



Title

ECOLOGICAL IMPACT ASSESSMENT REPORT

Development Description

"A new residential development of 56 units comprising 01 No. 5 Bed house, 02 No. 4 Bed houses, 25 No. 3 Bed houses, 22 No. 2 Bed houses, and 06 No. 1 Bed Apartments, Site development works, landscaping and parking as well as an IW pumping station, all at lands in Cosmona Townland, Loughrea, Co Galway."

Location

Cosmona, Loughrea, County Galway

Applicants

Galway County Council

Prepared by:

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1 INTRODUCTION

This Ecological Impact Assessment Report (EclA) has been prepared by consultant ecologists Colette Casey (B. Sc (Hons)) and Edel Hardiman (B. Sc) in partnership with James O'Donnell, Planning Consultant (BA, MRUP, Dip APM) on behalf of Galway County Council who is applying for planning permission for *"a new residential development of 56 units comprising 01 No. 5 Bed house, 02 No. 4 Bed houses, 25 No. 3 Bed houses, 22 No. 2 Bed houses, and 06 No. 1 Bed Apartments, Site development works, landscaping and parking as well as an IW pumping station, all at lands in Cosmona Townland, Loughrea, Co Galway."*

The assessment is based on various field surveys and a desk survey conducted on the 25th of July 2024 and the 9th of August 2024, by Edel Hardiman. A transect bat survey was conducted on the 25th of July 2024, while a summer bird survey was conducted on the 9th of August 2024.

The application site is located in the townland of Cosmona, to the north of the town centre of Loughrea. The Hazelwood estate Road borders the north of the site (L-81993 County Road). Access is proposed from the L-4228 county road which runs along the eastern boundary of the site. A creche/montessori is located across the road to the northeast. There are residential dwellings to the north and further to the northwest of the site. Agricultural fields border the south and southwest of the application site.

The site itself consists of improved agricultural grassland with stone walls, hedgerows and periodic treelines enclosing the site. The site has a low ecological value given the agricultural use on the site and due to its lack of species diversity and richness. The site is approximately 2.5 hectares in size. To the south of the site, the Lough Rea SAC and the Lough Rea SPA are 689.6 meters away.

This report follows a standard approach based upon the description of the current baseline conditions within the proposed site. A survey of the likely habitats and species present in the proposed site is provided, in addition to the identification of the potential ecological impacts, resulting from the construction and operational phases of the development. An assessment of the likely significance of the identified impacts on valued ecological receptors (VERs), within the site and in close proximity to the site, was also provided. Appropriate remedial mitigation measures are provided where significant negative impacts were identified, to prevent, reduce or counteract the impact.

1.1 LEGISLATIVE BACKGROUND

1.1.1 Legislative Context

The Irish Wildlife Act 1976 and the Wildlife (Amended) Act 2000 allows for the protection of most wild animals and birds. Licenses are required for interference with protected species. This act makes it illegal to interfere with or damage the resting or breeding places of any protected wild animal.

The Flora Protection Order 1999 provides protection in Ireland to several rare plant species from being purposefully cut, picked, uprooted, or damaged. It is also illegal under this order to interfere, alter or damage the relevant habitats.

There are three main types of designation for nature conservation in Ireland: Special Areas of Conservation (SACs), Special Protection Areas (SPA) and Natural Heritage Areas (NHAs). NHAs are designated under the Irish Wildlife Act 1976 (amended 2000). A NHA is protected from damage for the presence of habitats and protected plant and animal species. As NHA are not part of the Natura 2000 network, the Appropriate Assessment process is not applicable to these sites.

SACs and SPAs are designated under European legislation, the EU Habitats Directive 92/43/EEC (transposed into Irish law in the European Union (Natural Habitats) Regulations, 1997 as amended in 1998 and 2005) and the EU Birds Directive 79/409/EEC, respectively. These European designated sites (SACs and SPAs) are also known as Natura 2000 sites. This means that they are part of the Natura 2000 Network, a network of important ecological sites across the European Union. Certain habitats, within the EU Habitats Directive, are classed as 'priority' habitats and are afforded greater protection. For example, Irish priority habitats include turloughs, heaths, blanket bogs and raised bogs. Waterbodies are also afforded protection and are designated as SACs for the presence of species such as the Harbour seal, Salmon, and Freshwater Pearl Mussel.

