12	7	2	Nil
09/09/2023 Badger survey	22	1	1	Nil
24/05/2023 Invasives species walkover	13	8	2	Light drizzle
24/05/2023 HSI Phase 1 & 2	19	0	1	Nil
26/05/2023 HSI Phase 3, 4 & 5	17	1	1	Nil
08/06/2023 eDNA sampling	18	1	1	Nil
06/09/2023 Reptile Survey #1	18	1	1	Nil
11/09/2023 Reptile Survey #2	17	8	2	Nil
13/09/2023 Reptile Survey #3	13	2	2	Nil
15/09/2023 Reptile Survey #4	15	4	2	Nil
20/09/2023 Reptile Survey #5	15	8	3	Nil
21/09/2023 Reptile Survey #6	15	7	2	Nil
23/09/2023 Reptile Survey #7	11	0	1	Nil
24/09/2023 Reptile Survey #8	18	7	5	Nil

PEA

3.2 The site and adjacent areas were classified according to the following Phase 1 habitat types:

- A.1.1 Semi-natural, broad-leaved woodland
- A.1.3 Semi-natural, mixed woodland
- A2.1 Scrub (dense/continuous)
- B.1 Acid grassland
- B.6 Poor semi-improved grassland
- D.5 Dry heath/ acid grassland mosaic
- G1 Standing water
- G2 Running water

3.3 Table 2 sets out descriptions of the habitats present within the site using Phase 1 Survey habitat classification hierarchical alphanumeric reference codes.

3.4 The distribution and extent of habitats which were present within the site is illustrated in the extended Phase 1 habitat plan (Appendix II) along with the locations of the Target Notes. An accompanying full species list (including scientific names) can be found in Appendix VIII.

Table 2 – Habitats and linear features present within the site.

Habitat type/Linear feature	Species present
A1.1.1 Semi-natural, broad-leaved woodland Broadleaved woodland is found within and adjacent to the site and along the river corridor. Much of the habitat is secondary woodland of recent origin, comprised of young and semi mature trees. The understorey is mainly of scrub species, but with some limited areas of heath understorey	Alder, ash, blackthorn, bracken, bramble, broad-leaved dock, cleavers, cocksfoot, common nettle, creeping buttercup, dandelion, elder, field maple, foxglove, goat willow, gorse, hawthorn, hazel, herb Robert, Himalayan balsam, hollyberry cotoneaster, ivy, meadow buttercup, oak, ragwort, rowan, silver birch, sycamore, willowherb sp., yew
A1.3.1 Semi-natural, mixed woodland Some mixed woodland was located to the northeast of site, with heath understorey in some areas.	Alder, ash, bilberry, bracken, dogwood, heather, hogweed, larch, oak, willow, yew

A2.1 Scrub (dense/continuous) Scrub understorey was found throughout the woodland with varying degrees of openness. Scrub was found along path edges and encroachment of heath and grassland areas was apparent.	Alder, ash, birch sp., bramble, broad leaved dock, buddleia, common nettle, dogrose, dogwood, foxglove, gorse, hazel, Himalayan balsam, hollyberry cotoneaster, ivy, larch, marsh thistle, meadow thistle, oak, silver birch, spruce, willow sp.
B.1 Acid grassland A large grassland area at the east of site with a good diversity of flowering species, although with encroaching willow scrub. Patches of this habitat type were also found along the edges of the existing path.	Bilberry, broad leaved dock, bulbous buttercup, cat's ear, cleavers, cocksfoot, common buttercup, common heather common knapweed, common vetch, common sorrel, compact rush, crested dog's tail, field woodrush, greater bird's foot trefoil, glaucous sedge, hard rush, jointed rush, lesser trefoil, male fern, marsh orchid sp., meadow buttercup, ragwort, ribwort plantain, red clover, rosebay willowherb, self-heal, small-flowered cranesbill, soft rush, timothy, tormentil, tufted hairgrass, white clover, wild angelica, willow, Yorkshire fog
B.6 Poor semi-improved grassland Patches of this habitat type were found along the edge of a recently cleared field. The sward was mostly short over disturbed ground but with some more tussocky areas to the east. An area of this habitat is present within the school grounds at the southeast of site.	Bramble, broad leaved dock, common buttercup, cocksfoot, rosebay willowherb, soft rush, white clover, Yorkshire fog
D.5 Dry heath/ acid grassland mosaic The field to the centre of site comprised a mosaic of heath, acid grassland, scrub, and encroaching willow and other young trees. Large anthills and moss cushions were present, and the habitat looked well established.	Alder, bell heather, bilberry, birch, broad leaved dock, bulbous buttercup, cat's ear, cleavers, chickweed, cocksfoot, common buttercup, common haircap moss sp., common heather, common knapweed, common vetch, common sorrel, compact rush, common dog lichen, crested dog's tail, cross leaved heath, dogrose, field woodrush, glaucous sedge, goats willow, greater bird's foot trefoil, grey willow, hard rush, Himalayan balsam, jointed rush, lady fern, larch, lesser trefoil, male fern, marsh thistle, marsh orchid sp., meadow buttercup, meadow thistle, neat feather moss, purple moor grass, ragwort, ribwort plantain, red clover, rosebay willowherb, self-heal, sheep's fescue, small-flowered cranesbill, soft rush, springy turf-moss, sweet vernal grass, tormentil, tufted hairgrass, white clover, wild angelica, Yorkshire fog

G.1 Standing water A pond is located at the centre of site, where the stream splits into several channels creating shallow standing and running water section. The wet edges were vegetated, with Himalayan balsam frequent.	Bull rush, hard rush, Himalayan balsam, soft rush, water crowfoot sp.
G.2 Running water A stream runs down a slope to the west of the site, through a pond, and into the Rhondda Fach River which runs along the main path.	Bracken, bracken, broad leaved dock, common nettle, crested dog's tail, evening primrose, greater willowherb, Himalayan balsam, Japanese knotweed, ragwort, rosebay willowherb, spear thistle, willowherb sp.
J5 Other habitat Footpaths run through the site, used by dog walkers. A large rockpile was located at the west of the heathland area.	N/A

Habitat descriptions

River

3.5 The Rhondda Fach River flows alongside the main path. This is designated as a SINC, contributes to the habitat diversity onsite, and provides opportunities for multiple wildlife species. All rivers are a priority habitat, it is therefore considered to be of **national ecological importance.**

Dry heath/ acid grassland mosaic and acid grassland

3.6 Lowland heathland and lowland dry acid grassland are categorised as priority habitats. However, it should be noted should be noted that the areas to be impacted by works were encroached by willow, bramble scrub, and Himalayan balsam which impacts the habitat quality. Despite the degraded condition and due to the potential value and priority habitat status it is therefore considered to be of up to **national ecological importance.**

Broad-leaved and mixed woodland

3.7 The broad-leaved and mixed woodland onsite is secondary woodland of recent origin, comprised of young and semi mature trees which is well represented in the local area. These areas provide structural diversity to the site, are likely to provide foraging opportunities for local bat populations and may support nesting birds and other wildlife. It is therefore considered to be of **local ecological importance**.

Standing water

3.8 The pond contributes to the habitat diversity onsite and provide opportunities, including for breeding, for multiple wildlife species. Ponds are priority habitat and therefore considered to be of **national ecological importance.**

Scrub, poor semi-improved grassland

3.9 These habitats are comprised of common species and are well represented in the local area. They contribute to the habitat diversity of the site and provide forging opportunities and shelter to wildlife. They are therefore considered to have **site ecological importance.**

Invasive species

3.10 Himalayan balsam is found scattered across the site, encroaching onto heathland and grassland habitats. Montbretia and cotoneaster (horizontalis, Himalayan, and hollyberry) were also noted within the site. Locations of invasive species are shown in the Appendix II PEA map.

Incidental fauna records

3.11 The presence of the following species was observed or inferred by field signs at the site during the field surveys:

Amphibians: common frog, common toad, palmate newt.

Birds: blackbird, blue tit, bullfinch, buzzard, carrion crow, chaffinch, dunnock, dipper, great tit, goldcrest, goldfinch, greenfinch, green woodpecker, grey wagtail, heron, herring gull, house sparrow, lesser black-backed gull, jackdaw, long tailed tit, magpie, mallard, nuthatch, raven, robin, song thrush, woodpigeon, wren.

Insects: orange-tip butterfly, peacock butterfly, white-tailed bumblebee.

Mammals: dog, fox, mole, otter, rabbit.

3.12 Mammal pathways were also noted in several areas, though these were not able to be attributed definitively to any species.

Phase II survey details

Ground level tree assessment

3.13 All trees proposed for removal for Phase 3 works were assessed for their suitability for roosting bats.

3.14 The woodland was comprised of young and semi mature trees with no potential roost features noted. All trees were assessed as being of negligible suitability to support roosting bats.

Badger survey

3.15 A badger survey was carried out along the full proposed route from Maerdy to Tylerstown, onsite and 50m either side of the works boundary.

3.16 Some areas could not be accessed due to either riverbanks being too steep or vegetation too dense. In these locations, binoculars were used where access was not possible, although some sections could still not be fully inspected. See Appendix IV.

3.17 No signs of badger were recorded (e.g. setts, badger hairs, latrines, snuffle holes, paths, day nests).

3.18 Location details were noted where access was not possible, or mammal paths or burrows of other species were noted. See PEA map in Appendix II.

GCN HSI waterbody analysis

3.19 Waterbodies within 500m of the entire route were located using aerial mapping. Where access was possible and they were considered suitable for GCN, they were assessed using the HSI scoring system, locations are shown in Appendix V.

3.20 A total of seven waterbodies were assessed using the HSI scoring system, see Table 3.

Table 3 - Full HSI calculations

Factor	A	B	C	D	E	F	G
1 - Location	0.5	0.5	0.5	0.5	0.5	0.5	0.5
2 - Area	0.1	0.05	0.05	0.05	0.05	0.05	0.05
3 - Drying	1.0	0.5	0.5	1	0.1	1	1
4 - Water Quality	1.0	0.67	0.67	0.67	0.33	0.67	0.67
5 – Shade	1.0	1.0	1	1	0.8	1	1
6 - Waterfowl	1.0	0.67	0.67	0.67	0.67	0.67	0.67
7 - Fish	0.67	0.33	0.67	0.33	0.67	0.67	0.67
8 - Density	1.0	1.0	1.0	1.0	1.0	1.0	1.0
9 -Terrestrial Habitat	1.0	0.6	1.0	1.0	1.0	1.0	1.0
10 -Macrophyte cover	0.9	0.9	0.4	04	0.3	0.3	0.3
HSI score	**0.70**	**0.50**	**0.52**	**0.66**	**0.39**	**0.54**	**0.54**
Pond suitability	**Good**	**Below average**	**Below average**	**Average**	**Poor**	**Below average**	**Below average**

GCN eDNA

3.21 Water samples were taken from six of the waterbodies assessed using the HSI scoring system, and eDNA analysis was carried out, see table 4.

