SCOTT
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Bat Derogation Licence Application – Supplementary Report

Lanistown Castle ECoW

prepared for the National Parks and Wildlife Services

on behalf of Fingal County Council

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Document Control

Project Title	Lanistown Castle ECoW		**Project No.**	240035
Document Title	Bat Derogation Licence Application Supplementary Report		**Status**	Final
Revision	**Issue Date**	**Author**	**Reviewed By**	**Approved By**
I1	26/07/2024	AB	SQ	CC

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1 Introduction

1.1 Background

1 This supplementary report accompanies an application to the National Parks and Wildlife Service (NPWS) for a Derogation Licence in respect of extensive repair works to Lanistown Castle tower in Newbridge Demesne, Donabate, in line with the European Communities (Birds and Natural Habitats) Regulations, 2011 (as amended).

2 This report provides details of surveys undertaken by Scott Cawley Ltd., in April and May 2024 to assess if the Castle is suitable for use by roosting bats, and any potential implications of the repair works in respect to bat activity and habitation. This report also details the proposed mitigation strategy for bats, as required. The success of the proposed mitigation strategy will be measured by the avoidance of mortality of any bat species and the minimisation of disturbance to bat roosts, and habitat degradation during the repair works.

3 Scott Cawley Ltd., were engaged by Fingal County Council to undertake ecological surveys in support of the Bat and Barn Owl Report for the proposed repair works.

4 The proposed repair works are due to commence in early September 2024.

1.2 Overview of Proposed Works

5 The Castle is located in the 2km grid square O24E at O 20979 49638 in Donabate, Co. Dublin. Lanistown Castle is a 15th century tower house located near the entrance to Newbridge Demesne (Figure 1). The proposed repairs consist of masonry and mortar repairs to address structural failure, loss of mortar and masonry, water ingress, and unwanted vegetations; and to arrest and retard the damage arising from weather exposure generally, and the accelerated effect of climate change.

6 Lanistown Castle is a large, complex building with a variety of repairs required, including significant scaffolding element. A four-six month repair works period is anticipated in a continuous works programme; for health and safety reasons, and for minimising disturbance on flora and fauna species.

7 The works are permanent and designed to cause minimal interference to the historic fabric. The aim of these works is to retain, and where possible enhance, the significant of the monument by retaining it as a ruin. The works to the monument will adhere to the Conservation Guidelines issued by the Department of Housing, Local Government and Heritage.

8 The works will be carried out under the professional direction of the project conservation engineer with advice from the project conservation architect to ensure that the integrity of the church and graveyard are maintained and that all work is carried out in accordance with best conservation practice. In advance of works the project archaeologist will prepare an Archaeological Assessment for agreement with National Monument Service (NMS) before works commences. Licenced archaeological monitoring of the conservation works shall be carried out so that subsurface archaeology is not disturbed. The licence application will be accompanied by a detailed Method Statement describing the proposed works. All monitoring arrangements will be agreed at the outset of the works. The archaeologist undertaking the monitoring/supervision will liaise with the conservation team during all works. In the event of archaeological features being identified during the course of the monitoring the archaeologist will fully record such features including the archaeological excavation of such features. In the event of a significant archaeological find on site the archaeologist will consult with the National Monument Service to determine the archaeological resolution of the site. A detailed description of the locations of the repair works is included in Appendix I, the Method Statement Report for Conservation Works at Lanistown Castle.

9 All works will be informed by ecological studies and overseen by an ecological clerk of works. Lanistown Castle has previously been identified as a bat roost, and the site programme has been scheduled in cognisant of this, and as the Castle is also a known nesting site for barn owl.

Figure 1 Lanistown Castle located in Newbridge Demesne

1.3 Author Statement

10 Scott Cawley Ltd., staff abide by the Code of Professional Conduct/Code of Practice for the Chartered Institute of Ecology and Environmental Management (CIEEM). The Company holds an annual licence under issued under Sections 23 and 34 of the Wildlife Acts 1976-2018 (C29/2024), enabling staff members to capture and handle bats, and an annual derogation licence under the *European Communities (Birds and Natural Habitats) Regulations 2011* (as amended) (DER/BAT 2024-53), enabling staff members to enter roosts and undertake surveys with endoscope. This report has been prepared by Alison Bourke of Scott Cawley Ltd., and has been reviewed for quality assurance purposes by Síofra Quigley and Colm Clarke of Scott Cawley Ltd.

11 Alison Bourke is a Consultant Ecologist at Scott Cawley with a Bachelor of Agricultural Science in Agri-Environmental Science from University College Dublin (UCD). Alison has over a year of experience as an ecologist and has worked on numerous bat surveys. She has undergone extensive training in bat survey techniques at Scott Cawley and leads the Bat Special Interest Group within the company. Over the past year, Alison has also been gaining experience in completing bat derogation licenses.

