2025

No. 9 Georges Place & Wash House, Kellys Avenue, Dun Laoghaire, Co. Dublin – Bat Assessment

Dr Tina Aughney

Bat Eco Services

Bat Eco Services, Ulex House, Drumheel, Lisduff, Virginia, Co. Cavan. A82 XW62.

Licensed Bat Specialist: Dr Tina Aughney (tina@batecoservices.com, 086 4049468)
NPWS licence C17/2023 (Licence to handle bats, expires 23rd January 2026);
NPWS licence 017/2025 (Licence to photograph/film bats, expires 31st December 2025);
NPWS licence DER/BAT 2025-171 (Survey licence, expires 31st December 2025).

Statement of Authority: Dr Aughney has worked as a Bat Specialist since 2000 and has undertaken extensive survey work for all Irish bat species including large scale development projects, road schemes, residential developments, wind farm developments and smaller projects in relation to building renovation or habitat enhancement. She was a monitoring co-ordinator and trainer for Bat Conservation Ireland for 20 years. She is a co-author of the 2014 publication *Irish Bats in the 21st Century.* This book received the 2015 CIEEM award for Information Sharing. Dr Aughney is a contributing author for the Atlas of Mammals in Ireland 2010-2015. She is a trained bat handler, bat ringer and radio-telemetry project manager. She is a member of the Nathusius' Pipistrelle Working Group and the Cavan Bat Group.

All analysis and reporting is completed by Dr Tina Aughney. Data collected and surveying is completed with the assistance of trained field assistants. Mr. Shaun Boyle (Field Assistant) NPWS licence DER/BAT 2025-172 (Survey licence, expires 31st December 2025). Ms. Eva Boyle (Field Assistant) NPWS licence DER/BAT 2025-173 (Survey licence, expires 31st December 2025). Both field assistants have received in-house training to undertake all elements of bat surveying according to Collins (2023).

Client: Dún Laoghaire-Rathdown County Council.

Project Name & Location: No. 9 Georges Place and Wash House, Kellys Avenue, Dún Laoghaire, Co. Dublin

Report Revision History (Report – New Format)

Date of Issue	Draft Number	Issued To (process of issuing)
20th May 2025	Draft 1	By email to Dún Laoghaire-Rathdown County Council

Purpose
This document has been prepared as a Report for Dún Laoghaire-Rathdown County Council. Only the most up to-date report should be consulted. All previous drafts/reports are deemed redundant in relation to the named site.

Bat Eco Service accepts no responsibility or liability for any use that is made of this document other than by the client for the purposes for which it was originally commissioned and prepared.

Carbon Footprint Policy
It is the policy of Bat Eco Services to provide documentation digitally in order to reduce carbon footprint. Printing of reports etc. is avoided, where possible.

Bat Record Submission Policy
It is the policy of Bat Eco Services to submit all bat records to Bat Conservation Ireland database one year post-surveying. This is to ensure that a high level bat database is available for future desktop reviews. This action will be automatically undertaken unless otherwise requested, where there is genuine justification.

Citation: Bat Eco Services (2024) No. 9 Georges Place and Wash House, Kellys Avenue, Dún Laoghaire, Co. Dublin – Bat Assessment. Unpublished report prepared for Dún Laoghaire-Rathdown County Council.

Contents

1. Introduction

Bat Eco Services was commissioned by Dún Laoghaire-Rathdown County Council to undertake a bat survey of No. 9 Georges Place and Wash House, Kellys Avenue, Dún Laoghaire, Co. Dublin.

The objective of the bat surveys was to document any bat usage evidence of the buildings and to inform survey requirements during the bat activity season. Bat Eco Services designed a bat survey approach, principally, with reference to Marnell *et al.* (2022) and Collins (2023).

1.1 Relevant Legislation & Bat Species Status

All Irish bat species are protected under the Wildlife Act (1976) and Wildlife Amendment Acts (2000 and 2010). Also, the EC Directive on The Conservation of Natural habitats and of Wild Fauna and Flora (Habitats Directive 1992), seeks to protect rare species, including bats, and their habitats and requires that appropriate monitoring of populations be undertaken. All Irish bats are listed in Annex IV of the Habitats Directive and the lesser horseshoe bat *Rhinolophus hipposideros* is further listed under Annex II. Across Europe, they are further protected under the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention 1982), which, in relation to bats, exists to conserve all species and their habitats. The Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention 1979, enacted 1983) was instigated to protect migrant species across all European boundaries. The Irish government has ratified both these conventions.

Also, under existing legislation, the destruction, alteration or evacuation of a known bat roost is an offence. The most recent guidance document is “Guidance document on the strict protection of animal species of Community interest un the Habitats Directive (Brussels, 12.10.2021 C(2021) 7391 final”.

Regulation 51(2) of the 2011 Regulations provides –

(“(2) Notwithstanding any consent, statutory or otherwise, given to a person by a public authority or held by a person, except in accordance with a licence granted by the Minister under *Regulation 54,* a person who in respect of the species referred to in *Part 1* of the *First Schedule*—
(*a*) deliberately captures or kills any specimen of these species in the wild, (*b*) deliberately disturbs these species particularly during the period of breeding, rearing, hibernation and migration,
(*c*) deliberately takes or destroys eggs of those species from the wild,
(*d*) damages or destroys a breeding site or resting place of such an animal, or
(*e*) keeps, transports, sells, exchanges, offers for sale or offers for exchange any specimen of these species taken in the wild, other than those taken legally as referred to in Article 12(2) of the Habitats Directive, shall be guilty of an offence.”