3.22 It was not possible to gain access to Waterbody A for eDNA testing. This pond was located on private land.

Table 4 - eDNA survey results.

Ref	Grid reference	Sample result	GCN score
A	SS 97755 98505	N/A	N/A
B	SS 97885 98146	Negative	0 positive replicates from a series of 12.
C	SS 97963 98164	Negative	0 positive replicates from a series of 12.
D	SS 98367 97977	Negative	0 positive replicates from a series of 12.
E	SS 98527 97890	Negative	0 positive replicates from a series of 12.
F	ST 00716 96186	Negative	0 positive replicates from a series of 12.
G	ST 00924 96087	Negative	0 positive replicates from a series of 12.

Otter survey

3.23 An otter survey was carried out along the full proposed route from Maerdy to Tylerstown, consisting of a visual search for otter signs (e.g. spraints, urine staining, footprints, hairs, slides, feeding signs, couches, and holts). Any mammal paths leading away from the river were investigated.

3.24 Some areas could not be accessed due to steep riverbanks or dense vegetation. In these locations, binoculars were used where access was not possible, although some sections could still not be fully inspected. See Appendix VI.

3.25 The river is prone to high water levels and in the week leading up to the survey of Phase 4 and 5 there was a period of high rainfall which may have resulted in otter field signs being washed away.

3.26 However, despite the above limitations, otter spraint and urine staining were noted in two locations along the river on Phase 4 and 5 (south of the Phase 3 site) with one spraint at least several weeks old and the other likely around a week old. See Appendix VI for further details and locations.

Reptile surveys

3.27 Table 5 summarises the results of the reptile presence or likely absence survey, with location of reptile refugia for surveys shown in Figure 2.

Table 5 – Results of the reptile presence or likely absence survey.

Visit	Results	Notes
1	No reptiles	-
2	No reptiles	1 x common toad
3	1 x common lizard (adult female) at SE of site	1 x common toad
4	1 x common lizard (adult female) at E of site	2 x common toad
5	1 x common lizard (adult female) at W of site	-
6	No reptiles	1 x common toad
7	1 x common lizard (juvenile) at centre of site	1 x common toad
8	1 x common lizard (adult male) at centre of site	4 x common toad

Population size estimate

3.28 Table 6 summarises the results of the population size estimate based on the results of the reptile presence or likely absence survey.

Table 6 – Results of the population size estimate.

Reptile species	Peak count (*adult* individuals)	Population level (Natural England Technical Information Note TIN102)
Common lizard	1	Low

Figure 2 – Location of reptile refugia onsite.

4 DISCUSSION AND ASSESSMENT

4.0 The following discussion and assessment are provided to ensure full compliance with legislation and both local and national planning policy (see Appendix X).

Effects of the proposed development

4.1 The proposed development will result in the removal of habitats and/or disturbance to their associated species and features. This section concerns an assessment of ecological effects resulting from the proposed development. The following effects have been identified:

- Clearance of vegetation and trees (scrub, heathland, grassland, immature/semi-mature trees);
- Engineering works to create an appropriate gradient for this section of the route;
- Excavation of topsoil and hard materials;
- Replacement of footbridge to the north of the pond (see Appendix III for preliminary design).

Designated sites

4.2 There were both statutory and non-statutory designated sites identified within the vicinity of the site (see separate desk study report for full details). The closest statutory site was Craig Point Rhondda SSSI which was 3.5km south of the Phase 3 site.

4.3 There was one non-statutory site (SINC) immediately adjacent to site (see separate desk study report for full details):

- Rhondda Taff and Rhondda Rivers SINC

4.4 There were two RAMSAR sites within approximately 50km of the site and ten SACs within approximately 25km of the site.

4.5 Given the nature of the proposed development and its lack of proximity to any SACs, SPAs and RAMSAR sites, works will not trigger any of the listed pressure codes or adverse factor categories listed within the HRA screening (see separate desk study report for full details - document reference: WWE22181 RFATR DESK STUDY_FINAL, 2023).

4.6 Given the scale of the proposed development, and the lack of likely impacts beyond the site boundary, the nearby statutory designated site (Craig Point Rhondda SSSI, 3.5km south of site) is sufficiently well separated that no impacts on its designated features are anticipated as a result of the works.

4.7 Taff and Rhondda Rivers SINC is immediately adjacent to the Phase 3 site and there may be impacts upon it's features in the absence of mitigation. SINCs that are located further away are unlikely to be impacted by the proposals.

Priority, protected and notable habitats

4.8 Common and widespread habitats which are of limited ecological importance are not discussed further as they will be compensated by native and wildlife-friendly planting and general landscaping across the site (see Section 5).

4.9 The following habitats will require further consideration:

- Rhondda Fach River/ pond;
- Dry heath/ acid grassland mosaic and acid grassland.

River/ Pond

4.10 The river and pond are priority habitats. They will not be directly impacted by the proposed works but may be indirectly impacted as a result of pollution such as by soil run off or other construction activities. A CEMP will be required to prevent this from happening and to mitigate any impacts in the unlikely event that they should occur.

Dry heath/ acid grassland mosaic and acid grassland

4.11 Lowland heathland and lowland dry acid grassland are priority habitats. However, it should be noted should be noted that the areas to be impacted by works were encroached by willow, bramble scrub, and Himalayan balsam which impacts the habitat quality.

4.12 This habitat will be avoided where possible. However, it will not be possible to avoid impacts to all heathland mosaic habitat onsite due to the engineering works required to create a safe gradient for accessing the active travel route.

4.13 Topsoil will be kept onsite to preserve the seedbank with habitat allowed to regenerate following works. Appropriate management will be undertaken for reestablished habitat to remove invasive species and any encroaching scrub.

4.14 Compensation will be required by the enhancement and ongoing management of a further adjacent grassland area. Compensation measures are detailed in Section 5.

Priority, protected and notable species

4.15 The following priority, protected or notable species were present, likely to be present or currently unconfirmed, within the site:

- Amphibians
- Badger
- Bats
- Birds
- Hazel dormouse
- Hedgehog
- Fish
- Invertebrates

- Reptiles
- Otter
- Invasive species

Amphibians

4.16 The local records search returned 22 records for amphibian species (no GCN records) in the vicinity of the site (document reference: WWE22181 RFATR DESK STUDY_FINAL, 2023) including common frog, common toad, and palmate newt.

4.17 Common frog, common toad, and palmate newt were observed on or near to site during surveys.

4.18 HSI assessment was undertaken at seven waterbodies and eDNA testing was carried at six waterbodies across the proposed route. All eDNA tests returned negative results for GCN. This taken along with the lack of local records means it is unlikely that GCN will be found onsite.

4.19 The onsite pond is suitable for breeding amphibians of common species and will not be directly impacted during works. However there may be indirect impacts from construction that may affect the pond and associated species.

4.20 The terrestrial habitat onsite and in the surrounding landscape offers good opportunities for foraging and shelter.

4.21 The proposed development will result in the loss of terrestrial habitat (heathland, grassland, scrub) that is suitable for use by amphibians foraging and commuting. There will be, however, extensive optimal habitat suitable for use by amphibians available in the wider landscape.

4.22 In the absence of mitigation during works, there will be an adverse impact on common amphibians as a result of the proposed development.

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

European badger

4.24 The local records search returned no records for European badger in the vicinity of the site (document reference: WWE22181 RFATR DESK STUDY_FINAL, 2023).

4.25 A badger survey was undertaken consisting of a visual search for badger signs (e.g. setts, latrines, mammal paths, snuffle holes, or badger hairs). No evidence of use by badger was identified during onsite. Although mammal paths were noted, the paths could not be conclusively attributed to badger, especially with the paths used by dogs, and likely other species e.g. people, foxes.

4.26 The proposed development will result in the loss of potential foraging habitat (heathland, grassland, scrub) that could be suitable for badger (if the species is present at the site).

4.27 However, it should be noted that substantial areas of suitable foraging habitat will remain onsite post-completion of the development and throughout the development adjacent to the site and surrounding area.

4.28 Therefore, there is unlikely to be an adverse impact on European badger as a result of the proposed development, but precautionary methods should be implemented.

Bats

4.29 The local records search returned 24 records for at least four bat species in the vicinity of the site (document reference: WWE22181 RFATR DESK STUDY_FINAL, 2023).

4.30 The vegetated and mainly unilluminated river corridor offers excellent foraging and commuting opportunities for a range of bat species, including horseshoe and Myotis sp.

4.31 Several bat species were recorded foraging and commuting during surveys on the wider site proposed route (Maerdy north and south bridge) including common and soprano pipistrelle, Daubenton's, brown long-eared and Myotis sp.

4.32 The woodland to be impacted was comprised of young and semi mature trees with no potential roost features noted. All trees were assessed as being of negligible suitability to support roosting bats.

4.33 It is located in a rural area with overall low levels of light pollution throughout the site, although there is residential housing and streetlighting adjacent to the south of site. No additional lighting is proposed.

4.34 Small areas of habitat suitable for foraging and commuting bats (trees, scrub) will be permanently lost but substantial continued foraging resources and commuting corridors post-works will remain. Consequently, it is unlikely that impacts on bats using the local area through habitat loss will occur.

4.35 There is unlikely to be an adverse impact on local bat populations as a result of the proposed development.

Nesting birds

4.36 The local records search returned a number of records for nesting bird species in the vicinity of the site, including some Schedule 1 designated species (document reference: WWE22181 RFATR DESK STUDY_FINAL, 2023). In addition, several bird species were encountered onsite during the PEA.

4.37 It is considered likely that nesting birds use the habitats (woodlands, scrub) present onsite.

4.38 There are limited nesting features onsite for larger birds of prey due to the levels of disturbance and lack of suitable habitat; and no features suitable for use by barn owl.

4.39 In the absence of mitigation during vegetation clearance or tree removal there will be be an adverse impact on nesting bird species as a result of the proposed development, due to killing/ injury/ destruction of active nests (if present), triggering legislation that protects nesting birds.

Common dormouse

4.40 The local records search returned no records for common dormouse in the vicinity of the site (document reference: WWE22181 RFATR DESK STUDY_FINAL, 2023).

4.41 Although there are some habitats onsite which offer foraging and nest resources for dormice (scrub, woodland), there are no known records of dormice in the area.

4.42 Consequently, there is unlikely to be a negative impact on common dormouse as a result of the proposed development, but precautionary methods should be implemented during vegetation clearance.

Fish

4.43 The local records search returned four records for two Category 1 fish species in the vicinity of the site (document reference: WWE22181 RFATR DESK STUDY_FINAL, 2023).

4.44 The river running alongside the main path is suitable for a variety of fish species and records were returned for salmon and sea/brown trout in the watercourse.

