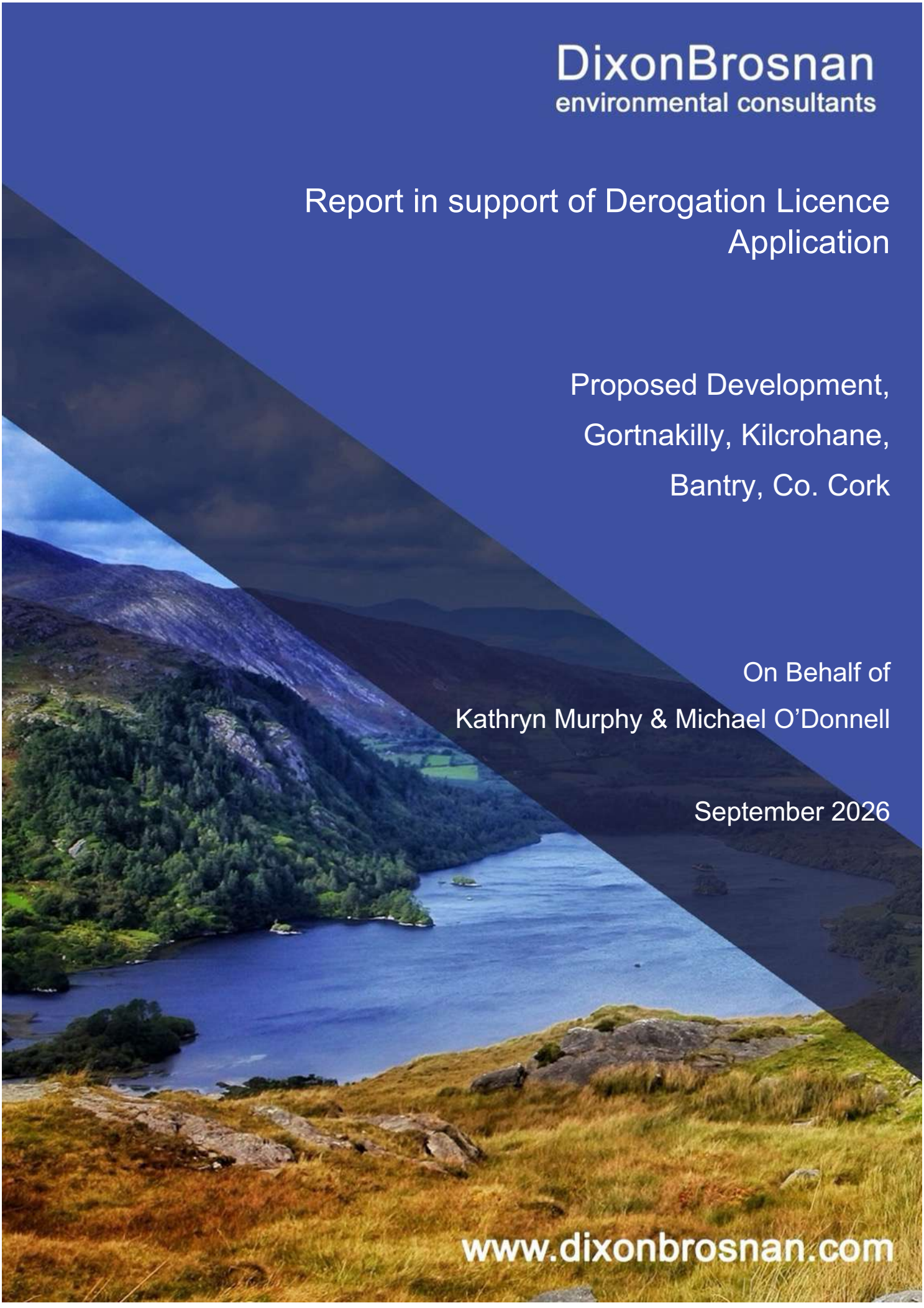
DixonBrosnan
environmental consultants

Report in support of Derogation Licence Application

Proposed Development,
Gortnakilly, Kilcrohane,
Bantry, Co. Cork

On Behalf of
Kathryn Murphy & Michael O'Donnell

September 2026



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environmental consultants

Project	Report in support of Derogation Licence for Proposed Development, Gortnakilly, Kilcrohane, Bantry, Co. Cork	
Client	Kathryn Murphy & Michael O'Donnell	
Project Ref.	26095	
Report No.	26095.02	
Client Ref.	-	
Date	**Revision**	**Prepared By**
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1. Introduction

DixonBrosnan were commissioned to undertake bat surveys at the site of a proposed development at Gortnakilly, Kilcrohane, Co. Cork. This proposed development is a large scale residential development (LRD) which is being submitted to Cork County Council.

Bat surveys carried out in 2026 found a small pipistrelle day roost within one of the site buildings. This building, an old farmhouse, is proposed for alteration and extension which will disturb and/or remove the roost. In line with the relevant guidance detailed below, a derogation licence is sought for the works. This derogation licence application has been compiled by Carl Dixon MSc and Dr. Sorcha Sheehy PhD.