The grant of planning permission does not permit the commission of any of the above acts or render the requirement for a derogation licence unnecessary in respect of any of those acts.

Any works interfering with bats and especially their roosts, may only be carried out under a derogation licence granted by National Parks and Wildlife Service (NPWS) pursuant to Regulation 54 of the European Communities (Birds and Natural Habitats) Regulations 2011 (which transposed the EU Habitats Directive into Irish law).

There are eleven recorded bat species in Ireland, nine of which are considered resident on the island. Eight resident bat species and one of the vagrant bat species are vesper bats and all vespertilionid bats have a tragus (cartilaginous structure inside the pinna of the ear). Vesper bats are distributed

throughout the island. Nathusius' pipistrelle *Pipistrellus nathusii* is a recent addition while the Brandt's bat has only been recorded once to-date (Only record confirmed by DNA testing, all other records has not been genetically confirmed). The ninth resident species is the lesser horseshoe bat *Rhinolophus hipposideros*, which belongs to the Rhinolophidea and has a complex nose leaf structure on the face, distinguishing it from the vesper bats. This species' current distribution is confined to the western seaboard counties of Mayo, Galway, Clare, Limerick, Kerry and Cork. The eleventh bat species, the greater horseshoe bat, was only recorded for the first time in February 2013 in County Wexford and is therefore considered to be a vagrant species. A total of 41 SACs have been designated for the Annex II species lesser horseshoe bat (1303), of which nine have also been selected for the Annex I habitat 'Caves not open to the public' (8310).

The following species list (Table 1) identifies the range of bat species (resident and vagrant) whose presence has been confirmed in Ireland along with their current status. According to the Bat Conservation Ireland databases, all nine resident bat species have been recorded in Co. Limerick.

Table 1a: Status of the Irish bat fauna (Marnell *et al.,* 2019 & NPWS, 2022).

Species: Common Name	Irish Status	European Status	Global Status
Resident Bat Species ^			
Daubenton's bat *Myotis daubentonii*	Least Concern	Least Concern	Least Concern
Whiskered bat *Myotis mystacinus*	Least Concern	Least Concern	Least Concern
Natterer's bat *Myotis nattereri*	Least Concern	Least Concern	Least Concern
Leisler's bat *Nyctalus leisleri*	Least Concern	Least Concern	Least Concern
Nathusius' pipistrelle *Pipistrellus nathusii*	Least Concern	Least Concern	Least Concern
Common pipistrelle *Pipistrellus pipistrellus*	Least Concern	Least Concern	Least Concern
Soprano pipistrelle *Pipistrellus pygmaeus*	Least Concern	Least Concern	Least Concern
Brown long-eared bat *Plecotus auritus*	Least Concern	Least Concern	Least Concern
Lesser horseshoe bat *Rhinolophus hipposideros*	Inadequate	Least Concern	Least Concern
Possible Vagrants ^			
Brandt's bat Myotis brandtii	Data deficient	Least Concern	Least Concern
Greater horseshoe bat *Rhinolophus ferrumequinum*	Data deficient	Near threatened	Near threatened

^ Roche *et al.,* 2014

1.1.1 NPWS Article 17 Reporting

NPWS (2019) provides details on the conservation status for each of Ireland's bat species along with distribution maps (See appendices for such maps). The following table summarises the conclusions of Article 17 assessment of conservation status at the end of the most recent reporting period. Additional information for each of the bat species provides some clarifying notes in relation to the conservation status conclusions. Such information, where appropriate to the current project, will be drawn on in the project assessment section.

Table 1b: NPWS Article 17 Conservation Status of Irish Bat Species (Adapted from NPWS, 2022).

	Range	Population	Habitat	Future Prospects	Conservation Status Assessment	Conservation Status Trend
Lesser horseshoe bat	Inadequate	Favourable	Inadequate	Inadequate	Inadequate	Deteriorating
Common pipistrelle	Favourable	Favourable	Favourable	Favourable	Favourable	Improving
Soprano pipistrelle	Favourable	Favourable	Favourable	Favourable	Favourable	Improving
Nathusius' pipistrelle	Unknown	Unknown	Favourable	Unknown	Unknown	Not applicable
Natterer's bat	Favourable	Favourable	Favourable	Favourable	Favourable	Stable
Daubenton's bat	Favourable	Favourable	Favourable	Favourable	Favourable	Improving
Whiskered bat	Favourable	Favourable	Favourable	Favourable	Favourable	Improving
Brown long-eared bat	Favourable	Favourable	Favourable	Favourable	Favourable	Improving
Leisler's bat	Favourable	Favourable	Favourable	Favourable	Favourable	Improving

1.1.2 Irish Bat Monitoring Programme – Population Trends

The Irish Bat Monitoring Programme provides information on monitoring schemes managed by Bat Conservation Ireland:

● Car-Based Bat Monitoring (All Ireland) – monitors common pipistrelle, soprano pipistrelle, Leisler's bats with limited information for Nathusius' pipistrelle and *Myotis* species.
● All Ireland Daubenton's Bat Waterway Monitoring
● Brown Long-eared Bat Roost Monitoring
● Lesser Horseshoe Bat Monitoring