12 Siofra Quigley is a Senior Ecologist as Scott Cawley. She has a Bachelor of Science degree in Zoology from the National University of Ireland, Galway, and a Masters in Wildlife Biology and Conservation from Edinburgh Napier University. Síofra has six years' experience working as an ecologist in Ireland and Scotland, and is a Full member of the Chartered Institute of Ecology and Environmental Management (CIEEM). She has extensive bat survey experience, and has undergone training in bat handling and trapping techniques while at Scott Cawley. Síofra has prepared multiple derogation licence applications and has discharged licence obligations on a range of projects in Ireland. Síofra has received bat handling training from Neil Midleton of Batability Ltd., as well as internal trainings with Scott Cawley Ltd. Síofra is licensed in Ireland for bat handling and roost disturbance and inspection.

13 Colm Clarke is a Principal Ecologist with Scott Cawley and has over nine year's professional experience in ecological consultancy. He obtained an honours degree in Natural Sciences from Trinity College Dublin, and a Masters in Biodiversity and Conservation from the same institution. Colm is a full member of the CIEEM, a member of Bat Conservation Ireland and Chairperson of the Dublin Bat Group. Colm is Scott Cawley's lead bat ecologist, and regularly prepares derogation licences for bats and their roosts, and oversees the discharge of licence obligations. As part of this work, Colm provides advice on protected species to clients and contractors. Colm is on the CIEEM's EcIA Accreditation Working group, which aims to improve the quality of Ecological Impact Assessment (EcIA) Reports through an accreditation process, and he is an assessor on the EcIA Pilot Accreditation Scheme. Colm is experienced in scoping, preparing, and reviewing EcIA (including EIA Biodiversity Chapters) and in the completion of Appropriate Assessment (AA) Screening and Natura Impact Statement (NIS), and has prepared these reports and acted as internal reviewer (as part of Scott Cawley's quality assurance process) on a range of projects from residential to industrial and large-scale infrastructure (e.g. national road and rail projects). Colm also regularly completes technical peer review and has assessed projects for local authority clients and renewable energy developers. As a member of the Irish Environmental Law Association and regular attendee at IELA seminars, Colm stays abreast of developments in environmental law and how these relate to changes to assessment practices.

1.4 Proposed Personnel for Inclusion on Derogation Licence

14 Outlined below are the personnel who will administer and implement the derogation licence that is being applied for, ensuring its full implementation including having full responsibility for compliance with the mitigation strategy and/or conditions of the derogation licence as issued. Fingal Co. Council will have overall responsibility for the management of the licence. Scott Cawley Ltd., will act as the scientific agent identified on the derogation licence and will oversee the works associated with Lanistown Castle as described in Section 1.2. As such, should the derogation licence be granted by the NPWS, there may be the need for an update/change to the personnel listed/associated with this derogation licence during its lifetime. Any changes in personnel associated with this derogation licence will be notified by Fingal Co. Council in writing to the NPWS for amendment.

15 The persons identified below, as employees of Scott Cawley Ltd., abide by the Code of Professional Conduct/Code of Practice of CIEEM. Scott Cawley Ltd., operate under an annual NPWS issued licence to handle and disturb bats (all bat species with the exception of the Lesser Horseshoe Bat) in support of surveys. The 2024 licence number is C29/2024 Amended 21/03/2024.

1.4.1 Proposed Lead Bat Ecologist – Síofra Quigley

16 Síofra will lead the Scott Cawley Ltd., bat monitoring program for the duration of the licence. She will be assisted by the qualified and experienced personnel listed below who are named on Scott Cawley's annual derogation licences for disturbance of bats and their roosts:

- Colm Clarke
- Andrew Speer
- Eoin Cussen
- Shane Brien
- Cathal O'Brien
- Tim Ryle
- Wayne Daly
- Sorcha Shanley

The following personnel will be named on the licence as trainees who may assist Síofra and/or her colleagues named above under their supervision include:

- Jamie Dempsey
- Simon O'Carroll
- Cian O'Flaherty
- Alison Bourke
- Jared Bennett
- Bea Jackson
- Gregor Wood
- Clíona O'Flaherty
- Barbara Kasl

2 Legal Protection and Conservation of Bats in Ireland

17 There are nine species of bat known to breed in Ireland, while two other species have been recorded on a single occasion (Table 1). All of Ireland's nine resident bat species are listed as "*Least Concern*" in the *Ireland Red List No. 12: Terrestrial Mammals*[1].

Table 1 Bat species in Ireland: status and distribution

Species	Status	Distribution

[1] Marnell, F., Looney, D. & Lawton, C. (2019). *Ireland Red List No. 12: Terrestrial Mammals*. National Parks and Wildlife Service, Department of the Culture, Heritage and the Gaeltacht, Dublin, Ireland.