The Water Framework Directive (WFD) (2000/60/EC) was transposed into Irish law by the European Communities (Water Policy) Regulations 2003 (S.I. 722, 2003). The WFD aims to achieve good status in all waterbodies. It forms a framework for community involvement in the topic of water policy. The WFD updates existing legislation and provides for the management of River Basin Districts (RBDs). RBDs are administrative areas that consist of river basins (catchments) and cross-border basins assigned to an International RBD. RBD allows for a coordinated approach to water management. Currently, Ireland is in the 2nd Cycle of the WFD (2015-2021), where previous RBDs form one national RBD. The 2nd Cycle allows for greater community involvement in water management at a local level.

2 METHODOLOGY

The flora and habitats of the site were assessed using a desk study of information pertaining to the proposed and surrounding areas, ecological records and information pertaining to designations and legislation.

The assessment is based on various field surveys and a desk survey conducted on the 25th of July and the 9th of August 2024, by Edel Hardiman. A transect bat survey was conducted on the 25th of July 2024, and a static survey was done from the 25th of June 2024 until the 25th of July 2024. A summer bird survey was conducted on the 9th of August 2024.

'A Guide to Habitats in Ireland' (Fossitt, 2000) was used to identify and assess habitats in and adjacent to the site, based on current vegetation composition and habitat management. The site was traversed and identified habitats were classified and sketched into field maps of the site.

The capability of the site to support certain species (particularly those of conservation importance that may have been recorded during the field survey due to their seasonal absence or cryptic/nocturnal habits) were assessed.

All habitats and species of interest were readily identifiable based on the field surveys carried out on the 25th of July 2024 and the 9th of August 2024. From the information collected during the field survey, the published information on the site and its environment, it is considered that a comprehensive ecological assessment was achieved.

