Pell Frischmann

# Bishop and Wolf Pumping Station and Screening Plant

## Bat Emergence Surveys Report

| | |
|---|---|
| **Report Ref.** | 107780-PEF-ZZ-602-TRP-GE-0002 Bat Emergence Survey Report - Bishop and Wolf |
| **File Path** | **https://acc.autodesk.eu/docs/files/projects/7df326d2-00c1-4176-a37d-3a5f9fccebf1?folderUrn=urn%3Aadsk.wipemea%3Afs.folder%3Aco.cwjpwVGkTzmXZ8K80g2Pug&entityId=urn%3Aadsk.wipemea%3Adm.lineage%3AC4RL7X1OTPKOkT67qLqyVA&viewModel=detail&moduleId=folders** |

| Rev | Suit | Description | Date | Originator | Checker | Approver |
|---|---|---|---|---|---|---|
| P01 | S4 | Initial Issue | 05 Dec 2024 | S Shaw | T Severn & C Gilby | C Gilby |
| | | | | | | |
| | | | | | | |
| | | | | | | |

Ref. reference. Rev revision. Suit suitability.

**Prepared for**

**Trant**

Rushington House
Rushington
Southampton
Hampshire
SO40 9LT

**Prepared by**

**Pell Frischmann**

5th Floor
85 Strand
London
WC2R 0DW

# Contents

Executive summary
1 Introduction ..... 1
1.1 Survey Scope ..... 1
1.2 Site Location and Baseline Conditions ..... 1
1.3 Scheme Description ..... 1
2 Legislation ..... 3
3 Assessment Methodology ..... 4
3.1 Desktop Study ..... 4
3.2 Building Assessment to Inform the Bat Emergence Surveys ..... 4
3.3 Bat Emergence Surveys ..... 4
3.4 Surveyors ..... 5
3.5 Accurate Lifespan of Ecological Data ..... 5
3.6 Survey Constraints and Limitations ..... 5
4 Results ..... 6
4.1 Desk Study and Bat Roosting Building Assessment ..... 6
4.2 Bat Emergence Survey ..... 6
5 Mitigation for Protected Species ..... 8
5.1 Lighting Mitigation ..... 8
5.2 Roosting Bats ..... 8
5.3 Enhancement Measures for Bats ..... 8
6 Report Limitations ..... 9
7 References ..... 10

**Figures**

Figure 1 Site location Plan ..... 2

**Tables**

Table 1 Emergence Survey Weather Conditions ..... 6

**Appendices**

Appendix A Bat Emergence Survey Location Maps

# Executive Summary

| | |
|---|---|
| **Site Name** | Bishop and Wolf Pumping Station and Screening Plant |
| **Location** | The site is located at the existing SWWL Bishop and Wolf sewage pumping station (SPS) located off Little Porth Road, Hugh Town, St Mary's, Isles of Scilly, TR21 0JG at Grid Reference: SV 90241 10502 (Easting 090241; Northing 010502).<br><br>The existing SPS is located behind retail, leisure, and residential properties along Garrison Lane, in the middle of Hugh Town, and is accessed from Little Porth Road via a shared access point.<br><br>The site consists of concrete hardstanding and the existing site. A wall separates the existing Bishop and Wolf pumping station from the Bishop and Wolf pub beer garden. Due to the increase in footprint of the building, a small section of the Bishop & Wolf Pub's outside space will be required. |
| **Surveys** | The Site contained a single building which was assessed as low potential and suitable as a transitional roost only. Features were observed which could offer some roosting opportunities for bats, in particular crevice dwelling species. Therefore, one bat emergence survey was completed using a mixture of acoustic monitoring equipment and infra-red video recording equipment. |
| **Survey Results** | No bats were observed emerging from the SPS building or the boundary wall by the field surveyor or during the analysis of video footage.<br><br>Very little bat activity was recorded during the summer survey with only three calls from nearby foraging common pipistrelle recorded during the survey. |
| **Recommendations** | Bats are considered likely absent from the building and no further action is required in relation to bats (BCT, 2023). However, as bats area mobile species mitigation has been provided to provide further avoidance measures.<br><br>To ensure that bats continue to use the commuting and foraging features surrounding the Site, it is recommended that any lighting used within the scheme is kept to a minimum and is carefully designed to prevent light spill onto important foraging and commuting features.<br><br>Enhancement measures for roosting bats have been proposed. |

# 1 Introduction

Pell Frischmann have been commissioned by Trant Engineering Limited (Trant, the 'Principal Contractor'), on behalf of South West Water Limited (SWWL, 'the undertaker'), to undertaken protected species surveys for the Bishop and Wolf Pumping Station and Screening Plant ('the proposed scheme'). The proposed scheme is located on the island of St Mary's, within the Isles of Scilly archipelago.