Common pipistrelle *Pipistrellus pipistrellus*	Resident	Widespread
Soprano pipistrelle *Pipistrellus pygmaeus*	Resident	Widespread
Nathusius' pipistrelle *Pipistrellus nathusii*	Resident	Widespread
Leisler's bat *Nyctalus leisleri*	Resident	Widespread
Brown long-eared bat *Plecotus auritus*	Resident	Widespread
Whiskered bat *Myotis mystacinus*	Resident	Widespread
Natterer's bat *Myotis nattereri*	Resident	Widespread
Daubenton's bat *Myotis daubentonii*	Resident	Widespread
Lesser horseshoe bat *Rhinolophus hipposideros*	Resident	Restricted to the western seaboard
Brandt's bat *Myotis brandtii*	Vagrant	Single confirmed record from Co. Wicklow
Greater horseshoe bat *Rhinolophus ferrumequinum*	Vagrant	Single confirmed record from Co. Wexford

18 All bat species and their roost sites are strictly protected under both European and Irish legislation including:

- Wildlife Act 1976 and Wildlife (Amendment) Act, 2000;
- *European Communities (Birds and Natural Habitats) Regulations, 2011*; and
- *Council Directive on the Conservation of Natural Habitats and of Wild Flora and Fauna 1992 (Council Directive 92/43/EEC)*.

19 It is an offence under Section 23 of the *Wildlife Act 1976 (as amended)* and under Section 51 of the *European Communities (Birds and Natural Habitats) Regulations 2011 (as amended)* to kill a bat, to interfere with, damage or destroy the breeding or resting place of a bat species, or to deliberately disturb bats, particularly during their periods of breeding, rearing, hibernation and migration. Under the Regulations it is not necessary for damage or destruction of bats' breeding sites or resting places to be deliberate for an offence to occur. Given that unintentional damage or destruction of bats' breeding sites or resting places gives rise to an offence under the legislation, there is an onus of due diligence on property owners and anyone proposing to carry out works, to avoid any such damage or destruction.

20 As a signatory to the EUROBATS Agreement (Agreement on the Conservation of Populations of European Bats, 1994)[2], Ireland is required to protect their habitats and important feeding areas from damage or disturbance. All Irish bat species are listed in Appendix B of the Bern Convention (1979), as species requiring protection.

[2] https://www.eurobats.org/about_eurobats/introduction_to_agreement accessed July 2024

3 Guidance and Approach

21 The guidance that has been referred to during the preparation of the application for the derogation licence has included:

- Guidelines for Ecological Impact Assessment in the UK and Ireland version 1.2 (CIEEM 2022)
- Best Practice Guidelines for the Conservation of Bats in the Planning of National Road Schemes. (National Roads Authority (NRA) 2006);
- Ecological Surveying Techniques for Protected Flora and Fauna during the Planning of National Road Schemes (NRA 2008a);
- Environmental Impact Assessment of National Road Schemes – A Practical Guide. National Roads Authority (NRA 2008b);
- Guidelines for Assessment of Ecological Impacts of National Roads Schemes (NRA 2009);
- Bat Surveys for Professional Ecologists: Good Practice Guidelines 3rd edition (Collins, 2016);
- The Bat Workers' Manual. 3rd Edition. (Mitchell-Jones and McLeish 2004);
- Bat Mitigation Guidelines for Ireland V2. Irish Wildlife Manuals No. 134 (Marnell et al., 2022);The Irish Bat Monitoring Programme 2015 – 2017. Irish Wildlife Manuals 103. (Aughney *et al*., 2018);
- Circular Letter NPWS 2 / 07 Guidance on compliance with Regulation 23 of the Habitats Regulations 1997 – strict protection of certain species / applications for derogation licences (NPWS 2007a);
- Circular Letter PD 2/07 and NPWS 1/07 Compliance Conditions in respect of Developments requiring (1) Environmental Impact Assessment (EIA); or (2) having potential impacts on Natura 2000 sites (NPWS 2007b);
- The Habitats Directive; S.I. No. 477/2011 – European Communities (Birds and Natural Habitats) Regulations 2011, as amended (hereafter referred to as the Birds and Habitats Regulations);
- The EIA Directive;
- Wildlife Acts 1976 (as amended);
- National Biodiversity Plan 2023-2030. Department of Housing, Local Government and Heritage (2024).

4 Need for the Derogation Licence

22 Scott Cawley Ltd., are submitting this application under Regulation 54 of the European Communities (Birds and Habitats) Regulations 2011 (S.I. 477 of 2011) for a derogation licence from complying with the requirements of the provisions of Regulations 51, 52 and 53 of the same Regulations.

4.1 Test 1 – Reason for seeking derogation

23 The derogation is being sought on the basis that the proposed development site contains a bat roost, and the proposed works will likely result in the loss of the roost site, and have the potential to result in the mortality and/or disturbance of bats or their roosts, which would be in contravention of the *European Communities (Birds and Natural Habitats) Regulations 2011 (as amended)* if undertaken in the absence of a derogation licence.

24 A derogation is being sought under Regulation 54(2) (c):

> *"In the interests of public health and public safety, or for other imperative reasons of overriding public interest, including those of a social or economic nature and beneficial consequences of primary importance for the environment."*

25 The lower ground floor room of the Castle, which forms part of the proposed works, is a confirmed brown long-eared bat roost (one bat identified roosting).