4.45 The watercourse will not be directly impacted during in the proposed works. However, there is potential for water pollution as a result of the development (e.g. soil run off, or other construction activities) which could indirectly impact fish species.

West European hedgehog

4.46 The local records search returned five records for west European hedgehog species in the vicinity of the site (document reference: WWE22181 RFATR DESK STUDY_FINAL, 2023).

4.47 Much of the habitat onsite offers good foraging and nest resources for hedgehog (scrub, woodland, grassland) and it is highly likely hedgehog will use the site and wider areas.

4.48 The proposed development will result in the loss of areas of potential foraging and nesting habitat (grassland, scrub, woodland) that could be suitable for hedgehog.

4.49 However, it should be noted that substantial areas of suitable habitat will remain immediately adjacent to the site and within the surrounding area.

4.50 Therefore, there may be an adverse impact on hedgehog as a result of the proposed development, precautionary methods should be implemented during vegetation clearance.

Invertebrates

4.51 The local records search returned a number of records for invertebrate species in the vicinity of the site (document reference: WWE22181 RFATR DESK STUDY_FINAL, 2023), with over 90 records within 500m of the site.

4.52 Common invertebrates were noted onsite during the survey, and much of the onsite habitat comprises flowering species which provide suitable food sources for a range of invertebrate species.

4.53 Records were returned for dingy skipper onsite, with caterpillar foodplant bird's foot trefoil found in several locations. Records were also returned for brown-banded carder bee in the wider area, with favoured foodplants including knapweed, vetch sp. and red clover noted onsite.

4.54 Areas of habitat suitable for invertebrates will be disturbed or lost but this will be minimal and substantial continued foraging resources are available immediately adjacent to site and in the wider area. Consequently, it is unlikely that impacts will occur on local invertebrate populations due to habitat loss.

European otter

4.55 The local records search returned three records for European otter in the vicinity of the site (document reference: WWE22181 RFATR DESK STUDY_FINAL, 2023), with the nearest within 11m of the site (on the river corridor).

4.56 During surveys, otter spraint and urine staining was noted in two locations on the river to the south of the Phase 3 site, with one spraint at least several weeks old and the other likely around a week old.

4.57 The presence of the river running parallel along the site provides otter with multiple opportunities to enter the site. It is therefore highly likely that otter will use the river, site, and wider area.

4.58 The river will not be directly impacted during the works, but there is potential for water pollution as a result of the development (e.g. soil run off, or other construction activities) which could indirectly impact otter, or otter food sources.

4.59 There may temporarily be a negative impact on European otter as a result of the proposed development, in the absence of the mitigation.

Reptiles

4.60 The local records search returned 17 records for two reptile species in the vicinity of the site (document reference: WWE22181 RFATR DESK STUDY_FINAL, 2023), including records for slow worm and common lizard.

4.61 Onsite habitats are considered excellent for use by reptiles for basking, commuting, and foraging particularly where there was a scrub, grassland, heath mosaic. Additionally, the following features are suitable to provide shelter and hibernation opportunities for reptiles: scrub, tree roots, rock piles.

4.62 During reptile surveys, a small population of common lizard was confirmed onsite.

4.63 In the absence of mitigation there may be a negative impact on reptiles as a result of the proposed development due to killing/ injury, triggering legislation that protects reptiles.

Water vole

4.64 The local records search returned no records for water vole in the vicinity of the site (document reference: WWE22181 RFATR DESK STUDY_FINAL, 2023).

4.65 No evidence of water vole was identified at the site.

4.66 Water vole have relatively small territories and as the species is unlikely to disperse to the site via the surrounding habitats, it is considered unlikely to be present.

4.67 Water vole are therefore not considered further in this report.

Effects of proposed development

4.68 Table 7 summarises the effects of the proposed development on protected, priority and notable habitats and species that are present or are likely to be present within the site.

Table 7 – Effects of the proposed development on habitats and species.

Habitat or Species/species group	Effect
River/ pond	Potential indirect impacts through pollution.
Heath/ grassland mosaic	Loss of habitat due to engineering works.
Common amphibians	Killing or injury during unmitigated works. Temporary or permanent loss of terrestrial habitat.
Badger	Killing or injury during unmitigated works, if present. Sett damage during unmitigated works (if present).
Bats – commuting and foraging	Minimal direct loss of small sections of foraging habitat.
Birds	Destruction of nests during unmitigated vegetation clearance, triggering legislation. Loss of suitable nesting habitat.
Fish	Potential indirect impacts through pollution.
Reptiles	Killing or injury during unmitigated works. Direct loss of habitat.
Hazel dormouse	Killing or injury during unmitigated works, if present
Hedgehog	Killing or injury during unmitigated works.
Invertebrates	Direct loss of small sections of habitat.
Otter	Killing or injury during unmitigated works. Potential indirect impacts through pollution.

5 RECOMMENDATIONS AND CONCLUSIONS

5.0 Providing that the requirements outlined within this report are implemented in full, the proposed development will be able to proceed and there will be no long-term effects on the designated sites, habitats and species discussed within this report.

5.1 Designated sites surrounding the site require further consideration/mitigation as follows:

- Taff and Rhondda Rivers SINC.

5.2 Habitats within and adjacent to the site require mitigation and compensation as follows:

- River/pond;
- Dry heath/acid grassland mosaic.

5.3 Mitigation measures during the demolition, construction and/or operation of the proposed development are required as follows:

- A CEMP will be required to detail pollution prevention controls to prevent impacts on the adjacent SINC and priority habitats.
- A PWMS will be required to detail measures to minimise impacts on designated sites, priority habitats, and protected species. (document ref: WWE22181 PWMS).

5.4 Priority habitats (as listed in section 5.2) will be avoided and protected where the design allows, following guidance detailed in the PWMS and CEMP. Where avoidance is not possible, compensation will be required (see Table 7).

5.5 Table 8 summarises the surveys, mitigation, and compensation requirements of the proposed development.

Table 7 – Requirements of the proposed development.

Species	Further information
Habitats	• A CEMP and PWMS will be required to detail pollution prevention controls to prevent impacts on the adjacent SINC and priority habitats. **Dry heath/ acid grassland mosaic** • Topsoil will be kept onsite to preserve the seedbank with vegetation allowed to regenerate following works in the areas around the access path, details to be specified in the CEMP. • Compensation will be required through the enhancement and ongoing management of an adjacent grassland area, including cutting back of encroaching willow scrub and cut and collect grass management to improve biodiversity, see Section 5.9 **River/ pond** • A CEMP and PWMS will be required to detail pollution prevention controls to prevent impacts.
Amphibians	• A PWMS will be required to detail measures to minimise impacts on protected species.
Bats	• No night-time working. • No additional lighting. • Bat boxes should be included as enhancement, see section 5.8
Badger	• A PWMS will be required to detail measures to minimise impacts on protected species.
Birds	• A PWMS will be required to detail measures to minimise impacts on protected species. • Bird boxes should be included as enhancement, see section 5.8
Fish	• A CEMP will be required to detail pollution prevention controls to prevent impacts on the onsite river and pond.
Hazel dormouse	• A PWMS will be required to detail measures to minimise impacts on protected species.
Hedgehog	• A PWMS will be required to detail measures to minimise impacts on protected species.
Otter	• A PWMS will be required to detail measures to minimise impacts on protected species.
Reptiles	• A two-phase directional cut will be required to avoid killing or injury to reptiles and to move them to adjacent suitable habitat. A PWMS will be required to detail measures to minimise impacts reptiles. • The rock pile onsite will be removed by hand, outside reptile hibernation period (Oct- March).

Biodiversity enhancement

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

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

5.8 Bird nesting boxes and bat roosting boxes will be incorporated within adjacent woodland. A range of types should be used in order to cover a variety of species. Many designs are available, and we would initially recommend the following types of boxes for this site:

- Bats - https://www.nhbs.com/improved-cavity-bat-box (suitable for both pipistrelle and Natterers' bat and for use of trees)
- General bird boxes –

  https://www.nhbs.com/vivara-pro-barcelona-woodstone-open-nest-box

  (suitable for wrens, robins, pied and grey wagtails, song thrushes, blackbirds, etc.).

  https://www.nhbs.com/vivara-pro-seville-32mm-woodstone-nest-box

  (suitable for blue tits, tree sparrows, house sparrows, great tits, crested tits, nuthatches, coal tits, pied flycatchers etc).

5.9 A section of acid grassland at the east of the Phase 3 site has been identified as suitable for compensation and enhancement. This will be achieved through removal of invasive species, management of encroaching onsite willow scrub, and ongoing cut and collect of the grassland as part of the council's grassland management scheme. This area would be suitable for public engagement as a natural wildflower/ invertebrate area with signage, benches, etc.

5.10 A Landscape and Ecology Management Plan is proposed for the wider scheme to detail ongoing management of the full proposed site including:

- Management of proposed enhancement areas (see Section 5.9)
- Opening areas of scrub, trees, and bracken.
- Cut and collect at flat areas to the sides of the path, along with section cutting of bracken to prevent encroachment.
- Removal of invasive species including Himalayan balsam to prevent spread of these species, especially in areas of heathland encroachment.
- Provision of bird and bat boxes.

APPENDIX I: SURVEY METHODS

Field Surveys

All surveys followed good practice guidelines, with a detailed method for each survey presented within Appendix I.

Where the survey followed good practice guidelines, the detailed method is presented within Appendix I.

The surveys undertaken at the site can be seen in table 8.

Table 8 - Surveys undertaken.

Survey undertaken	Surveyor(s)	Date
Extended Phase 1 Habitat Survey	Jenny O'Neill Amy Williams Schwartz	25/01/2023
Phase 3 PEA walkover	Jenny O'Neill	17/10/2023
Badger - Visual survey	Julie Player	09/09/2023
Great crested newt - Habitat Suitability Index (HSI) Assessment	Jenny O'Neill	26/05/2023
Great crested newt - eDNA survey	Jenny O'Neill Hannah Humphries	08/06/2023
Invasive species walkover	Julie Player	24/05/2023
Otter survey	Jenny O'Neill Jack McCormack Beth Lewis Lee Jenkins	12/05/2023, 28/09/2023
Reptile surveys	Jenny O'Neill Greg Miles	06/09/2023-24/09/2023

Assessing ecological importance

The assessment of the importance of sites, habitats and species are made with reference to CIEEMs guidelines for EcIA, where possible. These guidelines provide consistency in the approach to evaluating the importance of the ecological features within a site and the effects or impacts a proposed development will have on them.

Firstly, the sites, habitats and species are assessed using a framework which assigns a level of geographical importance to ecological features. This framework incorporates a wide range of legislation and governmental guidance in assessing each feature's importance.

Next, the effects/likely effects of the proposed development are predicted, considering different stages and activities within the development process. These effects/likely effects are then assessed for their significance, based upon the importance of the site, habitat or species being assessed. The assessment of effects/likely effects significance is considered before and after the proposed mitigation to give an overall indication of significance.