Carl Dixon holds an Honours Degree (BSc) in Ecology and a Masters (MSc) in Ecological Monitoring from UCC. He is a senior ecologist who has over 25 years' experience in ecological assessment. Prior to setting up DixonBrosnan Environmental Consultants in 2000, Carl set up and ran Core Environmental Services which included REPS planning for landowners and ecological assessments. Carl has particular experience in freshwater ecology, including electrofishing fish stock assessments and water quality assessments. He also has considerable experience in habitat mapping and mammal ecology including survey work and reporting in relation to Badgers and bats. Other competencies include surveys for invasive species and bird surveys. Carl has extensive experience with regards to EIAR and NIS mitigation and impact assessment. He has experience in large-scale industrial developments with extensive experience in complex assessments as part of multi-disciplinary teams. Such projects include gas pipelines, incinerators, electrical cable routes, oil refineries and quarries.

Carl Dixon has considerable experience in bat survey and bat mitigation measures/roost design. Carl was the primary coordinator and surveyor for a heritage council-funded project serving all the river bridges in County Waterford for bats. He has designed bat roosts for Lesser horseshoe in conjunction with the NPWS for sites in West Cork. Carl has completed specialized training courses relating to bats in Ireland and the UK and has considerable experience in using a variety of bat survey equipment and subsequent software analysis of data.

Dr. Sorcha Sheehy PhD (Ecology/ornithology) is an ecologist and ornithologist who has worked for 15 years in environmental consultancy. She has worked on Screening/NISs for a range of small and large-scale projects with expertise in assessing impacts on birds. Sorcha's PhD research focused on bird behaviour at airports, where she studied bird avoidance behaviour and collision risk to aircraft. Her research involved field observations, post-mortem analysis and radar surveys. Sorcha has worked on bird collision risk assessments at airports throughout Ireland including Dublin airport, Cork airport, Shannon airport and Kerry airport. During her consultancy work Sorcha carried out field-based surveys and environmental reports including NIS, AA screening and EIARs. Notable projects include the Arklow Bank Wind Park, Indaver Ireland Waste Management Facility at Ringaskiddy, Irving Oil Whitegate Refinery (IOWR), Shannon LNG and Greenlink Interconnector.

2. Background

The proposed development site is located on the Sheep's Head Peninsula, 3.3km north of Kilcrohane village (**Figure 1**). The site is located in a rural setting, with surrounding landscape dominated by small agricultural fields and areas of scrub land. The waters of Bantry Bay are located c.330m north. The site is accessed via an existing local road which runs along its eastern boundary.

The proposed development site includes an existing farmhouse, an existing farm building and a number of old stone agricultural buildings.

The proposed development includes permission for: (1) demolition of existing farm building and detached outbuilding, (2) demolition of existing extension to rear of farmhouse, (3) construction of new extension to rear of farmhouse, (4) fenestration changes to existing farmhouse, (5) installation of new wastewater system and decomissioning of existing defective septic tank system, and (5) all associated site works. **The bat roost is located within the 2 storey farmhouse which is proposed for alteration and extension.**

An overview of the proposed development is shown in **Figure 2**.