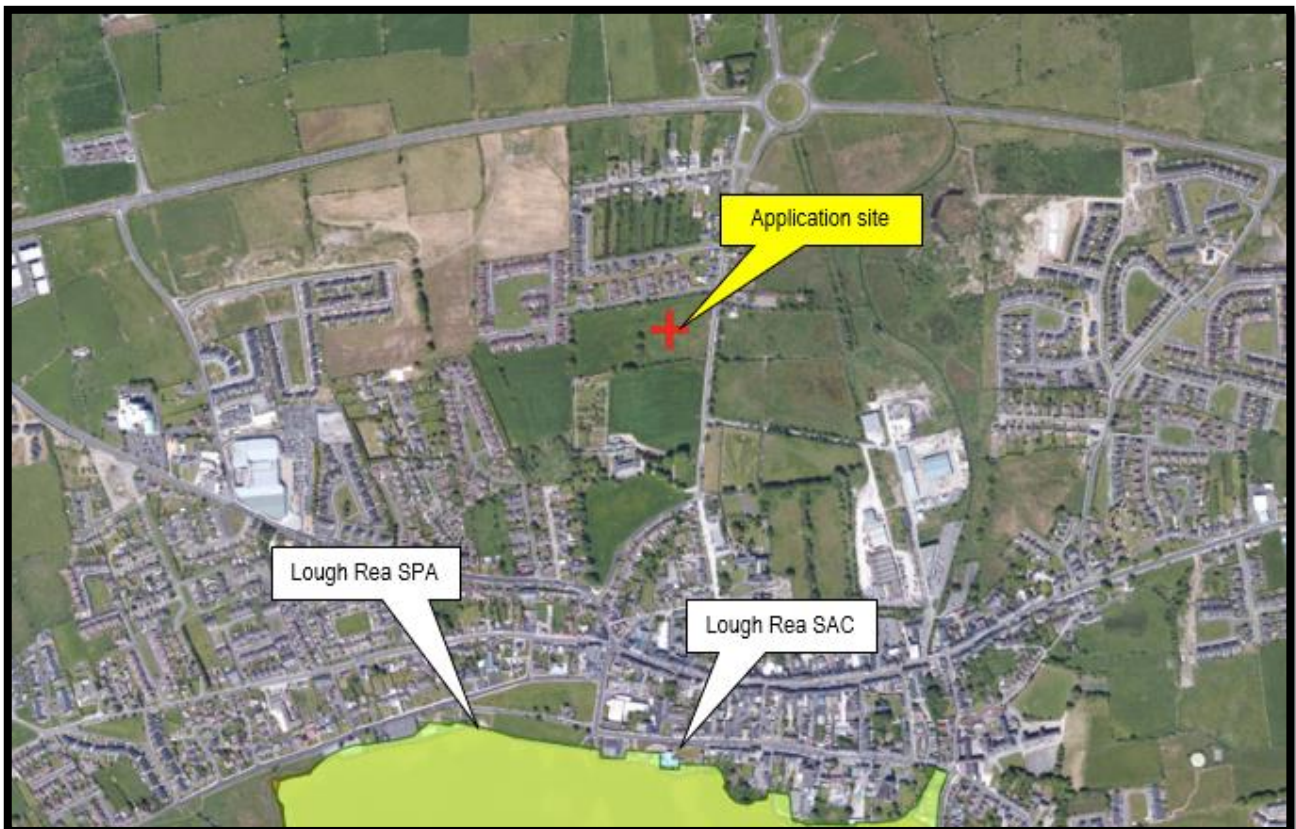


Figure 2.1: Indicative Location of the context of the Proposed Development

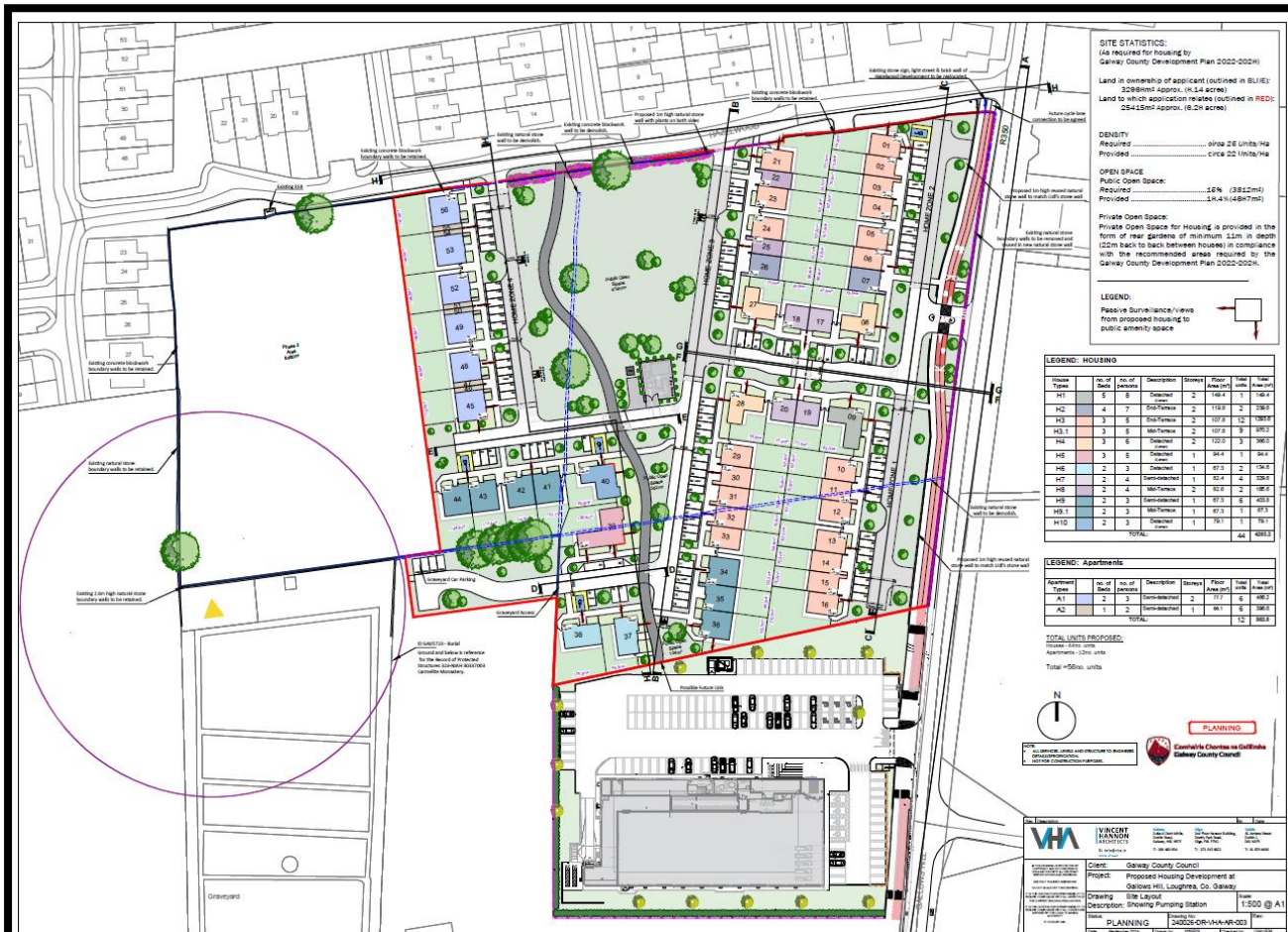


Figure 2.2: Extract of Site layout prepared by VHA Architects

3 ESTABLISHING AN ECOLOGICAL BASELINE

3.1 DESK STUDY

A desk study was undertaken to review information that was available with regards to the flora and fauna of the area, including the application site. The following sections pertain to NPWS site synopses for designated conservations sites, birds and plant atlases and specialist research publications. These published sources were consulted for the completion of the Ecological Impact Assessment.

3.1.1 Designated Sites

All European and National designated sites within a 15km radius of proposed site were identified in relation to this development. Designated sites located further than 15km were also identified, however no pathways for impacts on these sites were identified due to the nature and scale of the development, in addition to the lack of hydrological connectivity. Table 3.1 indicates the proximity of designated sites to the proposed development. The locations of the Natura 2000 SAC sites in relation to the proposed site can be seen in Figure 3.1. The locations of SPA sites in relation to the proposed site can be seen in Figure 3.2.

Table 3.1 Designated sites within the 15km of the proposed development and proximity of these sites to the proposed development.

Designated Site and Site Code	Distance from Proposed Site (m/km)
SACs	
Lough Rea SAC - Site code: 000304	689.6 m
Sonnagh Bog SAC - Site code: 001913	8.9 km
Rahasane Turlough SAC - Site code: 000322	11.9 km
Peterswell Turlough SAC - Site code: 000318	12.3 km
SPAs	
Lough Rea SPA - Site code: 004134	689.6 m
Slieve Aughty Mountains SPA - Site code: 004168	4.7 km
Rahasane Turlough SPA - Site code: 004089	11.9 km
NHA	
Raford River Bog NHA - Site code: 000321	10.6 km
Slieve Aughty Bog NHA - Site code: 001229	10.4 km
pNHA	
Lough Rea - Site code: 000304	689.6 m
Sonnagh Bog - Site code: 001913	8.9 km
Rahasane Turlough - Site code: 000322	11.9 km
Peterswell Turlough - Site code: 000318	12.3 km