This provides population trend data for seven bat species: common pipistrelle, soprano pipistrelle, Leisler's bat, Nathusius' pipistrelle, Daubenton's bat, brown long-eared bat and lesser horseshoe bat (some limited data for *Myotis* species). There is currently no systematic monitoring surveys for Natterer's bat and whiskered bat. Annual reporting is undertaken and the most recent report (Aughney *et al.,* 2023) is referenced for this report. In summary, the population trends for each bat species are as follows:

- Trends of the three common bat species (common pipistrelle, soprano pipistrelle and Leisler's bat) continued to increase in 2022, although the yearly estimates of common pipistrelle levelled out a little. Confidence intervals of these three bat species were all above their baseline indices indicating they each show a significantly increasing trend.
- Nathusius' pipistrelle trends are still unclear due to low encounter rates but decreased a little in 2022 compared to previous years.
- The yearly estimate for the *Myotis* spp. group steadied out a little but overall the smoothed trend for this group is still well below the baseline.
- Daubenton's bat numbers trend line appears to be fairly steady from year to year with error bars consistently encompassing the baseline.
- Brown long-eared bat shows a fluctuating trend around the baseline and is considered to be currently stable.

- Lesser horseshoe bat continue to increase in 2022 for the summer counts while low winter counts caused a slight downward trend in 2022. But overall, this species has increased over the last 20 years of monitoring.

1.1.3 Assessment Parameters

Different parameters are considered for the overall assessment of the potential impact(s) of a proposed development on local bat populations. The overall impacts of the proposed project on local bat populations is assessed using the following criteria:

- Impact Quality using the parameters Positive, Neutral or Negative Impact (based on EPA, 2017)

Table 1c: Criteria for assessing impact quality based on EPA, 2017,

Quality of Effect	Criteria
Positive	A change which improves the quality of the environment (for example, by increasing species diversity; or the improving reproductive capacity of an ecosystem, or by removing nuisances or improving amenities).
Neutral	No effects or effects that are imperceptible, within normal bounds of variation or within the margin of forecasting error.
Negative	A change which reduces the quality of the environment (for example, lessening species diversity or diminishing the reproductive capacity of an ecosystem; or damaging health or property or by causing nuisance).

- Impact Significance of potential impact parameters on specific bat species in relation to particular elements (e.g. roosting sites, foraging area and commuting routes) are assessed with reference to the following:
    - Table 4 of Marnell *et al.* (2022) (Figure 1a);
    - the known ecology and distribution of the bat species in Ireland;
    - bat survey results including type of roosts (if any recorded), pattern of bat usage of the survey area, level of bat activity recorded etc.
    - and bat specialist experience.

- Impact Significance of the proposed development on local bat populations maybe determine, where applicable, using the parameters listed in Table 2c (based on EPA, 2017).

Table 1d: Criteria for assessing significance of effects based on EPA, 2017,

Significance of Effects	Definition
Imperceptible	An effect capable of measurement but without significant consequences.
Not significant	An effect which causes noticeable changes in the character of the environment but without significant consequences.
Slight	An effect which causes noticeable changes in the character of the environment without affecting its sensitivities.
Moderate	An effect that alters the character of the environment in a manner that is consistent with existing and emerging baseline trends.
Significant	An effect which, by its character, magnitude, duration or intensity alters a sensitive aspect of the environment.
Very Significant	An effect which, by its character, magnitude, duration or intensity significantly alters most of a sensitive aspect of the environment.
Profound	An effect which obliterates sensitive characteristics

The following terms will be used, where possible and applicable, when quantifying the duration of the potential effects (selected from EPA, 2017):

- Temporary – effects lasting less than a year
- Short-term – effects lasting 1 to 7 years
- Medium term – effects lasting 7 to 15 years
- Long term – effects lasting 15 to 60 years
- Permanent – effects lasting over 60 years
- Reversible – effects that can be undone, for example through remediation or restoration.

1.2 Project Location & Description

1.2.1 Project Location

The buildings surveyed are located at of No. 9 Georges Place and Wash House, Kellys Avenue, Dún Laoghaire, Co. Dublin.

