



Minogue & Associates
ENVIRONMENTAL CONSULTANCY

Bat Roost Potential of Vegetation within the Saint Pauls to Ballykeeffe Roundabout Active Travel Scheme

MEC Ltd.

Bat Roost Potential of Vegetation

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TABLE OF CONTENTS

TABLE OF CONTENTS	ii
1 INTRODUCTION	3
1.1 ROOST POTENTIAL EVALUATION AIMS & OBJECTIVES	3
1.2 LEGISLATIVE CONTEXT	6
1.3 CONSERVATION STATUS	6
2 METHODOLOGY	7
2.1 DESK STUDY	7
2.2 BAT ROOST POTENTIAL OF TREES	7
3 RESULTS	9
3.1 DESK TOP REVIEW	9
3.2 TREE ROOST POTENTIAL EVALUATION RESULTS	9
3.2.1 ST NESSAN'S ROAD.	9
3.3 CONCLUSIONS AND RECOMMENDATIONS	9
ANNEX A: PHOTOGRAPHIC RECORD	8

1 INTRODUCTION

Minogue Environmental Consultants (MEC) Ltd. has been commissioned by Limerick City & County Council to undertake a bat roost potential evaluation of vegetation that is to be felled and cleared along the St Nessian's Road, Limerick. The area of vegetation to be felled and cleared is indicated on the maps in Annex A to this report.

1.1 ROOST POTENTIAL EVALUATION AIMS & OBJECTIVES

The aim of the activity survey and roost potential evaluation was to identify the potential for trees occurring within the area of vegetation to be removed for their potential to function as tree roost habitat for bats.

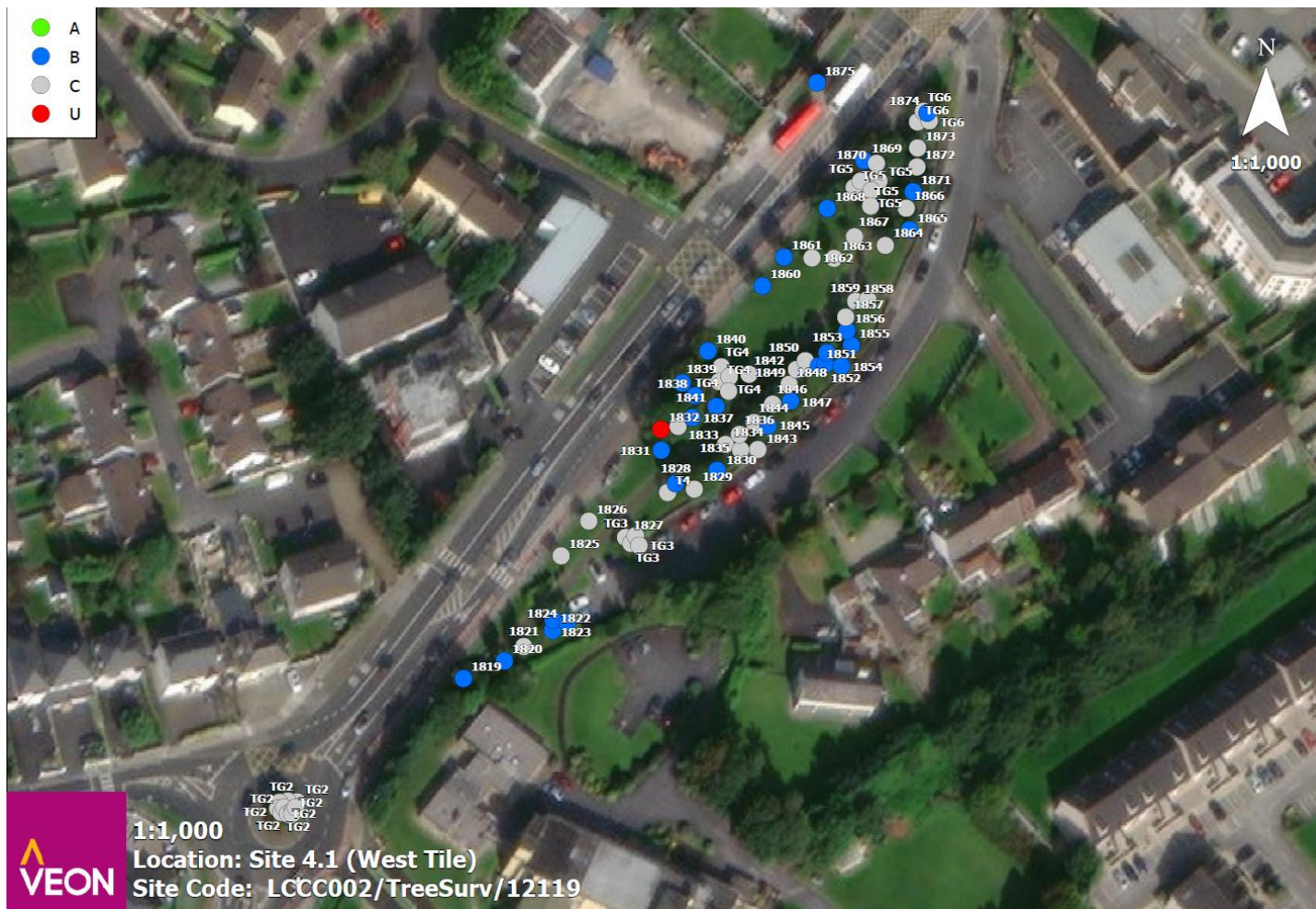
Figures 1.1 and 1.2 present the trees surveyed for the Saint Pauls to Ballykeeffe Roundabout Scheme within the public area with the corresponding tag number¹.

