



The Former Stag Brewery, Mortlake

Supplementary Protected Species Report

September 2022

Waterman Infrastructure & Environment Limited

Pickfords Wharf, Clink Street, London, SE1 9DG www.watermangroup.com



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Date

Prepared by Zinnia Pennington/ Lee

Mantle

Graduate Ecologist/ Ecologist

Som Little

Checked by

Diane Corfe
Technical Director

Approved by
Diane Corfe
Technical Director

Comments

Issue

Comments



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1. Introduction

- 1.1. This Supplementary Protected Species Report (PSR) has been prepared by Waterman Infrastructure & Environment Limited (Waterman) on behalf of Reselton Properties Limited ("the Applicant") to accompany two linked planning applications ("the Applications") for the comprehensive redevelopment of the former Stag Brewery Site in Mortlake ("the Site") within the London Borough of Richmond upon Thames (LBRuT).
- 1.2. This report has been updated from its previous version¹ that accompanied the Applications (ref. 22/0900/OUT (Application A) and 22/0902/FUL (Application B) as submitted in March 2022. This is due to consultation received from LBRuT at the end of May 2022 (see Consultation Section and Appendix A) requesting supplementary ecological surveys in 2022 to allow the full determination of ecological aspects of the Applications.
- 1.3. The former Stag Brewery Site is centred on Ordnance Survey Grid Reference TQ204 760 and is bounded by Lower Richmond Road to the south, the River Thames and the Thames Bank to the north, Williams Lane to the east and Bulls Alley (off Mortlake High Street) to the west. The Site is bisected by Ship Lane. The Site currently comprises a mixture of large-scale industrial brewing structures, large areas of hardstanding and playing fields.

Historical Ecological Survey Work

- 1.4. Historical ecological surveys were undertaken in 2016 and 2017 to accompany three separate planning applications for the Site, which were submitted to the London Borough of Richmond-Upon-Thames (LBRuT) in 2018 (ref. 18/0547/FUL, 18/0548/FUL and 18/0549/FUL) as detailed below:
 - Application A hybrid planning application for comprehensive mixed-use redevelopment of the former Stag Brewery site consisting of:
 - Land to the east of Ship Lane applied for in detail (referred to as 'Development Area 1' throughout); and
 - Land to the west of Ship Lane (excluding the school) applied for in outline (referred to as 'Development Area 2' throughout).
 - Application B detailed planning application for the school (on land to the west of Ship Lane).
 - Application C highways and landscape works at Chalkers Corner.
- 1.5. The ecological survey work in support of the LBRuT planning applications detailed above comprised an initial PEA². Based on the results of this PEA further surveys as detailed in a Protected Species Report³ (PSR)were also undertaken between 2016 and 2017.
- 1.6. Following the Applicant submitting revisions to the Greater London Authority (GLA) in 2020 (ref. 4172 (Application A), 4172a (Application B) 4172b (Application C withdrawn)) ecological survey works comprising an updated PEA⁴ together with further update surveys as detailed in a Protected Species Report⁵ were also undertaken in 2019. The applications submitted in 2020 detailed above to the GLA were refused in July 2021.
- 1.7. A summary of all the historical ecological survey work undertaken for previous planning



applications covering the Site are presented in Table 1.

Table 1: Historical Ecological Survey Work

Planning Application Ref	Ecological Survey Work Undertaken	Date of Assessment and Reporting
	PEA (ref. WIE10667-100-R-1-3-1-PEA) -comprising an ecological data search, 'Extended' Phase 1 Habitat Survey, a search for common invasive floral species, and a Preliminary Roost Assessment (PRA) (ground based and external only) of buildings and trees for bats.	PEA components undertaken between January 2016 to April 2017 with reporting finalised in February 2018.
LBRuT -18/0547/FUL, 18/0548/FUL, and 18/0549/FUL (the 2018 Planning Applications) GLA - ref 4172, 4172a, and 4172b (withdrawn) (the 2020 Planning Applications)	PSR (ref. WIE10667-100-R-7-3-1-PSR) - comprising a Preliminary Roost Assessment (ground based and external only) of accessible buildings, evening emergence and pre-dawn reentry bat surveys at buildings and trees, bat activity and automated surveys, and breeding bird surveys (specifically for black redstart <i>Phoenicurus ochruros</i>)	PSR components undertaken between May 2016 to September 2017 with reporting finalised in February 2018.
	PRA (ref. WIE10667-103-BN-2-1-2-LM) – comprising an external and endoscope inspection of the northern boundary wall.	PRA of the northern boundary wall undertaken in October 2018 with reporting also finalised in October 2018.
	PEA (ref. WIE15582-102-R-1-2-3-PEA) - comprising an ecological data search, 'Extended' Phase 1 Habitat Survey, a search for common invasive floral species, and a PRA (ground based and external only) of buildings and trees.	PEA components undertaken in July 2019 with reporting finalised in May 2020.
	PSR (ref. WIE15582-102-R-2-3-1-PSR) - comprising a PRA of the northern boundary wall (external and endoscope inspection of), evening emergence and pre-dawn re-entry bat surveys at buildings and trees, bat activity and automated surveys.	PSR components undertaken between July 2019 to September 2019 with reporting finalised in May 2020.

Proposed Development

1.8. The current proposals for the Site (hereafter referred to as the proposed 'Development') are for a redevelopment that will provide homes (including affordable homes), complementary commercial uses, community facilities, a new secondary school alongside new open and green spaces throughout. Associated highway improvements are also proposed, which include works at Chalkers Corner junction.



1.9. The Applications seek planning permission for:

Application A:

"Hybrid application to include the demolition of existing buildings to allow for comprehensive phased redevelopment of the site:

Planning permission is sought in detail for works to the east side of Ship Lane which comprise:

- a) Demolition of existing buildings (except the Maltings and the façade of the Bottling Plant and former Hotel), walls, associated structures, site clearance and groundworks
- b) Alterations and extensions to existing buildings and erection of buildings varying in height from 3 to 9 storeys plus a basement of one to two storeys below ground
- c) Residential apartments
- d) Flexible use floorspace for:
 - i. Retail, financial and professional services, café/restaurant and drinking establishment uses
 - ii. Offices
 - iii. Non-residential institutions and community use
 - iv. Boathouse
- e) Hotel / public house with accommodation
- f) Cinema
- g) Offices
- h) New pedestrian, vehicle and cycle accesses and internal routes, and associated highway works
- i) Provision of on-site cycle, vehicle and servicing parking at surface and basement level
- j) Provision of public open space, amenity and play space and landscaping
- k) Flood defence and towpath works
- I) Installation of plant and energy equipment

Planning permission is also sought in outline with all matters reserved for works to the west of Ship Lane which comprise:

m) The erection of a single storey basement and buildings varying in height from 3 to 8 storeys



- n) Residential development
- o) Provision of on-site cycle, vehicle and servicing parking
- p) Provision of public open space, amenity and play space and landscaping
- q) New pedestrian, vehicle and cycle accesses and internal routes, and associated highways works"

Application B:

"Detailed planning permission for the erection of a three-storey building to provide a new secondary school with sixth form; sports pitch with floodlighting, external MUGA and play space; and associated external works including landscaping, car and cycle parking, new access routes and other associated works"

1.10. Together Applications A and B described above, including the proposed Section 278 Highways works are hereafter referred to as the 'Development'. Full details and scope of the detailed planning application is detailed in the submitted Planning Statement, prepared by Gerald Eve LLP (report ref: NTH/AKG/CST/STHO/J7699).

Aims and Objectives of this Assessment

- 1.11. The aims and objectives of this Supplementary PSR are based on the findings of the PEA⁶ (hereafter referred to as the 2022 PEA) and the PSR⁷ (hereafter referred to as the 2022 PSR) that accompanied the Applications submitted in March 2022 and the consultation received from LBRuT received in Late May 2022 (see Consultation Section and Appendix A) that requested supplementary ecological surveys in 2022. The findings of these supplementary ecological surveys and any requirements for the proposed Development to provide additional mitigation and or compensation measures have been detailed in the report. For completeness the findings of the PSR that accompanied the Applications in March 2022 has also been included within this report.
- 1.12. The 2022 PEA comprised an ecological data search, UK Habitat Classification (UK Hab) field survey, a preliminary roost assessment (PRA) at buildings, walls and trees (external and ground based), and a survey for common invasive plant species. As a result of the 2022 PEA the Site was assessed to still have the potential to support roosting bats, and to be of value to foraging and commuting bats.
- 1.13. A preliminary roost assessment (PRA), as part of the 2022 PEA, was undertaken which noted that the following buildings, walls and trees as located in **Figure 1** to have the potential to support roosting bats as detailed in **Table 2**.

⁶Waterman IE February 2022 Preliminary Ecological Appraisal. Stag Brewery. Ref: WIE18671-103-R-1-2-4-PEA ⁷Waterman IE February 2022. Protected Species Report. Stag Brewery. Ref: WIE103-R-4-2-3-PSR



Table 2: PRA Results 2022

Building / Wall / Tree Ref	Recorded Bat Roost Suitability
Building B13, B9 the Maltings*, B10/11 and B18 the off Site Jolly Gardeners pub	Moderate
Building B14, B12, and B17	Low
Southern boundary wall	Moderate
Northern boundary wall	Moderate
Tree T43, T44, T67, T68, T71, T75, T78, T83, T157 and T321	Moderate
Tree T3, T10, T37, T73, T74, T84, T94 and T121	Low

^{*}Building previously recorded as a confirmed roost site in 2019

- 1.14. All other buildings, walls and trees on Site were recorded to have negligible potential to support roosting bats.
- 1.15. The 2022 PEA assessed that the Site itself offered limited foraging and commuting opportunities for bats, as most of the Site was made up of developed land comprising buildings and hardstanding. However, the trees located around the periphery and within the north-western corner of the Site offer some foraging and commuting opportunities for bats. The River Thames, located adjacent to the Site, also offers good commuting and foraging opportunities. For this reason, the Site overall was assessed to have low suitability for foraging and commuting bats.
- 1.16. The 2022 PEA scoped out all other ecological features including designated sites for nature conservation (excluding the River Thames and Tidal Tributaries SMI however protection measures during the proposed Development construction phase were proposed), on Site habitats, breeding birds (including peregrine falcon and black redstart) and terrestrial invertebrates. It should be noted that invasive plant species as listed on Schedule 9 of the Wildlife & Countryside Act 1981 (as amended) including Virginia creeper, Himalayan balsam and false-acacia were recorded on Site along with species listed under the London Invasive Species Initiative (LISI), comprising butterfly bush, tree of heaven.
- 1.17. Although breeding birds (including peregrine falcon and black redstart) were scoped out as part of the 2022 PEA as reported in the 2022 PSR, on the 4th October 2021 a single peregrine falcon was heard calling from the direction of building B2 during the day and then during an evening emergence bat survey on the same day at building B9 the Maltings, where a single peregrine falcon was observed entering the south west corner (**Appendix B**; Plate 1) (8 storeys high). The bird was recorded entering building B9 the Maltings through a gap in the wooden boarding 20 minutes post sunset (just as light levels were fading). The bird was not observed to have reemerged from the building for the remainder of the bat survey, by any of the four surveyors that surrounded the building.



2. Methodology

Bat Surveys

Preliminary Roost Assessment

- 2.1. In response to consultation received from LBRuT at the end of May 2022 (see consultation section and **Appendix A**) additional survey effort was made to determine if an internal Preliminary Roost Assessment (PRA) was possible at the buildings on Site. Where possible (see limitations and results section of this report) the PRA was undertaken by Lee Mantle MCIEEM who holds a Natural England Class 2 Licence (2015-14934-CLS-CLS) for all bat species and counties of England.
- 2.2. The survey was based on current best practice guidelines⁸ where each building was re-evaluated for its potential to support roosting bats with reference to the criteria in **Table 3**.

Table 3: Adapted Building Assessment Guidelines

Assigned Bat Roosting Potential	Description
Known or confirmed roost	Evidence of roosting bats within a building.
High	A building with one or more Potential Roost Features (PRFs) that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.
Moderate	A building with one or more PRFs that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only).
Low	A building with one or more PRF that could be used by individual bats opportunistically. However, these PRFs do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation).
Negligible	Negligible habitat features at a building likely to be used by roosting bats.

Northern boundary wall Inspection

- 2.3. An inspection of the northern boundary wall, (**Figure 2**) was undertaken on 4th October 2021 and 10th August 2022 given the results of the PRA (**Appendix C**). The inspection was based on current best practice guidelines⁹.
- 2.4. The inspection was undertaken at the entity of the wall including each PRF recorded during the 2021 PRA as part of the PEA. The inspection was undertaken with the use of a digital video endoscope (Ridgid Seesnake inspection camera), inspection mirrors, binoculars, high-powered torch and a ladder when required to inspect PRFs at height. The inspection searched for evidence of bat use (such as droppings, scratch marks, staining and sightings) as well as bats themselves,

⁸ Collins, J. (ed) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn). The Bat Conservation Trust, London. ISBN-13 978-1-872745-96-1

⁹ Collins, J. (ed) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn). The Bat Conservation Trust, London. ISBN-13 978-1-872745-96-1



and were led by Will O'Connor Cecol MCIEEM, a Natural England Class Level 2 Bat Licence holder (2015-11736-CLS-CLS) in 2021 and Lee Mantle MCIEEM a Natural England Class Level 2 Bat Licence holder (2015-14934-CLS-CLS) in 2022.