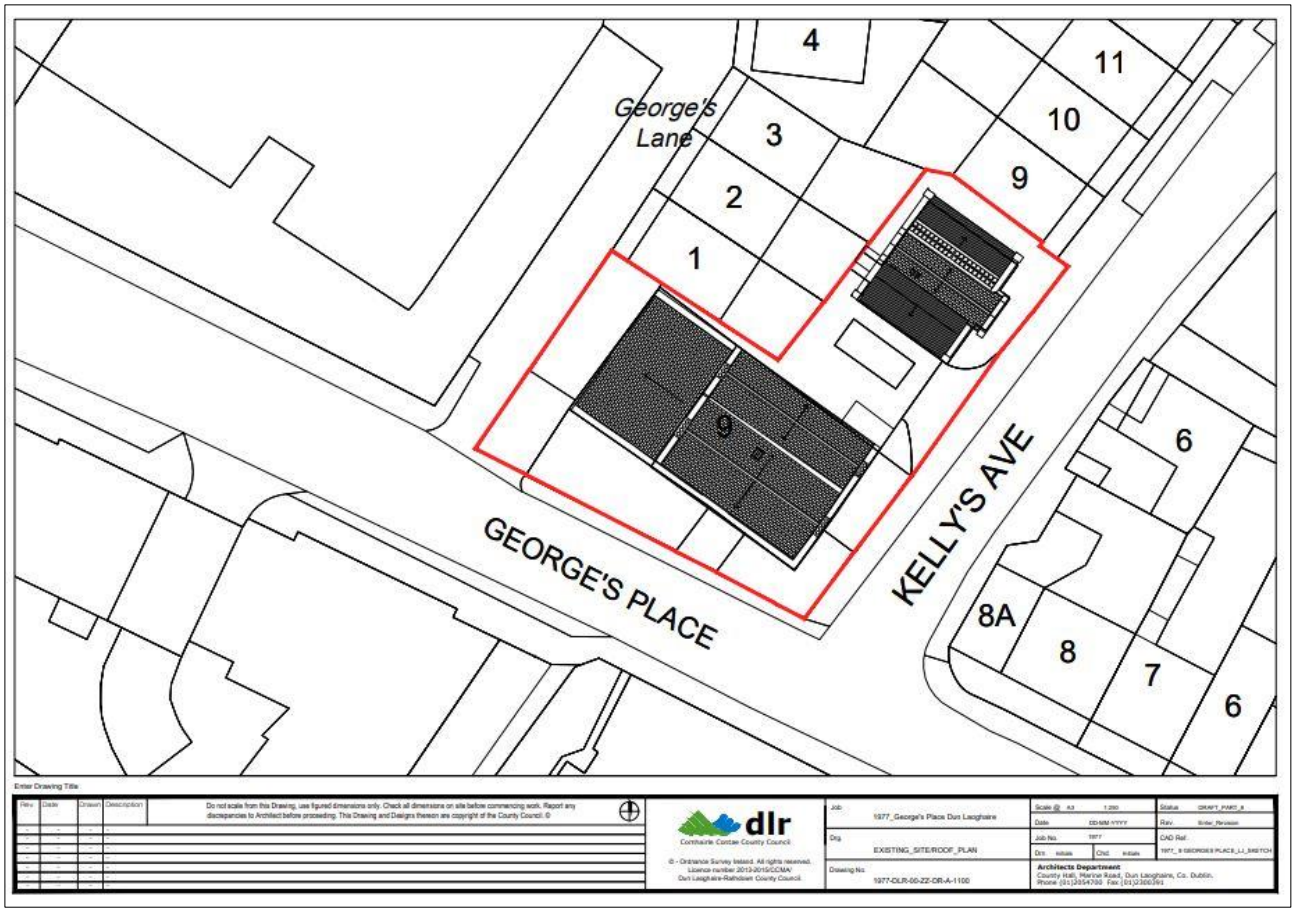

Figure 1a: Site location map (Project site is outlined in Red) Source: DLR Co. Co.

1.2.2 Project Description

The proposed development comprises of:

- Full retrofit and refurbishment of no. 9 George's Place (Floor Area: 484 sqm) to include revised internal layout to accommodate new use and full thermal efficiency upgrading to best conservation practice.
- Demolition of existing two-storey lean to extension to no. 9 George's Place (Floor area: approx. 83 sqm).
- Construction of new multi-storey extension to replace existing lean-to extension to provide universal access to no. 9 George's Place, new lift and stairwell, to accommodate new use and provide viewing platform. (11.8 x 7m footprint approx. 330 sqm).
- Full retrofit and refurbishment of former Wash House, Kelly's Avenue (Floor Area: 161 sqm) to include revised internal layout to accommodate new use and full thermal efficiency upgrading to best conservation practice.
- Construction of new 2-storey extension to Wash House to accommodate lift for Universal Access.
- The external courtyard between the two buildings will be designed and landscaped to facilitate access and circulation between the two buildings. (Courtyard 10.6m x 10m: 106 sqm)

- External landscaping and enhancement to the surrounding perimeter area and enhancement of the boundaries of the site. Repaving and landscaping of external areas to buildings including footpaths as required. Provision of external ramp access if required.
- The future use of the building is currently being determined through public consultation and the preparation of the Integrated Urban Study with funding from THRIVE (Town Centre First Enhancement Scheme). It will be a non-residential educational / creative use with community benefit. Probable uses include a Centre for Digital Creative Practices with educational spaces and creative studios / exhibition space / music creation or practice / teaching spaces / teenage creative hub.