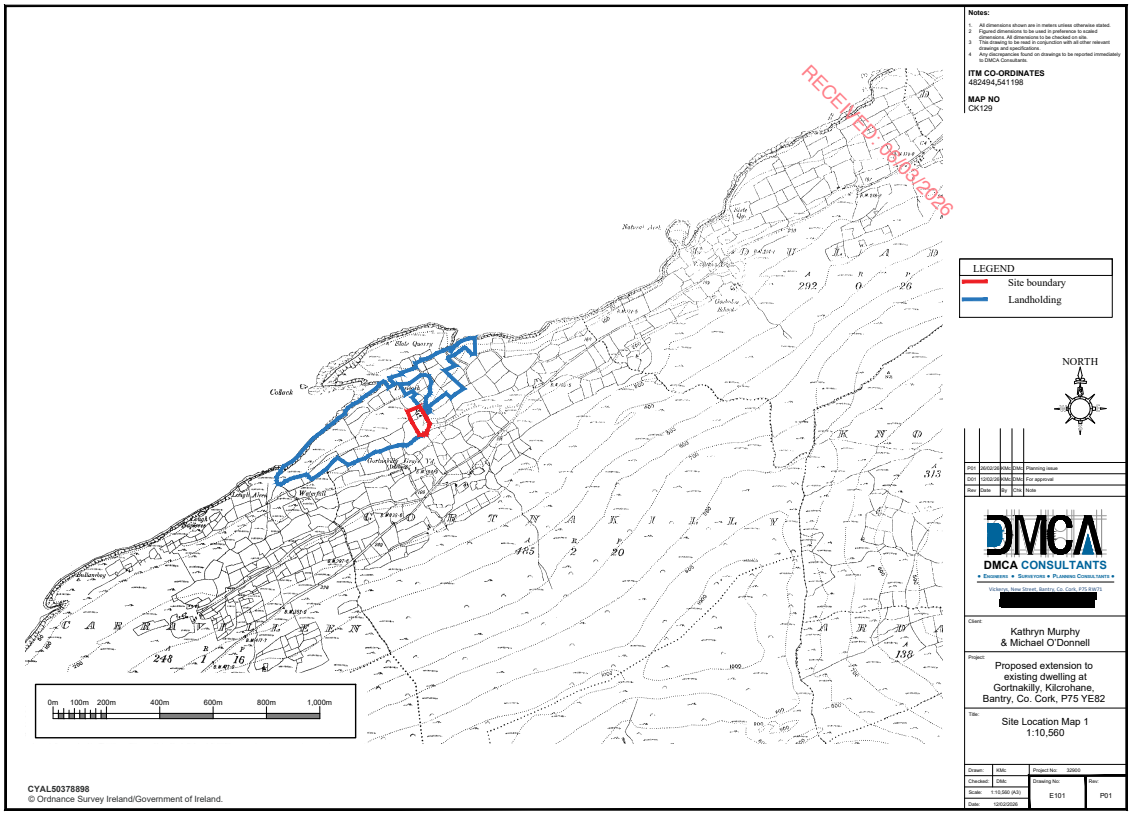


Figure 1. Site location | Source OSI

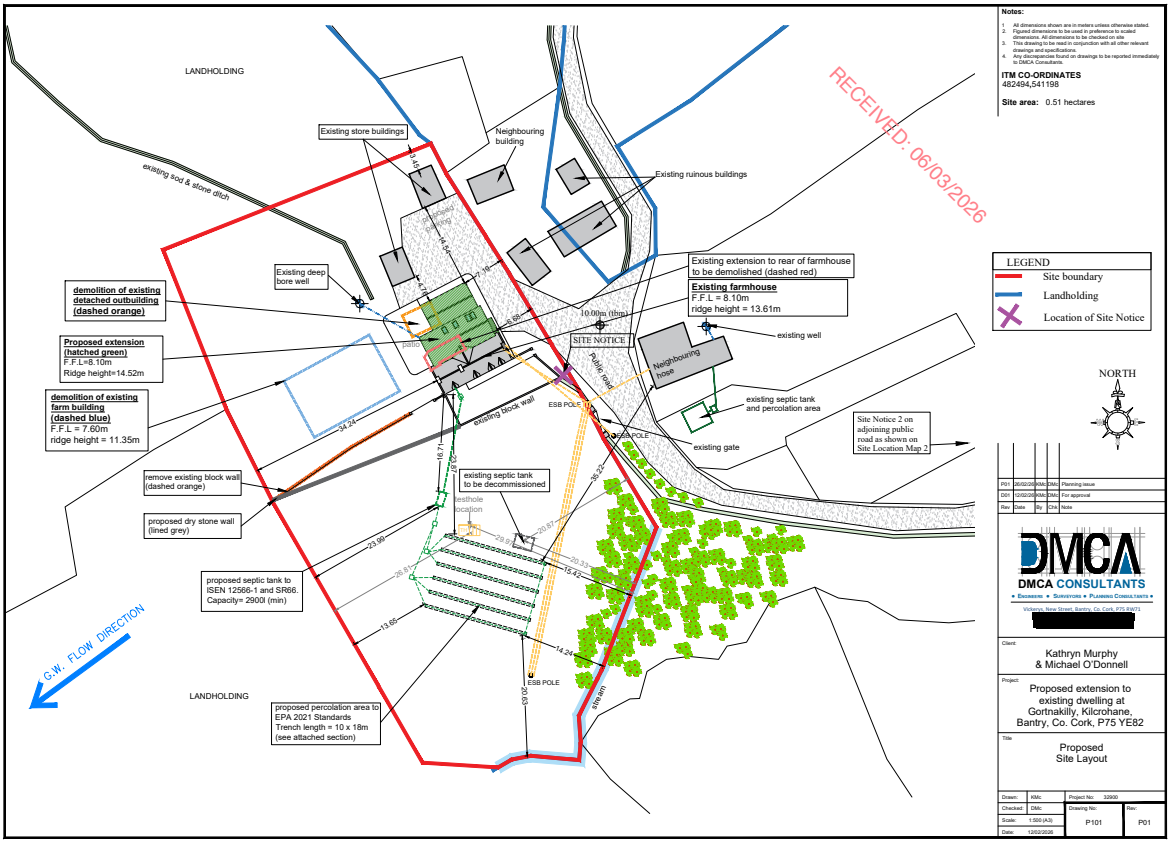


Figure 2. Site layout | Source Coveney & Associates Architects

3. Ecological survey and site assessment

A preliminary roost assessment was carried at ground level on all buildings within the proposed development site as per Collins (2023). These assessments followed the guidelines set out in 'Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th ed)' (Collins, 2023).

Buildings inspections were carried out in 9th of June and 10th of August 2026 to identify potential access points, 'potential roosting features (PRFs)' and any evidence indicating the presence of bats using the buildings within the proposed development site. A search of the accessible areas of the interior and exterior of the buildings on site was carried out to assess the potential value of the site for roosting bats and to survey for signs such as droppings, staining and prey remains. The results of the buildings assessment is included in **Table 1**.