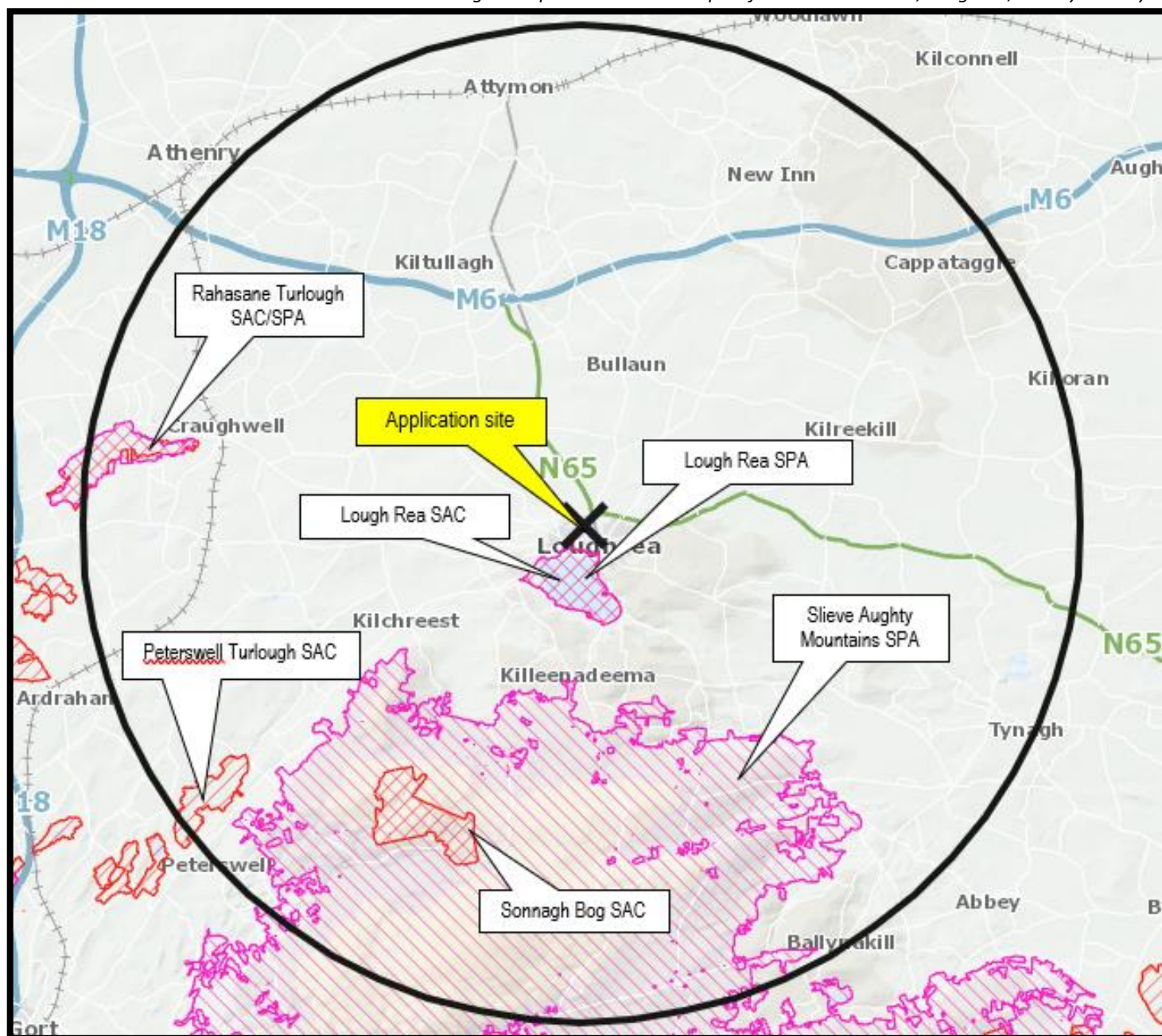


Fig 3.1: Location of the proposed site (black cross) in relation to closest SAC and SPA Sites