These surveys have been undertaken to fulfil the protected species survey requirements identified in the Ecological Impact Statement (EcIA) (report ref Pell Frischmann 107780-PEF-ZZ-602-TRP-GE-0001).

## 1.1 Survey Scope

The scope of these surveys was to identify

- The presence of bats and bat roosts within the buildings and within the Site boundary.

All United Kingdom (UK) bat species are afforded full protection under European and British law which makes it an offence to deliberately kill or injure individuals, damage their breeding or resting places, and/or obstruct access to their breeding or resting places.

Sufficient ecological information is required to fully inform the site design and the proposed works. Reports will enable the project to satisfy all current UK and European legal wildlife requirements, as well as national and local planning regulations. All public bodies have statutory obligations under the Natural Environment and Rural Communities (NERC) Act 2006 to conserve and enhance biodiversity.

## 1.2 Site Location and Baseline Conditions

The site is located at the existing SWWL Bishop and Wolf sewage pumping station (SPS) located off Little Porth Road, Hugh Town, St Mary's, Isles of Scilly, TR21 0JG at Grid Reference: SV 90241 10502 (Easting 090241; Northing 010502).

The existing SPS is located behind retail, leisure, and residential properties along Garrison Lane, in the middle of Hugh Town, and is accessed from Little Porth Road via a shared access point.

The site consists of concrete hardstanding and the existing site. A wall separates the existing Bishop and Wolf pumping station from the Bishop and Wolf pub beer garden. Due to the increase in footprint of the building, a small section of the Bishop & Wolf Pub's outside space will be required.

The location of the building subject to the bat emergence survey is shown below in Figure 1 and survey locations are attached in Appendix A.

## 1.3 Scheme Description

The proposed scheme consists of the construction of an enlarged wastewater infrastructure building, which will replace the existing Bishop and Wolf SPS building. The new building will house new variable-speed pumps and a new screening plant. The screening plant will remove objects such as rags, paper, plastics, and metals to prevent damage and clogging of downstream equipment, piping, and appurtenances as well as ensuring they do not enter the marine environment. The proposed scheme layout is shown in drawing 107780-PEF-WW-602-DDR-C-0005.

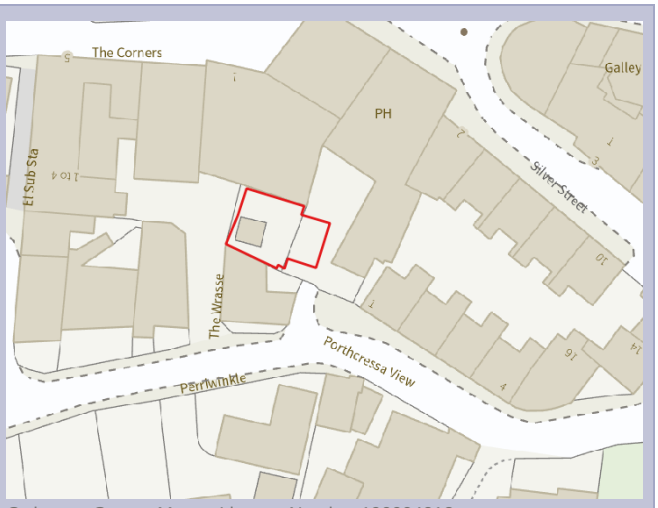
The plant will operate intermittently as required on a 24/7 basis, operation could occur at any time.

The proposed scheme will improve the resilience of the wastewater system, bringing benefit to all residents and visitors to St Mary's. Residents in close proximity will further benefit from the replacement of the existing infrastructure with modern plant, incorporating improved noise attenuation and odour control facilities.

The replacement pumps will be sized to ensure the conditions of the Atlantic CSO permit are met. Screens will be fitted with 3mm mesh to comply with the discharge permit conditions. Screens will have a 30 l/s flow rate.