Table 1. Building inspection survey

Building	Relevant features	Collins (2023) assessment
Stone outbuilding (to be demolished)	This outbuilding is of traditional stone construction. No windows with some window/door openings boarded up. Slate roof partially intact, with some gaps/holes, gaps around masonry. Small cracks within interior masonry. Interior used for storage, oil tank etc. Draughty interior. No bats, droppings or other roost evidence recorded.  Plate 1. Western elevation of stone shed  Plate 2. Interior of stone shed  Plate 3. Northern elevation on stone shed	Low value for roosting bats
Two stone buildings (earmarked for retention)	These outbuilding is of traditional stone construction. No windows with some window/door openings boarded up. Corrugated iron roof. Some gaps/holes, gaps around masonry. Small cracks within interior masonry. Interior used for storage, oil tank etc. Draughty interior.	Low value for roosting bats

Building	Relevant features	Collins (2023) assessment
	No bats, droppings or other definitive roost evidence recorded.  Plate 4. View of 2 stone sheds at north of the site  Plate 5. One of stone sheds (located at centre of site)  Plate 6. Second stone shed near road	

Building	Relevant features	Collins (2023) assessment
	 Plate 7. Interior of stone shed  Plate 8. Gable of centre stone shed.	
Existing farm building (earmarked for demolition)	Predominantly block construction with corrugated metal roof; substantial openings and missing sections in the northern wall; largely open, exposed and draughty interior; roof generally intact apart from a missing sheet at the western end; few suitable enclosed crevices.  Plate 9. Farm building (on left of photo)	Negligible value for roosting bats

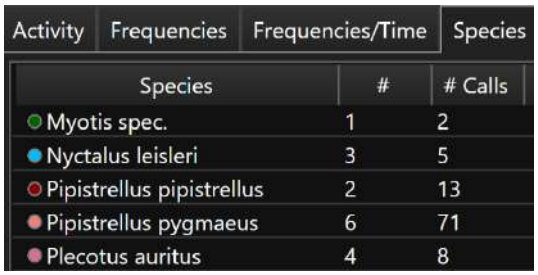
Building	Relevant features	Collins (2023) assessment
	 Plate 10. Farm building in considerable state of disrepair  Plate 11. Interior of farm building	
Existing farmhouse (rear extension to be demolished, main farmhouse change in fenestration and extended)	Main roof generally appeared intact. Potential roost features included gaps at soffits and above windows, lifted roofing material on the extension, a cracked or displaced slate creating a larger opening, and gaps around the chimney flashing. These features could provide access to concealed roof or wall voids. No definitive evidence of bats was recorded during the inspection. Signs of damp on interior.  Plate 12. South east of farm house	Low value for roosting bats

Building	Relevant features	Collins (2023) assessment
	 Plate 13. Damaged fascia and flashing where bat roost was recorded  Plate 14. North-west of farm house with extention  Plate 15. Interior of farmhouse  Plate 16. Interior of farmhouse	

Bat emergence surveys were completed on the 9th of June and 10th of August 2026. A Elechon Batlogger S2 (passive bat static) was also deployed onsite from 9th to the 22nd of June 2026.

During the emergence survey on 9th of June 2026 two Batlogger M2's, two Nightfox nova infrared cameras and one pulsar thermal camera were used. Bat static data was analysed using BatExplorer software. The majority of bat activity was from Soprano Pipistrelle, with smaller numbers of Brown long-eared bat, Leisler's bat, Common Pipistrelle and an unidentified Myotis species. No Lesser Horseshoe bats were recorded during the emergence survey.

Footage from the bat emergence survey was analysed and no emergence events occurred.



Species	#	# Calls
Myotis spec.	1	2
Nyctalus leisleri	3	5
Pipistrellus pipistrellus	2	13
Pipistrellus pygmaeus	6	71
Plecotus auritus	4	8