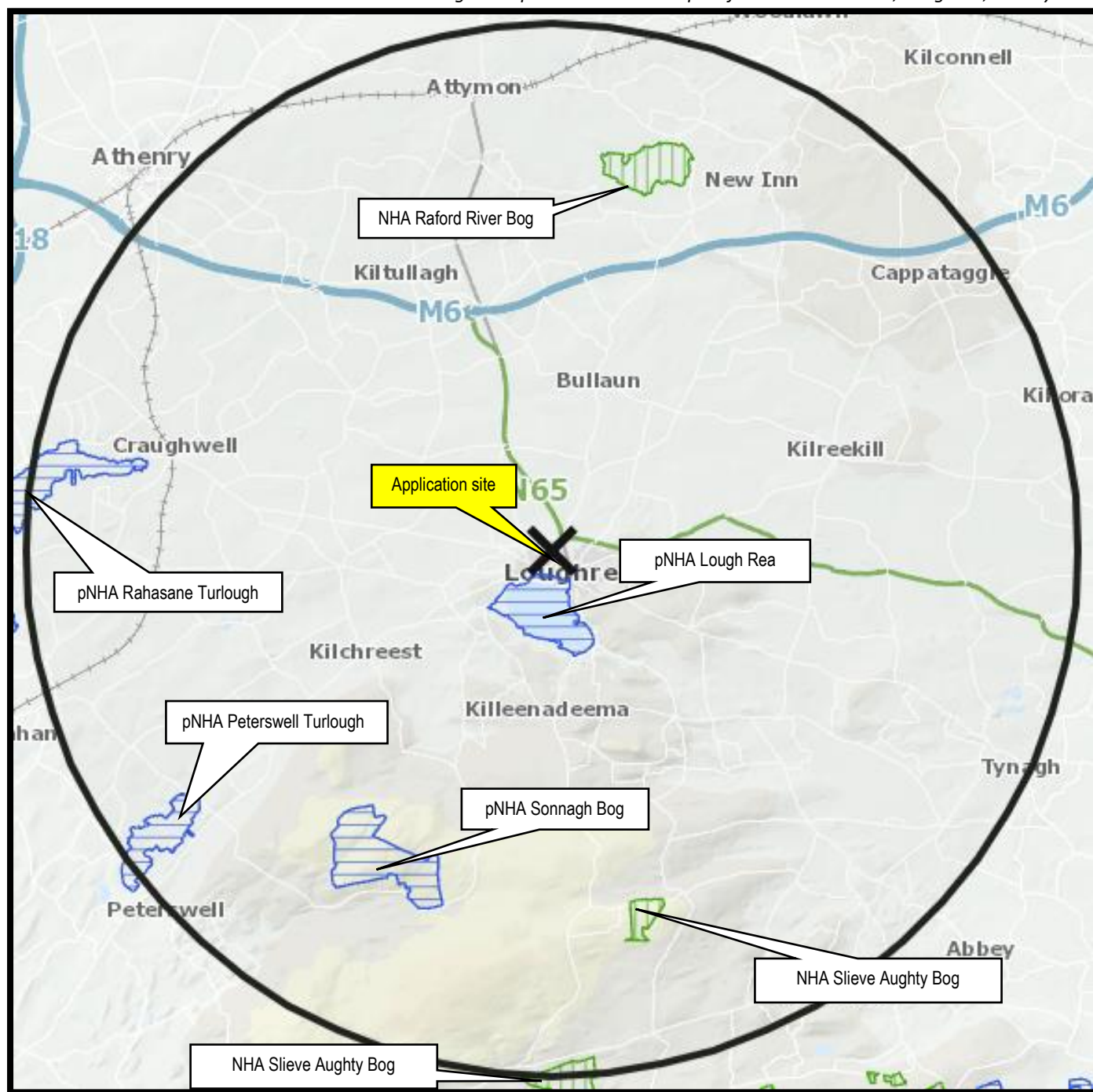


Fig 3.2: Location of the proposed site (black cross) in relation to closest NHA and pNHA Sites



Fig 3.3: Indicative extent of the Application site (outlined in red).

4 FLORA

Species listed in Annex II of the Habitat's Directive (CEC, 1992)

No vascular plant species listed in the Annex II of the Habitat's Directive in the site in the Atlas of British and Irish flora.

Species listed in the Flora (Protection) Order:

No plant species listed in the Flora (Protection) Order were present in the site.

Species listed in 'The Irish Red Data Book.10. Vascular Plants' (Jackson, *et al*, 2016)

No plant species listed in the Irish Red Data Book.10. Vascular Plants were present on the site.