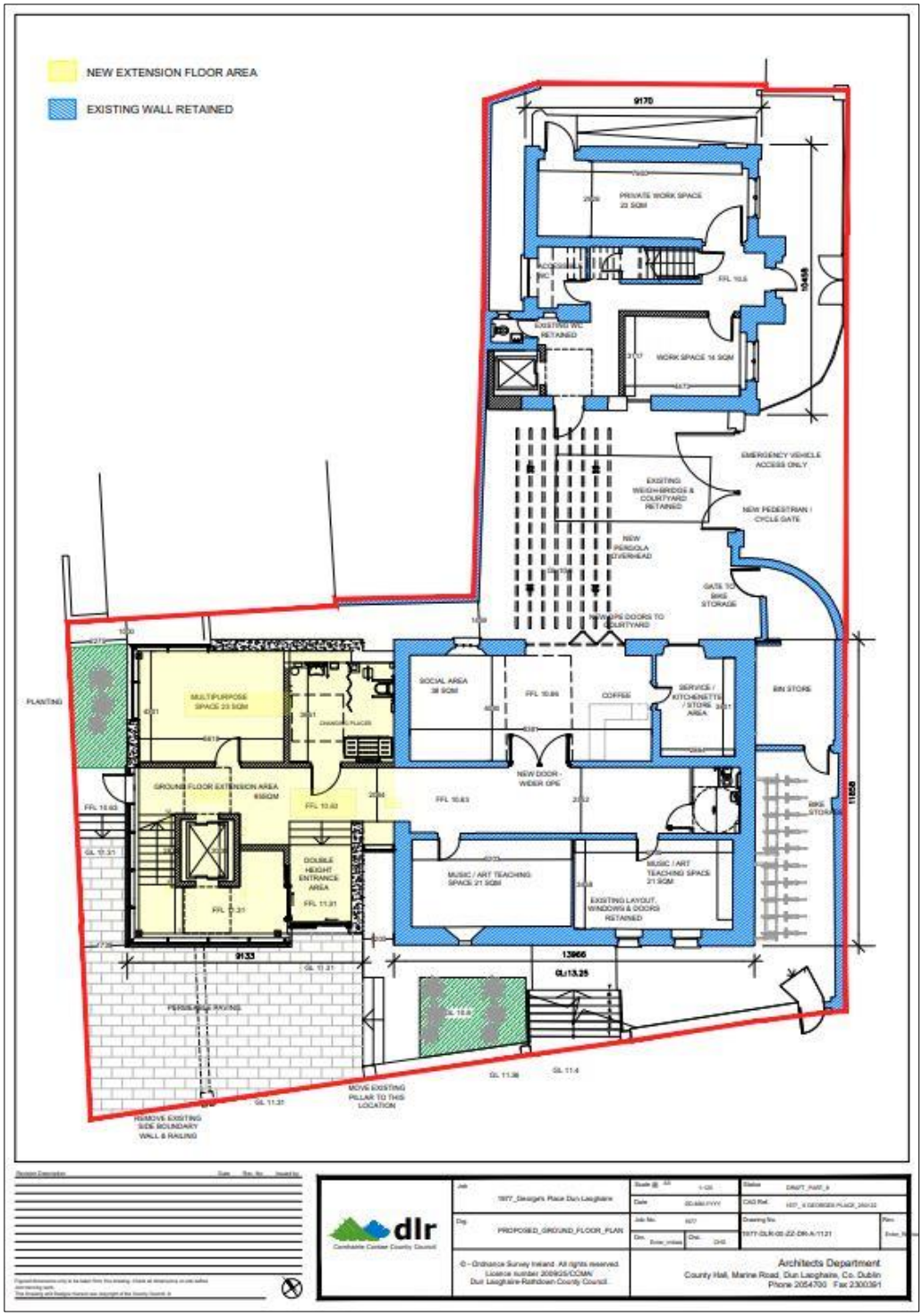

Figure 1b: Proposed works at No. 9 Georges Place and Wash House, Kellys Avenue, Dún Laoghaire, Co. Dublin. (Project site is outlined in Red) Source: DLR Co. Co.

2. Methodology

2.1 Guidance Document

This report will draw on guidelines already available in Europe and will use the following documents:

- Collins, J. (Editor) (2023) Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edition). Bat Conservation Trust, London
- Marnell, F., Kelleher, C. & Mullen, E. (2022) Bat mitigation guidelines for Ireland v2. Irish Wildlife Manuals, No. 134. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage, Ireland (Version 1: Kelleher & Marnell, 2006).
- The status of EU protected habitats and species in Ireland: Conservation status in Ireland of habitats and species listed in the European Council Directive on the Conservation of Habitats, Flora and Fauna 92/43/EEC. National Parks and Wildlife Service, Department of Environment, Heritage and Local Government.
- Bat Conservation Trust (2023) Bats and artificial lighting at night. Guidance Note GN08/23. BCT, London & Institution of Lighting Professionals (ILP), Warwickshire.
- Guidance document on the strict protection of animal species of Community interest un the Habitats Directive (Brussels, 12.10.2021 C(2021) 7391 final.
- EPA (2022) Guidelines on the information to be contained in Environmental Impact Assessment Reports.

Collins (2023) was the principal document used to provide guidance in relation to bat survey effort required. Marnell *et al.* (2022) is referred to for guidance in relation to survey guidance (timing and survey design), derogation licences and mitigation measures.

2.2 Daytime Inspections

2.2.1 Buildings

The buildings located at of No. 9 Georges Place and Wash House, Kellys Avenue, Dún Laoghaire, Co. Dublin were inspected during the daytime on 20th January (Winter) and 1st May (Summer) 2025. Evidence of bat usage is in the form of actual bats (visible or audible), bat droppings, urine staining, grease marks (oily secretions from glands present) and claw marks. In addition, the presence of bat fly pupae (bat parasite) also indicated that bat usage of a crevice, for example, has occurred in the past. Inspections were undertaken visually with the aid of a strong torch beam (LED Lenser P14.2) and endoscope (General DC5660A Wet / Dry Scope).

Buildings were assessed to determine their suitability as a bat roost and described using the parameters Negligible, Low, Moderate or High suitability in view of Table 2a presented below. This table is also used to determine the level and timing of surveys for buildings with reference to the surrounding habitat.

Table 2a: Building Bat Roost Classification System & Survey Effort (Adapted from Collins, 2016 and Marnell *et al.*, 2022).