Evening Emergence and Pre-Dawn Re-entry Surveys

- 2.5. Evening emergence and/or pre-dawn re-entry surveys of the buildings, northern boundary wall (where a full inspection of PRFs could not be undertaken in 2021 only), southern boundary wall and trees was undertaken given the results of the PRA (**Table 2**).
- 2.6. An evening emergence and/or pre-dawn re-entry surveys were undertaken in 2021 and 2022 at:
 - Buildings determined as having low (building B14, B12 and B17) bat roost potential;
 - Buildings determined as having moderate (building B13, B9 (previously recorded as a confirmed roost site in 2019, Appendix B Plate 2), B10/11 and B18 the off Site Jolly Gardeners pub) bat roost potential;
 - The southern boundary wall determined as having moderate bat roost potential;
 - The northern boundary wall (at PRF 10a, 10b and 13) determined as having moderate bat roost potential in 2021 only; and
 - Trees T43, T44, T67, T68, T71, T75, T78, T83, T157 and T312 determined as having moderate bat roost potential.
- 2.7. The evening emergence and/or pre-dawn re-entry surveys were undertaken based on current best practice guidelines¹0. In addition, a sufficient number of surveyors were used during each survey to ensure all of the PRFs were covered. The surveys were led were led by Will O'Connor Cecol MCIEEM, a Natural England Class Level 2 Bat Licence holder (2015-11736-CLS-CLS) in 2021 and Lee Mantle MCIEEM a Natural England Class Level 2 Bat Licence holder (2015-14934-CLS-CLS) in 2022. The positions of the surveyors during each evening emergence survey in 2021 and 2022 are presented on Figure 3.
- 2.8. The surveys were undertaken using full spectrum Elekon Batlogger M, EchoMeter Touch 2 Pro, anabat scout and Pettersson D240x bat detectors with integrated or separate (Edirol) digital recording. This survey equipment is considered suitable for detecting all resident species of UK bats. In addition, and at building B9 the Maltings and due to its height and conformation as a roost site in 2019 Nightfox Infrared monocular's with IR torches were used by the surveyors during the surveys at this building in October 2021 as a supplementary survey technique.
- 2.9. In response to consultation received from LBRuT at the end of May 2022 (see consultation section and Appendix A) during the survey at building B9 the Maltings, due to its height and confirmation as a roost site in 2019, a variety of night vision aids (NVAs) were used by the surveyors during the surveys at this building in 2022 as a supplementary survey technique. The footage was then watched back after the survey to further determine the presence/absence of roosting bats. The NVAs with IR torches used during the surveys at the Maltings during the surveys in 2022, included:

¹⁰ Collins, J. (ed) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn). The Bat Conservation Trust, London. ISBN-13 978-1-872745-96-1



- · A Guide IR19 Pro thermal imaging scope;
- Canon XA10/XA40 cameras; and
- · Nightfox Red.
- 2.10. The surveys were undertaken in appropriate weather conditions and within the recognised bat active season for these types of surveys. The evening emergence surveys commenced approximately 15 minutes prior to sunset and continued for at least an hour and a half thereafter. The pre-dawn re-entry surveys commenced at least an hour and a half before sunrise and extended 15 minutes thereafter.
- 2.11. **Table 4** and **5** below provides a summary of the bat survey parameters.

Table 4: Summary of Evening Emergence Bat Surveys 2021

Survey	Date	Sunset / Sunrise Time	Time Start / End (GMT+1)	Wind (Beaufort)	Cloud Cover (Oktas)	Temp Start / End (°C)
Evening emergence (B9, T75, T43, T44)	04/10/2021	18:33	18:18 / 20:03	0	7/8	13 / 13
Evening emergence (B12, B10/11, B13, B14)	05/10/2021	18:31	18:16 / 20.01	3	8/8	13 / 12
Evening emergence (T71, T68, T67, B18 the off Site Jolly Gardeners pub)	07/10/2021	18:24	18:09 / 19:54	1	8/8	20 / 18
Evening emergence (B17, T78, T83, T157)	11/10/2021	18:15	18:00 / 19:45	1	2/8	15 / 10
Evening emergence (southern boundary wall)	14/10/2021	18:10	17:55 / 19:40	1	5/8	15 / 13
Evening emergence (northern boundary wall at PRA 10a, 10b, 13 and T321)	19/10/2021	18:00	17:45 / 19:30	1	8/8	19 / 18



Table 5: Summary of Evening Emergence Bat Surveys 2022

Survey	Date	Sunset / Sunrise Time	Time Start / End (GMT+1)	Wind (Beaufort)	Cloud Cover (Oktas)	Temp Start / End (°C)
Evening emergence (B14)	20/06/2022	21.21	20:51 / 23:21	1	1/8	21 / 16
Pre-dawn re-entry (B18 the off Site Jolly Gardeners pub)	26/07/2022	05:15	03:45 / 05:30	1	7/8	19 / 17
Pre-dawn re-entry (B12)	21/06/2022	04:43	03:15 / 05:00	2	2/8	14 / 12
Evening emergence (B10/11,17)	02/08/2022	20:49	20:30 / 23:00	2	1/8	22/ 20
Evening emergence (B10/11)	27/06/2022	21.23	21:00 / 23:00	2	8/8	19 / 17
Evening emergence (B10/11)	11/07/2022	21.15	20:45 / 23:15	1-2	3/8	28 / 25
Evening emergence (B13)	25/07/2022	21.00	20:30/ 22:30	3	8/8	22 / 21
Evening emergence (B9)	24/08/2022	20:05	19:50/ 21:36	0	4/8	30 / 23
Dawn re-entry (B9)	05/08/2022	05:28	04:00/ 05:30	1	6/8	17 / 16
Pre-dawn re-entry (Southern boundary wall)	03/08/2022	05.29	02:30/ 05:30	3	3/8	18 / 18
Evening emergence (Southern boundary wall)	30/08/2022	19:52	19:40/ 21:32	2	6/8	23 / 22
Evening emergence (T43, T44)	10/08/2022	20:30	20:03/ 22:30	2	3/8	24 / 22
Evening emergence (T67, T68, T71)	16/08/2022	20.22	20:07/ 21:52	0	6/8	22 / 20
Pre-dawn re-entry (T75, T78, T83)	17/08/2022	05.50	04:20/ 06:05	1	7/8	17 / 16
Pre-dawn re-entry (T75)	31/08/2022	06.10	04:40/06:15	2	6/8	23 / 22
Pre-dawn re-entry (T157, T321)	11/08/2022	05:02	03:30/ 05:02	0	3/8	18 / 18

^{2.12.} In addition, and at the B9 the Maltings (previously recorded as a confirmed roost site in 2019) on 1st August 2022, an automated bat detector (SM2 detector) was set to for five consecutive nights (as



detailed in the consultation received from LBRuT at the end of May 2022 (see consultation section and **Appendix A**). The automated detector was deployed just inside the entrance of the Maltings as a supplementary survey technique in an effort to determine if 'a peak' in calls are recorded just before or at peak emergence and re-entry times. The deployment of the automated detector was proposed specifically for brown long-eared bats given the roosting behaviour of the species that will normally 'warm up' within an internal void before emerging from a roost site¹¹.

2.13. **Table 6** provides a summary of the automated bat survey parameters.

Table 6: Summary of Building B9 The Maltings Automated Detector Survey

Survey Month	Date	Sunset Time	Max Wind speed (mph)	Rain (inches)	Average Day Temp °C
	01/08/2022	20:48	10	0	26
	02/08/2022	20:46	8	0	25
	03/08/2022	20:45	10	0	26
August 2022	04/08/2022	20:43	9	0	23
	05/08/2022	20:41	9	0	21

Bat Activity Survey

- 2.14. Bat activity surveys were undertaken at the Site in 2021 and 2022 but specifically along the northern boundary of the Site adjacent to the River Thames as well as Watney's Sports Ground. The survey commenced from sunset to until two hours thereafter. A pair of surveyors undertook the survey using a full spectrum Elekon Batlogger M detector with integrated digital recording and GPS and followed a pre-determined transect route (Figure 4). This survey equipment is considered suitable for detecting all resident species of UK bats. The surveys were led by Will O'Connor CEcol MCIEEM, a Natural England Class Level 2 Bat Licence holder (2015-11736-CLS-CLS) in 2021 and Lee Mantle MCIEEM a Natural England Class Level 2 Bat Licence holder (2015-14934-CLS-CLS) in 2022.
- 2.15. The surveys commenced at sunset and continued for at least 2 hours thereafter. The surveys were undertaken in appropriate weather conditions and within the recognised optimal bat active season for activity surveys. Table 7 and 8 below provide a summary of the timings and weather conditions of the bat surveys undertaken. Any bats observed were recorded and information noted, where possible, included:
 - time;
 - direction of flight;
 - use of landscape;
 - flight characteristics;
 - size;
 - height; and

¹¹ S. Swift (1998). Long-Eared Bats. Poyser Natural History.



behaviour.

Table 7: Summary of Bat Activity Surveys 2021

Survey	Date	Sunset / Sunrise Time	Time Start / End (GMT+1)	Wind (Beaufort)	Cloud Cover (Oktas)	Temp Start / End (°C)
Activity Survey	04/10/2021	18:32	18:51/ 21:19	0	5/8	14/ 11

Table 8: Summary of Bat Activity Surveys 2022

Survey	Date	Sunset / Sunrise Time	Time Start / End (GMT+1)	Wind (Beaufort)	Cloud Cover (Oktas)	Temp Start / End (°C)
Activity Survey	21/07/2022	21:03	21:03/ 23:03	3	7/8	22/ 20
Activity Survey	13/08/2022	20:20	20:20/ 22:20	2	8/8	20/ 18

Automated Detector Surveys

- 2.16. To supplement the bat activity surveys, three static automated bat detectors (AnaBat Express detector and/ or SM2 detectors) were deployed at the Site based on current best practice guidelines. The positioning of the static detectors was as follows, and illustrated in **Figure 4**:
 - on top of the northern boundary wall adjacent to the River Thames under the Budweiser sign at grid reference TQ 2044276093;
 - on top of the northern boundary wall adjacent to the River Thames but to the east of the Site at grid reference TQ2063376025 and to the west of the Site; and
 - on a tree at grid reference TQ2030076112 at the north western extent of the Site in 2021 and TQ20237600 at the north of Watney's Sports Ground in 2022.
- 2.17. The static detector recorded for five consecutive nights in October 2021, July 2022 and August 2022. Table 9 and 10 below provides a summary of the bat survey parameters for each deployment session.

Table 9: Summary of Automated Detector Bat Surveys 2021

Survey Month	Date	Sunset Time	Max Wind speed (mph)	Rain (inches)	Average Day Temp ºC
	04/10/2021	18:33	13	0	14
	05/10/2021	18:31	23	1.3	13
October 2021	06/10/2021	18:28	8	0	14
	07/10/2021	18:24	4	0	15
	08/10/2021	18:21	9	0	16



Table 10: Summary of Automated Detector Bat Surveys 2022

	<u> </u>	<u> </u>	<u></u>		
Survey Month	Date	Sunset Time	Max Wind speed (mph)	Rain (inches)	Average Day Temp °C
	21.07.2022	21:04	13	0	20
_	22.07.2022	21:03	8	0	19
July 2022	23.07.2022	21:02	12	0	21
_	24.07.2022	21:00	14	1	20
_	25.07.2022	20:59	14	0	20
	11.08.2022	20:30	8	0	32
_	12.08.2022	20:28	9	0	30
August 2022	13.08.2022	20:27	9	0	32
	14.08.2022	20:25	5	0	31
	15.08.2022	20:23	8	0	28

Bat Recordings Data Analysis

- 2.18. The sound recordings for the evening emergence and bat activity survey were analysed using BatExplorer and Kaleidoscope software respectively. Identification of bat calls was undertaken using the parameters set out by Russ¹².
- 2.19. The sound recordings for the automated survey were analysed using BatExplorer and AnaLook software and bat call parameters from Russ¹³. For the purposes of analysis, a bat pass correlates to a single 15 second recording. Due to the extensive data set recorded by the automated detectors during July and August 2022, auto species identification filters were used to identify common pipistrelle and soprano pipistrelle bats using parameters such as their peak frequency, call shape, recording quality and plausibility. Parameters used for each species can be found in Appendix D.

Peregrine Falcon and Breeding Bird Surveys

- 2.20. Due to the recorded presence of a peregrine falcon on Site on the 4th October 2021, a series of three peregrine falcon and breeding bird surveys were undertaken over the Site between June and July 2022. The surveys were undertaken by Bill Haines MCIEEM and predominantly undertaken at the buildings on Site to determine if peregrine falcon are utilising the Site. The surveys also recorded all breeding bird species on and adjacent to the Site. Due to the size of the Site, the completion of three survey visits was considered proportionate to give an overall picture of the use of the Site by breeding birds.
- 2.21. As part of the surveys a map was produced for each survey visit showing the locations of all birds seen and / or heard and the numbers of individuals for each survey visit (see Results section).

 Birds seen overflying the Site but not interacting with it were not recorded.

¹²Russ, J., 2012. British bat calls: a guide to species identification. Pelagic publishing

¹³ Russ, J., 2012. British bat calls: a guide to species identification. Pelagic publishing



2.22. The surveys were carried out in the late morning and/or afternoons and lasted approximately 2 to 3 hours in suitable weather conditions (i.e. not in heavy rain, poor visibility or wind greater that Beaufort 4). The parameters of the three breeding bird surveys are detailed in **Table 11**.

Table 11: Peregrine Falcon and Breeding Bird Survey Parameters

Visit		• • • • • • • • • • • • • • • • • • • •		Cloud Wind		Temp.	
No.	Date	and Leaving Time	ring Cover (Oktas) <i>(Beaufort)</i>		Precipitation	(°C)	Visibility
1	10/06/2022	11:00 / 14:45	6/8	2	0	21	Good
2	24/06/2022	13:25 / 15:50	7-8	3-4	Short rain shower	21	Good
3	12/07/2022	13.00 / 15.20	7/8	1-2	0	29	Good

Consultation

2.23. At the end of May 2022, consultation was received from LBRuT on the PEA and PSR that accompanied the Applications in March 2022. The comments received of relevance to this report for both Application A and B were the same and are detailed in Table 12 along with the resultant actions undertaken to address the comments following a meeting with LBRuT on the 7th July 2022.

Table 12: LBRuT Consultation 2022

LBRuT Comments - Application A and B

Surveys have all been carried out in October 2021 - therefore not following their own (or the BCT 2016 guidance) recommendations (para or monthly for 3 months (between May to August). The Protected Species report (para 2.15) states that the reason for this is due to the As part of the supplementary surveys, update internal previous planning application programme hearing in July 2021, it then goes on to say that this is not a constraint due to the historical data" and "further surveys will be carried to determine if amendments are necessary to the mitigation measure currently being proposed and to inform a licence application for NE". However, each survey is respectfully 3 years, 1 month and 2 years, 1 month apart, which is out of date and not as per the guidance.

Internal surveys are still not supplied despite the availability of drones and other technology that could assist.