The importance of specific ecological receptors (sites or habitats) is assigned according to their level of importance using the following terms:

- International Importance;
- UK Importance;
- National Importance (i.e. England/Northern Ireland/Scotland/Wales);
- Regional Importance;
- County Importance;
- District Importance (or Unitary Authority, City, or Borough);
- Local or Parish Importance; and
- Of Importance within the site (the zone of influence or a larger defined area).

- Contributor information

Table 9 outlines the relevant experience of each of the assessment contributors.

Table 9 – Contributor licences, skills, and experience.

Contributor	Licences	Skills and Experience
Amy Williams Schwartz Senior Ecologist	Bat GCN	Experienced in surveying for a wide range of protected species including great crested newt, reptiles, and bats within a consultancy and volunteer capacity. PhD in wildlife/road interactions in the UK, and experienced in performing academic ecological research projects, as well as species identification.
Lee Jenkins Subcontractor	Bat Otter	Highly experienced otter surveyor, founder South Wales otter Trust, SEWBReC county recorder (otters).
Jenny O'Neill Consultant Ecologist	Bat	Holds a 2:1 Honours degree in Ecology. Experience in undertaking habitat and protected species surveys including GCN, reptiles, bats, and hazel dormouse from 2018 onwards.
Julie Player Subcontractor	Bat Dormouse GCN	Experienced freelance ecologist, holding dormouse, GCN, and bat licences in Wales and England.
Beth Lewis B.Sc. (Hons) Assistant Ecologist	GCN Level 1 (NE)	Holds a 2:1 honours degree in Zoology with Conservation. Has 2 years' experience in protected species surveys including bats, reptiles, dormouse and GCN, as well as habitat surveys.
Jack McCormack M.Res., B.Sc. (Hons) Assistant Ecologist		Holds a 1st class honours degree in Zoology and a Masters of Research in Biosciences. Experience in undertaking bat surveys and assisting in other protected species surveys gained through working with Wildwood Ecology.

Extended Phase 1 Habitat Survey

- A field survey was undertaken on 25/01/2023. Previous surveys had been undertaken in 2019 and 2020.
- A further site walkover was undertaken of Phase 4 & 5 on 13/09/23.
- All habitats present within the site with the suitability to support rare, protected, or otherwise notable species of flora or fauna (together with direct signs) were noted.
- In the context of this report, rare, protected, or otherwise notable species of flora or fauna were those considered to meet any of the following criteria:
    - Species protected by UK or European legislation (see Appendix X)
    - UK Post 2010 UK Biodiversity Framework priority species or Local Biodiversity Action Plan (LBAP) species
    - Nationally rare or nationally scarce species
    - Species of Conservation Concern (e.g. JNCC Red List, RSPB/BTO Red Lists)
    - The Wildlife and Countryside Act (1981) as amended, makes it an offence to release or allow to escape into the wild any animal, plant, or micro-organism not ordinarily resident in the UK (as listed in Schedule 9 of the Act). Plant species listed in Schedule 9 were searched for during the survey. However, many invasive species can be cryptic and therefore this survey does not provide a guarantee that an invasive species is not present and shouldn't be relied upon to rule out absence of an invasive species.
- An extended Phase 1 Habitat Plan was produced in QGIS, incorporating Target Notes used to highlight features of ecological interest (see Appendix II).

Badger - Visual survey

- Where access was possible, the site was systematically surveyed for evidence of badgers, in the form of:
    - Setts - comprising either single isolated holes or a series of holes, which may be link to each other underground;
    - Droppings and latrines - badgers deposit droppings in characteristic excavated pits, concentrations of which (latrine sites) are typically found at home range boundaries, field boundaries and around setts;
    - Paths - worn paths used by badger, often linked to setts or foraging grounds;
    - Scratching posts - typically at the base of tree trunks;
    - Snuffle holes - scrapes where badgers have searched for food;
    - Day nests - bundles of grass and other vegetation where badgers may sleep above ground; and

- Hairs - usually found outside setts or caught under fencing.

Great crested newt - Habitat Suitability Index (HSI) Assessment

- Ponds within 500m of the site, where access was possible, were assessed for their suitability to sustain great crested newt using the HSI scoring system.
- This method seeks to quantify the suitability of a pond to support great crested newt by numerically assessing ten indices thought to influence their presence.
- The indices considered are location; pond area; water quality; percentage of shade; presence of waterfowl; presence of fish; number of ponds in the wider landscape; suitability of terrestrial habitat; and percentage of macrophyte cover.
- The HSI system is not a substitute for presence/absence surveys and is not intended to predict the occurrence of great crested newt. However, a correlation between the presence of great crested newts and a high HSI score is observed in ponds.

Great crested newt eDNA survey

- The presence of great crested newt within the ponds within the site was determined by eDNA sample analysis.
- The field sampling was carried by a great crested newt licence holder. Laboratory analysis was carried out by ADAS Biotechnology.
- The results were interpreted as follows:
  - Positive - the results indicate that great crested newt is present within the pond. Full survey methods are required to estimate the population size;
  - Negative - the result indicates that great crested newt is not within the pond. No further survey work is required; or
  - Inconclusive - indicates degradation or inhibition of the sample, therefore the lack of detection of great crested newt DNA is not conclusive evidence for determining the absence of the species. Further eDNA sampling or full surveys will be required.

Otter field survey

- The survey method used was modified from that used by Lenton et al., (1980) in the first national otter survey of England in 1977-79. For the first national survey, the process was halted as soon as otter signs were identified so the full stream section was only surveyed at sites where no signs were found. For the second (1984-86) and third (1991-94) surveys, the full stream section was usually surveyed within each area even if otter signs were found before this. The 2000-02 and 2009-10 surveys reverted to the 1977-79 methodology to reduce survey time. The approach from the second (1984-86) and third (1991-94) surveys was used in this instance.

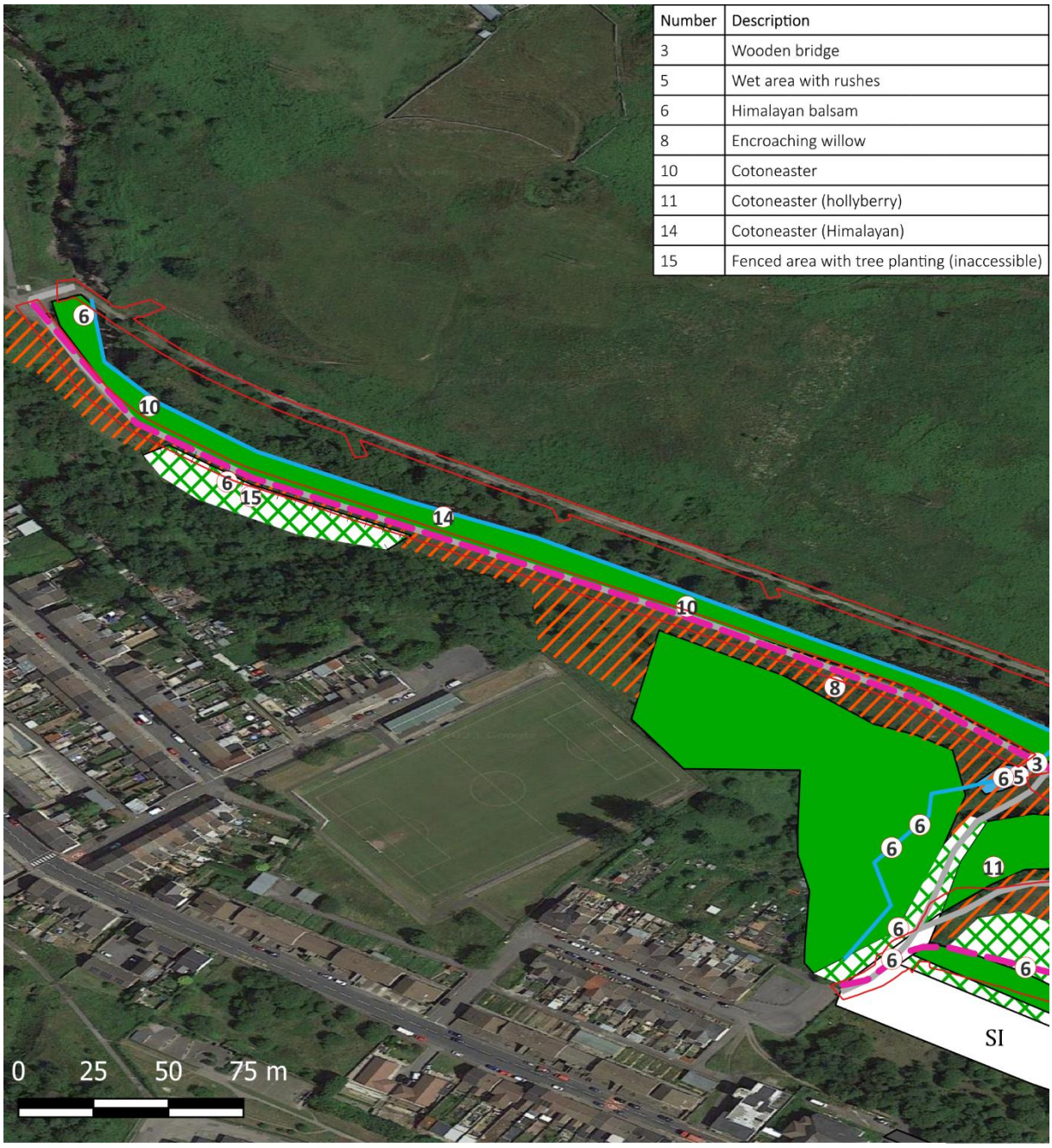
- A systematic search of riparian habitat and man-made structures (culverts and bridges) was carried out along both banks by searching for otter field signs (spraints, footprints, hairs, slides, feeding signs, lying-up places, and holts).
- All otter field signs present were noted and mapped. Coordinates were recorded using a handheld GPS unit (Garmin GPSmap 62).
- Jones, T. (2004) Otter Survey of Wales 2002. Environment Agency, Bristol.
- Kruuk, H. (2006) Otters; Ecology, behaviour, and conservation. Oxford University Press.
- Lenton, E.J., Chanin, P.R.F. & Jefferies, D.J. (1980). Otter survey of England 1977-79. Nature Conservancy Council, London.