Suitability Category	Description (examples of criteria)	Survey Effort (Timings)
Negligible	Building have no potential as a roost site Urban setting, heavily disturbed, building material unsuitable, building in poor condition etc.	No surveys required.
Low	Building has a low potential as a roost site. No evidence of bat usage (e.g. droppings)	One dusk or dawn survey.
Moderate	Building with some suitable voids / crevices for roosting bats. Some evidence of bat usage Suitable foraging and commuting habitat present.	At least one survey in May to August, minimum of two surveys (one dusk and one dawn).
High	Building with many features deemed suitable for roosting bats. Evidence of bat usage. Largely undisturbed setting, rural, suitable foraging and commuting habitat, suitable roof void and building material.	At least two surveys in May to August, with a minimum of three surveys (at least one dusk survey and one dawn survey).

2.3 Desktop Review

2.3.1 Bat Conservation Ireland Database

Bat Conservation Ireland acts as the central depository for bat records for the Republic of Ireland. Its' bat database is comprised of >100,000 bat records. The database primarily contains bat records from the following datasets:

- Irish Bat Monitoring Programme
- BATLAS 2020 & 2010
- BCIreland surveys
- Ad Hoc Bat Records submitted by ecologists, bat groups etc.

An important caveat to note is that the BCIreland dataset relies on bat surveyors to submit their bat records in order to populate the database. Therefore it is important to state that the absence of information does not necessarily imply that there are no bats or bat roosts present in the search area. A 1km data search was completed for the Irish Grid Reference: O24051128796.

2.3.2 Bat Conservation Landscape Favourability

Bat Conservation Ireland (BCIreland) produced a landscape conservation guide for Irish bat species using their database of species records collated during the 2000 – 2009 survey seasons. An analysis of the habitat and landscape associations of all bat species deemed resident in Ireland was undertaken and reported in Lundy *et al*. (2011). This model was queried on 14th May 2025.

The geographical area suitable for individual species was used to identify the core favourable areas of each species. This was produced as a GIS layer for local authorities and planners in order to provide a guide for the consideration of bat conservation. The island is divided into 5km squares and the landscape favourability (expressed as a percentage, the higher the value, the greater the favourability) of each 5km square for each species of bat was modelled. A caveat is attached to the model: the model is based on records held on the Bat Conservation Ireland database, while core areas have been identified, areas outside the core area should not be discounted as unimportant as bats are a landscape species and can travel many kilometres between roosts and foraging areas nightly and seasonally. This model was used as part of the desktop study for this report.

3. Bat Survey Results

3.1 Desktop Review

3.1.1 Bat Conservation Ireland Database

There are no roosts located within 1km of the survey site. There are bat detector records for the following bat species: Leisler's bat, common pipistrelle and *Pipistrellus* species. The location of these records are presented on the map below. The majority of these bat encounters are records of Leisler's bats.

Figure 2a: bat encounters held on the Bat Conservation Ireland database in a 1km radius of project area: Kellys Avenue, Dún Laoghaire, Co. Dublin (Red circle).

3.1.2 Bat Conservation Landscape Favourability

The BCIreland Landscape Favourability Model (Lundy *et al.,* 2011) was investigated as part of this desktop review. The island of Ireland is divided into 5km squares and the darker the shading of the square, the higher favourability of the 5km square for bats. The favourability of the square is represented by a percentage for each bat species, with higher values representing higher level of favourability. The square within which the cottage is located has a Moderate favourability for bats.

Table 3b: Percentage Landscape Favourability for each 5km for Irish bat species (Lundy *et al.*, 2011).

Square No.	All bat spp.	SP	CP	Nath Pip	Leis	BLE	Daub	Natt	Whis
1	22.2%	38%	36%	16%	38%	29%	9%	15%	19%

Note: SP = soprano pipistrelle, CP = common pipistrelle, Nath Pip = Nathusius' pipistrelle, Leis = Leisler's bat, BLE = brown long-eared bat, Daub = Daubenton's bat, Natt = Natterer's bat, Whis = whiskered bat.

Figure 2b: Bat Conservation Ireland Landscape Favourability Model for 5km square (Source: Bat Conservation Ireland Landscape Model). Survey site is marked by Dark Blue Square.

3.2 Building Surveys – Daytime Inspections

During the daytime inspection of buildings located within the proposed development site, the internal spaces of building safe to access were inspected as well as the external surfaces. No evidence of bat usage was recorded within the buildings (i.e. no bat droppings, insect remains etc.). Two *Pipistrellus* species bat droppings were noted on the external gable window of 9 Georges Place (Plate 1). During the summer inspection, no additional evidence of bat usage was recorded.

Table 3: Results of daytime inspection of buildings within the survey area.

Building No.	Description	Proposed Works	Bat Value
9 Georges Place	Rendered, two-storey over basement, four-bay building built in 1831 as a hotel building (484 sqm). Slate roof with small roof space (limited access, roof felt and roof timbers in good conditions). External cracks in walls. Basement with numerous windows and therefore not dark.	To be renovated into digital hub	Low No bat evidence of usage internally. Dropping on external window = bats in area, but not necessarily using the building. No tall vegetation in immediate vicinity but close to coastal area that may provide foraging. Timber facia, lead flashing around chimneys are suitable access points into a small roof spaces. External cracks in walls may provide limited roosting features. Urban area = increased public lighting which impacts negatively on bat usage.
Wash House	2-storey red brick building, renovated ground floor into exhibition space. Upstairs remains as open space (3 connected spaces). Large lourve window with steel mesh externally. Side vents (open) along upper levels.	To be renovated into digital hub	Low No bat evidence of usage internally. No tall vegetation in immediate vicinity but close to coastal area that may provide foraging. Side vents are open and would allow bats access into the building. Little dark spaces internally to provide roosting space for bats. Urban area = increased public lighting which impacts negatively on bat usage.