**Figure 1 Bat Emergence Survey building location Plan**

Google Earth Imagery - License Number JCPMB2ZBMMAWBHP




Ordnance Survey Maps - License Number 100004912

# 2 Legislation

Following the exit of the UK from the European Union (EU) in January 2020 the UK related legislation has been retained and bats still receive the same level of protection. Bats are a European Protected Species under the EC Habitats Directive 92/43/EEC. In England and Wales all bat species are fully protected under The Conservation of Habitats and Species Regulations 2017 (as amended) and the Wildlife and Countryside Act 1981 (as amended) and The Environment Act 2021.

Under this legislation, it is illegal to:

- intentionally or deliberately* kill, injure or capture (or take) bats
- deliberately disturb bats (whether in a roost or not)
- recklessly disturb roosting bats or obstruct access to their roosts
- damage or destroy bat roosts
- possess or transport a bat or any part of a bat, unless acquired legally
- sell or exchange bats, or parts of bats.

* In a court, 'deliberately' will probably be interpreted as someone who, although not intending to capture/injure or kill a bat, performed the relevant action, being sufficiently informed and aware of the consequence which his/her action will most likely have.

Some bat species are also included in the Schedule 41 list of UK priority species. Under the Natural Environment and Rural Communities (NERC) Act 2006, local authorities must consider the conservation of these species in planning decisions.

In many cases, it should be possible to avoid harming the bats or damaging/blocking access to their habitat. If this cannot be avoided, a mitigation licence will need to be granted from Natural England prior to works commencing. Planning Permission will need to be granted prior to this application.

# 3 Assessment Methodology

## 3.1 Desktop Study

To accurately assess the potential ecological impacts of the scheme, a desktop study was undertaken during the EcIA to identify the presence of sensitive ecological receptors at the site and within the surrounding area.

Full details of the desktop study (including all relevant legal and policy issues) can be found within the EcIA report (Report Ref. 107780-PEF-ZZ-602-TRP-GE-0001) and details regarding bat and bat roost records have been summarised in Section 4 of this report. This includes reference to granted European Protected Species licence applications for disturbance of bat roosts in England on the multi-agency geographical information centre (MAGIC) website.

## 3.2 Building Assessment to Inform the Bat Emergence Surveys

### 3.2.1 Roosting Habitat

Bats can use a number of features in buildings to rest, give birth, raise young and/or hibernate. Bat roosts may be found in the following PRFs within buildings/structures:

- Roof features including broken and missing ridge and roof tiles, and underneath lead flashing
- Beneath roofing felt
- Roof joists and the wider loft space
- Dormer windows
- Within space behind soffit boards, fascia boards and gable ends
- Space behind downpipes and gutters
- Loose mortar between bricks
- Within porch structures
- Behind hanging tiles

## 3.3 Bat Emergence Surveys

The methodology for the bat emergence surveys followed that described in the Bat Surveys for Professional Ecologists Good Practice Guidelines (4th Edition, Bat Conservation Trust 2023) for emergence surveys. The buildings with PRF features within the Site were assessed as having low suitability. Due to having been assessed as follows:

- Low roost suitability, one emergence survey to be conducted during 2024 (May to August for buildings and structures).

Dusk bat emergence visits are undertaken with surveyors watching (using a night vision aid (NVA)), listening for and recording bats (using a bat detector) exiting and re-entering roosts at the time of survey. These presence/absence surveys will confirm the need for any further surveys and mitigation.

Surveys should be conducted at least three weeks apart. Survey timings should consider prevailing weather conditions for the geographic region. The surveys should be planned to maximise the chance of detecting a maternity roost.

This methodology involves using infrared cameras as NVA to observe PRFs identified during the preliminary roost assessment conducted in tandem with the preliminary ecological appraisal.

Bat emergence surveys are conducted from 15 minutes prior to sunset until 1.5 – 2 hours after sunset.

Surveyors are equipped with bat detectors and infrared (IR) recording cameras with infrared lights to provide illumination to the PRFs being surveyed.

## 3.4 Surveyors

All surveys were completed by suitably qualified ecologists from Pell Frischmann.

Bat surveys were led by Principal Ecologist C Gilby MCIEEM, who has 10 years commercial survey experience and holds Natural England (NE) survey class licence level 1 (2020-46068-CLS-CLS.