The Dec 2019 EIA has the Maltings wrongly numbered as B9 not B8

The LPA expect a fully compliant suite of bat surveys over the summer period for a site of this complexity and size adjacent to the River Thames in the north and connecting to the railway and beyond in the south. The survey

Resultant Action - Application A and B

It was agreed with LBRuT that supplementary surveys as detailed in full consultation (provided in Appendix A) to build on those undertaken in October 2021 would be 5.18 of the PEA dated March 2022) for surveys sufficient to address LBRuT comments on the Applications to be carried out either 2 with a two week break submitted in March 2022 (to provide LBRuT with an 'in date' ecological evidence base to determine the application with regards to ecology).

surveys of the buildings on Site will be undertaken where safe access can be provided but given the structural issues at building B9 the Maltings no internal surveys will be surveys carried out "providing a robust baseline undertaken at this building. Instead, an automated bat detector (SM2) will be deployed inside the ground level doorway of the Maltings and set to record for a 5-night period to determine if 'a peak' in calls are recorded just before or at peak emergence times (will also look at re-entry timing data for bat species). This idea was proposed specifically for brown long-eared bats (but will cover other bat species) given LBRuT's previous comments and the roosting behaviour of the species that will normally 'warm up' within an internal void before emerging from the roost

> Given the health and safety issues at the buildings regarding internal surveys, but considering the use of the automated detector survey at building B9 the Maltings, it was agreed as part of the consultation that drone surveys would not be required.

As part of the evening emergence and pre-dawn re-entry surveys it was agreed as part of the consultation that those



LBRuT Comments - Application A and B

repot needs to contain raw data and a plan to show the movement of bats seen on site

and there is concern that carrying out phase 1 works adjacent to the potential nesting location will scare it away - this will need to be considered by a falcon expert.

Resultant Action - Application A and B

undertaken at Building B9 the Maltings will be supplemented with Infra-Red night vision aids given the size of the building The Peregrine falcon is a real asset for the site and as it was recorded in 2019 to be a pipistrelle day roost. As such the use of thermal imaging surveys would not be required. It was agreed as part of the consultation that the use of drone, IR and Thermal imaging surveys would not be required at other buildings/trees on Site. Whilst it was agreed that no other additional surveys for notable or protected species would be required as part of the consultation, the results of the peregrine and breeding bird surveys undertaken for the Temporary Filming Application would be included within this report.

2.24. All consultation e-mails and responses with LBRuT are provided in Appendix A.

Constraints and Limitations

- 2.25. It should be noted that the building numbering referred to in this report has now been amended to align with system used for the planning application. This system therefore supersedes the numbering system used in the historical ecological assessments referenced in Table 1.
- 2.26. Given the results of the Internal PRA review as detailed in section 3 below, it is assessed that the results of the PRA undertaken as part of the PEA in August 2021, are still valid and do not present a significant constrain given the supplementary surveys (evening emergence and/or pre-dawn reentry and the use of automated detectors) undertaken.
- 2.27. During the evening emergence survey at building 10/11 on the 27th June 2022, no access was possible to the Site side of the building. Instead, the survey was undertaken from the adjacent road and from vantage points through the locked gate adjacent to the security building. As a result of this constraint an additional evening emergence survey was undertaken on the 2nd August 2022 at the PRFs not covered by the survey on the 27th June 2022.
- 2.28. It should be noted that during the surveys in 2022 at building B9 the Maltings the tree line at the Site's northern elevation slightly limited visibility. However, as surveyors were positioned in opposite locations and a dawn survey was also carried out, the risk of any emergences or reentries being missed was reduced. Therefore, this is not considered to be a significant limitation.
- 2.29. The northern boundary wall inspections in 2021 and 2022 were undertaken as an alternative method to evening emergence/pre-dawn re-entry surveys. This was due to the associated number of surveyors that would be required to ensure full survey coverage due to the number of PRFs recorded. However, where a full endoscope inspection of a PRF could not be undertaken an evening emergence / pre-dawn re-entry survey was undertaken in 2021, to ensure a robust survey approach was undertaken.
- 2.30. The automated bat detector located on a tree at grid reference TQ20237600 at the north of Watney's Sports Ground in failed to record in July 2022, due to technical issues. However, and given the number of automated detectors deployed and that recordings were collated in October 2021 and August 2022, this is not assessed to be a significant constraint to the assessment.
- 2.31. Although the automated bat detector deployed in July 2022, on top of the northern boundary wall adjacent to the River Thames under the Budweiser sign at grid reference TQ 2044276093 was set to record for a 5 night period only 4 nights worth of data was recorded. However, the loss of one



- nights worth of data is not assessed to be a significant constraint to the assessment.
- 2.32. It should be noted that the activity survey undertaken in October 2021, did not start at the time of sunset (18:32) but 20 minutes after (18:51), this does not comply with the recommended start times of activity surveys. However, the loss of 20 minutes' worth of data is not assessed to be a significant constraint to the assessment and surveys in 2022 have supplemented this survey.
- 2.33. When undertaking the bat recordings data analysis it should be noted that there is considerable crossover between echolocation calls within British bat species¹⁴. Given the close parameters of the frequency range of the calls of certain bat species, analysis of bat calls from the group *Myotis* is fraught with difficulties. Whilst slope, call duration and inter-pulse intervals have been used as indicators to separate *Myotis* calls from frequency modulated *Pipistrellus* calls, for the purposes of this assessment, identification has only been made down to the group *Myotis* level. Both Frequency Modulation (FM) -qCF (quasi Constant-frequency calls) and qCF parameters are provided within Russ for identifying *Nyctalus* species, however there is a large amount of crossover between the parameters of the *Nyctalus* species. The lower frequency vocalisation calls of noctule bats can be differentiated from Leisler's *Nyctalus leisleri* as the Leisler's bat does not echolocate below 20.9 kHz. However, as there is crossover between the parameters of vocalisations above this frequency, Leisler's bats can be particularly difficult to differentiate from noctule and where this has occurred identification has been made to the group *Nyctalus* level. In addition, any recordings of long-eared bats have been noted as being of brown long-eared given the location of the Site.
- 2.34. As part of the peregrine falcon and breeding bird surveys internal access was restricted at buildings 2, 3, 4, 5, 7, 8, 9 (the Maltings), 13, 17 and 18 as the buildings due to structural integrity concerns. Instead, vantage points were sought during the surveys to record bird behaviour.
- 2.35. All other contractors, designers and the client should be aware of the following:
 - The design recommendations (ecological mitigation/compensation and enhancement measures) detailed within this report are assessed to be the most effective ecological solution at this stage of the project;
 - No other pre-construction information has been provided, obtained or referred to during the preparation of this report (including, but not limited to, services information, geotechnical reports and ordnance reports):
 - In deciding whether and how to progress with this project, it will be incumbent upon the client, designers and contractors to obtain and refer to relevant pre-construction and maintenance information, as required by the Construction (Design and Management) Regulations to ensure compliance.

¹⁴ Russ, J. 2012. British Bat Calls. A Guide to Species Identification.



3. Results

Preliminary Roost Assessment

- 3.1. A review of the buildings on Site was undertaken to determine which ones would warrant or could be subject to an internal PRA following the PRA undertaken as part of the PEA in August 2021.
- 3.2. Building B1, B2, B3, B4, B5, B6, B7, B8, B12, B13, B14, B15, B16 and B17 were either all flat roofed or had no roof void. All of these buildings were all assigned a negligible potential to support roosting bats (excluding B12, B14, B17 and B18 the off Site Jolly Gardeners pub) as part of the PRA and as such an internal PRA was not assessed to be necessary.
- 3.3. Whilst building 10/11 did have a pitched roof no physical access was possible due to the removal of an external metal staircase to the eastern extent of the building. In addition, no access was possible to the roof voids at the western extent of the building as on review of the asbestos reports no inspection for asbestos containing materials (ACMs) was previously undertaken within the void by the asbestos surveyors.
- 3.4. Whilst B18 the Jolly Gardeners pub did have a pitched roof it is located off Site and therefore outside the ownership of the Applicant, as such no access was possible.
- 3.5. Finally, and on review of the asbestos reports and historical issues raised regarding the structural integrity of the building B9 the Maltings, in consultation with the Client team we were again advised that access internally within the Maltings was prohibited. Permission was however provided to deploy the automated bat detector (SM2 detector) just inside the entrance of the Maltings as a supplementally surveys technique as agreed with LBRuT.

Northern boundary wall Inspection

3.6. The results of the northern boundary wall inspection completed in 2021 and 2022 are detailed in Appendix C. Potential Roosting Features (PRFs) were recorded both on the interior and exterior of the wall (Site and river side) during the PRA as part of the PEA. As a result of the inspection no roosting bats were recorded.

Evening Emergence and/or Pre-Dawn Re-entry Surveys

- 3.7. The following results section should be read in conjunction with the bat surveyor positions detailed on **Figure 3**.
- 3.8. During the 2021 survey, no bats were observed emerging from or entering buildings B14, B13, B9 the Maltings, B12, B10/11, B17, B18 the off Site Jolly Gardeners pub, the southern boundary wall, the northern boundary wall (at PRF 10a, 10b and 13) or trees T3, T10, T43, T67, T71, T83, T157 and T321 during the 2021 survey. However, foraging and commuting activity by common pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle *Pipistrellus pygmaeus*, noctule *Nyctalus noctula, Nyctalus sp, Myotis sp and* brown long eared bats *Plecotus auratus* were recorded during the surveys, as detailed within **Table 13**.



Table 13: Results of Evening Emergence Surveys 2021

Building/Tree Number	Survey Type / Date	Survey Results	Summary
B9	Evening emergence: 04/10/2021	Foraging and commuting activity (c.28 passes) from common pipistrelle, soprano pipistrelle, brown long eared, noctule and Myotis bats.	No bat roosts recorded
		The majority of calls were from soprano and common pippistrelle bats and were heard not seen. One pass was made by a noctule bat heard not seen and three passes were made by a brown long eared bat heard, but not seen.	
B10/11	Evening emergence: 05/10/2021:	Foraging and commuting activity (c.6 passes) from soprano pipistrelle all heard not seen.	No bat roosts recorded
B12	Evening emergence: 05/10/2021	Foraging and commuting activity (c.4 passes) from soprano pipistrelle and one common pipistrelle bat all heard, but not seen.	No bat roosts recorded
B13	Evening emergence: 05/10/2021	One pass by a soprano pipistrelle bat flying north.	No bat roosts recorded
B14	Evening emergence: 05/10/2021	Foraging and commuting activity (c.7 passes) from common pipistrelle and soprano pipistrelle bats.	No bat roosts recorded
		The majority of activity during the survey was by soprano pipistrelle bats. Three passes were recorded close to B1 flying north, the rest were heard, but not seen.	
B17	Evening emergence: 11/10/2021	Foraging and commuting activity (c.8 passes) from Nathusius, soprano and common pippistrelle bats and several social calls from common pipistrelle.	No bat roosts recorded
		The majoruty were heard, but not seen, one common pippistrelle passed Northeast of B12	
B18 the off Site Jolly Gardeners pub	Evening emergence: 07/10/2021	Foraging and commuting activity (c.6 passes) from and common pippistrelle bats and one possible brown long eared bat.	No bat roosts recorded
		All common pippistrelle bats were heard not seen and th brown long eared bat was seen flying north between B12 and B6	
Southern boundary wall	Evening emergence: 14/10/2021	Foraging and commuting activity (c.9 passes) from soprano pipistrelle and common pipistrelle bat all heard not seen apart from social calls heard by soprano pippistrelle.	No bat roosts recorded
Northern boundary wall	Evening emergence: 19/10/2021 (at PRF 10a, 10b and 13 that could not be fully inspected by the northern boundary wall	Foraging and commuting activity (c.10 passes) from myotis, soprano and common pippistrelle bats. The majorty of of bats were common and soprano pipistrelles foraging, one myotis was heard, but not seen.	No bat roosts recorded



Building/Tree Number	Survey Type / Date	Survey Results	Summary
	inspection on 4 th October 2021)		
T43 and T44	Evening emergence: 04/10/2021	Foraging and commuting activity (c.12 passes) from Nathusius' soprano and common pippistrelle bats. All were heard not seen and social calls were heard from common and soprano pipistrelle bats.	No bat roosts recorded
T67 and T68	Evening emergence: 07/10/2021	No bats recorded	No bat roosts recorded
T71	Evening emergence: 07/10/2021	Foraging and commuting activity (c.7 passes) from soprano and common pipistrelle bats. Common pipistrelles were seen flying along treeline and the rest were heard, but not seen.	No bat roosts recorded
T75	Evening emergence: 04/10/2021	Foraging and commuting activity (c.8 passes) from soprano pipistrelle bats all heard, but not seen.	No bat roosts recorded
T78	Evening emergence: 11/10/2021	Foraging and commuting activity (c.8 passes) from soprano and common pipistrelle bats all heard, but not seen.	No bat roosts recorded
T83	Evening emergence: 11/10/2021	No bats recorded	No bat roosts recorded
T157	Evening emergence: 11/10/2021	Foraging and commuting activity (c.3 passes) from soprano and common pipistrelle bats all heard, but not seen.	No bat roosts recorded
Tree Group G321	Evening emergence: 19/10/2021	Foraging and commuting activity (c.4 passes) from common pipistrelle bats seen foraging to the west of the trees.	No bat roosts recorded

3.9. During the 2022 survey, 2 common pipistrelle bats were observed re-entering the Southern Boundary Wall on the 3rd August. At tree T75 a single common pipistrelle was recorded re-entering the tree on 17th August and a soprano pipistrelle was recorded re-entering the tree on 31st August. In addition, and during the surveys, foraging and commuting activity by common pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle *Pipistrellus pygmaeus*, noctule *Nyctalus noctula* and serotine *Eptesicus serotinus* was recorded, as detailed within **Table 14**.