Figure 3. Bat species table 9th June 2026

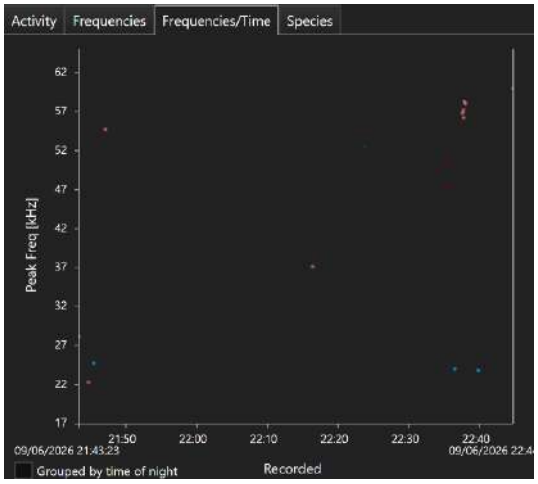


Figure 4. Bat frequencies/time diagram 9th June 2026

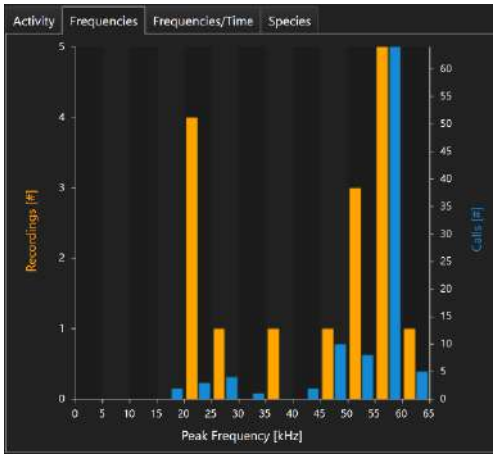


Figure 5. Bat frequencies histogram 9th June 2026



Figure 6. Bat activity histogram 9th June 2026



Plate 17. Bat commuting onsite – pulsar thermal imagery camera 9th June 2026



Plate 18. Infrared camera view (IR3) – no bat activity observed 9th June 2026



Plate 19. Infrared camera view (IR1) – no bat activity observed 9th June 2026

A second bat emergence survey was conducted on the 10th of August. Two batlogger M2's, a pulsar thermal imagery camera and one Night fox nova infrared camera were used throughout the survey.

Bat static data from the second emergence survey was analysed. Three common pipistrelle, one unidentified Myotis and one Lesser Horseshoe bat were recorded throughout the survey.

Footage from the emergence survey was analysed and two emergence events were observed from the farmhouse. Two bats were observed emerging from the south face of farmhouse just above one of the dormer windows.



Plate 20. Bat emergence – Pulsar thermal camera 10th August 2026



Plate 21. Bat emergence – Pulsar thermal camera 10th August 2026

Two bat emergence surveys were conducted within the proposed development site on 9th of June and 10th of August 2026. A passive static was deployed onsite from 9th to 22nd of June 2026. Bat species utilising the proposed development site for commuting or foraging activities included Common Pipistrelle, Soprano Pipistrelle, Leisler's Bat, an unidentified Myotis species, Brown long-eared bat and Lesser Horseshoe bat. No signs of Lesser Horseshoe emergence or roosting were recorded. The full results of these surveys will be sent to Cork County Council in response to a further information request.

Two emergence events from Pipistrelle were recorded during the 10th of August emergence survey. One Pipistrelle was observed emerging from above a window on the southern face of the farmhouse. A second Pipistrelle was observed emerging from the slates above the same window on the southern face of the farm building.

Surveys suggest that the complex of buildings around the proposed development site create a sheltered foraging/commuting area for bats in an exposed coastal location. With the exception of the small Soprano Pipistrelle roost on the southern elevation of the farmhouse, no signs of roosting bats were recorded during preliminary roost assessment and/or activity/emergence surveys.

4. Proposed development and details of works requiring derogation

4.1 Planning history

The application relates to the refurbishment of an existing farmhouse at Gortnakilly, Kilcrohane Co. Cork. The property is owned by Kathryn Murphy and Michael O'Donnell, who have authorised the proposed works and the implementation and subsequent monitoring of all bat mitigation measures described in this report. The farmhouse and the outbuildings proposed to support bat boxes (new roost locations) are within the applicant's ownership and control.

There is a substantial agricultural farm building of 30 to 50 years old, now in a derelict state directly west of the main old farmhouse. The proposal is to demolish this derelict building which is an eyesore on this landscape and renovate the farmhouse. The applicants have a

large family, and also extended family. It is their intention to use this house solely for the purposes of their large family, and as the base for future development of the farm.

The remaining old tradition stone-built outbuildings, will be repaired and retained, apart from one which is to be demolished as indicated on site layout (See **Figure 2**). A new replacement waste water system is designed, and will be constructed and the existing septic tank is to be decommissioned.

4.2 Proposed works requiring derogation

A small Soprano pipistrelle *Pipistrellus pygmaeus* roost was identified on the south-east elevation of the farmhouse. Two bats were recorded emerging from an area around a dormer window. No evidence of breeding or hibernation was recorded. On the basis of the survey results, the feature is considered to support a small day roost.

The proposed development includes the refurbishment of the farmhouse (See **Figure 7**). The existing window and its facia/flashing are damaged and require replacement as part of the fenestration changes. The condition and position of the existing roost mean that it cannot be retained *in situ* while these repairs are undertaken. The works would therefore result in disturbance of bats and the temporary loss and physical alteration or destruction of the existing roost, giving rise to the requirement for a derogation licence. Other buildings earmarked for restoration and demolition in the project do not have roosting bats and do not require derogation.

The proposed renovation works are necessary to address deterioration of the building fabric, prevent further water ingress and damage, and facilitate the continued/renewed residential use of the farmhouse. Retention of the affected materials in their present condition would not provide a durable or practicable solution. Following completion, permanent replacement roosting opportunities will be incorporated into the refurbished farmhouse in the form of a bat box adjacent to the existing roost location. Two bat boxes will also be installed on retained outbuildings before works commence to provide alternative roosting opportunities throughout the construction period.

Planning permission for the refurbishment work in currently being sought from Cork County Council (Planning number 26/0543). The proposed licensed works and bat mitigation measures are consistent with the planning application/permitted development. The proposal constitutes the refurbishment and reuse of an existing building and is consistent with the relevant development-plan objectives concerning reuse of existing buildings/rural housing/built heritage, subject to compliance with statutory requirements for the protection of bats.