¹ Veon 2022.

FIGURE 1-1 TREES SURVEYED AT NESSAN'S ROAD (PART 1)



FIGURE 1-2 TREES SURVEYED AT NESSAN'S ROAD (PART 2)



1.2 LEGISLATIVE CONTEXT

All bat species occurring in Ireland are protected under both European and National legislation. All species are European Protected Species, listed on *Annex IV* of the *EU Habitats Directive (92/43/EEC)*, transposed into Irish law under the *European Communities (Birds and Natural Habitats) Regulations 2011*. Lesser horseshoe (*Rhinolophus hipposideros*) bats are afforded special protection as an *Annex II* listed species. At the national level all species are protected under the *Wildlife Acts, as amended (1976 and 2000)*.

1.3 CONSERVATION STATUS

A total of 9 species of bats are resident in Ireland. The overall conservation status of each of these species, as assigned by the NPWS (2019) is as follows:

- Lesser horseshoe bats is inadequate and deteriorating;
- Common pipistrelle is favourable and improving
- Soprano pipistrelle is favourable and improving
- Nathusius pipistrelle is unknown
- Natterer's bat is favourable and stable
- Daubenton's bat is favourable and improving
- Whiskered bat is favourable and stable
- Brown long-eared bat is favourable and improving
- Leisler's bat is favourable and improving.

2 METHODOLOGY

2.1 DESK STUDY

A search for records of bat species held by the National Biodiversity Data Centre (NBDC) website for an area of search shown on Figure 2.1 was completed on the 30th May 2023. The bat landscapes suitability index hosted on the NBDC website biodiversity.ie for the project site and surrounding area was also reviewed.

FIGURE 2-1: AREA OF SEARCH SHOWN IN RED FOR NBDC BAT RECORDS



2.2 BAT ROOST POTENTIAL OF TREES

The bat roost potential of trees follows the guidelines outlined in Chapter 6 of the Bat Conservation Trusts’s Bat Surveys for Professional Ecologists (2016). The trees occurring within the woodland were visually inspected on site for the signs of preferred roost features (PRFs). PRFs include holes, cracks and splits in stems or branches; loose or platy bark; knot holes, cankers in which cavities have developed; detached ivy with stem diameters in excess of 50mm; existing bat or bird boxes. Definitions of the potential suitability of roosting habitat, based on Collins (2016). Suitability Description of Roosting habitats

Negligible	Negligible habitat features on site likely to be used by roosting bats.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically. 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 or hibernation).
Moderate	A structure or tree 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 – the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed).
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 surrounding habitat.