26 A derogation licence is also being sought on the basis that the proposed works have the potential to result in the disturbance of bats or their roosts due to works within the Castle that contains potential bat roosting features. Despite there being no other roosts found, the derogation licence is being sought on a precautionary basis to ensure avoidance and minimisation of any potential disturbance and mortality effects that may impact bats.

4.2 Test 2 – There is no Satisfactory Alternative

27 The proposed works at Lanistown Castle are crucial for its preservation. The castle has undergone minimal structural maintenance in recent years, leading to deterioration that threatens its integrity. Without these works, parts of the castle may become unsafe, risking further degradation and potentially making it unsuitable as a roosting location for the brown long-eared bats.

4.3 Test 3 – Favourable Conservation status

28 The application relates to specific impacts on the local population of bats and/or their roosts arising from proposed works Lanistown Castle, Donabate, Co. Dublin. The strategy outlined in this report includes measures to avoid and minimise disturbance to bats. In light of the size of the roost identified in the ground floor room of the Castle (i.e., one bat), the mitigation strategy proposed (see Section 7) and the fact that the bat species are well established in the locality, together with the current status of bats as 'Least Concern', it can be concluded that following the implementation of the proposed mitigation measures, the proposed works at Lanistown Castle will not be detrimental to the maintenance of the local bat population and thus the national population, at a favourable conservation status in their natural range.

5 Methodology

5.1 Desk Study

29 A desk study was undertaken to compile records of bat species within 2km of the proposed development site, using the National Biodiversity Data Centre (NBDC) database[3] and the Bat Conservation Ireland database.

5.2 Field Surveys

5.2.1 Habitat and Tree Surveys

30 Habitat suitability for foraging/commuting/roosting bats was assessed during a survey of Lanistown Castle site on 30th of April 2024. A ground-level assessment of trees within the subject lands, to examine their suitability to support roosting bats and potential to act as important landscape features for commuting/foraging bats, was based on current guidelines from Bat Conservation Trust (BCT) (see Table 2 and Table 3).

5.2.2 Building Inspections

31 A ground-level assessment of the Castle (both internal and external) was conducted to evaluate its suitability for supporting roosting bats and its potential as an important landscape feature for commuting and foraging bats. This assessment was based on guidelines from Bat Survey for Professional Ecologists: Good Practice Guidance 4 (see Table 2 and Table 3). The inspection included examining the external walls

[3] National Biodiversity Data Centre Database of records. Available online at www.biodiversityireland.ie

of Lanistown Castle for potential roost features (PRFs), and all identified PRFs were further inspected with an endoscope. The internal walls of the ground and first floors, as well as the walls surrounding the staircase, were also examined for PRFs, with all reachable features thoroughly inspected. Additionally, the internal vaulted roof on the ground floor was checked for PRFs. Throughout the inspection, any signs of bats, such as staining at roost entrances, droppings, carcasses, and insect remains, were noted and examined. An endoscope (Ridgid CA350) was used to inspect any features that were accessible from ground level. This was undertaken on the 30th April 2024, by Síofra Quigley B.Sc (Hons) M.Sc. MCIEEM and Alison Bourke B.Sc (Hons).

Table 2 Guidelines for assessing the potential suitability of proposed development sites for bats, based on the presence of habitat features within the landscape, to be applied using professional judgement. (from Collins (2023)[Error! Bookmark not defined.])

Suitability	Description	
	Roosting habitats in structures	**Potential flight-paths and foraging habitats**
None	No habitat features on site likely to be used by any roosting bats at any time of the year (i.e. a complete absence of crevices/suitable shelter at all ground/underground levels).	No habitat features on site likely to be used by any commuting or foraging bats at any time of the year (i.e. no habitats that provide continuous lines of shade/protection for flight-lines, or generate/shelter insect populations available to foraging bats).
Negligible	No obvious habitat features on site likely to be used by roosting bats; however, a small element of uncertainty remains as bats can use small and apparently unsuitable features on occasion.	No obvious habitat features on site likely to be used as flight-paths or by foraging bats; however, a small element of uncertainty remains in order to account for non-standard bat behaviour.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically at any time of the year. However, these potential roost sites 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 and not a classic cool/stable hibernation site, but could be used by individual hibernating bats).	Habitat that could be used by small numbers of bats as flight-paths such as a gappy hedgerow or unvegetated stream, but isolated, i.e. not very well connected to the surrounding landscape by other habitat. Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.
Moderate	A structure with one or more potential roost sites 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, such as maternity and hibernation – the categorisation described in this table is made irrespective of species conservation status, which is established after presence is confirmed).	Continuous habitat connected to the wider landscape that could be used by bats for flight-paths such as lines of trees and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
High	A structure or tree with one or more potential roost sites 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	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by bats for flight-paths such as river valleys, streams, hedgerows, lines of trees and woodland edge.

	surrounding habitat. These structures have the potential to support high conservation status roosts, e.g. maternity or classic cool/stable hibernation site.	High-quality habitat that is well connected to the wider landscape which is likely to be used regularly by foraging bats; such as broadleaved woodland, treelined watercourses and grazed parkland. Site is close to and connected to known roosts.