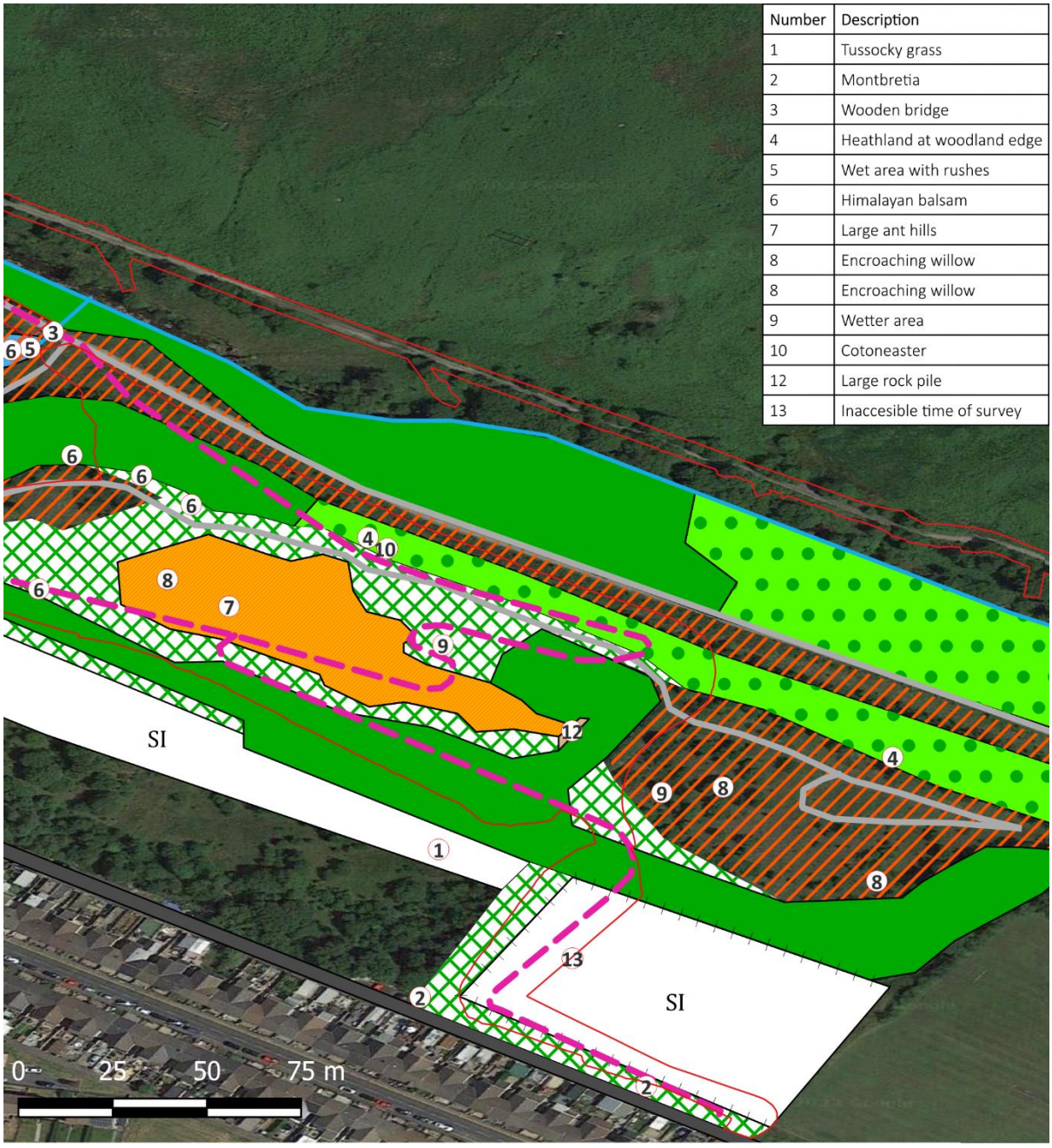
Reptiles – Presence/Absence Survey

- No universally agreed upon methodology for surveying reptiles is currently available. Therefore, the methodology employed in this survey was adapted from the following reptile survey publications:
- Evaluation of reptile survey methodologies (1996), Report No. 200. English Nature Research.
- Advice sheet 10 reptile survey: an introduction to conduction and interpreting surveys for snake and lizard conservation (1999). Froglife.
- Technical Information Note TIN102, Reptile Mitigation Guidelines (2011) [withdrawn] Natural England.
- Herpetofauna workers' manual (2003), JNCC.
- Sewell et al. (2013) Survey protocols for British herpetofauna; Version 1.0. Amphibian and reptile conservation; Durrell Institute of Conservation and Ecology (DICE); University of Kent; University of Sussex.
- The survey assumed the possible presence of all common UK reptile species (adder, common lizard, grass snake and slow worm).
- An artificial refugia survey (ARS) was carried out in order to determine the presence or likely absence of reptile species at the site. This type of survey exploits the affinity of reptiles for microhabitats created beneath objects on the ground that are warmed by the sun. In this survey the artificial refugia used were made from roofing felt (0.5m x 0.5m and also 1m x 0.5m); corrugated roofing material (1m x 0.5m); profile tin (0.5m x 0.5m).
- A total of NUMBER refugia were set out over the site (see Figure 2). The refugia were placed at a density of 100 per hectare, but limited to areas that were suitable for reptiles. The artificial refugia were pressed down on to vegetation in order to create a microclimate favoured by reptiles. The refugia were allowed to 'bed in' for 14 days prior to the start of the survey.

- A total of seven separate reptile survey visits were made over a 30-day period in September 2023. In addition to this, searches were undertaken of natural refugia (e.g. stones, rocks) and anthropogenic refugia (e.g. debris left from previous works and rubbish).
- Reptiles observed were identified to species level and, where possible, their sex determined.
- Surveys were undertaken at a suitable time of day and in suitable weather conditions as defined by Natural England Technical Information Note TIN102, Reptile Mitigation Guidelines.
- Population size estimation
- Determining the size of a population of reptiles can be problematic without substantial survey effort. However, a method of obtaining an assessment of population size in very broad terms can be useful for informing impact assessments and mitigation planning.
- Here, a scoring system for estimating reptile population size (Natural England Technical Information Note TIN102) has been applied to the data, which provides a broad population class assessment of 'small', 'medium' or 'large', based on the peak count of adults obtained by a thorough survey (by whatever method) under good conditions in one day, and at the optimal time of the year.