No works capable of disturbing bats or damaging or destroying the roost will commence until the required derogation licence has been granted by NPWS. All works will be undertaken in accordance with the licence conditions and the method statement contained in this report.

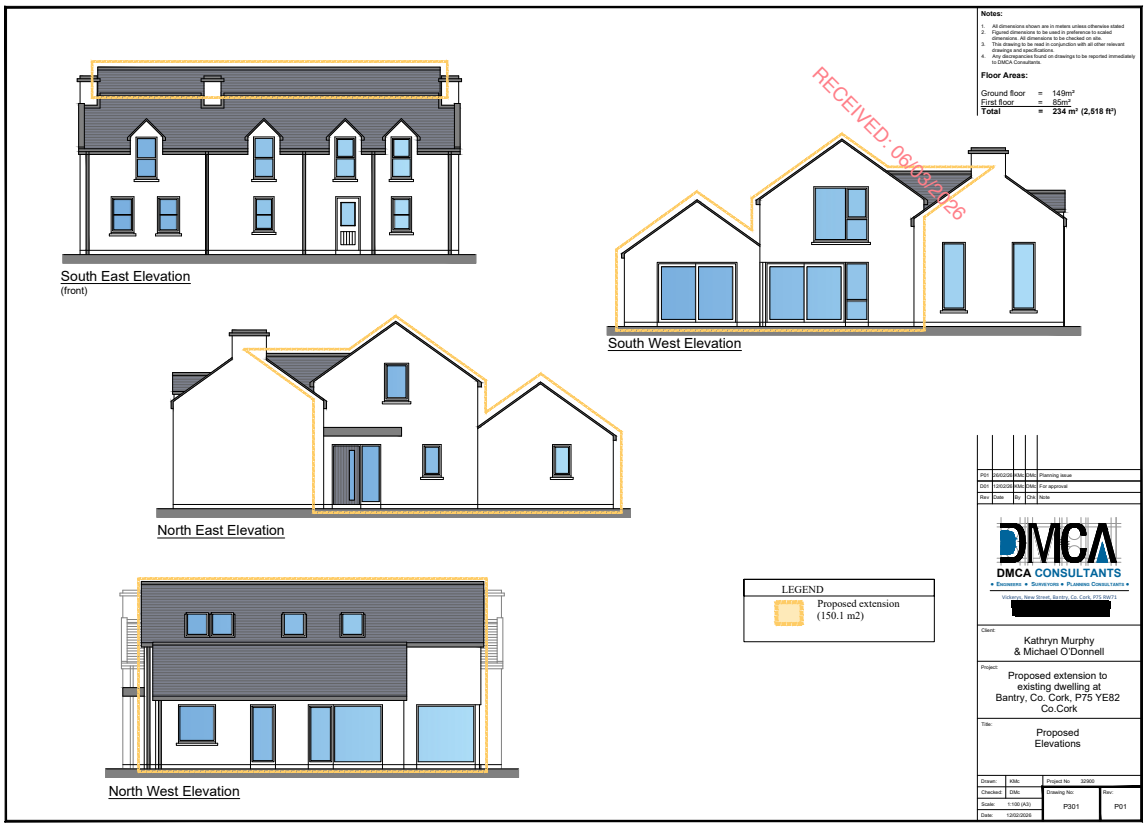


Figure 7. Proposed development elevation | Bat roost is located adjacent to top left window on southeast elevation.

5. Evidence of derogation tests

Article 16 of the Habitats Directive sets out three pre-conditions, all of which must be met before a derogation from the requirements of Article 12 or Article 13 of the Directive can be granted. These preconditions are also set out in Regulation 54 of the Regulations. The preconditions are as follows:

1. A reason (s) listed in Regulation 54 (a)-(e) applies

2. No satisfactory alternatives exist

3. Derogation would not be detrimental to the maintenance of population(s) at a favourable conservation status. It is believed that the pre-conditions for granting a derogation licence have been met, as follows.

5.1 Test 1 - Reasons for Seeking Derogation

As outlined above, an external fascia/flashing housing a small day roost for Soprano pipistrelle will be removed during the restoration of the farmhouse.

These works require a derogation licence.

Regulation 54(2) (a)–(e) states that a derogation licence may be granted for any of the reasons listed (a) to (e).

We are of the opinion that the following reason applies:

(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.

The works are necessary to address deterioration of the building fabric, prevent further water ingress and damage, and facilitate the continued/renewed residential use of the farmhouse.

This type of sensitive restoration is encouraged under the Cork County Development Plan 2022 in objectives RP 5-30 and RP 5-31.

CDP objective RP 5-30: Redevelopment or replacement of an Uninhabitable or Ruinous dwelling. Encourage proposals for the sensitive renovation, redevelopment, or replacement of existing uninhabitable or ruinous dwellings subject to normal proper planning and sustainable development considerations

CDP Objective RP 5- 31: New uses for disused or derelict farm buildings.

Encourage the sensitive refurbishment and conversion of suitable disused or derelict traditional farm buildings, built using traditional methods and materials, and other suitable historic buildings such as mills and churches, for residential purposes, community, or commercial uses (including social enterprise) where appropriate, subject to normal planning considerations, while ensuring that the re-use is compatible with environmental and heritage protection.