## 3.5 Accurate Lifespan of Ecological Data

The majority of ecological data remains valid for only short periods due to the inherently transient nature of the subject. The survey results contained in this report are considered accurate for approximately 2 years, notwithstanding any considerable changes to the site conditions.

It should also be noted that bats are highly mobile species and will move throughout the landscape using multiple available habitats/roost spaces. Therefore, bats may be found in suitable roosting spaces during any part of the year.

## 3.6 Survey Constraints and Limitations

The survey has been considered to not have to had been constrained.

# 4 Results

## 4.1 Desk Study and Bat Roosting Building Assessment

Records of protected and notable species which have been identified within a 2km boundary of the Site have been provided by The Environment Records Centre for Cornwall and the Isles of Scilly (ERCCIS). Records of granted European Protected Species Licences have been provided by the Multi-Agency Geographic Information for the Countryside (MAGIC).

| Species | Overview of Desk Study | Overview of Survey Results and Justification of Value | Intrinsic Value in the context of the Site |
|---|---|---|---|
| Bats | ERRCIS returned 3,124 records for bats within St Mary's since 2003. The closest record is for a common pipistrelle (*Pipistrellus pipistrellus*. The most recent year recorded was 2019. Six records of soprano pipistrelle *(Pipistrellus pygmaeus)* and 19 records of unidentified bat (species not recorded) (*Chiroptera sp*.) have also been recorded.<br><br>Additional data from the 'Bats of the Isles of Scilly 2022' report was also reviewed (https://www.ios-wildlifetrust.org.uk/sites/default/files/2023-08/BigScillyBatSurveyReport2022FINAL.pdf), and it is understood that species recorded on St Mary's through this study included common pipistrelle, soprano pipistrelle (*Pipistrellus pygmaeus*), and Nathusius' pipistrelle (*Pipistrellus nathusii*). The report notes that prior knowledge was that potentially Leisler's bat (*Nyctalus leisleri*) and/or serotine bat (*Eptesicus serotinus*) had also been recorded.<br><br>A search of MAGIC returned no Granted EPSL for bats on St Mary's. | **Bat Foraging and Commuting**<br><br>Bat activity surveys were not required due to the very small nature of the proposed scheme.<br><br>**Bat Roosting Potential**<br><br>Features were observed on the east and southeast sides of the SPS building which could offer some roosting opportunities for bats, in particular crevice dwelling species such as common pipistrelle. The building has a pump which turns on and off periodically and causes some level of noise and the internal condition of the building appeared in good repair. There was a false ceiling however no access hatch was present to enable further roof inspection.<br><br>The boundary stone wall included features which could offer potential for opportunistic bats to roost.<br><br>Overall, the building and the boundary wall were assessed as having 'low' potential for roosting bats.<br><br>**Overall**<br><br>A value of 'low' has therefore been assigned to bats in the context of the Stie in relation to foraging.<br><br>A value of 'low' would be considered suitable for roosting bats as there remains roosting potential within the Site but in limited importance. | Low |

## 4.2 Bat Emergence Survey

The bat emergence surveys were undertaken on the 20 August 2024. Table 1 below table presents timings and the weather conditions during the surveys undertaken.

**Table 1 Emergence Survey Weather Conditions**

| Date | Survey 1 - 20/08/2024 |
|---|---|
| Sunset Time | 20:28 |
| Survey Start | 19:58 |
| Survey End | 21:58 |

| Date | Survey 1 - 20/08/2024 |
|---|---|
| Temperature at Start | 18 |
| Temperature at End | 11 |
| Wind (Beaufort Scale) | 1 |
| Cloud Cover (%) | 25 |
| Precipitation | 0 |

### 4.2.1 Bat Emergence Survey Results

A single species of bat was recorded by sound during the bat emergence survey, this was common pipistrelle (*Pipistrellus pipistrellus*) and was first recorded at 21:05.

Very little bat activity was recorded during the summer survey with only three calls from nearby foraging common pipistrelle recorded during the survey.

No bats were observed emerging from the SPS building or the boundary wall by the field surveyor or during the analysis of video footage. It is therefore considered that bats are likely absent from the building.

# 5 Mitigation for Protected Species

The ecological impact hierarchy requires that all steps are taken to avoid adverse impacts to habitats and species. Only where impacts cannot be avoided, steps should be taken to mitigate for any losses within the scheme boundary. In cases where all options for on-site mitigation have been exhausted, offsite compensation measures can be considered.