APPENDIX II: PEA PLAN



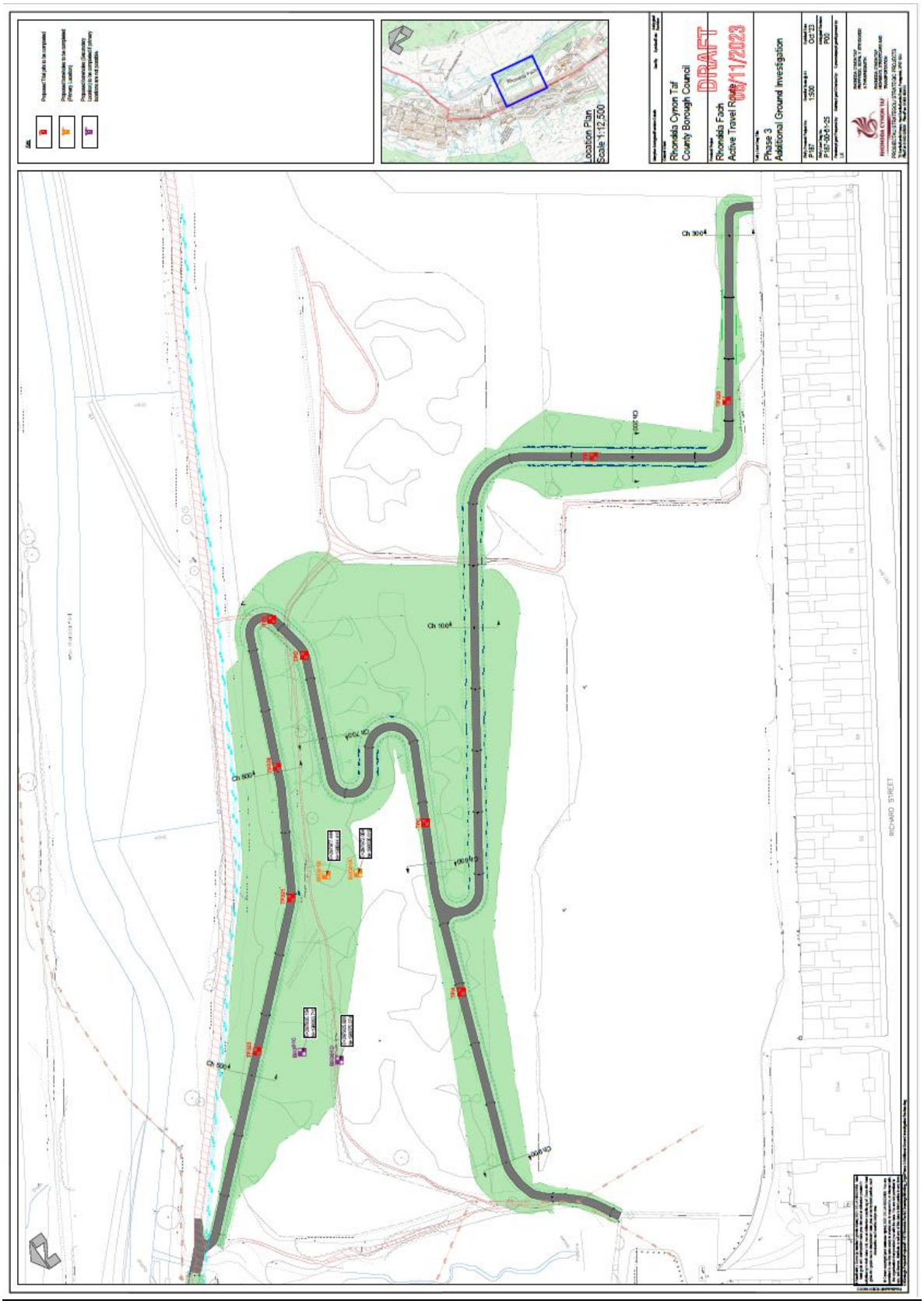


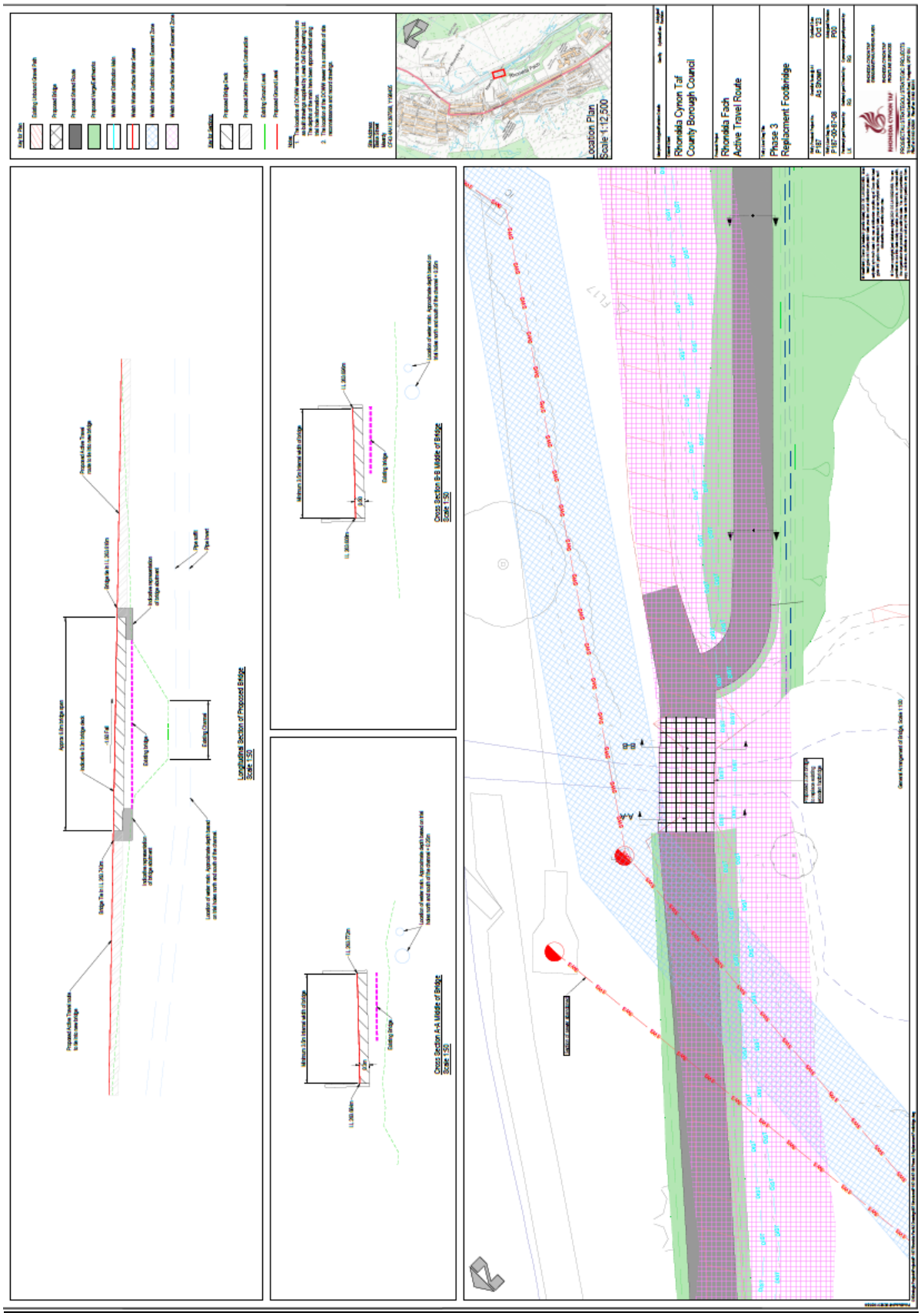
Number	Description
1	Tussocky grass
2	Montbretia
3	Wooden bridge
4	Heathland at woodland edge
5	Wet area with rushes
6	Himalayan balsam
7	Large ant hills
8	Encroaching willow
8	Encroaching willow
9	Wetter area
10	Cotoneaster
12	Large rock pile
13	Inaccesible time of survey

Key

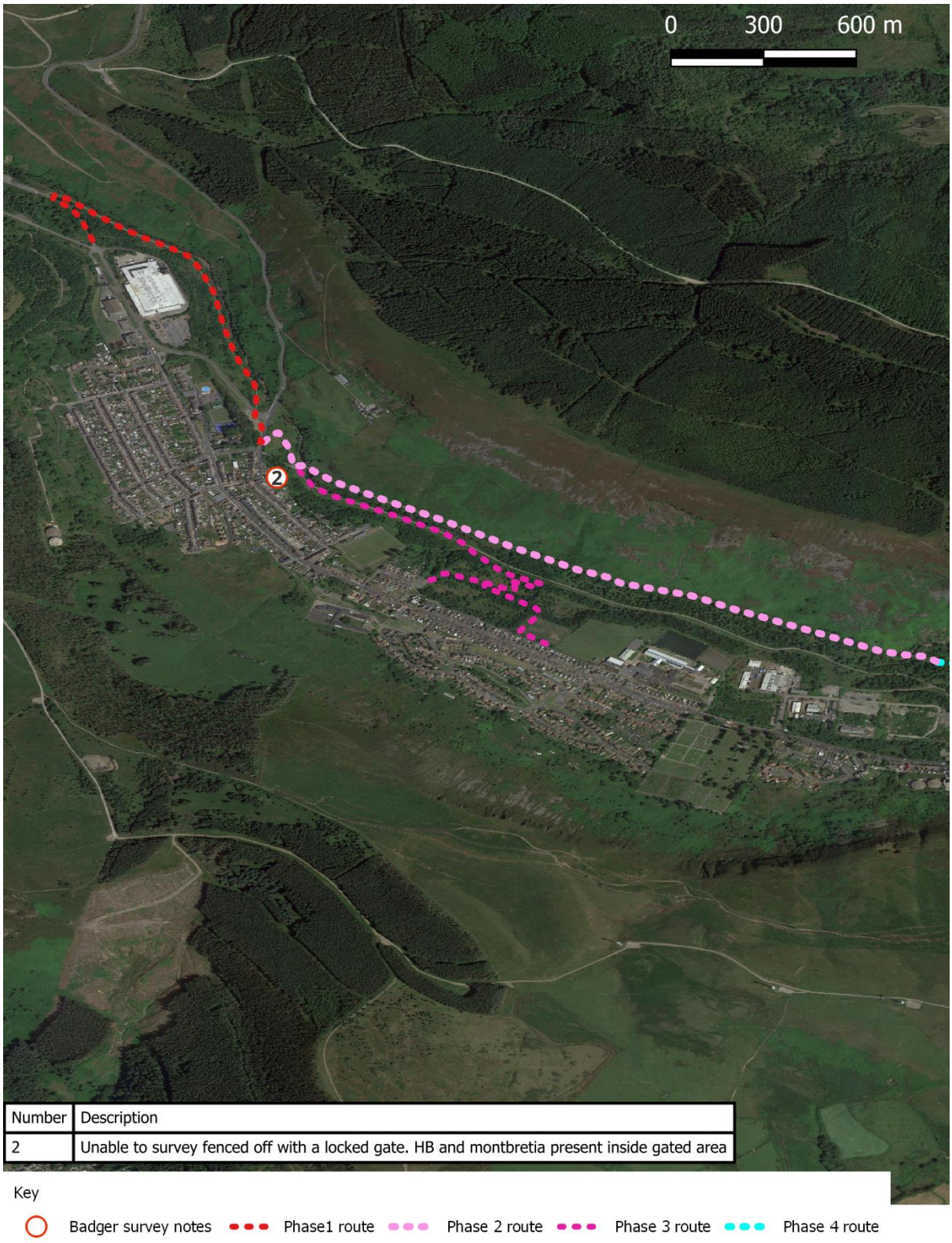
- Scheme outline
- Target notes
- Proposed phase 3 path
- Path
- Fence
- Watercourse
- A.1.1 Broad-leaved woodland, semi-natural
- A.1.3 Mixed woodland, semi-natural
- A.2.1 Scrub, dense/continuous
- B.1 Acid grassland
- SI B.6 Poor semi-improved grassland
- D.5 Dry heath/acid grassland mosaic
- G.1 Standing water
- J.4 Bare ground
- Road

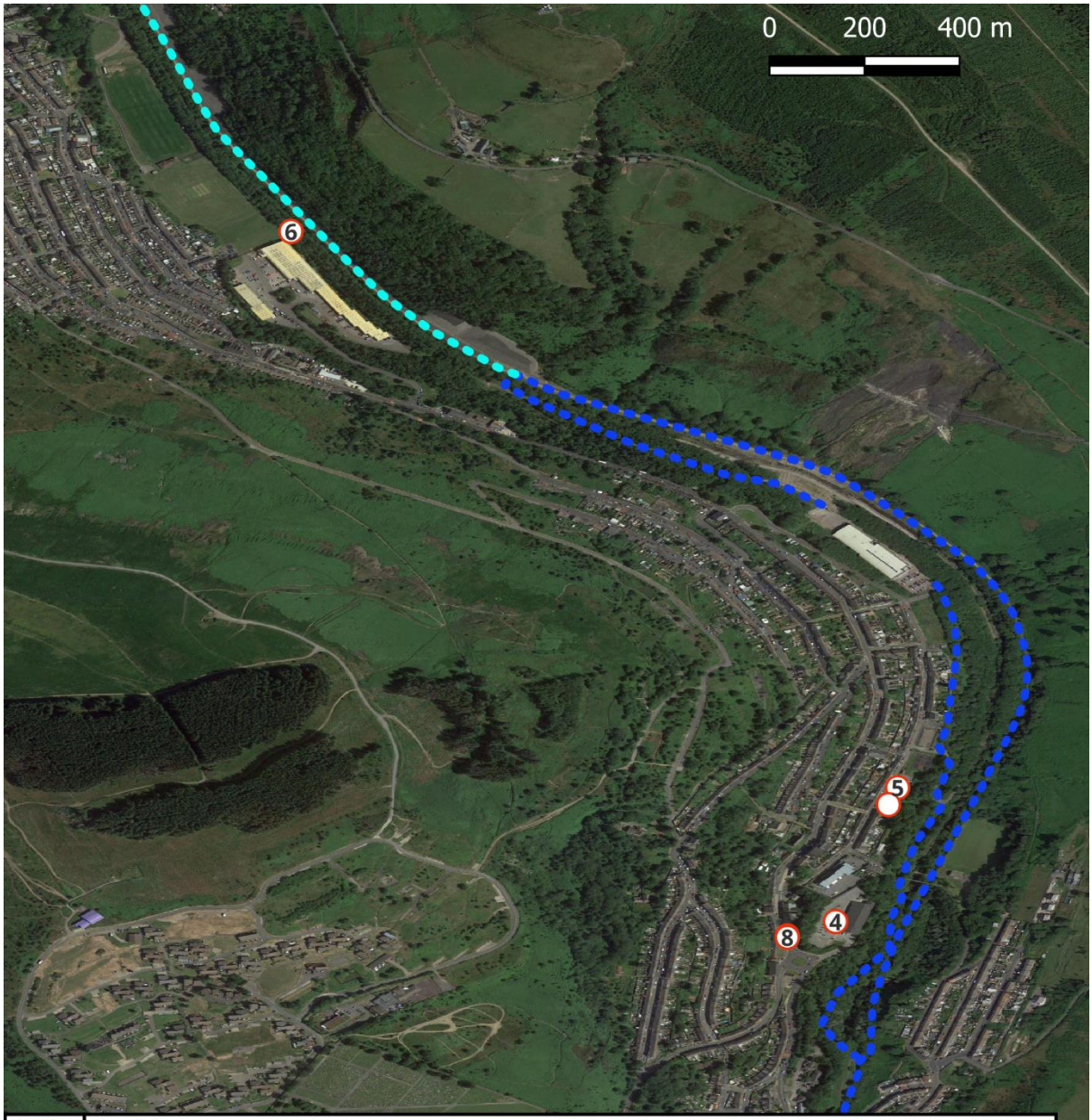
APPENDIX III: PROPOSED DEVELOPMENT PLAN




Location Plan
Scale 1:12,500
Rhondda Cynon Taf
County Borough Council
Rhondda Fach
Active Travel Route
Phase 3
Replacement Footbridge
Longitudinal Section of Proposed Bridge
Scale 1:50
Cross Section B-B Middle of Bridge
Scale 1:50
Cross Section A-A Middle of Bridge
Scale 1:50