Table 3 Guidelines for assessing and categorising the potential suitability of trees within a proposed development site based on the presence of potential roost features (PRFs) for bats.

Suitability	Description
PRF-I	PRF is only suitable for individual bats or very small numbers of bats either due to lack of size or lack of suitable surrounding habitats.
PRF-M	PRF is suitable for multiple bats and therefore may be used as a maternity colony.

5.2.3 Bat Activity Surveys

32 Bat activity surveys were conducted on two separate visits on the 30th April 2024, and the 14th May 2024 (Table 4). The surveys were completed by Síofra Quigley and Alison Bourke, both of Scott Cawley Ltd., who are experienced in bat survey methodologies. Bat surveys were conducted in April and May which fall within the optimal survey season (generally regarded as April-August). Weather on both survey dates was suitable for conducting bat surveys, with temperatures above 10°C and no access issues. The bat activity surveys focused on Lanistown Castle. Dusk emergence surveys were carried out to determine whether bats were using the existing buildings, and if applicable, to count the number of bats seen emerging. Bat activity surveys were completed with the aid of handheld ultrasound bat detector (Batlogger M1) to record the calls of echolocating bats. An infrared camera (Canon XA40) was also used during both surveys on specific areas of the building that were difficult to survey by sight, due to the height of the building, and lack of light. Direct observation by the surveyor was also used to detect bats. The focus of both surveys was the existing building. Before commencing the bat activity surveys, a visual inspection of the ground floor cellar was conducted to check for any new signs of roosting bats. At the conclusion of the survey, a bat logger was positioned at the access door to monitor and record any bat activity within the cellar room on the ground floor. Echolocation recordings were analysed using Elekon BatExplorer software. Details relating to these surveys are displayed in **Table 4.**

Table 4: Details relating to bat surveys conducted on site in April and May 2024

Date	Survey Type	Survey Times (Sunset/ Sunrise)	Weather	Temperature (°C)
30th April 2024	Dusk Emergence Survey	20:21-22:25 (20:51)	40% Cloud cover, no rain, slight breeze	12°C
14th May 2024	Dusk Emergence Survey	20:45 – 22:45 (21:17)	50% cloud, no rain, slight north westerly winds	13°C

5.3 Limitations

33 Not all areas of the buildings were fully accessible during the roost inspection surveys due to the height of Lanistown Castle, which made several potential roost features (PRFs) too high to inspect with a ladder. However, this limitation was mitigated by the completion of bat presence/absence surveys, which were sufficiently resourced with two surveyors and the use of two infrared cameras to provide full coverage of the buildings. There were no other limitations associated with the surveys undertaken.

5.4 Habitat Description

34 Lanistown Castle is a 15th-century tower house located on Newbridge Demesne which is maintained by Fingal County Council as a Regional Public Park and Heritage Amenity. The surrounding area comprises of park land to the north and south with mature woodland to the south and west of the Castle that extends along the perimeter of Newbridge demesne.

6 Results

6.1 Desk study

35 The NBDC holds records of the following species within approximately 2km of the proposed development:

- Common pipistrelle *Pipistrellus pipistrellus* - one record from the National Bat Database of Ireland in 2003.
- Soprano pipistrelle *Pipistrellus pygmaeus* – three records from Irelands BioBlitz in 2010.
- Leisler's bat *Nyctalus leisleri* – Four records from Irelands BioBlitz from 2010.
- Brown long-eared bat (*Plecotus auritus*)– one record from the National Bat Database of Ireland, in 2005.

6.2 Building and Tree Inspection Survey

36 Lanistown Castle and the surrounding trees were inspected for PRFs from ground level. A torch and an endoscope were used for examining any PRFs identified to determine if roosting bats or evidence of roosting bats were present. This was carried out from ground level and using a ladder to reach PRFs that were out of reach. Internal inspections of Lanistown Castle were conducted via an access door on the northern face, providing access to the ground floor and the stairwell to the first floor. PRFs noted on the internal walls of the Castle were also inspected using a torch and endoscope.

37 Lanistown Castle is considered to have high roosting potential for bats. The building has been unused and closed to the public since 2021. It offers numerous excellent roosting features, including gaps and cracks in the stonework and mortar on both internal and external walls. The Castle has no roof, and the second floor is uncovered, with two arched windows opening to the woodland on the west and south sides. These windows provide easy access for bats to the internal walls of the castle, and to the surrounding foraging and commuting landscape.