Table 14: Results of Evening Emergence and/or Pre-dawn Re-Entry Surveys 2022

Building/Tree Number	Survey Type / Date	Survey Results	Summary
B9 the Maltings	Dawn re-entry: 05/08/2022	Foraging and commuting activity (c.18 passess) from common pipistrelle and soprano pipistrelle all heard not seen. The first bat recorded was a soprano pippistrellle at 04:19.	No bat roosts recorded



Building/Tree	Survey Type /	Survey Results	Summary
Number	Date		
B9 the Maltings	Evening emergence: 24/08/2022	Foraging and commuting activity (c.46 passess) from common pipistrelle, soprano pippistrelle and noctule. A clear flight path was noted south to north towards the river. The first bat recorded was a noctule at 20:17.	No bat roosts recorded
B10/11	Evening emergence: 27/06/2022	Foraging and commuting activity (c.47passess) from common pipistrelle, soprano pipistrelle noctule and serotine bats. Mainly common pippistrelle and noctule bats were recorded.	No bat roosts recorded
		Three common pipistrelle were seen foraging in the courtyard and towards the chimney, and one soprano pipistrelle was seen foraging in the courtyard.	
		Serotine was first recorded on Site two hours after sunset.	
B10/11	Evening emergence:	Foraging and commuting activity from common pipistrelle, soprano pipistrelle, and noctule bats.	No bat roosts recorded
	11/07/2022	Mostly common pipistrelle and soprano pipistrelle were recorded with common pipistelle seen foraging by a tree adjacent to the building, and a number of other common pipistrelle seen commuting throughout the survey.	
		The first bat recorded on Site was a noctule 15 minutes after sunset.	
B10/11	Evening emergence: 02/08/2022	Foraging and commuting activity (c.7 passess) all from soprano pippistrelle. One pass infront of the building with the rest of thr calls all heard not seen. Activity was heard away from the building. The first bat recorded on site was 53 minutes	No bat roosts recorded
_	_	after sunset.	
B12	Dawn re-entry: 21/06/2022	Foraging and commuting activity (c.67 passess) from common pipistrelle, soprano pipistrelle and noctule bats. Mainly common pipistrelle were recorded, with this species seen commuting around the western edge of the building on four occasions during the survey.	No bat roosts recorded
B13	Evening emergence: 25/07/2022	Commuting activity (c. 12 passess) from noctule, soprano and common pippistrelle bats all heard not seen.	No bat roosts recorded
B14	Evening emergence: 20/06/2022	Foraging and commuting activity (c.42 passess) from common pipistrelle, soprano pipistrelle and noctule bats starting 30 minutes after sunset with one common pipistrelle seen foraging south to north-west around the buildings edge.	No bat roosts recorded
B17	Evening emergence: 02/08/22	Foraging and commuting activity (c.2 passes) from common pippistrelle in front of the building from south to north towards the river.	No bat roosts recorded



Building/Tree Number	Survey Type / Date	Survey Results	Summary
B18 the off Site Jolly Gardeners pub	Dawn re-entry: 26/07/2022	Low levels of activity (c.4passess) from common pippistrelle (3 passes) and serotine (1 pass). The first bat recorded was of a common pippistrelle at 4:02.	No bat roosts recorded
Southern Boundary Wall	Dawn re-entry: 03/08/2022	Two common pipistrelle bats seen entering behind the steel girder of the southern wall. One common pipistrelle pass from west to east.	Bat roosts recorded
Southern Boundary Wall	Evening emergence: 30/08/2022	Low levels of activity recorded.	No bat roosts recorded
T43	Evening emergence: 10/08/2022	Low levels of activity recorded. 2 passes from, a soprano and common pippistrelle at 21:05 and 21:54 seen commuting.	No bat roosts recorded
T44	Evening emergence: 10/08/2022	Low levels of activity recorded. 1 pass from a common pippistrelle at 21:29 heard not seen.	No bat roosts recorded
T67	Evening emergence: 16/08/2022	One common pippistrele seen commuting 27 minutes after sunset from west to north. No other bats recorded.	No bat roosts recorded
T68	Evening emergence: 16/08/2022	Foraging and commuting activity (c.16 passes) from common pippistrelle soprano pippistrelle and myotis bats. All heard not seen.	No bat roosts recorded
T71	Evening emergence: 16/08/2022	No bats recorded.	No bat roosts recorded
T75	Dawn re-entry: 17/08/2022	Common pipistrelle bat seen re-entering into split feature 4m above ground. 1 pass from soprano pipistrelle recorded at 05:08.	Bat roost recorded
T75	Dawn re-entry: 31/08/2022	Soprano pipistrelle bat seen re-entering into split feature 4m above ground	Bat roost recorded
T78	Dawn re-entry: 17/08/2022	Three passes from soprano pipistrelle bats heard not seen.	No bat roosts recorded
T83	Dawn re-entry: 17/08/2022	One pass from common pipistrelle flying east to west. No other bats recorded.	No bat roosts recorded
T157	Dawn re-entry: 11/08/2022	Low levels of activity recorded. 1 common pippistrelle pass at 4:08 heard not seen.	No bat roosts recorded
T321	Evening emergence: 10/08/2022	No bats recorded.	No bat roosts recorded

3.10. The results of the automated detector deployed just inside the entrance of building B9 the Maltings, recorded four species of bat being common pipistrelle, soprano pipistrelle, brown long-eared and myotis species.

Table 15: Results of Automated Detector Survey Building B9 The Maltings August 2022



Recording Period and Location	Common Pipistrelle	Soprano Pipistrelle	Brown Long Eared	Myotis Species	Total no. of Bat Passes
01.08.2022-05.08.2022 Detector located just inside the entrance of the Maltings grid reference TQ20427609	331	17	2	9	359
Total	331	17	2	9	359

3.11. **Table 16** provides a summary of the earliest recording times for each of the automated detectors deployed in 2021 and 2022. For the location of the automated detector refer to **Figure 4**.

Table 16: Automated Detector Earliest Recording Times Building B9 The Maltings August 2022

Bat Species	Earliest approximate Time (mins after sunset) August 2022	Latest approximate Time (mins before sunrise) August 2022
Detector located just inside the entrance of the Maltings grid reference TQ20427609		
Common Pipistrelle	-9	-25
Soprano Pipistrelle	+108	-236
Brown Long Eared	+47	-260
Myotis sp	+99	-102

Bat Activity Survey

- 3.12. Descriptions of bat activity recorded during the activity survey is provided below and illustrated in **Figure 5.**
- 3.13. During the 2021 survey, a total of 61 bat passes were recorded along the transect survey route (Figure 5) in October. Of these, 54 passes were by soprano pipistrelle bats, 1 by brown longeared bat and 6 by common pipistrelles bats. The first bat call recorded was of a soprano pipistrelle at 19:01 (28 minutes after sunset) which was heard but not seen.
- 3.14. During the 2022 surveys, a total of 165 bat passes were recorded along the transect survey route (slightly altered connect down to Mortlake Train Station) in both July (Figure 6) and August (Figure 7). Of these, 51 passes were by soprano pipistrelle bats, 103 passes by common pipistrelles bats and 2 by *Pipistrellus* species. In July, the first bat call recorded was of a soprano pipistrelle at 21:28 (25 minutes after sunset) which was heard but not seen. In August, first bat call recorded was of a soprano pipistrelle at 20:42 (19 minutes after sunset) which was heard but not seen.

Automated Detector Surveys

3.15. A total of six confirmed bat species were recorded by the automated detectors deployed across the Site in 2021, the majority of the recordings were made by common and soprano pipistrelle bats. Brown long eared, noctule, nathusius' pipistrelle and myotis bats were also recorded. As detailed within the limitation section of this report, identification down to species level could not be made for myotis species.



- 3.16. A total of eight confirmed bat species were recorded by the automated detectors deployed across the Site in July and August 2022, the majority of the recordings were made by common and soprano pipistrelle bats. Brown long eared, nathusius' pipistrelle, noctule, leisler, serotine and myotis bats were also recorded. As detailed within the limitation section of this report, identification down to species level could not be made for myotis species.
- 3.17. **Table 17 to 19** provides a summary of the number of passes recorded by each species during each automated bat detector survey session.



Table 17: Results of Automated Detector Surveys October 2021

Recording Period and Location	Common Pipistrelle	Soprano Pipistrelle	Nathusius' Pipistrelle	Noctule	Brown Long Eared	Nyactulus Species	Myotis Species	Total no. of Bat Passes
04/10/2021 - 08/10/2021								
Detector located on top of the northern boundary wall adjacent to the River Thames under the Budweiser sign at grid reference TQ 2044276093	511	576	-	3	1	1	2	1095
04/10/2021 - 08/10/2021								
Detector located on top of the northern boundary wall adjacent to the River Thames to the east of the Site at grid reference TQ2063376025	139	99	1	5	-	1	1	246
04/10/2021 - 08/10/2021								
Detector located to the west of the Site and on a tree at grid reference TQ2030076112	56	42	-	1	1	1	-	101
Total	706	717	1	9	2	3	3	1441



Table 18: Results of Automated Detector Surveys July 2022

Recording Period and Location	Common Pipistrelle	Soprano Pipistrelle	Nathusius' Pipistrelle	Noctule	Leisler	Serotine	Brown Long eared	Nyactulus Species	Myotis Species	Total no. of Bat Passes
21.07.22 to 24.07.22*										
Detector located on top of the northern boundary wall adjacent to the River Thames under the Budweiser sign at grid reference TQ 2044276093	1700	2409	-	2	1	1	5	18	-	4237
21.07.22 to 26.07.22										
Detector located on top of the northern boundary wall adjacent to the River Thames to the east of the Site at grid reference TQ2063376025	628	417	1	15		-	-	-	4	1065
27.07.22 to 31.07.22**										
Detector located on a tree at grid reference TQ20237600 at the north of Watney's Sports Ground in 2022*	-		-	-		-		-		
Total	2328	2826	1	17	1	1	5	18	4	5302

^{*}No recordings made on the night of the 25th July due to technical issues ***Automated detector failed to record due to technical issues



Table 19: Results of Automated Detector Surveys August 2022

Recording Period and Location	Common Pipistrelle	Soprano Pipistrelle	Pipistrellu s sp.	Nathusius , Pipistrelle	Noctule	Leisler	Serotine	Brown Long eared	Nyactulus Species	Myotis Species	Total no. of Bat Passes
10.08.2022-15.08.2022 Detector located on top of the northern boundary wall adjacent to the River Thames under the Budweiser sign at grid reference TQ 2044276093	5205	1597	8	-	8	5	-	12	22	2	6856
11.08.2022-15.08.2022 Detector located on top of the northern boundary wall adjacent to the River Thames to the east of the Site at grid reference TQ2063376025	1489	423	-	1	11	-	2	-	-	17	1943
11.08.2022-15.08.2022 Detector located on a tree at grid reference TQ20237600 at the north of Watney's Sports Ground in 2022	398	293	-	2	16	-	1	3	-	4	716
Total	7092	2313	8	3	35	5	3	15	22	23	9515



3.18. **Table 20** provides a summary of the earliest recording times for each of the automated detectors deployed in 2021 and 2022. For the location of the automated detector refer to **Figure 4**.

Table 20: Automated Detector Earliest Recording Times October 2021

Table 20. Automated Detector Lamest	Troopraing Fillios October 2021				
Bat Species	Earliest approximate Time (mins after sunset)				
Detector located on top of the northern boundary wall adjacent to the River Thames under the Budweiser sign at grid reference TQ 2044276093					
Common Pipistrelle	+26				
Soprano Pipistrelle	+18				
Myotis sp	+340				
Noctule	+62				
Brown Long eared	+79				
Nyctalus sp	+464				
Detector located on top of the northern the Site at grid reference TQ206337602	boundary wall adjacent to the River Thames to the east of				
Common Pipistrelle	+42				
Soprano Pipistrelle	+42				
Noctule	+69				
Nathusius Pipistrelle	+385				
Myotis sp	+335				
Nyctalus sp	+477				
Detector located to the west of the Site	and on a tree at grid reference TQ2030076112				
Common Pipistrelle	+48				
Soprano Pipistrelle	+46				
Brown Long Eared	+67				
Noctule	+175				
Nyctalus sp	+63				



Table 21: Automated Detector Earliest Recording Times July and August 2022

Bat Species	Earliest Recording Times July and Aug Earliest approximate Tim	ne Earliest approximate Time
	(mins after sunset) July 2022	(mins after sunset) August 2022
Detector located on top of the no Budweiser sign at grid reference	orthern boundary wall adjacent to the R TQ 2044276093	liver Thames under the
Common Pipistrelle	+20	+24
Soprano Pipistrelle	+21	+18
Myotis sp	-	>240
Noctule	+180	+82
Leisler	+133	+121
Nyctalus sp	+33	+39
Serotine	>240	-
Brown Long Eared	+34	+273
Detector located on top of the no Site at grid reference TQ2063376	rthern boundary wall adjacent to the R 025	liver Thames to the east of the
Common Pipistrelle	+6	+25
Soprano Pipistrelle	+18	+26
Myotis sp	+77	+28
Noctule	+25	+38
Serotine	-	+95
Nathusius Pippistrelle	+68	-
Detector located to the west of the	ne Site and on a tree at grid reference T	Q2030076112
Common Pipistrelle	NA*	+32
Soprano Pipistrelle	NA*	+19
Brown Long Eared	NA*	+193
Noctule	NA*	+56
Nathusius Pippistrelle	NA*	+114
Myotis sp.	NA*	+155

^{*}No recordings, automated detector failed to record due to technical issues

Peregrine Falcon and Breeding Bird Surveys

3.19. On the 4th October 2021, a single peregrine falcon was heard calling from the direction of building B3 during the day and then during an evening emergence bat survey on the same day at building B9, where a single peregrine falcon was observed entering the south west corner (Appendix B; **Plate 1**) (8 storeys high). The bird was recorded entering building B9 through a gap in the wooden boarding 20 minutes post sunset (just as light levels were fading). The bird was not observed to have re-emerged from the building for the remainder of the bat survey, by any of the four surveyors that surrounded the building. It is assessed that that the peregrine recorded entering building B9 has only recently started to roost at the Site, and it is unlikely that a breeding pair have taken



residence.