APPENDIX IV: BADGER SURVEY RESULTS



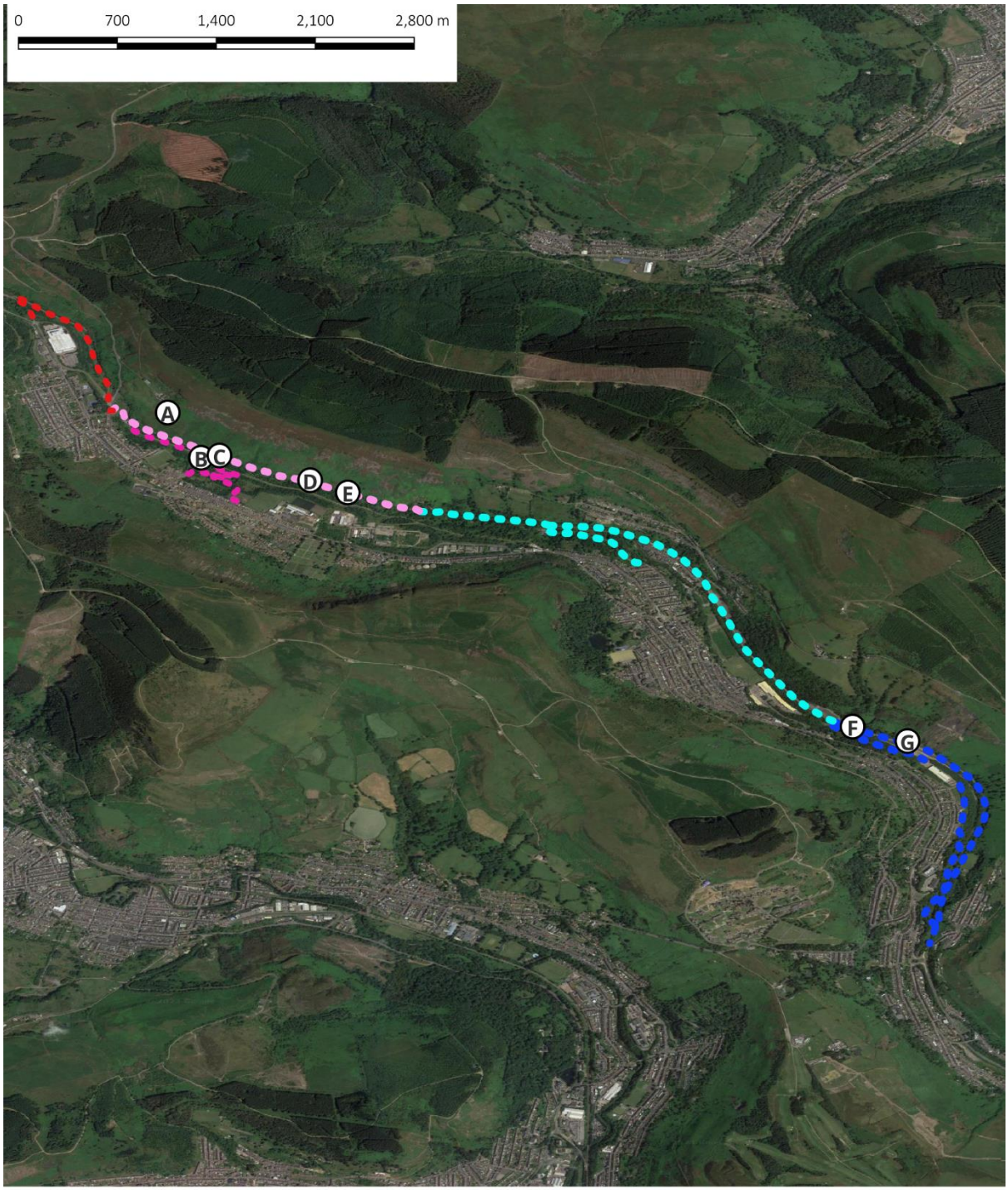


Number	Description
3	Narrow mammal path observed in woodland most likely rabbit, no evidence of badger seen
4	Narrow mammal path, no signs of badger, rabbit dropping observed
5	Narrow mammal run, no signs of badger, most likely rabbit
6	Very steep bank, unable to fully inspect a 30m distance for badgers, no evidence of badgers where survey was possible
8	Rabbit burrow
9	Dense scrub and steep river bank unsafe to fully inspect for badger, however no mammal paths were observed

Key

Badger survey notes Phase 4 route Phase 5 route

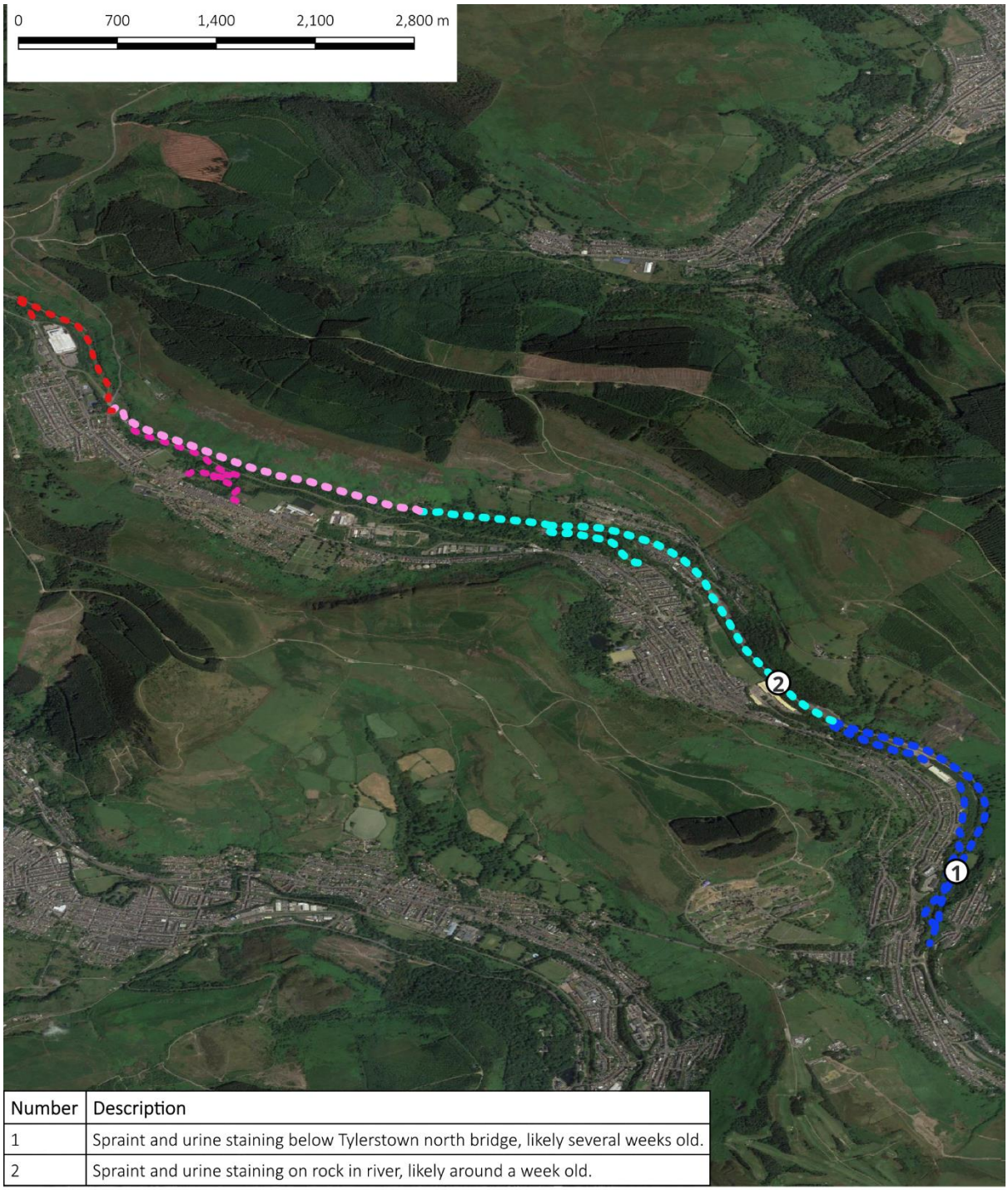
APPENDIX V: WATERBODY LOCATIONS FOR HSI SURVEY



Key

Pond reference location
Phase 2 route
Phase 4 route
Phase 5 route
Phase1 route
Proposed phase 3 path

APPENDIX VI: OTTER SURVEY RESULTS



Number	Description
1	Spraint and urine staining below Tylerstown north bridge, likely several weeks old.
2	Spraint and urine staining on rock in river, likely around a week old.

Key

Otter notes | Phase 2 route | Proposed phase 3 path | Phase 4 route | Phase 5 route | Phase1 route

APPENDIX VII: SURVEY PHOTOGRAPHS

Phase 4 photos

Figure 3 - Path from Blake Street car park.

Figure 4 - Grassland at entrance to central field.

Figure 5 - Scrub/ heath/ grassland mosaic with encroaching trees.

Figure 6 - Heath/ grassland mosaic, central field.

Figure 7 - Heath/ grassland mosaic, central field, encroaching trees.

Figure 8 - Heath/ grassland mosaic, central field, encroaching trees.

Figure 9 - Heath/ grassland mosaic, central field.

Figure 10 - Heath/ grassland mosaic, central field.

Figure 11 – Encroaching trees in central field.

Figure 12 – Path to east field (suitable for enhancement).

Figure 13 – East field, suitable for enhancement/ compensation.

Figure 14 - East field, suitable for enhancement/ compensation.

Figure 15 - East field, suitable for enhancement/ compensation.

Figure 16 - East field, suitable for enhancement/ compensation.

Figure 17 – Pond, northwest of site.

Figure 18 – Grassland to east of pond, along main path.

Figure 19 - Habitat along path edge along river corridor.

Figure 20 - Habitat along path edge along river corridor.