38 The ground floor remains largely intact, with a vaulted door on the north side. The western access point was blocked with bricks in 2021, this has created a dark and cool ground floor at the base of the castle. The ground floor features numerous cracks and gaps in the stone and mortar, and open access into the ground floor via the open chimney, allowing roosting opportunities as well as access and egress points for bats. During a daytime inspection, bat droppings were observed within the ground floor (Plate 1), but no live bats or any other evidence was noted.

Plate 1 bat droppings found in ground floor of Lanistown Castle

Plate 2 brown long eared bat hanging from barrel vault ceiling on the ground floor of Lanistown Castle

Plate 3: The external northern and western walls of Lanistown Castle

Plate 4: The eastern external wall of Lanistown Castle red circle identifies potential roosting feature.

6.3 Bat Activity Surveys

39 Bat Activity surveys were carried out on two separate nights by two surveyors; one focusing on the northern and eastern wall, the other focusing on the southern and western external wall, providing a full view of all external wall of Lanistown Castle. Infrared cameras were used during both surveys to aid surveyors in confirming any possible emergences.

40 A total of 289 recordings of bat activity were recorded over the course of the first bat activity survey. This number represents the calls recorded on both surveyors' bat loggers and does not directly correspond to the number of individual bats, but rather the number of calls captured. During the first emergence survey on the 30th April 2024 the following bat species where captured with the corresponding number of calls:

- soprano pipistrelle *Pipistrellus pygmaeus* 205 calls;
- common pipistrelle *Pipistrellus pipistrellus* 21 calls;
- Leisler's bat *Nyctalus leisleri* 41 calls;
- *Myotis* species 11 calls; and
- brown long-eared bat *Plecotus auratus* 11 calls.

41 Soprano pipistrelle was the most common bat recorded by detectors on the night, with Leisler's bat noted as the first species heard flying over the site at 21:22. During the course of the survey there was a number of bats seen commuting past the castle towards the woods to the western edge of the castle. No bats were seen emerging from the castle during the survey.

42 During the second emergence survey on the 14th of May, a total 339 bat calls were recorded. This number represents the calls recorded on both surveyors' bat loggers and does not directly correspond to the number of individual bats, but rather the number of calls captured. During the first emergence survey on the 14th May 2024 the following bat species where captured with the corresponding number of calls;

- soprano pipistrelle 70 calls,
- common pipistrelle 23 calls,
- Leisler's 238 calls; and
- *Myotis* spp. 8 calls.

43 Leisler was most frequently heard during the survey and the first species to be heard flying over the site at 21:36. No bats emerged from the Castle during this survey.

44 During an inspection of the internal ground floor room following the activity surveys on the 30th April and 14th of May, one brown long eared bat was observed hanging from the barrel vaulted ceiling in the ground floor, on both occasions (Plate 2). Bat activity recorded during the first and second bat activity surveys are displayed in Figures 2 and 3.

Figure 2: Bat species recorded during first bat activity survey.