5 FAUNA

5.1 BAT SURVEY

The survey was carried out in accordance with the most appropriate guidance, “*Bat Surveys for Professional Ecologists Good Practice Guidelines (BCT, 2016)*” and “*Bat Mitigation Guidelines for Ireland (Kelleher and Marnell, 2022)*”. The transect and static survey and the roost inspection were all carried out within the active season of bat species and therefore, no constraints are identified in this regard. The most recent 2024 transect survey was carried out in optimal weather conditions with temperatures ranging between 13-14°C, weather conditions were dry, warm and with a slight breeze and no limitations were identified.

The transect surveys carried out involved a two-hour inspection of the site perimeter, with a concentration of linear features such as the stone wall and trees along the north and southern boundary, as well as the bisecting tree line. The transect survey began a half hour before sunset and lasted for an hour and a half after sunset. The surveyor walked the site on a route as shown in **Figure 5.2** using an “*Elekon Batscanner Stereo*” bat detector.

A general walkthrough of the site and surrounding area was carried out, focusing on the tree lines to the north and south of the boundary as well as the bisecting tree line. These trees are composed of species such as Sycamore (*Acer pseudoplatanus*), Ash (*Fraxinus excelsior*) and Hawthorn (*Crataegus monogyna*). Habitats were classified according to “*A Guide to Habitats in Ireland*” (Fossitt, 2000). The entire site was walked and the potential for suitable foraging, and commuting habitats to occur were assessed based on the ‘*Negligible, Low, Moderate and High*’ classification described in Table 5.1 of “*Bat Surveys for Professional Ecologists: Good Practice Guidelines*” (Collins (ed.), 2016).

There were no survey constraints, and it was considered that a comprehensive survey effort was achieved.

Season	Roost type	Inspection	Bat detectors and emergence counts
Spring (Mar – May)	Building	Suitable (signs, perhaps bats)	Limited, weather dependent
	Trees	Difficult (best for signs before leaves appear)	Rarely useful
	Underground	Suitable (signs only)	Static detectors may be useful
Summer (June- August)	Building	Suitable (signs and bats)	Suitable
	Trees	Difficult	Limited; use sunrise survey
	Underground	Suitable (signs only)	Rarely useful
Autumn (September –November)	Building	Suitable (signs and bats)	Limited, weather dependent
	Trees	Difficult	Rather limited weather dependent; use sunrise survey?
	Underground	Suitable (signs, perhaps bats)	Static detectors may be useful
Winter (December- February)	Building	Suitable (signs, perhaps bats))	Rarely useful
	Trees	Difficult (best for signs after leaves have gone)	Rarely useful
	Underground	Suitable (signs and bats)	Static detectors may be useful

Figure 5.1- Extract from “*Bat Mitigation Guidelines for Ireland (2022)*”



Figure 5.2: Route walked for 2024 transect survey

5.1.1 Desktop Research

Prior to the bat transect and static deployment, a desktop survey was carried out. The National Bat Database of Ireland maintains a Bat suitability index. This grades the site in terms of suitability for each bat species found in Ireland within 1km² of the site.