If any protected species are found during the works, construction in that area should stop immediately and an ecological specialist should be consulted, in line with UK legislation.

The following recommendations have been proposed to minimise the potential ecological impacts during the scheme design. These will be further detailed within an Ecological Impact Assessment (EcIA) suitable for submission to planning on receipt of the final development plan.

## 5.1 Lighting Mitigation

To ensure that bats continue to use the commuting and foraging features surrounding the Site, it is recommended that any lighting used within the scheme (including during both construction and operation) is kept to a minimum and is carefully designed to prevent light spill onto important foraging and commuting features.

Artificial lighting has been found to affect the feeding behaviour of bats in two ways; one is the attraction that light from certain types of lamps has to a range of insects; the other is the presence of lit conditions generating avoidant behaviour of bats (BCT, 2023). It is recommended that lighting on Site is kept to a minimum and with the lighting plan developed with regards to minimising light spill.

## 5.2 Roosting Bats

Bats are considered likely absent from the building and no further action is required in relation to bats (BCT, 2023).

However, as bats area mobile species mitigation has been provided to provide further avoidance measures.

The building displayed features suitable for a transitional roost only and not suitable for a hibernation roost. Therefore, it is recommended that demolition works of the building are undertaken between November 1st and March 1st when bats would be least likely to be present. Where this is not possible it is recommended that a suitably licenced ecologist is present during the roof strip.

In the unlikely event that roosting bats are identified during demolition, works must stop immediately, and a Mitigation Licence for a European Protected Species Licence (EPSL) will be required from Natural England prior to tree removal being completed.

Mitigation required under the EPSL would likely involve the creation or the replacement of roost sites and would be confirmed following the additional pre-commencement surveys.

## 5.3 Enhancement Measures for Bats

Where practicable, opportunities to incorporate bat boxes, bat tiles or bat bricks into the new building should be explored at the detailed design stage.

# 6 Report Limitations

The information reported herein is based only on the interpretation of data collected during the bat activity and tree climbing survey visits. This work pertains specifically to the identification of great crested newt on the proposed site. Information provided to Pell Frischmann has been accepted as being accurate and valid.

This report has been prepared by Pell Frischmann with all reasonable skill, care and diligence, and taking account of the manpower and resources devoted to it by agreement with the client.

The evaluation and conclusions do not preclude the existence of other protected species, which could not reasonably have been revealed by the comprehensive desk studies, site visit and protected species surveys. Hence, this report should be used for information purposes only and should not be construed as a comprehensive characterisation of all site habitats.

In addition, this report details only the conditions on site, at the time of reporting. The dynamic nature of the natural environment will result in changes to the surrounding environment as seasons change. No responsibility is taken by Pell Frischmann to the existence of additional species identified on this site at a later date.

This report has been prepared solely for the use of Trant and may not be relied upon by other parties without written consent from Pell Frischmann. In addition, it must be understood that this report does not constitute legal advice.

Pell Frischmann disclaims any responsibility to the client and others in respect of any matters outside the agreed scope of the work.

# 7 References

Environmental Records Centre for Cornwall and the Isles of Scilly Data Search (14th July 2023)

Guidance Note GN08/23 Bats and Artificial Lighting At Night: Bat Conservation Trust 2023 [Online] Available: Guidance Note 8 Bats and Artificial Lighting | Institution of Lighting Professionals (theilp.org.uk)

Collins, J. (ed.). 2023. Bat Surveys for Professional Ecologists: Good Practice Guidelines, 4th Edition. The Bat Conservation Trust, London.

Institute of Environmental Assessment. 1995. Guidelines for Baseline Ecological Assessment. London: E &FN Spon.

Joint Nature Conservation Committee. 2010 edition. Handbook for Phase 1 Habitat Survey – a technique for environmental audit. Peterborough: Nature Conservancy Council.