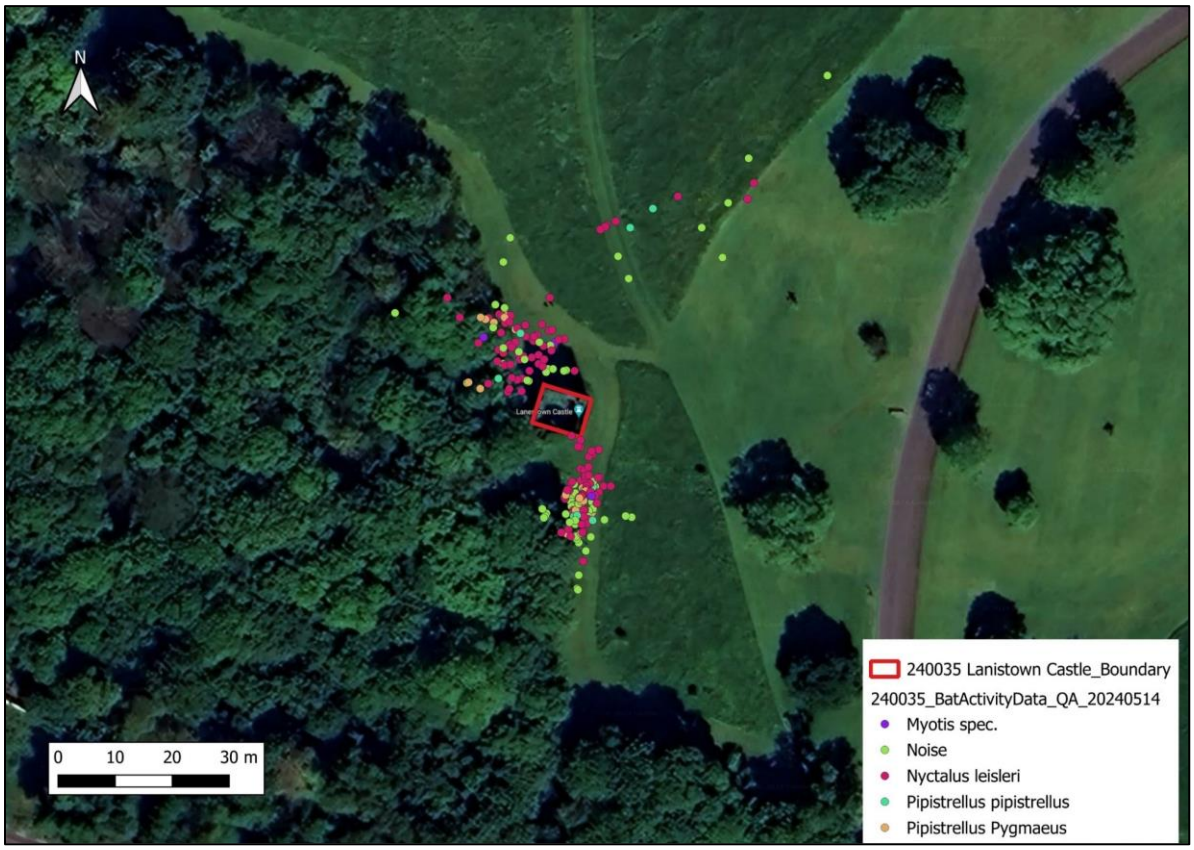

Figure 3: Bat species recorded during second bat activity survey.

6.4 Evaluation of Results

45 The results of the surveys undertaken confirm that Lanistown Castle is currently used by bats for roosting purposes. One brown long eared bat was found roosting within the Castle ground floor. Lanistown Castle provides ideal roosting opportunities for a range of bats despite only one species being found during the internal inspection. Although only one bat was confirmed to be roosting within the castle, the castle offers ideal roosting conditions for a variety of bats. Brown long eared bat monitoring from 2007- 2010 considered all roosts with <20 brown long-eared bats to be a small roost[5]. With only one roosting bat confirmed this falls well below the average for a small roost.

7 Works Which Could Potentially Affect Bats or Their Roosts

46 Any work on Lanistown Castle has the potential to disturb bats and their roosts, or in the worst-case scenario, cause the mortality of bats residing in the building. The proposed works include infilling on the interior and external walls, as well as structural work on the chimney in the southwestern corner, to maintain the structural integrity of Lanistown Castle. Therefore, without proper mitigation, there is a significant risk of affecting bats during infilling and structural work, if bats are present at the time of the work.

47 The responsibility is on the body carrying out the works to ensure that bats are not present during such works. It is not a defence to maintain that there was no knowledge of bats being present and therefore 'accidental' disturbance of bats is not considered an adequate excuse.

8 Measures to Avoid, Reduce and Offset any Negative Effects on Bats and Their Roosts

48 Mitigation measures have been proposed with reference to practices outlined in *Bat Mitigation Guidelines for Ireland*[6] and *Bat* Surveys *for Professional Ecologists: Good Practice Guidelines* (4th edition)**Error! Bookmark not defined.**. The aims of the mitigation strategy are to avoid disturbance in as far as is practical and and/or ensure no mortality of roosting bats during the proposed works.

8.1 Supervision of Proposed Works

49 To ensure the castle continues to support these species, the following mitigation measures will be implemented to prevent accidental harm during repair works: Mitigation will focus on preventing accidental harm to bats during the repair works. The following mitigation measures are proposed to this effect:

1. As there is a confirmed roost within Lanistown Castle no works will be permitted on the Castle, during the breeding period or hibernation period (April to mid-August and November-March) as the risk of accidental death or injury is higher at this time. Bats may use roosts in smaller numbers in winter but may nevertheless be present. It is understood that the program of works is already taken this seasonality of work into account and have proposed all works to be completed outside of this sensitive period. In addition, the ground floor of the Castle has potential to be used by hibernating bats due to its stable and constant temperature. Therefore, works within this room will commence in September and will be completed prior to the hibernation season (November). This will be monitored by the Ecological Clerk of Works on site (ECoW[7]) onsite should temperatures drop in October, in case bats may enter hibernation early.

[5] National Parks & Wildlife Service (2018) *Guidelines for the treatment of bats during the construction of national road schemes*, Irish Wildlife Manuals No. 56

[6] Marnell, F., Kelleher, C. and Mullen, C. (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

[7] Ecologists from Scott Cawley will be the ECoW for the duration of works and will be named on the derogation licence