In the absence of development, the house will fall into dereliction. It is noted that one of the Objectives for the Kilcrohane area is the Cork County Development Plan 2022-2028 is as follows:

DB-05 Encourage the redevelopment/refurbishment of existing housing stock particularly vernacular dwelling.

In short, the proposed restoration of the farmhouse fulfills a housing need in this area in line with the objectives of the county development plan i.e. *overriding public interest of a social nature.*

5.2 Test 2 - There is no satisfactory alternative

Alternative solutions considered.

Do-nothing

The do-nothing scenario would be not refurbishing the farmhouse. The refurbishment works are necessary to address deterioration of the building fabric, prevent further water ingress and damage, and facilitate the continued/renewed residential use of the farmhouse. Retention of the affected fascia/flashing in their present condition would not provide a durable or practicable solution. In the absence of development the farmhouse would continue to deteriorate over time. The existing facia/flashing (where the bat roost was recorded) is damaged. This roost will not provide a roost in the long-term as it continues to deteriorate. The do-nothing scenario will not support a bat roost in the long-term.

Alternative design

The only design option which would sustain the roost site is to not disturb the fascia and upgrade the remainder of the house. The replacement of finishes, windows, doors and the general thermal upgrade will need to be addressed. Retaining this fascia and flashing is not long-term solution as the fascia (and farmhouse) will continue to fall into disrepair from ingress of rain and wind in the absence of works.

Demolish the building.

As outlined above, the site has been identified as suitable for sensitive restoration to provide housing. The demolition of the building would also remove the roost site. The restoration of the building to provide housing and replacement bat habitat is the only satisfactory alternative.

5.3 Test 3. - Impact of a derogation on Conservation Status

Soprano pipistrelle

Soprano pipistrelle is an Annex IV bat species under the EU Habitats Directive. The Soprano pipistrelle is one of Ireland's smallest, most common, and widespread bat species. Weighing only 5-6g, these insectivores are frequently seen at dusk in both urban and rural areas, often roosting in buildings, trees, or near water. During the summer, female soprano pipistrelles form maternity colonies – like this one – where they give birth to a single offspring in June/early July. For up to a month the juveniles are fed solely on their mother's milk. When they are about a month old the young bats are able to fly and by six weeks they are able to forage for themselves.

The status of this bat species is listed as Least Concern (Favourable). According to Roche *et al.* 2024, there is Soprano pipistrelle population of approximately 1,204,800-2,709,600 individuals in the Republic of Ireland. Population estimates for the present reporting period are extrapolated from the probability of encountering a Soprano pipistrelle bat in any given area (based on the rate it was encountered during the Car-based Bat Monitoring Scheme 2007-2012) and adjusted for mean changes to its trend between 2007-2012 and 2018-2023. Such population estimates are based on a range of assumptions which are only approximately correct.

This analysis suggests that there is a Soprano pipistrelle population of approximately 1.2-2.7 million in Republic of Ireland. Trends for Soprano pipistrelle have shown a significant increase since the inception of the Car-based Bat Monitoring Scheme in 2003. An additional figure of 1,443,100 is derived from the average number of bats detected per km of roadside surveys and estimates of the total length of hedgerows in Ireland.

According to the criteria outlined in Marnell *et. al.* (2022) the conservation significance of the roost within the farmhouse is " *Small numbers of common species. Not a maternity site".* The Conservation Significance according to Marnell *et. al.* (2022) results determines the bat mitigation measures required. In relation to this species of bat, the mitigation recommended is *" Provision of new roost facilities where possible. Need not be exactly like-for-like, but should be suitable, based on species' requirements. Minimal timing constraints or monitoring requirements.".*

The proposed development will result of the removal of a small Soprano pipistrelle day roost. The timing for works (i.e. replacement roosts will be available throughout construction works until a new roost is placed at the original site) and mitigation will ensure that alternative roost sites are provided during construction works.

Therefore it is considered that the (temporary) loss of this roost will not impact on the favourable conservation status in their natural range and will not have a detrimental effect on the local bat population of Soprano pipistrelle. The provision of the new roosting facilities follows the guidelines (Marnell *et. al.* (2022)).

6. Mitigation measures

The confirmed roost is a small, non-breeding Soprano pipistrelle day roost used by a maximum of two bats. The roost is located around a damaged window and fascia that must be removed and repaired as part of the farmhouse refurbishment. Retention or reinstatement of the existing roosting void is therefore not practicable. Permanent replacement roosting habitat will instead be incorporated into the restored farmhouse, supplemented by alternative bat boxes on the retained outbuildings.

The following mitigation measures are proposed to avoid impacts on bats.

6.1 Timing of works

Works affecting the confirmed roost will preferably be undertaken during September or October, following the principal maternity period and while bats remain sufficiently active to leave the roost. Works will not be undertaken during periods of cold or unsuitable weather when bats may be torpid.

No works affecting the roost will commence until the NPWS derogation licence has been issued and the alternative bat boxes have been installed.