A Low value was assigned to both buildings and this means that only one survey is required. However due to the size of the structures and due to the tight space within the survey site, it is determined that two dusk surveys will be necessary to provide accurate information on the potential bat usage of the buildings during the bat activity season (May to August).

Plate 1: Bat droppings on window pane (external), No. 9 Georges Place, Kellys Avenue, Dún Laoghaire, Co. Dublin (Winter Inspection).

Plate 2: Gable and Front view of No. 9 Georges Place, Kellys Avenue, Dún Laoghaire, Co. Dublin.

Plate 3: Rear view of No. 9 Georges Place, Kellys Avenue, Dún Laoghaire, Co. Dublin.

Plate 4: Attic of No. 9 Georges Place, Kellys Avenue, Dún Laoghaire, Co. Dublin.

Plate 5: External view of Wash House, Kellys Avenue, Dún Laoghaire, Co. Dublin.

Plate 6: Internal roof room of Wash House, Kellys Avenue, Dún Laoghaire, Co. Dublin depicting side vents (open) and lourve window (steel mesh externally).

3.3 Night-time Surveys

3.3.1 Dusk Surveys

A dusk survey was completed on 1st May 2025 (weather conditions: 12oC, full cloud cover, calm and dry) coupled with a thermal imagery camera for filming. No bats were recorded emerging from the buildings and this was confirmed by the thermal imagery filming. One bat commuted through the survey area during the survey period: Common pipistrelle at 21:28 hrs (this was also confirmed on the static unit located outside the buildings – See table below). This individual did not emerge from the buildings or forage within the survey area.

A dusk survey was completed on 19th May 2025 (weather conditions: 13oC, clear sky, calm and dry). No bats were recorded during the survey period. Therefore it is deemed that there are no bats are roosting in 9 Georges Place or the Wash House.

Plate 7a: Thermal imagery screen shot of Wash House (1/5/2025).

Plate 7b: Thermal imagery screen shot of Wash House (1/5/2025).

3.3.2 Static Surveillance

The static unit located inside the Wash House did not record any bat activity. This confirms the survey results of the dusk surveys and that this building is not a bat roost.

The two static units located in 9 Georges Place did not record any bat activity. This confirms the survey results of the dusk surveys and that this building is not a bat roost.

The static unit located outside the building recorded two species of bat: Leisler's bat (1 bat pass over 6 nights of surveillance at 21:21 hrs on 6th May 2025) and common pipistrelle (26 bat passes over 6 nights of surveillance).

In relation to the Common pipistrelle bat activity recorded on the static unit, the following table presents the time stamp for all of the confirmed audio files. The activity is indicative of commuting individuals (Please note that each time stamp audio file is not necessarily represent an individual bat. Calls closely recorded together, in time, may be the same individual bat as this species occasionally will loop around an area before commuting onwards). This is a low level of activity spread out over 6 nights of surveillance.

Table 4: Common pipistrelle bat activity recorded during static surveillance outside the buildings surveyed.

DATE	TIME	MANUAL ID	DATE	TIME	MANUAL ID
01/05/2025	21:27:54	PIPPIP	06/05/2025	22:24:24	PIPPIP
06/05/2025	21:20:15	PIPPIP	06/05/2025	22:24:32	PIPPIP
06/05/2025	21:25:42	PIPPIP	06/05/2025	22:30:08	PIPPIP
06/05/2025	21:39:48	PIPPIP	06/05/2025	22:41:23	PIPPIP
06/05/2025	21:40:06	PIPPIP	06/05/2025	22:42:12	PIPPIP
06/05/2025	21:40:22	PIPPIP	06/05/2025	23:07:11	PIPPIP
06/05/2025	21:40:42	PIPPIP	06/05/2025	23:47:03	PIPPIP
06/05/2025	21:40:57	PIPPIP	06/05/2025	23:57:57	PIPPIP
06/05/2025	21:43:54	PIPPIP	07/05/2025	00:04:58	PIPPIP
06/05/2025	21:44:01	PIPPIP	07/05/2025	00:05:14	PIPPIP
06/05/2025	22:23:26	PIPPIP	07/05/2025	00:06:14	PIPPIP
06/05/2025	22:23:35	PIPPIP	07/05/2025	00:36:39	PIPPIP
06/05/2025	22:23:41	PIPPIP	07/05/2025	01:22:27	PIPPIP

4. Significance of Survey Area

The survey site was surveyed according to Collins (2023). In consideration of the results, this section describes the significance of the survey area in respect of the bat species recorded. It assigns ecological values to the species recorded in the context of the study area and identified bat roosts, commuting routes and foraging habitats that will require protection.

4.1 Ecological Valuation of Bat Species Recorded in the Study Area

This is based on winter inspection, summer bat survey and Bat Conservation Ireland database records.

The bat surveys and desktop study confirmed the following:

- Two bat species commuted/foraged within/ through the survey site;
- No bats were recorded roosting in the structures surveyed.

The following ecological values have been assigned to the individual bat species recorded in the study area. Both of these bat species are common Irish bat species and are frequently recorded in urban areas as they are tolerant (Leisler's bat) or semi-tolerant (common pipistrelle) of street lighting.

Table 5: Ecological valuation of bat species recorded in the study area during the surveys completed (CIEEM, 2016).