A daytime inspection of tree roost potential was undertaken on the 30th May 2023. The daytime inspection involving visually inspecting the trees occurring within the route of the walking and cycling routes along St Nessian's, where vegetation is to be removed and trees are to be felled for the PRFs listed above.

3 RESULTS

3.1 DESK TOP REVIEW

A review of National Biodiversity Data Centre (NBDC) revealed historical records for bat species within the area of search shown on Figure 2.1. These were as follows:

Lesser Noctule (<i>Nyctalus leisleri</i>)	1	01/06/2005	National Bat Database of Ireland
Pipistrelle (<i>Pipistrellus pipistrellus sensu lato</i>)	1	01/06/2005	National Bat Database of Ireland
Soprano Pipistrelle (<i>Pipistrellus pygmaeus</i>)	1	01/06/2005	National Bat Database of Ireland

The all-Ireland Bat Landscape Classification has classified the area in which the project site is located as being of high to high potential for supporting all bat species occurring in Ireland.

3.2 TREE ROOST POTENTIAL EVALUATION RESULTS

3.2.1 ST NESSAN’S ROAD.

Table 3.1 below shows the schedule of trees to be removed in the public area. 11 trees are proposed for removal on the R526 St. Nessan’s Road, 7 trees are proposed for removal on the R926 Dooradoyle Road with a further 3 trees within the private grounds of St. Pauls Nursing Home proposed for removal as part of accommodation works.

Nessan Road			
Category Grade	Remove to Facilitate Design Layout	Remove for Health & Safety	Impacted by Design Layout
Category U		1832 1 Tree (1%)	
Category C	1904 1 Tree (1%)		1825, 1826 2 Trees (2%)
Category B	1839, 1840, 1860, 1861, 1902, 1903, 1905, 1906, 1907, 1908 10 Trees (8%)		1868, 1869, 1890 3 Trees (2%)
Category A			

Tree number 1903 supports split branches but upon inspection these were not deep enough to support roosting bats. None of the other trees supported PRFs such as holes, cracks and splits in stems or branches; significant loose or platy bark; knot holes or cankers in which cavities suitable for supporting roosting bat have developed. As these trees are early mature, they have not developed cavities, crevices etc and there was no ivy growth recorded at any of the trees. Please see photographic record in Annex A of this report.

3.3 CONCLUSIONS AND RECOMMENDATIONS

Overall the trees on St Nessans Road within the area of the Saint Pauls to Ballykeeffe Roundabout Active Travel Scheme have negligible potential to function as a roosting sites for bats during the bat activity season. The trees in the area to be

felled do not support PRFs and offer no potential roosting habitat for bat species. The felling of these trees is not predicted to result in the loss of any moderate to high potential roosting features.

There are limited records for the presence of bats in the wider area surrounding the subject site with one record each for Soprano and Common pipistrelle and Leisler Bats. These date from 2005 with no recent records.

During the tree roost evaluation survey suitable PRFs were largely absent from all trees occurring along St Nessan's Road.

Reference

Collins, J. (ed) (2016). Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn). The Bat Conservation Trust, London.

NPWS (2019). The Status of EU Protected Habitats and Species in Ireland. Volume 3: Species Assessments. Unpublished NPWS report. Edited by: Deirdre Lynn and Fionnuala O'Neill.

Transport Infrastructure Ireland (TII) (2006). Guidelines for the Treatment of bats during the construction of National Road Schemes.

ANNEX A: PHOTOGRAPHIC RECORD