- 3.20. This assessment has been based on the results of the data search as extended through consultation with London Peregrine Partnership (LPP), and given this is the only evidence / sighting of peregrine falcon at the Site during a six-year period (when ecologists have been on Site undertaking various surveys for the previous planning applications). In consultation with the LLP on the 28th September 202, regarding the presence of potential peregrine falcons at the vicinity of the Site (before the recordings in October 2021), LPP stated that no known records of breeding pairs are in the local area either recent or historical. In addition, the LPP also stated that: there are records of a pair roosting on Saint Matthias Church (2.5km to the south west of the Site) during the past few years, and sightings this year (2021) of at least one bird on Holy Trinity Church (2km to the south west of the Site). In addition, a nesting tray has now been installed at St Matthias, but it has not yet been made use of.
- 3.21. In order to avoid the contravention of legislation, a series of peregrine falcon and breeding bird surveys were undertaken between June and July 2022, as a result the recorded presence of peregrine in October 2021, roosting in building B9 the Maltings. The results of the peregrine falcon and breeding bird surveys carried out in 2022 are noted below.
- 3.22. The following results section should be read in conjunction with **Figure 8, 9** and **10**. In summary a total of 12 bird species were seen either on or immediately adjacent to the Site. Birds seen overflying the Site but not interacting with it were not recorded.
- 3.23. No peregrine falcon *Falco peregrinus* were recorded on any of the three visits. It is thought that the incidental recording of the peregrine in October 2021, was a single occurrence.
- 3.24. Feral pigeon *Columba livia* was the only species proven to be breeding on Site as confirmed within building 3. In addition, feral pigeon nesting was confirmed at building 6, 8, 9 and 17 and other activity (perching flying in/out etc) confirmed at buildings 3, 4, 5, 12 and 13. Grey wagtail were recoded signing and lesser black backed gull perching on/from the roof of building 12. The results of the building inspections undertaken during Site visits 1 to 3 are detailed in **Appendix E**, **F** and **G**.
- 3.25. A list of the species recorded and their likely breeding status is detailed in **Table 22**. This table also details each species recorded on each survey visit along with their notable status.

Table 22: Results of Peregrine Falcon and Breeding Bird Surveys

Bird Species	Species Code	Notable Status	Likely Breeding Status	Number of Birds Recorded Per Visit	Total Number of Birds Recorded
Lesser black- backed gull Larus fuscus	LB	Amber	Possible breeding	Visit 1 (10 June 2022) - 2 Visit 2 (14 June 2022) - 6 Visit 3 (12 July 2022) – 2	10
Feral pigeon Columba livia	FP	N/A	Confirmed breeding	Visit 1 (10 June 2022) - 50 Visit 2 (14 June 2022) - 22 Visit 3 (12 July 2022) -28	100
Wood pigeon	WP	Amber	Probable Breeding	Visit 1 (10 June 2022) - 2	4



Bird Species Notable Likely Breeding Number of Birds Recorded Per	Total Number of
, , , , , , , , , , , , , , , , , , , ,	Birds Recorded
Columba Visit 2 (14 June 2022) – N/A	
palumbus Visit 3 (12 July 2022) – 2	
31	3
pica breeding Visit 2 (14 June 2022) - 1	
Visit 3 (12 July 2022) – N/A	
,	7
crow breeding Visit 2 (14 June 2022) - 1	
Corvus Visit 3 (12 July 2022) – 4	
Wren WR Amber Possible Visit 1 (10 June 2022) - N/A	1
Troglodytes breeding Visit 2 (14 June 2022) - N/A	
troglodytes Visit 3 (12 July 2022) – 1	
Starling SG Red and Probable Visit 1 (10 June 2022) - N/A	20
Sturnus S41 breeding Visit 2 (14 June 2022) - N/A	
vulgaris NERC Visit 3 (12 July 2022) – 20	
2006	
Robin R. N/A Possible Visit 1 (10 June 2022) - 1	1
Erithacus breeding Visit 2 (14 June 2022) - N/A	
rubecula Visit 3 (12 July 2022) - N/A	
House HS Red and Probable Visit 1 (10 June 2022) - N/A	1
sparrow S41 breeding Visit 2 (14 June 2022) - 1	
Passer NERC Visit 3 (12 July 2022) - N/A domesticus Act	
2006	
Grey GL Amber Probable Visit 1 (10 June 2022) - 1	2
wagtail breeding Visit 2 (14 June 2022) - 1	
Motacilla Visit 3 (12 July 2022) - N/A cinerea	
Pied wagtail PW N/A Possible Visit 1 (10 June 2022) - 1	2
Motacilla breeding Visit 2 (14 June 2022) - 1	
alba Visit 3 (12 July 2022) - N/A	
•	2
Carduelis breeding Visit 2 (14 June 2022) - 1 carduelis	



4. Discussion and Recommendations

Bats - Roosting and Foraging and Commuting

- 4.1. No roosting bats were recorded at the Site during the surveys in October 2021. However, and as a result of the supplementary surveys undertaken in July and August 2022, roosting bats were recorded at the southern boundary wall and tree T75. Although building B9 the Maltings, is a historical bat roost site (soprano pipistrelle day roost recorded in 2019) no roosting bats were recorded during the surveys in 2021 or 2022, however and as a precautionary approach building B9 the Maltings, is still assessed to be a soprano pipistrelle day roost (low numbers).
- 4.2. At the southern boundary wall two common pipistrelle bats were seen re-entering at different locations behind a steel girder and the wall itself (**Appendix B**, Plate 3 and 4). Common pipistrelle bats are considered one of the most common and widespread bat species in England (population estimate of 3,040,000)¹⁵. As such this species is of a low conservation status. Given the number of bats recorded and as they were re-entering the roost at dawn, it is assessed that a common pipistrelle day roost (low numbers) is present as defined in current best practice guidance¹⁶.
- 4.3. At tree T75, a common pipistrelle bat was seen re-entering a split/peeled bark feature (**Appendix B**, Plate 5 and 6) 4m above ground level and on a separate survey a soprano pipistrelle re-entering the same feature. As detailed above in terms of conservation status, similar to common pipistrelle, soprano pipistrelle bats are also one of the most common and widespread bat species in England (population estimate of 2,980,000)¹⁷. As such this species is of a low conservation status. Given the number of bats recorded and as they were re-entering the roost at dawn, it is assessed that a common and soprano pipistrelle day roost (low numbers) is present in tree T75, as defined in current best practice guidance¹⁸.
- 4.4. The supplementary automated detector survey at building B9 the Maltings, only recorded a total of 395 passes over a 5 night period in August. It was found that no 'peak' in calls had occurred just before or at peak emergence /re-entry times at sunset/sunrise respectively for the species recorded (common pipistrelle¹⁹, soprano pipistrelle¹⁹ and brown long-eared²⁰). As such, this confirms that roosting bats are not currently utilising this building. It is more likely that the automated detector in the Maltings was picking up on strong and direct call from outside the building most notably along the towpath as adjacent to the River Thames.
- 4.5. As a result of the activity and automated surveys undertaken in 2021, a total of six different bat species were recorded. The surveys completed in 2022, recorded a total of eight bat species. The combined survey results indicate that the habitats at the Site and adjacent to the River Thames (to the northern boundary of the Site) are typically used by urban bat species common and soprano pipistrelle, associated to be non-light sensitive. It is noted that species including brown long-eared, nathusius' pipistrelle, noctule and myotis species were also recorded however these were in very low numbers in 2021 (under 10 passes for each species as a result of the automated detector results), with the addition of leislers and serotine in 2022, but still in very low numbers (under 20

 ¹⁵ Natural England Joint Publication (2018): 'A review of the Population and Conservation Status of British Mammals'. JP025
 ¹⁶ Collins, J. (ed) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn). The Bat Conservation Trust, London. ISBN-13 978-1-872745-96-1

¹⁷ Russ, J. 2012. British Bat Calls. A Guide to Species Identification.

¹⁸ Collins, J. (ed) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn). The Bat Conservation Trust, London. ISBN-13 978-1-872745-96-1

¹⁹ Davidson-Watts I & Jones G 2006. Differences in foraging behavior between *Pipistrellus pipistrellus* (Schreber, 1774) and *Pipistrellus pygmaeus* (Leach, 1825). J. Zool 268: 55- 62

²⁰ Entwistle A, Racey P & Speakman J 1996. Habitat exploitation by a gleaning bat, *Plecotus auritus*. Phil. Trans. R. Soc. Lond. B 351: 921-931



- passes in July and under 40 passes in August for each species). The results of the bat activity and automated survey indicates that bat activity is low at the Site and adjacent to River Thames. Nonetheless, bat species were recorded in good diversity.
- 4.6. The automated detector surveys in 2021 and 2022 recorded a number of early bat passes after sunset (Tables 20 and 21) for common and soprano pipistrelle, *myotis*, brown long eared, nyctalus species and noctule. Common pipistrelles are noted as having a mean emergence time of 24.8 minutes after sunset²¹, soprano pipistrelles 33.5 minutes after sunset²², noctule emerge typically, 0-40 minutes after sunset²³, myotis typically emerge 56 minutes after sunset²⁴ and long-eared species typically, around 60 minutes after sunset²⁵. Whilst it is known that both common and soprano pipistrelle bats are roosting on Site the data would also indicate that these bat species and the those recorded to have early bat passes could also be roosting in the local area. No other species were assessed to have early bat passes considering recognised emergence times detailed in Table 22.

Table 23: Bat Species Roost Emergence Times

Species	Research on Emergence Times
Nathusius pipistrelle	Assessed to be an 'early emerging species' 26 or typically 20-30 minutes after sunset 27
Serotine	Typically 20 minutes after sunset ¹⁷
Leisler	Typically, 0-20 minutes after sunset ¹⁷

Natural England Licencing Requirements

- 4.7. As part of the proposed Development, the southern boundary wall would be demolished and with open public realm constructed in its place and newly constructed buildings and infrastructure in proximity. Tree T75 would be retained and would have a multi-use games area (MUGA) and soft landscaping constructed in proximity to it. Building B9 the Maltings, would be refurbished and converted into residential apartments and community space and would have newly constructed buildings and infrastructure in proximity on its south side, however the towpath and existing vegetation adjacent to the River Thames would be retained in its majority.
- 4.8. As such, these works have potential to impact upon the common and soprano pipistrelle day roosts (low numbers) recorded and therefore, without mitigation, contravene the protection afforded to roosting bats by legislation (**Appendix H**). As a result, an approved Natural England (NE) European Protected Species (EPS) Mitigation Licence (type to be determined) would be required to permit the proposed works to the southern boundary wall and building B9 the Maltings. As part of the licence a method statement would set out the sensitive working methodologies required that would be overseen by an Ecological Clerk of Works (licence holder or accredited agent) to allow for roost destruction.
- 4.9. In support of the licence application updated surveys (between May and August) may be required

²¹ Davidson-Watts, I. & Jones, G. 2006: 'Differences in foraging behaviour between *Pipistrellus pipistrellus* (Schreber, 1774) and *Pipistrellus pygmaeus* (Leach, 1825)'. Journal of Zoology, 268, 55-62.

²² Davidson-Watts, I. & Jones, G. 2006: 'Differences in foraging behaviour between *Pipistrellus pipistrellus* (Schreber, 1774) and Pipistrellus pygmaeus (Leach, 1825)'. Journal of Zoology, 268, 55-62.

²³ Racey, P. A. 1991: *The Handbook of British Mammals* (Ed. by G. B. Corbet & S. Harris), pp. 117-121. Oxford: Blackwell.

²⁴ Russ, J. 2012. British Bat Calls. A Guide to Species Identification.

²⁵ Russ, J. 2012. British Bat Calls. A Guide to Species Identification.

²⁶ Russ, J. 2012. British Bat Calls. A Guide to Species Identification.

²⁷ Russ, J. 2012. British Bat Calls. A Guide to Species Identification.



depending on the time that elapses and if the existing data becomes older than 18 months in age²⁸ at these recorded roost sites. In addition, and should the existing data become older than 18 months in age and prior to works at the remaining buildings, walls and trees on Site, updated bat surveys are likely to be required to determine if roosting bats have taken residence give the highly transient nature of the species. These mitigation options would be subject to any planning conditions attached to a planning consent.

Mitigation

- 4.10. To mitigate for the loss of the common pipistrelle day roost (low numbers) at the Southern Boundary Wall and the historical soprano pipistrelle day roost (low numbers) at building B9 the Maltings, a total of 10 bat roosting features would be incorporated on retained trees (of a suitable size) and on/within the fabric of retained and newly created buildings. The roosting features would be aimed at the pipistrelle species recorded and located in the most suitable locations including proximity to green infrastructure, area subjected to no/minimal lighting and on suitable elevations so the features receive an element of solar radiation thus enhancing roosting conditions within the features. As the common and soprano pipistrelle day roost (low numbers) at T75 will be retained no replacement roosting provision would be provided.
- 4.11. Whilst the remaining buildings, walls and trees were determined to not currently contain roosting bats given the transient nature of the species (note the need for update surveys as detailed above) a toolbox talk would be provided to contractors during the demolition/refurbishment phase of the proposed Development. In addition, work to moderate potential buildings would be undertaken in a sensitive manner with an Ecological Clerk of Works (ECoW) present.
- 4.12. Further to the above, the felling of those trees with moderate and low bat roosting potential would be undertaken using soft felling techniques and in accordance with the Arboricultural Association Guidance Note 1²⁹, with the felling of those trees with moderate bat roosting potential also carried out under an ECoW.
- 4.13. In the unlikely event that bats are identified, during the Works, all works would cease in the relevant areas, and an ecologist contacted. Liaison would then be undertaken between the ecologist, LBRuT and / or Natural England to agree a suitable way forward.
- 4.14. In line with the NPPF, London Planning Policy and Local Planning Policy LP 15 'Biodiversity' the Development would include the following mitigation and enhancement measures for roosting, foraging and commuting bats:
 - During the demolition and construction phase of the Development all construction lighting would be aimed towards the centre of the Site to minimise light spill towards the adjacent River Thames and Tidal Tributaries SMI, no 'up lighting' would be permitted
 - Soft landscaping as well as artificial habitats would be provided in the Development which would provide enhanced opportunities at the Site for bats. The Site would include:

²⁸ CIEEM (2019). Advice Note On The Lifespan of Ecological Reports & Surveys

²⁹ Arboricultural Association (2011): 'Bats in the Context OF Tree Work Operations'. Guidance Note 1. ISBN 978-0-900978-54-8



- up to 404 new trees (including 62 ornamental trees) and up to 99 individual and 3 tree groups retained;
- hedge planting (1.5 m high) enclosing all ground level residential courtyards east of Ship Lane in the detailed part of the Development;
- provision of new trees including the use of native species, or species of benefit to wildlife.
 This includes planting in areas close to the river edge responding to existing riverside vegetation and grove trees located in the community park south of the proposed school;
- provision of biodiversity roofs, including a mix of extensive green and brown roofs; and
- a green link connecting the River Thames and Mortlake Green.
- As detailed above a ten bat roosting features would be incorporated in the proposed Development.
- A sensitive lighting strategy would be implemented as part of the Development which will avoid light spill upon habitats currently utilised by bats (particularly the River Thames) and the new roosting features.

