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# **Bat Suitability Assessment**

Kildare County Library,  
Newbridge, Co. Kildare

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# 1 Introduction

## 1.1 Background to the assessment

Kildare County Council intends to redevelop the Kildare County Library, which will involve the repair and renovation of the original library building (a protected structure), the demolition of a single-storey structure, and the construction of a new two-storey building, along with all associated services and landscaping.

NM Ecology Ltd was commissioned to consider the potential impacts of the proposed development on bats. The planning phase of the development commenced outside the ideal season for bat detector surveys (typically May to September, inclusive), so the assessment focussed on the suitability of the existing structures for bats, to determine whether bat detector surveys would be required.

## 1.2 Statement of authority

All surveying and reporting was carried out by Nick Marchant MCIEEM MSc, the principal ecologist of NM Ecology Ltd. He has fourteen years of professional experience, including eleven years as an ecological consultant, one year as a local authority biodiversity officer, and two years managing an NGO in Indonesia. He has an MSc in Ecosystem Conservation and Landscape Management from NUI Galway and a BSc in Environmental Science from Queens University Belfast.

He is a member of the Chartered Institute of Ecology and Environmental Management, and operates in accordance with their code of professional conduct. He regularly carries out bat surveys for projects throughout Ireland and Northern Ireland, and has completed training courses in *Bat Identification and Survey* (Bat Conservation Ireland, 2008), *Bat mitigation for construction projects* (Bat Conservation Trust, 2014) and *Bat handling, mist netting and harp trapping* (Bat Training UK, 2014).

## 1.3 Conservation and legal status of bats in Ireland

Bats are relatively common and widespread throughout Ireland, particularly in areas with woodland and water. In the red list of terrestrial mammal species (Marnell et al 2019<sup>1</sup>), all Irish bat species are listed as 'least concern', which means that they are "*widespread and common*" and "*do not qualify for Critically Endangered, Endangered, Vulnerable or Near Threatened status*" under IUCN criteria.

Nonetheless, in recognition of their vulnerability to development, all bats are afforded strict legal protection. Under the *European Communities (Birds and Natural Habitats) Regulations*

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<sup>1</sup> 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.

2011 (as amended) it is an offence to kill any protected animal, deliberately disturb them during breeding, rearing, hibernation or migration, or to damage / destroy a breeding site or resting place. Bats are also protected by the *Wildlife Act 1976* (as amended).

#### 1.4 Baseline description of the Site

The proposed development site (hereafter referred to as the Site) is located in an urban setting in the north-east of Newbridge. It currently contains two connected structures: the original 1930s two-storey library building (a protected structure), and a modern single-storey building. The rest of the Site consists of hard landscaping, with the exception of some ornamental shrubs near the entrance to the library.

The River Liffey is located approximately 40 m to the east of the Site. The river flows north past the Site, and then flows north-east towards Dublin city.

#### 1.5 Methods

##### Bat surveying techniques

Survey methods were developed using the Bat Conservation Trust (BCT) guidelines<sup>2</sup>. An external inspection of all buildings was carried out, using binoculars to search for potential roost features around the roofs of either structure. The locations of external lights were noted. The interior of all buildings was searched, including a section of the original structure's attic. Based on the results, the structures were assigned a suitability rating on the four-point scale (negligible, low, moderate, high) from the BCT guidelines.

## 2 Survey Results

### 2.1 External inspection

#### Original two-storey building

It is understood that the original building (Figure 1) was constructed in the 1930s. It has a pitched slate roof, obscured by parapet walls on the northern, eastern and southern sides. It has wooden soffit / fascia panels on the western side, and lead flashing around gutters and chimneys (Figure 2).

Some of the roof tiles have slipped, and gaps were observed around the edges of the soffit / fascia panels. These features could potentially provide access points for bats.

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<sup>2</sup> Collins, J. (ed.) (2016). *Bat surveys for professional ecologists: good practice guidelines* (3<sup>rd</sup> edn). The Bat Conservation Trust, London

### Modern single-storey building

The building has a flat roof that appears to be torch-on felt (Figures 5 and 6). It has wooden soffit / fascia panels that appeared to have been painted in the previous year. No potential roost features were noted in this structure.

## **2.2 Internal inspection**

A section of the attic of the original structure was accessible (Figure 3). It was partially floored and had a crawl space of approx. 40 cm height. No bat droppings or any other field signs were observed within the attic. Rat droppings and urine staining were present throughout.

The upper storey of the original building had water damage in several places on the ceilings and walls (Figure 4), likely due to missing roof slates. All rooms in the upper storey were searched, but no signs of bats were found.

## **2.3 External lighting**

A high level of external lighting was noted in the surrounding area. There are multiple streetlights in close proximity to both buildings along Main Street to the north of the Site and Athgarvan Road to the east of the Site. There are also lights in the car park to the west of the modern building, and on the exterior of the Riverbank Arts Centre. One of these lights faces the western side of the original structure.

Bats typically avoid areas with high levels of artificial lighting, because it exposes them to predatory bird species. All sides of the original library building are illuminated, as are the northern, eastern and western sides of the modern building. This would effectively prevent any bats from roosting in either structure. Similarly, bats are highly unlikely to forage anywhere within the Site, or to commute through it.

## **2.4 Summary of results**

The buildings and remainder of the Site are considered to have negligible suitability for roosting, foraging or commuting bats. This is due primarily to the levels of artificial lighting surrounding the Site.

## **3 Conclusion and Recommendations**

As noted above, we consider the Site to be unsuitable for bats. Therefore, it is not necessary to carry out a bat detector survey in summer months, or any other form of bat surveys. It can be concluded that the development poses no risk of impacts on bats.

Unfortunately it would not be possible to improve the value of the Site for bats, because streetlights along Main Street and the Athgarvan Road is necessary for public safety reasons. Therefore, there is no feasible method to reduce lighting within the Site.



Figure 1: Exterior of original library building



Figure 2: Western side of original building, showing slate tiles and wooden soffit / fascia panels



Figure 3: Interior of attic in original building



Figure 4: Ceiling damage in upper storey of original building



Figure 5: Front of single storey building. Note the streetlights on the right side of the image



Figure 6: Flat roof of the single-storey building