5.1.2 Alternative roosting provision

Before exclusion of the existing roost, two durable external bat boxes suitable for crevice-roosting pipistrelles will be installed on retained outbuildings within the site (See **Figure 8**). The boxes will comprise woodcrete or equivalent long-lasting units (Schwegler 2F and Vincent Pro or similar).

The boxes will be:

- installed before exclusion of the existing roost;
- located away from doors, frequently used working areas, flues and other sources of disturbance;
- provided with clear and unobstructed flight approaches;
- protected from artificial illumination; and
- retained for at least five years following completion of the refurbishment, preferably permanently.

The precise locations of the boxes will be selected and approved by the project ecologist. Their entrances will not be obstructed by scaffolding, protective sheeting or stored materials during construction.

6.2 Pre-works inspection and exclusion

Immediately before exclusion, the confirmed roost entrance and all accessible associated crevices will be inspected by the licensed ecologist. An endoscope will be used where access permits.

Following confirmation that no bats are present, the confirmed entrance will be blocked under ecological supervision. Suitable conditions will comprise mild, dry nights with light winds and temperatures conducive to bat activity.

The ecologist will confirm that exclusion has been completed successfully before the window, fascia or adjoining materials are removed. Exclusion will not be undertaken during unsuitable weather or if evidence of maternity use, dependent young or significant winter use is identified.

6.3 Supervised dismantling

Removal of the damaged fascia, window surround and immediately adjoining materials will be undertaken carefully by hand under the supervision of the licensed ecologist. Materials will be removed progressively and outward, away from the roosting crevice. Power tools will not initially be used directly around the known roost location.

If a bat is discovered, works within the immediate area will stop. The bat will be allowed to leave independently where it is safe to do so or will be captured by the licensed ecologist and released under suitable conditions. Any injured bat will be transferred to an appropriately experienced wildlife rehabilitator or veterinary surgeon.

If evidence of breeding, dependent young or materially greater roost use is identified, works will be suspended and the mitigation strategy reviewed in consultation with NPWS.

6.4 Permanent integrated bat tubes

Following completion of refurbishment works, a Vincent pro bat box (or similar) will be incorporated into the south-east elevation to the farmhouse (See **Figure 9**). This will provide the permanent replacement for the roost being removed.

The bat box will be installed:

- as close as practicable to the original roost location;
- at approximately the same height and aspect as the existing roost;
- at least approximately 3 m above ground level;
- away from windows, doors, flues, ventilation outlets and regularly disturbed areas; and
- with a clear flight approach connected to retained vegetation
- remain available to bats for the lifetime of the building.

The project ecologist will provide the contractor with the manufacturer's installation requirements and a drawing identifying the location of the bat box. The ecologist will inspect the final location.

5.1.8 Completion and monitoring

Monitoring will be carried out post-construction works for 2 years following completion. Monitoring will involve a summer survey to determine the level of bat usage of newly installed bat boxes.

Note bat boxes will be installed prior to any demolition works to ensure that bats are not to be left without a roost and must be given time to find the replacement.



Figure 8. Proposed locations of bat boxes on farmhouse and outbuildings



Figure 9. Proposed bat box of farmhouse

5.3 Lighting and flight paths

Artificial lighting can affect bat emergence, commuting and foraging behaviour. Lighting associated with the construction and operation of the proposed development will therefore be designed and managed to avoid illumination of confirmed and replacement roosts, retained boundary vegetation and established bat flight routes.

The entrances to bat boxes will remain unlit.

Where external lighting is required for safety or access, the minimum number of luminaires necessary will be used. Lighting will:

- be positioned as far as practicable from retained vegetation and bat roost features;
- be mounted at the lowest practicable height;
- be directed downward and away from ecological receptors;
- incorporate hoods, cowls, shields or asymmetric beam fittings to prevent backward and upward light spill;
- use warm-spectrum lamps with a correlated colour temperature not exceeding 2,700K;
- avoid ultraviolet and blue-rich light;
- use the lowest practicable lumen output;

- be operated using motion sensors, timers or other controls to restrict lighting to the periods when it is required; and
- not remain continuously illuminated throughout the night unless required for essential safety purposes.

Lighting columns will not be positioned within or immediately beside retained hedgerows, scrub or treelines. Up-lighting of buildings, vegetation or landscape features will not be permitted. Glazed areas and internal lighting will also be considered during detailed design to avoid significant light spill through windows towards the roost entrances and southern boundary vegetation.

Any lighting required during construction will be temporary and restricted to normal working hours as far as practicable. Construction lighting will be directed into the active working area and away from the farmhouse roost, alternative bat boxes, retained outbuildings and boundary vegetation. Lighting will not be left operating overnight when construction personnel are not present.

Before installation, the final external lighting layout and luminaire specifications will be reviewed by the project ecologist. The review will confirm that the number, location, height, orientation, output and control of the proposed luminaires are consistent with the protection of the confirmed and replacement bat roosts.

Reference

Aughney, T., Roche, N. and Langton, S. (2022) Irish Bat Monitoring Programme 2018-2021. Irish Wildlife Manuals, No. 137. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage, Ireland.

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