Peregrine Falcon and Breeding Birds

- 4.15. As a result of the peregrine falcon and breeding bird surveys undertaken at the Site, peregrine falcons are likely to be absent from the Site in 2022, however breeding feral pigeons have been confirmed at building 3. In addition, feral pigeon nesting was confirmed at building 6, 8, 9 the Maltings and 17 and other activity (perching flying in/out etc) confirmed at buildings 3, 4, 5, 12 and 13. Grey wagtail were recorded signing and lesser black backed gull perching on/from the roof of building.
- 4.16. Bird interest at the Site was limited with a total of 12 bird species recorded that were seen either on or immediately adjacent to the Site (those flying over the Site were not recorded) with S41 and red list species including house sparrow and starling and amber list species including lesser blackbacked gull, wood pigeon, wren, grey wagtail.

Mitigation

- 4.17. As common species of birds have been recorded at the Site including the buildings the following mitigation measures would be provided;
 - Should any habitats of value to nesting birds (vegetation and buildings) require removal to facilitate the proposed Development this would be undertaken outside of the breeding bird season (March to August inclusive). However, if works cannot be undertaken outside the breeding bird season an ecologist would inspect any vegetation to be removed. An ECoW would be deployed to carry out an inspection at least within 24 hours prior to the clearance. If an occupied nest is detected, an appropriate buffer zone will be created around the nest, and clearance of this area delayed until the young have fledged.
 - Given that pigeons (and other known pest species) are known to breed all year round an
 appropriately qualified Contractor would be appointed to develop a strategy to ensure the
 buildings (with respect to the peregrine mitigation and building B9 the Maltings as detailed
 below) are free and stay free of nesting birds prior to demolition. If any birds, including pigeons,
 are found to be nesting on/within buildings prior to Works commencing, then this could lead to
 delays.



- 4.18. Although peregrine falcon was recorded to be absent from the Site in 2022 their presence was recorded in October 2021, roosting in building B9 the Maltings and as such a precautionary approach would be adopted to ensure that any contravention of legislation is avoided.
- 4.19. A series of monitoring visits (including surveys at both ground level and at height subject to safe access being possible) would be undertaken until it can be confirmed that the roosting peregrine is absent from the building. Works would then be undertaken at the building to block access points previously utilised (pending the results of any updated bat surveys as detailed above). Monitoring would continue prior to the demolition and construction works commencing at building B9 the Maltings to ensure the bird does not return to the roost site.
- 4.20. The Works at the Site would also be timed to commence outside of the main peregrine falcon breeding season (assessed to be between February/March when courtship intensifies to June when young normally fledge).
- 4.21. In line with the NPPF, London Planning Policy and Local Planning Policy LP 15 'Biodiversity' the Development would include the following mitigation/enhancement measure for peregrine falcon and other bird species;
 - A peregrine falcon nest box would be incorporated into the proposed Development on the roof of the building B9 (the Maltings) after the refurbishment works have been completed.
 - The provision of 5: 'Schwegler Starling Next Box 3S' This nest box has been designed with a large, deep cavity and 45 mm entrance hole to attract starlings and can be installed on mature trees or buildings. As well as starlings, this nest box is suitable for woodpecker species. These bird boxes should be placed at least 3 m above ground level to prevent vandalism and face east to north;
 - The provision of 5 'Schwegler Swift Brick No.25' Swift bricks should be installed under the
 roof, in shaded areas out of direct sunlight and away from windows, ideally facing north. They
 should be installed at least 5 m above ground level. Swift bricks, if competently installed, do not
 require any maintenance;
 - The provision of 'Schwegler Sparrow Terrace 1SP' Suitable for house sparrows and tree sparrows. The nest box contains three separate nesting cavities. They can be installed on buildings either affixed to the exterior wall or incorporated into the wall. These bird boxes should be placed at least 3 m above ground level to prevent vandalism and face east to north. 5.34. As detailed previously, the provision of green space would provide foraging and nesting opportunities at the Site for local bird species; and
 - The provision of five Schwegler 2H Nest Boxes for black redstarts. The Schwegler 2H Nest Boxes are an open fronted box suitable for a number of bird species including black redstart. These boxes should be installed on buildings not trees (unless in dense climbing plant cover i.e. ivy) and should be hung sideways with the entrance at a 90° angle to the wall, preferably placed below 2m in height in areas with restricted public access (i.e. upon rooftops), or if this is not feasible, 3m above ground level to prevent vandalism and face east to north.
- 4.22. In addition the landscaping provisions detailed above for bats would also enhance the Site for bird species.



5. Conclusions

- 5.1. As a result of the bat surveys undertaken in 2021, the supplementary survey undertaken in 2022 and with due regard to the existing bat records and historical surveys (in 2019) undertaken at the Site for previous planning applications, roosting bats have been determined to be currently present on Site. In addition, the habitats at the Site and the River Thames, directly adjacent to the northern boundary of the Site, are used by a low level of urban bat species, predominantly common and soprano pipistrelles typically considered not to be light sensitive. Nonetheless, a diverse group of eight bat species were recorded.
- 5.2. During the evening emergence survey on the 4th October 2021, a single roosting peregrine falcon was recorded at building B9 the Maltings, however, no peregrine activity was recorded between June and July in 2022.
- 5.3. In accordance with good practice and to avoid the contravention of existing wildlife legislation, mitigation measures have been detailed in this report, including the need for update and monitoring surveys, timing of works and the requirement to be in receipt of an approved Natural England European Protected Species licence (type to be determined) prior to the start of works. In addition, the requirement of an ECoW has been highlighted during the proposed Development works.
- 5.4. Further mitigation, together with proposed enhancement measures for bats and peregrine falcon have been detailed within this report and in the Environmental Statement Chapter 13: Ecology.
- 5.5. Should there be a period of greater than 18 months since the time of the surveys detailed in this report, and the commencement of the Works, further update surveys are recommended, subject to any planning conditions attached to a planning consent.

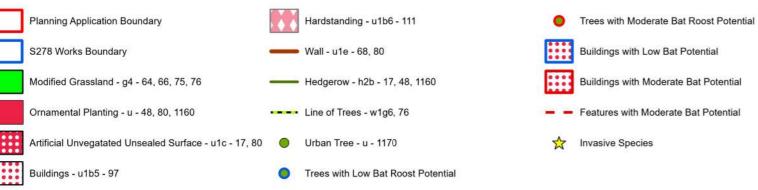


FIGURES

- Figure 1: Habitat Features Plan (ref. WIE18671_115_GIS_EC_SPSR_1A)
- Figure 2: Northern boundary wall Feature Locations (ref. WIE18671_115_GIS_EC_SPSR_2A)
- Figure 3: Evening Emergence Bat Surveyor Locations (ref. WIE18671_115_GIS_EC_SPSR_3A)
- Figure 4: Bat Activity Survey Transect & Static Detector Locations (ref. WIE18671_115_GIS_EC_SPSR_4A)
- Figure 5: Activity Survey Results October 2021 (ref WIE18671_115_GIS_EC_SPSR_5A)
- Figure 6: Evening Bat Activity Survey Results July 2022 (ref. WIE18671_115_GIS_EC_SPSR_6A)
- Figure 7: Evening Bat Activity Survey Results August 2022 (ref. WIE18671_115_GIS_EC_SPSR_7A)
- Figure 8: Peregrine Falcon and Breeding Bird Survey Map 10th June 2022 (ref. WIE18671_115_GIS_EC_SPSR_8A)
- Figure 9: Peregrine Falcon and Breeding Bird Survey Map 24th June 2022 (ref. WIE18671_115_GIS_EC_SPSR_9A)
- Figure 10: Peregrine Falcon and Breeding Bird Survey Map 12th July 2022 (ref. WIE18671_115_GIS_EC_SPSR_10A)







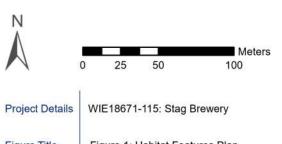


Figure Title Figure 1: Habitat Features Plan

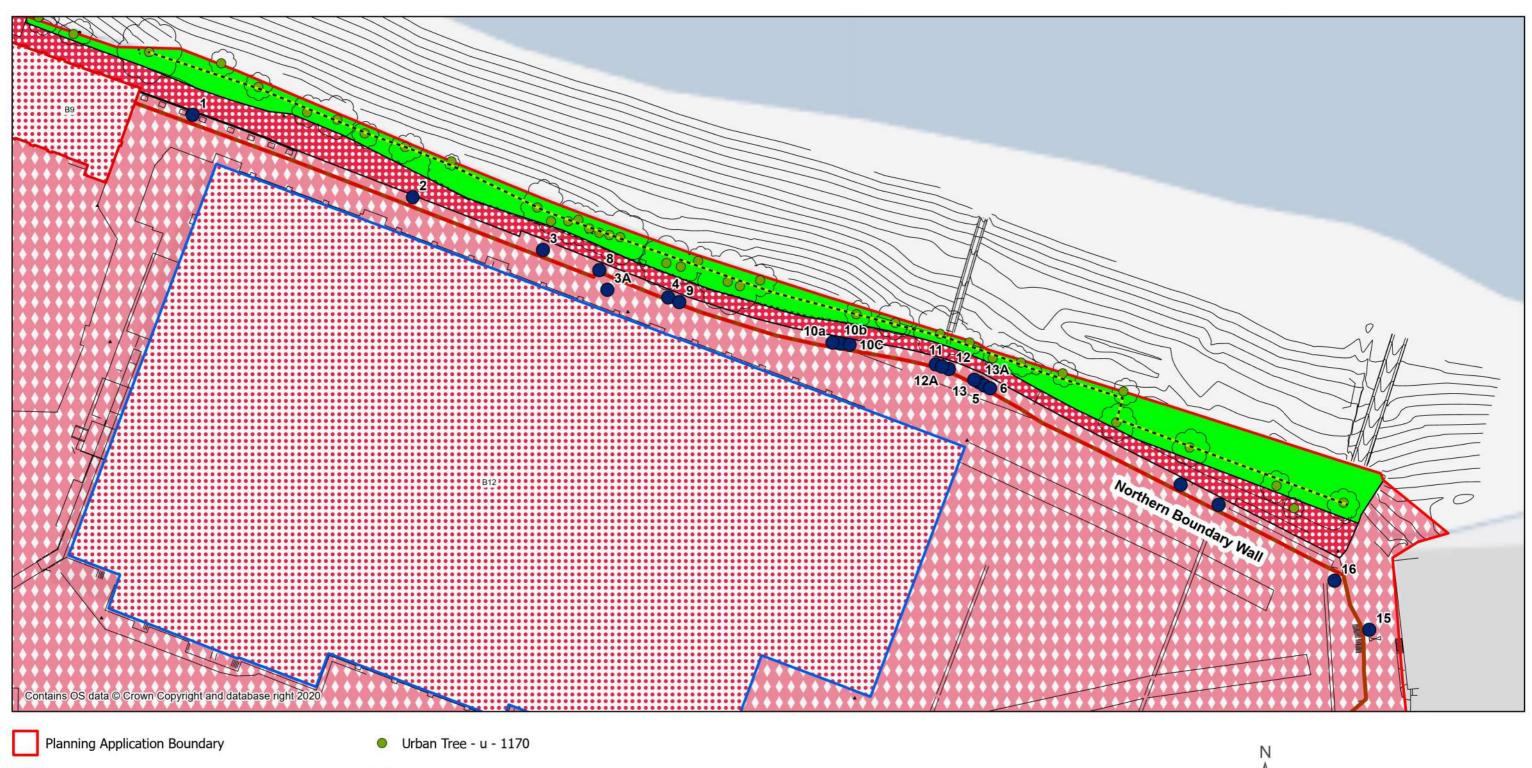
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Project Details