APPENDIX VIII: SPECIES LIST

To be submitted to the appropriate Local Records Centre (Save species list to word doc)

The Site Name:	Rhondda Fach Travel Route – Phase 3	**Provided by:**	Wildwood Ecology
Grid reference:	SS 97936 98042	**Verified by:**	Jenny O'Neill

Common name	Scientific name (if known)	Grid reference (if known)
FLORA		
Ash	*Fraxinus excelsior*	
Bell heather	*Erica cinerea*	
Bilberry	*Vaccinium myrtillus*	
Blackthorn	*Prunus spinosa*	
Bracken	*Pteridium aquilinum*	
Bramble	*Rubus fruticosus agg.*	
Broad-leaved dock	*Rumex obtusifolius*	
Buddleia	*Buddleja davidii*	
Bulbous buttercup	*Ranunculus bulbosus*	
Bulrush	*Typha latifoli*	
Cat's ear	*Hypochaeris radicata*	
Chickweed	*Stellaria media*	
Cleavers	*Galium aparine*	
Cocksfoot	*Dactylis glomerata*	
Common dog lichen	*Peltigera canina*	
Common haircap moss	*Polytrichum commune*	
Common heather	*Calluna vulgaris*	
Common knapweed	*Centaurea nigra*	
Common nettle	*Urtica dioica*	
Common sorrel	*Rumex acetosa*	
Common vetch	*Vicia sativa*	
Compact rush	*Juncus conglomeratus*	
Creeping buttercup	*Ranunculus repens*	
Crested dog's tail	*Cynosurus cristatus*	
Cross leaved heath	*Erica tetralix*	
Dandelion	*Taraxacum officinale agg.*	
Dogrose	*Rosa canina*	
Dogwood	*Cornus sanguinea*	
Elder	*Sambucus nigra*	
Evening primrose	*Oenothera biennis*	
Field maple	*Acer campestre*	
Field woodrush	*Luzula campestris*	
Foxglove	*Digitalis purpurea*	
Glaucous sedge	*Carex flacca*	
Goat willow	*Salix caprea*	
Gorse	*Ulex europaeus*	
Greater bird's foot trefoil	*Lotus pedunculatus*	
Greater willowherb	*Epilobium hirsutum*	
Grey willow	*Salix cinerea subsp. cinerea*	
Hard rush	*Juncus inflexus*	

Hawthorn	*Crataegus monogyna*	
Hazel	*Corylus avellana*	
Heather	*Calluna vulgaris*	
Herb Robert	*Geranium robertianum*	
Himalayan balsam	*Impatiens glandulifera*	
Hogweed	*Heracleum sphondylium*	
Hollyberry cotoneaster	*Cotoneaster bullatus*	
Ivy	*Hedera helix*	
Japanese knotweed	*Fallopia japonica*	
Jointed rush	*Juncus articulatus*	
Lady fern	*Athyrium filix-femina*	
Larch	*Larix sp.*	
Lesser trefoil	*Trifolium dubium*	
Male fern	*Dryopteris filix-mas*	
Marsh orchid.	*Dactylorhiza sp.*	
Marsh thistle	*Cirsium palustre*	
Meadow buttercup	*Ranunculus acris*	
Meadow thistle	*Cirsium dissectum*	
Neat feather moss	*Pseudoscleropodium purum*	
Oak	*Quercus spp.*	
Purple moor grass	*Molinia caerulea*	
Ragwort	*Senecio jacobaea*	
Red clover	*Trifolium pratense*	
Ribwort plantain	*Plantago lanceolata*	
Rosebay willowherb	*Chamerion angustifolium*	
Rowan	*Sorbus aucuparia*	
Self-Heal	*Prunella vulgaris*	
Sheep's fescue	*Festuca ovina*	
Silver birch	*Betula pendula*	
Small-Flowered cranesbill	*Geranium pusillum*	
Soft rush	*Juncus effusus*	
Spear thistle	*Cirsium vulgare*	
Springy turf-moss	*Rhytidiadelphus squarrosus*	
Sweet vernal grass	*Anthoxanthum odoratum*	
Sycamore	*Acer pseudoplatanus*	
Timothy	*Phleum pratense*	
Tormentil	*Potentilla erecta*	
Tufted hairgrass	*Deschampsia cespitosa*	
Water crowfoot	*Ranunculus aquatilis*	
White clover	*Trifolium repens*	
Wild angelica	*Angelica sylvestris*	
Willow	*Salix spp.*	
Willowherb.	*Epilobium spp.*	
Yew	*Taxus baccata*	
Ash	*Fraxinus excelsior*	
FAUNA		
Blackbird	*Turdus merula*	
Blue tit	*Cyanistes caeruleus*	
Bullfinch	*Pyrrhula pyrrhula*	
Buzzard	*Buteo buteo*	
Carrion crow	*Corvus corone*	

Chaffinch	*Fringilla coelebs*	
Common frog	*Rana temporaria*	
Common toad	*Bufo bufo*	
Dipper	*Cinclus cinclus*	
Dunnock	*Prunella modularis*	
Fox	*Vulpes vulpes*	
Goldcrest	*Regulus regulus*	
Goldfinch	*Carduelis carduelis*	
Great tit	*Parus major*	
Green woodpecker	*Picus viridis*	
Greenfinch	*Chloris chloris*	
Grey wagtail	*Motacilla cinerea*	
Herring gull	*Larus argentatus*	
House sparrow	*Passer domesticus*	
Jackdaw	*Corvus monedula*	
Lesser black-backed gull	*Larus fuscus*	
Long tailed tit	*Aegithalos caudatus*	
Magpie	*Pica pica*	
Mallard	*Anas platyrhynchos*	
Mole	*Talpa europaea*	
Nuthatch	*Sitta europaea*	
Otter	*Lutra lutra*	*ST0116695068, ST00042796472*
Orange-tip butterfly	*Anthocharis cardamines*	
Palmate newt	*Lissotriton helveticus*	
Peacock butterfly	*Aglais io*	
Raven	*Corvus corax*	
Robin	*Erithacus rubecula*	
Song thrush	*Turdus philomelos*	
White-tailed bumblebee	*Bombus lucorum*	
Woodpigeon	*Columba palumbus*	
Wren	*Troglodytes troglodytes*	

APPENDIX IX: BIBLIOGRAPHY

Andrews H. (2018). Bat Roosts in Trees - A Guide to Identification and Assessment for Tree-care and Ecology professionals: Bat Tree Habitat Key. Pelagic Publishing, Exeter.

Biggs J. et al (2014). Analytical and methodological development for improved surveillance of the Great Crested Newt. Technical advice note for field and laboratory sampling of great crested newt (*Triturus cristatus*) environmental DNA. Freshwater Habitats Trust, Oxford.

Bright, P., Morris, P. and Mitchell-Jones, A. (2006). The Dormouse Conservation Handbook. Second Edition. English Nature, Peterborough.

CIEEM (2017). Guidelines on Ecological Report Writing. Chartered Institute for Ecology and Environmental Management, Winchester.

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

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

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

Dean, M., Strachan, R., Gow, D. and Andrews, R. (2016). The Water Vole Mitigation Handbook (The Mammal Society Mitigation Guidance Series). Eds Fiona Mathews and Paul Chanin. The Mammal Society, London.

Defra (2007). Hedgerow Survey Handbook: A standard procedure for local surveys in the UK. 2nd Edition. Department for Environment, Food and Rural Affairs, London.

English Nature (2001). Great Crested Newt Mitigation Guidelines. English Nature, Peterborough.

Froglife (1999). Reptile survey: an introduction to planning, conducting and interpreting surveys for snake and lizard conservation. Froglife Advice Sheet 10. Froglife, Halesworth.

Harris, S., Cresswell, P. & Jefferies, D. (1989). Surveying Badgers. An occasional publication by the Mammal Society. No. 9. Mammal Society, London.

JNCC (2010). Handbook for Phase 1 habitat survey - a technique for environmental audit. Joint Nature Conservation Committee, Peterborough.

MAGIC England and Wales online at: https://magic.defra.gov.uk/home.htm.

Mitchell-Jones, A.J. (2004). Bat Mitigation Guidelines. English Nature, Peterborough.

Oldham, R.S., Keeble, J., Swan, M.J.S. and Jeffcote, M. (2000). Evaluating the suitability of habitat for the great crested newt (*Triturus cristatus*). Herpetological Journal, 10: 143-155.

Paul Chanin (2003). Monitoring the Otter: Conserving Natura 2000 Rivers Series No 10. English Nature, Peterborough.

Stephanie Peay (2003). Monitoring the White-clawed Crayfish *Austropotamobius pallipes*: Conserving Natura 2000 Rivers Series No 1. English Nature, Peterborough.

APPENDIX X: PLANNING POLICY AND LEGISLATION

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

Planning and biodiversity

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

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

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

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

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

- Pay particular attention to the principles of sustainable development, including respect for environmental limits, applying the precautionary principle, using scientific knowledge to aid decision making and taking account of the full range of costs and benefits in a long-term perspective;
- Contribute to the protection and improvement of the environment, so as to improve the quality of life and protect local and global ecosystems, seeking to avoid irreversible harmful effects on the natural environment;
- Promote the conservation and enhancement of statutorily designated areas and undeveloped coast;
- Ensure that appropriate weight is attached to designated sites of international, national, and local importance;
- Protect wildlife and natural features in the wider environment, with appropriate weight attached to priority habitats and species in Biodiversity Action Plans;
- Ensure that all material considerations are taken into account, and decisions are informed by adequate information about the potential effects of development on nature conservation;
- Ensure that the range and population of protected species is sustained;

- Adopt a step-wise approach to avoid harm to nature conservation, minimise unavoidable harm by mitigation measures, offset residual harm by compensation measures and look for new opportunities to enhance nature conservation; where there may be significant harmful effects local planning authorities will need to be satisfied that any reasonable alternative sites that would result in less or no harm have been fully considered;

Legislation and biodiversity

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

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

Environment (Wales) Act 2016

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

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

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

The Welsh Ministers must also take all reasonable steps to maintain and enhance the living organisms and types of habitat included in any list published under this section and encourage others to take such steps.

Wildlife & Countryside Act 1981 (as amended)

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

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

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

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

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

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

Conservation of Habitats and Species Regulations 2017 (as amended)

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

These regulations provide for the:

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

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

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

Licensing: it is possible for actions which would otherwise be an offence under the Regulations to be undertaken under licence issued by the proper authority. For

example, where a European Protected Species has been identified and the development risks deliberately affecting an EPS, then a 'development licence' may be required.

- Species protection

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

Amphibians

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

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

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

Badger

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

- Wilfully kill, injure, take, possess, or cruelly ill-treat[2] a Badger, or attempt to do so;
- To intentionally or recklessly interfere with a sett[3] (this includes disturbing Badgers whilst they are occupying a sett, as well as damaging or destroying a sett or obstructing access to it).

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

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

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

Bats

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

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

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

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

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

Birds

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

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

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

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

Dormice

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

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

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

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

Otters

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

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

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

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

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

Reptiles

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

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

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

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