Ecological Value	Species
Local	Leisler's bat
Local	Common pipistrelle

Leisler's bat

- Leisler's bat is an Annex IV bat species under the EU Habitats Directive. The status of this bat species is listed as Least Concern. The national Leisler's bat population is considered to be significantly increasing (Aughney *et al.,* 2021).
- The modelled Core Area for Leisler's bats is a relatively large area that covers much of the island of Ireland (52,820km^2). The Bat Conservation Ireland Irish Landscape Model indicated that the Leisler's bat habitat preference has been difficult to define in Ireland. Habitat modelling for Ireland shows an association with riparian habitats and woodlands (Roche *et al.,* 2014). The landscape model emphasised that this is a species that cannot be defined by habitats preference at a local scale compared to other Irish bat species but that it is a landscape species and has a habitat preference at a scale of 20.5km.

The overall trend for the national population of common pipistrelle in Article 17 reporting (NPWS, 2019) is as follows:

- Range = Favourable
- Population = Favourable
- Habitat for species = Favourable
- Overall Assessment of Conservation Status = Favourable
- Overall trend in Conservation Status = Improving

Common pipistrelle

- Common pipistrelle is an Annex IV bat species under the EU Habitats Directive. The status of this bat species is listed as Least Concern. The national common pipistrelle population is considered to be significantly increasing (Aughney *et al.,* 2021).
- The modelled Core Area for common pipistrelle is a relatively large area that covers much of the island of Ireland (56,485km^2). The Bat Conservation Ireland Irish Landscape Model indicated that the common pipistrelle selects areas with broadleaf woodland, riparian habitats and low density urbanization (<30%) (Roche *et al.,* 2014).

The overall trend for the national population of common pipistrelle in Article 17 reporting (NPWS, 2019) is as follows:

- Range = Favourable
- Population = Favourable
- Habitat for species = Favourable
- Overall Assessment of Conservation Status = Favourable
- Overall trend in Conservation Status = Improving

5. Conservation Measures

As there are no bats roosting in the 9 George's Place and Wash House, there is no requirement for bat mitigation measures during the renovation of these buildings. However, as bats were briefly recorded, it is recommended that Bat Conservation Measures are considered.

The most important measures relate to lighting and landscaping to ensure that there is appropriate lighting and, where possible, commuting/foraging habitat present post works.

5.1 Outdoor Lighting

Bats are light sensitive bats species, hence their nocturnal activities. Luminaire design is extremely important to achieve an appropriate lighting regime. Luminaires come in a myriad of different styles, applications and specifications which a lighting professional can help to select. The following should be considered when choosing luminaires. This is taken from the most recent BCT Lighting Guidelines (BCT, 2023). It is important that the client checks that any outdoor lighting meets the following guidelines:

Where lighting is deemed necessary, the following are required:

- All luminaires should lack UV elements when manufactured. Metal halide, compact fluorescent sources should not be used.
- LED luminaires should be used where possible due to their sharp-cut-off, lower intensity, good colour rendition and dimming capability,
- A warm white light source (2700 Kelvin or lower) should be adopted to reduce blue light component of luminaires. A 2700 Kelvin luminaire appears as a warm yellow due to the reduction in the stark blue light associated with higher Kelvin values (e.g. 4000 Kelvins). The "warmer" the light, the less of an impact on nocturnal wildlife. The progression of LED technology means that the majority of luminaires are available at 2700 Kelvins and lower. Therefore, it is recommended that such luminaires are standard for "biodiversity areas" and as LED technology develops, 2200 Kelvins may become more commonly available in future years.
- Light sources should feature peak wavelengths higher than 550nm to avoid the component of light most disturbing to bats.
- Internal luminaires, in relation to buildings within the proposed development area, can be recessed (as opposed to using a pendant fitting) where installed in proximity to windows to reduce glare and light spill. This is particularly important for Building 1 and Building 2 of the proposed development site as these are located adjacent to the Riparian Zone.
- Waymarking inground markers (low output with cowls or similar to minimised upward light spill) to delineate path edges, if required, for pedestrian zones within the proposed development area should be used.
- Column heights should be carefully considered to minimise light spill and glare visibility. This should be balanced with the potential for increased numbers of columns and upward light reflectance as with bollards.
- Only luminaires with a negligible or zero Upward Light Ration, and with good optical control, should be considered.
- Luminaires should always be mounted horizontally, with no light output above 90^{o} and/or no upward tilt.
- Where appropriate, external security light should be set on motion sensors and set to as short a possible a timer as the risk assessment will allow (e.g. 1-2 minute timer).
- Only if all other options have been explored, accessories such as baffles, hoods or louvres can be used to reduce light spill and direct it only to where it is needed.

Any external lighting for the proposed development should strictly follow the above guidelines and these should be strictly implemented during construction and operation phase of the proposed development.

5.2 Landscaping

It is recommended that that any landscape planting plant only Irish native tree and shrub species. Small blossom trees such as Crab apple and Rowan are two appropriate tree species in an urban setting.

6. Conclusions

There are no bats roosting in the building surveyed. Two bat species were recorded commuting and/or foraging within the survey area: Leisler's bats and common pipistrelles. These were recorded in a low level of bat activity and are both common Irish bat species.

As there are no bats roosting in the 9 George's Place and Wash House, there is no requirement for bat mitigation measures during the renovation of these buildings. However, as bats were briefly recorded, it is recommended that Bat Conservation Measures are considered.

The most important measures relate to lighting and landscaping to ensure that there is appropriate lighting and, where possible, commuting/foraging habitat present post works.

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