WIE18671-115: Stag Brewery

Figure Title

Figure 2: Northern Boundary Wall Feature Locations

Figure Ref

WIE18671-115-GIS-EC-SPSR-2A

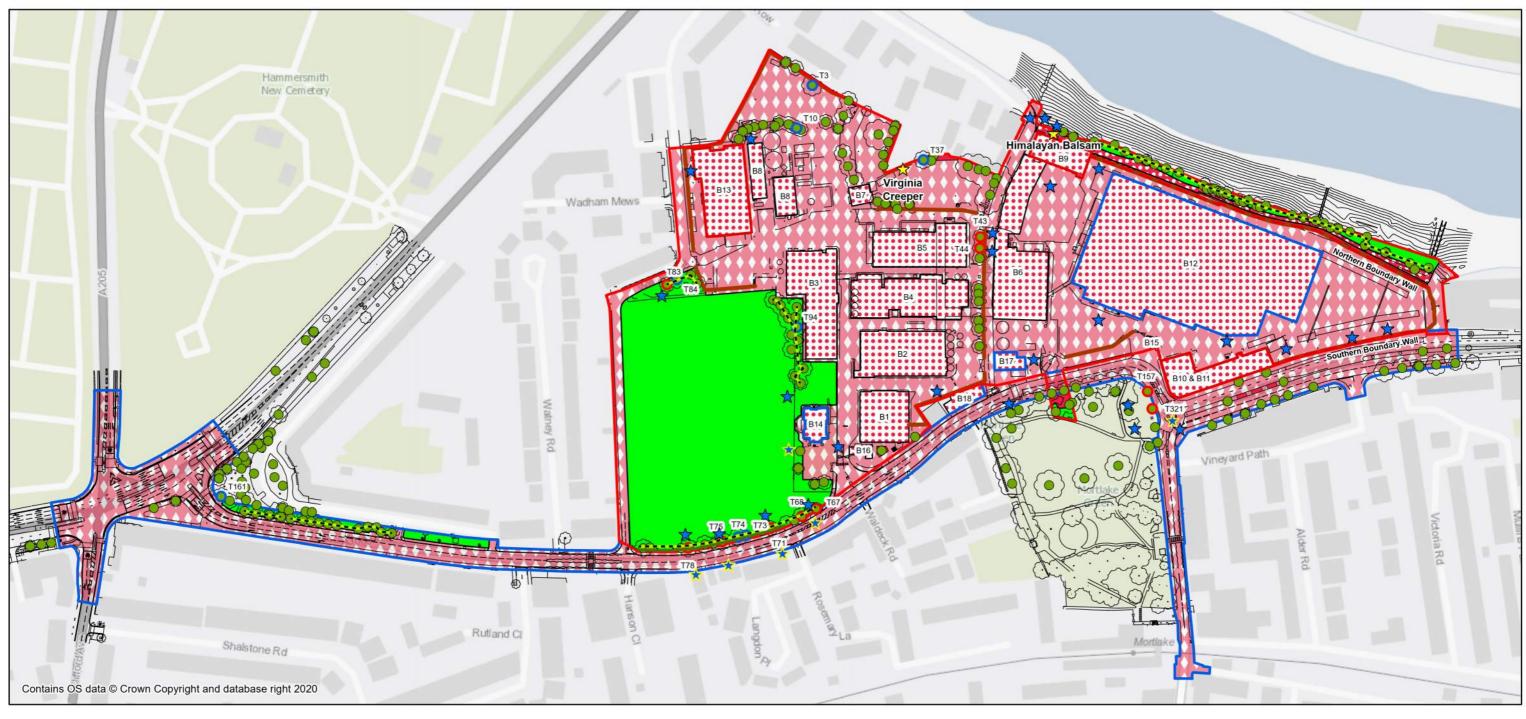
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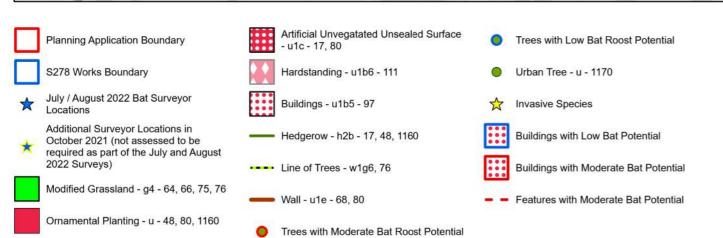
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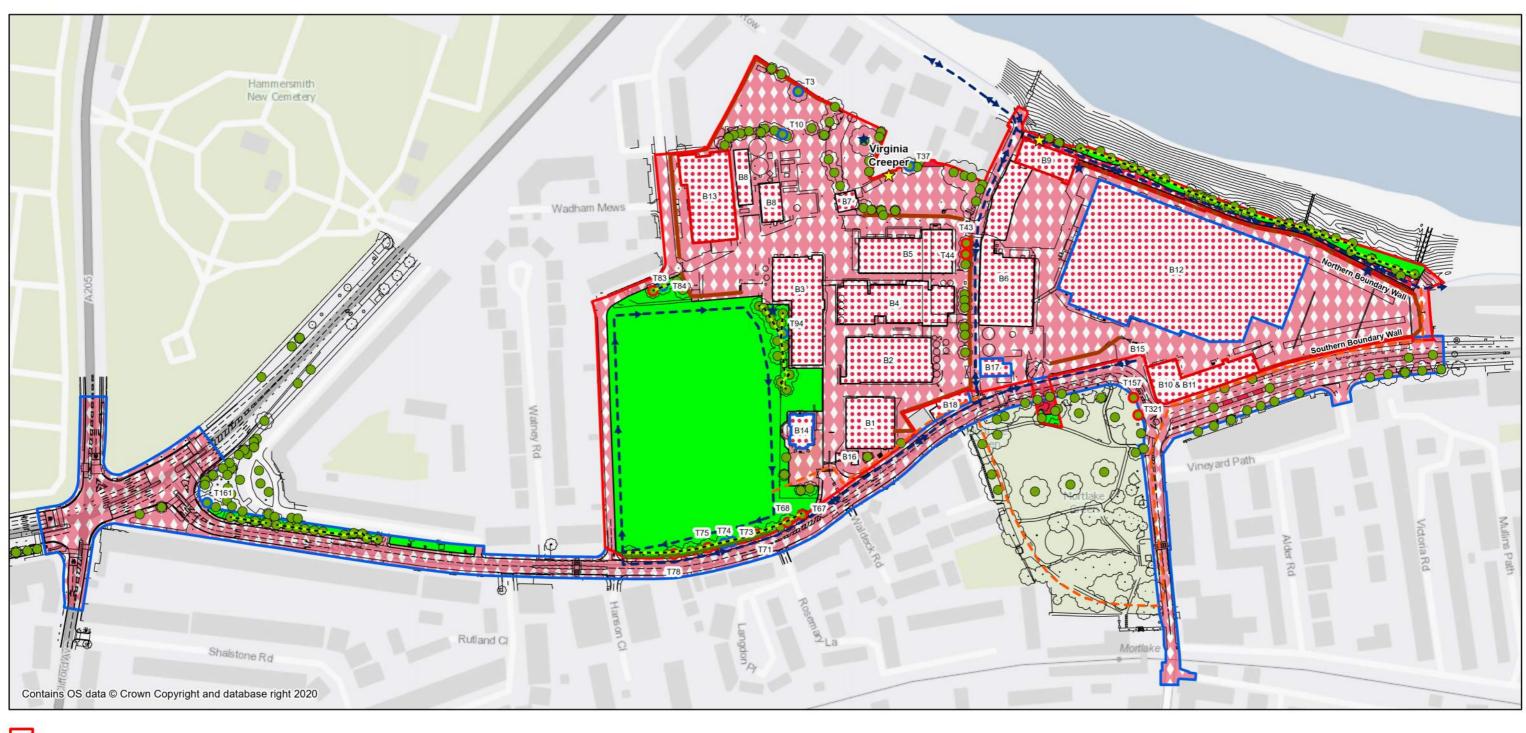




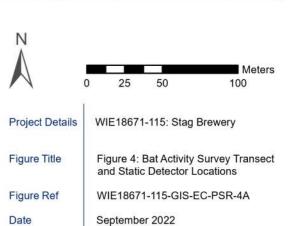












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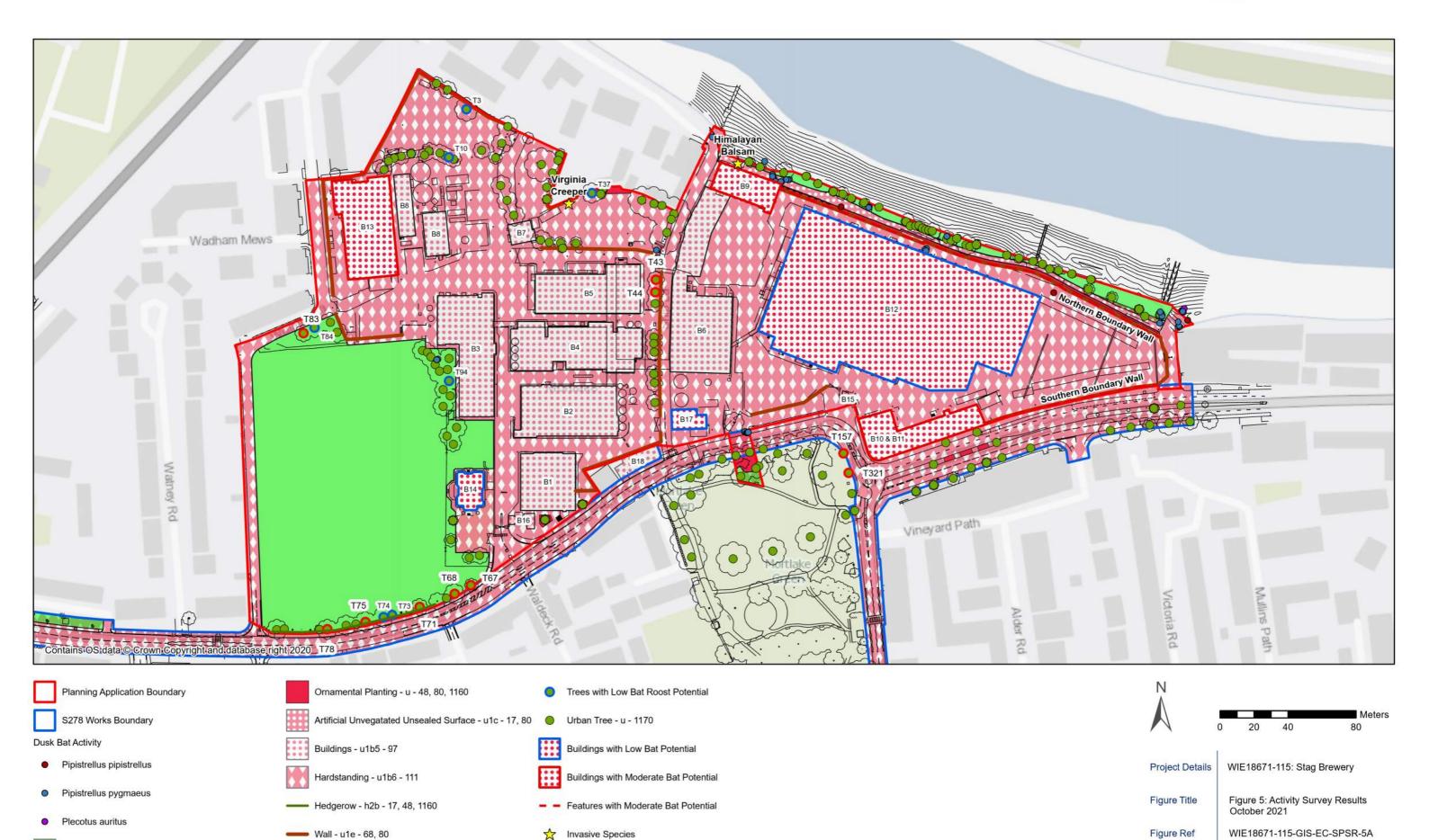
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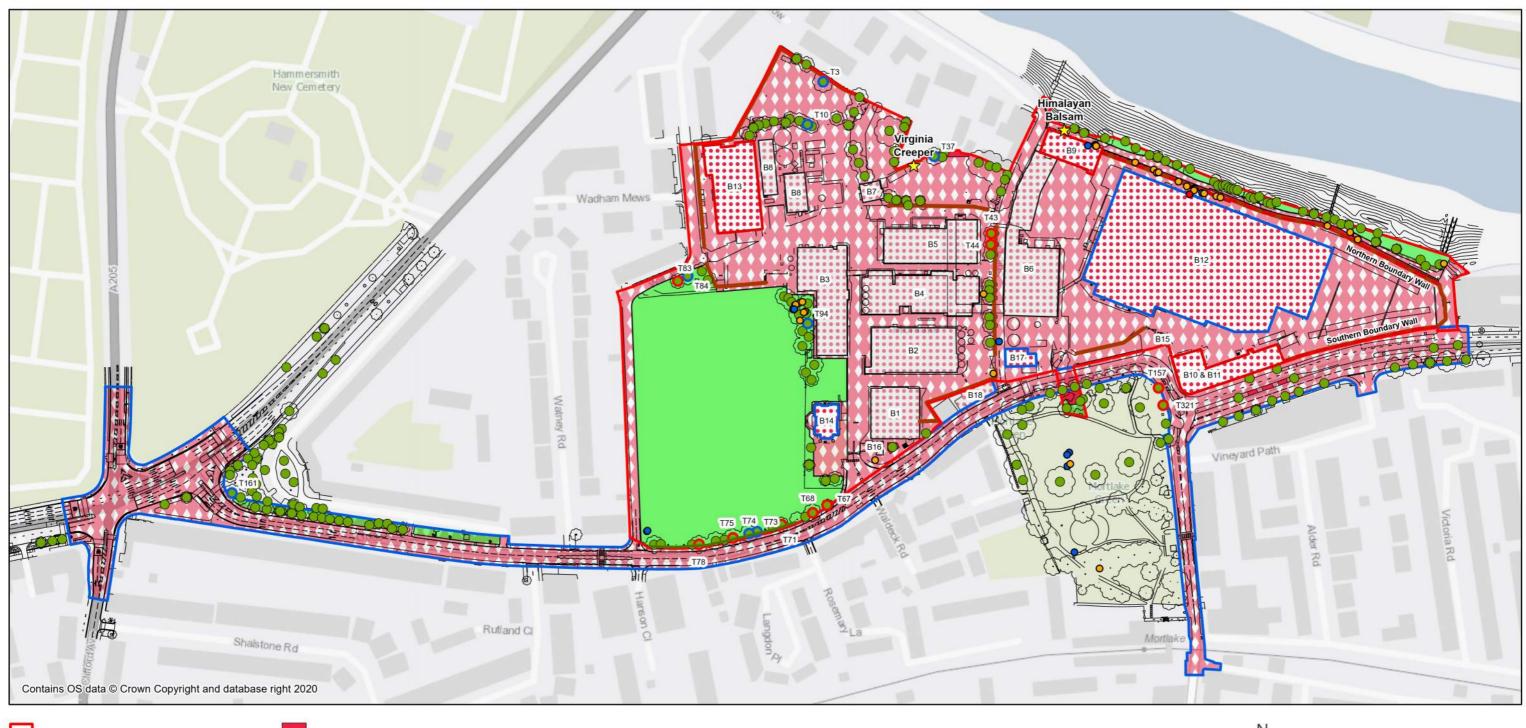
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Modified Grassland - g4 - 64, 66, 75, 76

Trees with Moderate Bat Roost Potential







Myotis spec.

Pipistrellus pipistrellus

Pipistrellus pygmaeus

Pipistrellus spec.