2. The Ecological Clerk of Works on site (who will also be the named license holder for works) will give a toolbox talk to key personnel involved in works on Lanistown Castle, outlining the importance of the roost, the legal protection afforded to bats, and the measures outlined in this report to avoid disturbance or mortality of bats and what to do in the event of any unforeseen discovery of bats during works. The contractor will be obliged to read and agree to the conditions outlined in the bat mitigation strategy as part of the contracting process.
3. The ECoW will conduct an all-night bat activity survey the night before any work begins (i.e. before any scaffolding is in place) to ensure there are no bats present. This survey will be completed using bat loggers and an infrared camera to confirm bat presence.
4. An internal inspection with an endoscope will be required before any repointing work is undertaken on either the interior or exterior of Lanistown Castle. If a bat is found during this time, all work will cease, and the ECoW will seek to enable the bat to vacate the feature in the first instance and soft block or where necessary remove the bat by hand and place it into a bat box on site.
5. Once sections requiring repointing are deemed to be clear of bats, the bat specialist will be on site to supervise all works until the sections being repointed are no longer deemed able to support a bat roost or when all works have been completed. Bats may re-enter the Castle at any stage so the ECoW will be required to be present during the entirety of the works.
6. In addition, suitable roosting features within the Castle walls will be retained as much as is possible, with only essential repairs being carried out to ensure the Castle remains a suitable roosting site for local bat species. The specific on which holes/areas will be retained will be in agreement on site with the ECoW and the site manager/foreman.
7. During construction, any external lighting to be installed, including facilitating night-time working or security lighting, on the site shall be sensitive to the presence of bats in the area, downlighting, and time limited. Lighting of sensitive wildlife areas and primary ecological corridors (e.g. along the tree line adjected to the Castle) and light pollution in general will be avoided.

8.2 Installation of Bat Boxes

50 The ground floor and its barrel vault ceiling will only receive works that are required for the structure stability this is to ensure that it remains a suitable roosting site for brown long-eared bats. Appropriate alternative roosting sites are being provided in the form of 3 bat boxes. The locations of these will be in agreement and on advice from the ECoW. It is proposed to install generalist / self-cleaning bat boxes in the surrounding area. These will enhance the surround area and provide alternative roosting location for many bat species. Standard Schwegler 1FFH and 3FF boxes will be installed prior to the start of works in the surrounding area in Newbridge House and Farm. The bat boxes will be installed at a height of 3m to 5m and will be firmly attached to tree trunks in east, south, and west orientations. There will be a minimum clearance of 1m (e.g., no overhanging branches or ivy encroachment) around each opening in the box. Installed bat boxes will be labelled, and data (reference number, GPS location, and photographic record) will be supplied to Bat Conservation Ireland, the local authority Biodiversity Officer, and the NPWS.

8.3 Reporting to the NPWS

51 A report documenting adherence to measures within Section 8 of this report will be produced by the licensed ecologist and forwarded to the NPWS within three months of completion of the proposed works on Lanistown Castle. The success of the proposed strategy will be measured by the avoidance of mortality of any bats during construction, and the provision of alternative roosting sites in the lands during and after construction.

9 Post-Construction Monitoring

52 While the success of the proposed strategy will not be measured by occupancy of roosts by bats, it is considered to be best practice and appropriate to implement a monitoring plan to gather information and

assess whether the bat population has responded favourably to mitigation measures[6]. It is proposed to monitor the site annually for a period of two years (or as conditioned by the derogation licence) post construction, to confirm no likely change in use or distribution by bats other than natural pattens of movement, that cannot be explained by influences outside the control of the proposed development.

Post-Construction Monitoring of Bat Boxes

53 In this instance, post-construction monitoring will include the alternative roosts (bat boxes) to be deployed in the proposed development site. A two-year post-construction monitoring programme will be undertaken of the Schwegler 1FF bat boxes. Where bat boxes are installed as part of the Construction Phase of the Proposed Development, monitoring is required under best practice guidance (e.g., Marnell *et al*., 2022 – Bat Mitigation Guidelines for Ireland). The boxes will be checked for presence of bats or signs of bats between August and September for 2 years post-construction by an appropriately licensed and qualified ecologist. Where no occupancy is noted in year one, the boxes will be relocated to another mature tree and details communicated with the BCI, the local authority Biodiversity Officer and the NPWS. The results of these monitoring surveys will be tabulated and shared with the local authority and the NPWS.

10 Conclusions

54 This application relates to specific impacts on bats and/or their roosts arising from the proposed development at Lanistown Castle tower in Newbridge Demesne, Donabate, Co Dublin. Measures have been provided in Section 8 to reduce potential impacts on bats as far as possible during work, which are based on industry standard guidance with respect to bat mitigation strategy. Considering the size of the brown long-eared bat roost identified within Lanistown Castle and the current conservation status of bat species in Ireland as 'Least Concern'[8], and their widespread distribution and stable population in Ireland, it can be concluded that following the implementation of measures outlined in Section 8 of this report; it is considered that the proposed development will not be detrimental to the maintenance of the local bat population at a favourable conservation status in their natural range.

[8] IUCN defines a taxon as 'Least Concern' when it has been evaluated against the Red List criteria and does not qualify for Critically Endangered, Endangered, Vulnerable or Near Threatened. IUCN (2001) IUCN Red List Categories and Criteria: Version 3.1. IUCN Species Survival Commission. IUCN, Gland, Switzerland and Cambridge, UK. IUCN (2003) Guidelines for Application of IUCN Red List Criteria at Regional Levels: Version 3.0. IUCN Species Survival Commission. IUCN, Gland, Switzerland and Cambridge, UK.