Multi Agency Geographical Information on the Countryside (MAGIC) [online].
Available at: http://magic.defra.gov.uk

His Majesty's Stationery Office (2006). Natural Environment and Rural Communities Act 2006. [online 2006:]

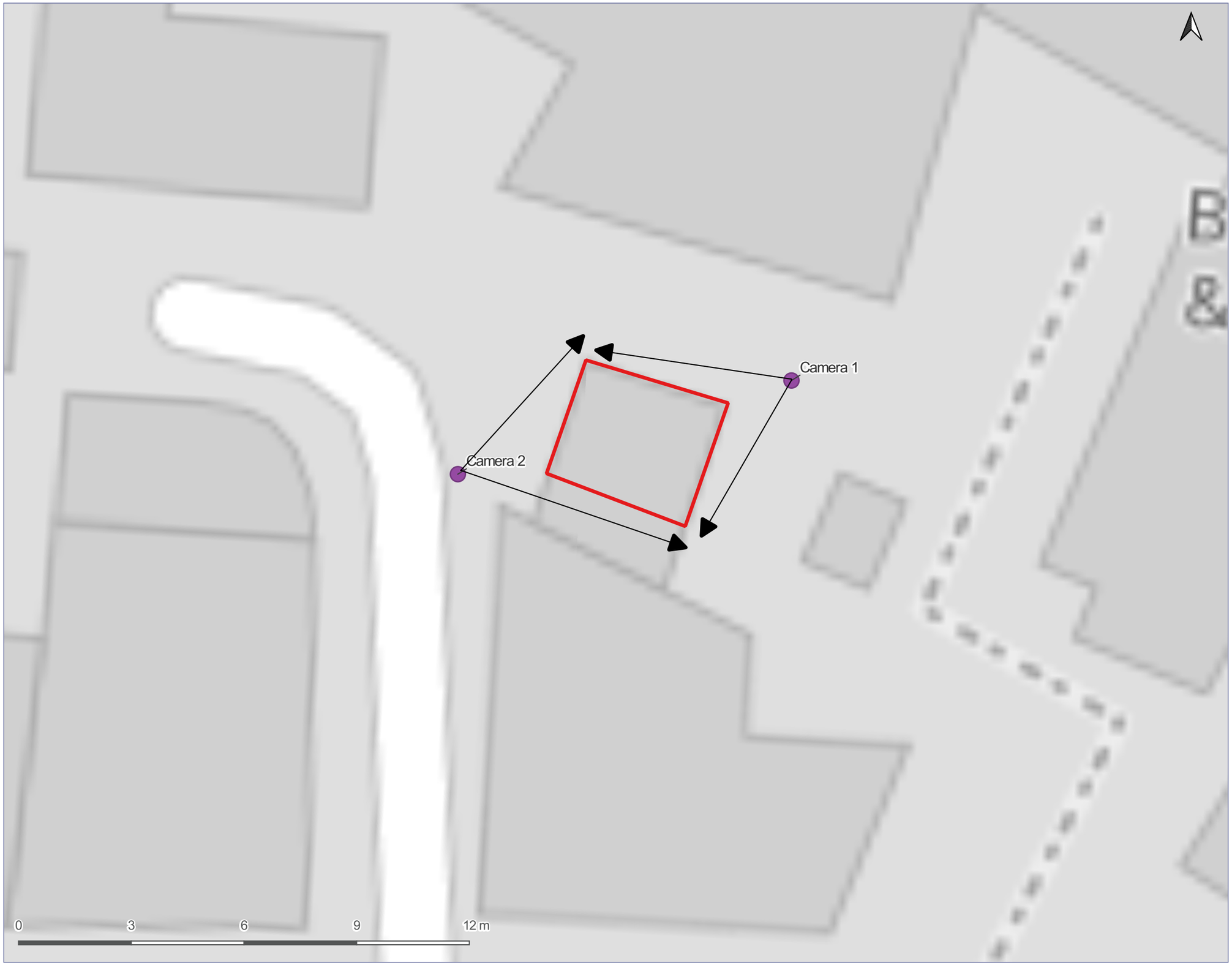
European Union 1992. Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora. Also known as: The Habitats Directive (Council Directive 92/43/EEC) [online:] Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A31992L0043

His Majesty's Stationery Office (2021). Environment Act 2021 [online:} Available at: https://www.legislation.gov.uk/ukpga/2021/30/contents

His Majesty's Stationery Office (2017). The Conservation of Habitats and Species Regulations 2017 (as amended). [online:] Available at:https://www.legislation.gov.uk/uksi/2017/1012/contents

His Majesty's Stationery Office (1981). The Wildlife and Countryside Act 1981 (as emended):. [online:] Available at: https://www.legislation.gov.uk/uksi/2017/1012/contents

# Appendix A Bat Emergence Survey Location Maps




Legend
- Camera locations
- B&W building

Scale 1:100 at A3