Modified Grassland - g4 - 64, 66, 75, 76

Ornamental Planting - u - 48, 80, 1160

Artificial Unvegatated Unsealed Surface - u1c - 17, 80 Urban Tree - u - 1170

Buildings - u1b5 - 97 Hardstanding - u1b6 - 111

Hedgerow - h2b - 17, 48, 1160

Wall - u1e - 68, 80

Trees with Moderate Bat Roost Potential

Trees with Low Bat Roost Potential

Buildings with Low Bat Potential

Buildings with Moderate Bat Potential

- Features with Moderate Bat Potential

Invasive Species



WIE18671-115: Stag Brewery

Figure 6: Evening Bat Activity Survey Results (July 2022)

WIE18671-115-GIS-EC-SPSR-6A Date September 2022

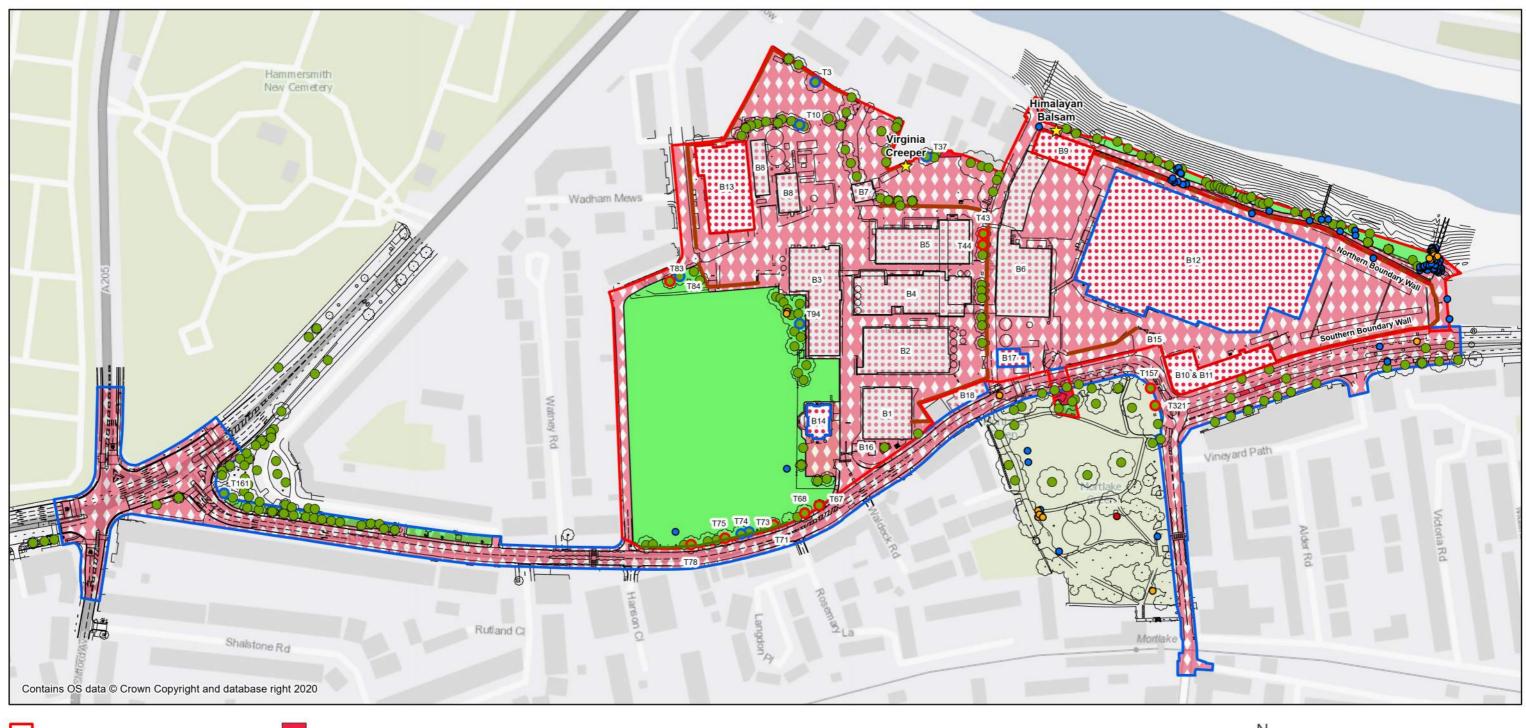
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Pipistrellus pygmaeus
 Pipistrellus spec.
 Modified Grassland - g4 - 64, 66, 75, 76

Ornamental Planting - u - 48, 80, 1160

Trees with Low Bat Roost Potential

Artificial Unvegatated Unsealed Surface - u1c - 17, 80

Urban Tree - u - 1170

Buildings - u1b5 - 97

Buildings with Low Bat Potential

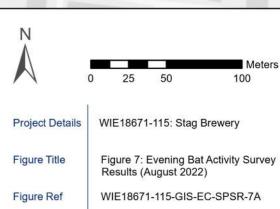
Hardstanding - u1b6 - 111

Hedgerow - h2b - 17, 48, 1160

Trees with Moderate Bat Potential

Wall - u1e - 68, 80

Invasive Species



September 2022

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APPENDICES

A. LBRut Consultation

Ellen Smith

Thanks Anna

From: Hunter, Tasha 18 July 2022 22:39 Sent: To: Anna Gargan; Suzanne Thurtle; Thatcher, Lucy; Lee Mantle; Stephen Brindle; Ellen Smith; Guy Duckworth; Neil Henderson; Sophie Thomson Subject: RE: Ecology meeting - Stag Official Dear Anna Many thanks for the summary and attachments. I have just one change, it was agreed that instead of BNG being required on the application site, some ecological enhancements could be facilitated on the adjacent Mortlake Green. I have submitted a plan with recommendations to my operational colleagues and will come back to you with items they are happy to be installed. In a nutshell they consist of bird/bat boxes, stag beetle loggeries, bulb and hedge planting. Best wishes Tasha Hunter **Ecology Policy and Planning Officer** Serving Richmond and Wandsworth Councils www.richmond.gov.uk / www.wandsworth.gov.uk From: Anna Gargan **Sent:** 18 July 2022 17:18 To: Suzanne Thurtle Subject: RE: Ecology meeting - Stag Hi Lucy, Tasha, I hope you are both well. Following the meeting held with you both on 7 July '22, Watermans have prepared a summary of the discussions below. Trust this is useful. Please let me know if you have any comments.

As a result of the meeting earlier this month please find below a synopsis of the ecology aspects we discussed and an update with regards to the surveys undertaken (to date) for both applications. I trust this is a true reflection of

events, however if you have any queries please let me know. In addition please find a link below to the Survey Results Spreadsheet (SS), I will update the SS on a regular basis (every Friday afternoon) as the remaining surveys progress. I also attach the plans mentioned in the initial e-mail issued by Anna that detail the building numbers and the external lighting area as part of the Temporary Filming Application. I also attach Figure 3 of the latest PEA that relates to building numbering in the SS that I used initially before different building number plans came out. I have detailed these to avoid building reference errors on my part.

Temporary Filming Application – It was agreed that the survey effort detailed in the e-mail below was sufficient to accompany the temporary filming application, as no impacts either direct or indirect would occur at building B9 the Maltings (as no internal filming works are proposed or external lighting at this building) and therefore the need for any surveys at the Maltings is not required, including the use of additional drone, IR and thermal imaging methods. It was also agreed that the use of drone, thermal imaging or IR survey methods at buildings B10, B11, B12 and B14 would not be required.

The surveys highlighted below for the Temporary Filming Application have now been completed. No sightings or any other evidence of peregrine falcon have been recorded as part of the surveys undertaken. No bat roosts have been recorded, however and due to access constraints to the eastern half of the site additional survey effort will be undertaken with single surveyor covering the potential roosting features not visible. This survey is currently planned for the 3rd August.

The results of these surveys (and the proposed additional survey on the 3rd August) will now be used to inform the Technical Appendix (TA) to the ecology section of the Environmental Assessment report. As no roosting bats and nesting peregrine falcons have been recorded no specific mitigation/compensation measures will detailed in the TA. With regards to lighting the TA will refer to Institute of Lighting Professionals, 2018. Guidance Note 8 Bats and Artificial Lighting, to prevent any up-lighting. In terms of providing an ecological enhancement at the site and given the temporary nature of the application which will not include any groundworks/landscaping on site, enhancement measures are still not proposed on site and no design stage biodiversity net gain assessment is proposed to accompany the application.

Hybrid Application – It was agreed that undertaking supplementary surveys as detailed in the e-mail below to build on those undertaken in October 2021 was sufficient to address LBRuT comments on the submitted hybrid application (to provide LBRuT with an 'in date' ecological evidence base to determine the application with regards to ecology).

To date no surveys have been undertaken as part of the hybrid application. The first activity survey was due to commence today but I have postponed this due to the weather warning and will now be undertaken on Thursday this week. As part of the supplementary surveys we will be undertaking update internal surveys of the buildings on site where safe access can be provided, but given the structural issues at building B9 the Maltings (as discussed) no internal surveys will be undertaken at this building. Instead it was proposed that an automated bat detector (SM2) is deployed inside the ground level doorway of the Maltings and set to record for a 5 night period to determine if 'a peak' in calls are recorded just before or at peak emergence times (will also look at re-entry timing data for bat species as believe this information is available in a study done by Ian Davidson-Watts). This idea was proposed specifically for brown long-eared bats (but will cover other bat species) given LBRuT previous comments and the roosting behaviour of the species that will normally 'warm up' within an internal void before emerging from the roost site). Given the health and safety issues at the buildings regarding internal surveys but taking into account the use of the automated detector survey at the Maltings it was agreed that drone surveys would not be required. The results of the internal surveys over the entire site however would determine if the level of evening emergence and pre-dawn re-entry surveys would need to be subject to change (based on any amendments in potential rating assigned).

As part of the evening emergence and pre-dawn re-entry surveys it was agreed that those undertaken at Building B9 the Maltings will be supplemented with Infra-Red night vision aids given the size of the building and as it was recorded in 2019 to be a pipistrelle day roost. As such the use of thermal imaging surveys would not be required. It was agreed that the use of drone, IR and Thermal imaging surveys would not be required at other buildings/trees on site.

Whilst it was agreed that no other additional surveys for notable or protected species would be required, the results of the peregrine surveys undertaken for the Temporary Filming Application would be included within the protected

species report and Ecology ES Chapter addendum. In addition these reports would also detail any changes to the ecological mitigation, compensation and enhancement measures already provided.

I hope this provides a useful synopsis of the ecology aspects we discussed and agreed...and an update with regards to the surveys undertaken (to date) for both applications and is a true reflection of events, however if you have any queries please let me know.

Anna Gargan

Associate

Gerald Eve LLP One Fitzroy 6 Mortimer Street London, W1T 3JJ www.geraldeve.com





GERALDEVE

From: Anna Gargan
Sent: 07 July 2022 10:05
To: Suzanne Thurtle

Hi Lucy, Tasha,

Ahead of this morning's ecology meeting, please see a note provided by Watermans below covering the proposed approaches for both the temporary and masterplan applications.

Speak soon, Anna

Thank you for agreeing to attend the Stag Brewery meeting tomorrow to discuss ecological aspects following comments received from yourselves on behalf of LBRuT on both the temporary filming and hybrid application. I have set out Waterman's response to the comments to look to agree the scope and level of additional ecological surveys moving forward.

Temporary Filming Application

On 26th May 2022 my colleague Ellen Smith issued an e-mail directly to Tasha Hunter to advise LBRuT of the proposed ecological surveys to be undertaken to accompany the forthcoming renewal of the temporary application. It is proposed that the scope of additional ecological surveys are based on the findings of the Preliminary Ecological Appraisal (PEA Ref WIE18761-103-1-2-4-PEA) and Protected Species Report (PSR Ref: WIE18671-103-R-4-2-3-PSR) undertaken between August and October 2021 (in respect of the March 2022 Environmental Statement submitted for the hybrid planning application). Given that the age of the bat surveys undertaken as part of the above reports in 2021 and that some surveys were undertaken at the end of the recognised bat active period in October, additional surveys to accompany the renewal of the temporary application are proposed.

For bats this will include the following evening emergence or pre-dawn re-entry surveys at buildings B10, B11, B12 and B14 were filming works are proposed at the buildings internally and along part of the northern boundary wall located directly adjacent to a proposed external lighting area (please refer to attached building plan attached for building numbers and the updated plan that shows the current external lighting area, please note however that no lighting will occur at building B9 the Maltings) as set out below.

- The provision of a single evening emergence or pre-dawn re-entry survey at building B14 and B12 both assessed as having low potential to support roosting bats at detailed in the PEA in 2021;
- The provision of a single evening emergence and a separate pre-dawn re-entry survey at building B10 and B11 assessed as being a single building with moderate bat potential as detailed in the PEA in 2021.
- Part of the northern boundary wall will be subject to two endoscope inspections (two weeks apart).

In line with industry guidance (Collins, J. 2016) the survey work would be undertaken between May to August, however we would programme the surveys to be completed by the end of July.

Due to the recorded presence of a single roosting peregrine falcon at building B9 (the Maltings) and calling from B3 in October 2021, we are also proposing to undertake further survey effort for this species over the Site to determine if any other buildings are being utilised by the species. The survey work for peregrine falcon at all buildings which would be subjected to building works, would comprise:

• An inspection of the buildings (where suitable and safe access can be provided) to search for signs of roosting activity in early June followed by two surveys to record behaviour of the species on and in the vicinity of the Site in June/July. It should be noted that the timing for these surveys are somewhat late in the season, however, it is assessed that an adequate baseline would still be collated on which to accompany the renewal of the temporary application. The work would be undertaken based on industry guidance (Gilbert et al 1998).

In addition to the above we note that under the London Plan 2021 and other local planning policy that there is a policy requirement to provide an ecological enhancement at the Site. However and given the temporary nature of the application which will not include any groundworks/landscaping, it is not viable to provide ecological enhancement for this application. However, it should be noted that the hybrid planning application provided a design stage biodiversity net gain assessment and has a long term commitment to provide ecological enhancement at the site.

Comments issued by Lucy Thatcher on behalf of LBRuT regarding this approach are detailed below in yellow along with Waterman's response.

1. Need the bat surveys that are being undertaken in (June / July) – based on the correspondence from Ellen Smith to Tasha Hunter – she is satisfied with the approach proposed for the additional surveys. However, she expects additional bat assessment (thermal imagery) and drones to ensure a proper look at the top of building 9. The surveys are currently programmed to be completed in July 2022. No impacts are anticipated at building B9 (the Maltings) as no internal filming works are proposed at this building and no lighting of this building is proposed. As no impacts to building B9 (the Maltings) are anticipated we see no reasons for thermal imagery surveys at this building. No internal surveys are possible inside of building B9 (the Maltings) due to structural integrity issues that is preventing a full asbestos survey, in addition we