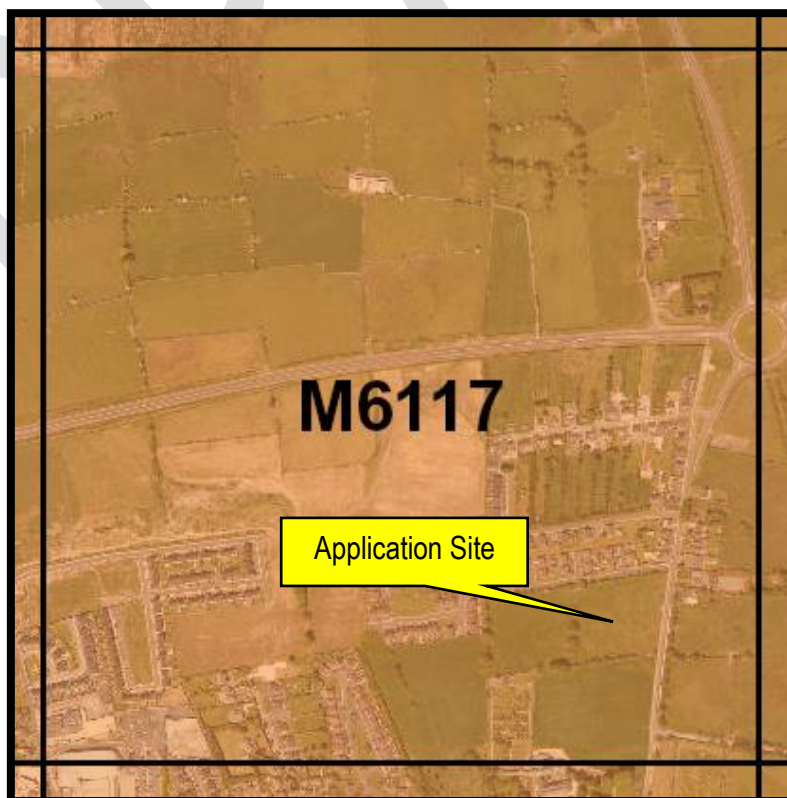


Fig 5.3: Bat Suitability Map of Grid M6117-Source: <https://maps.biodiversityireland.ie/Map>

The records of the database search are provided in Table 5.1

Table 5.1 National Bat Suitability of M6117

Species Name	Scientific Name	Suitability Index ¹	Conservation Status
Brown long-eared bat	<i>Plecotus auritus</i>	51	EU Habitats Directive: Annex IV; Wildlife Acts 1976-2017
Lesser Noctule (Leisler's)	<i>Nyctalus leisleri</i>	44	EU Habitats Directive: Annex IV; Wildlife Acts 1976-2017
Lesser Horseshoe bat	<i>Rhinolophus hipposideros</i>	6	EU Habitats Directive: Annex II & IV; Wildlife Acts 1976-2017
Common Pipistrelle	<i>Pipistrellus pipistrellus</i>	49	EU Habitats Directive: Annex IV; Wildlife Acts 1976-2017
Soprano Pipistrelle	<i>Pipistrellus pygmaeus</i>	38	EU Habitats Directive: Annex IV; Wildlife Acts 1976-2017
Whiskered bat	<i>Myotis mystacinus</i>	35	EU Habitats Directive: Annex IV; Wildlife Acts 1976-2017
Daubenton's bat	<i>Myotis daubentonii</i>	29	EU Habitats Directive: Annex IV; Wildlife Acts 1976-2017
Nathusius's bat	<i>Pipistrellus nathusii</i>	7	EU Habitats Directive: Annex IV; Wildlife Acts 1976-2017
Natterer's bat	<i>Myotis nattereri</i>	62	EU Habitats Directive: Annex IV; Wildlife Acts 1976-2017

A desk-study of the proposed site shows that there is high suitability for all species of Irish bats within the hectad. The site is located outside the lesser horseshoe foraging ranges as shown in the SSCO maps published by the NPWS: <https://dahg.maps.arcgis.com/apps/webappviewer/index.html?id=63b6a14f5b164b289ad87048f71532b8>

5.1.2 Transect Survey

A daytime survey of the proposed development site was undertaken by Edel Hardiman (Consultant Ecologist) on the 25th of July 2024. Prior to a night-time transect and static detector survey being carried out, a detailed daytime visual inspection of the site was undertaken to assess the suitability of commuting and foraging habitats onsite.

Overall bat activity was low on site, with Leisler's and Soprano pipistrelle bats the most common. The first species recorded was Leisler's at 21:36, while the last species recorded was Nathusius' pipistrelle at 23:00. The first Soprano pipistrelle was recorded at 22:03, while the first Common pipistrelle was recorded at 22:50.

Table 5.1.2 Results from transect bat survey 2024.

	Time	Species	Location
1	21:36	Leisler's Bat (<i>Nyctalus leisleri</i>)	East
2	21:49	Leisler's Bat (<i>Nyctalus leisleri</i>)	North
3	21:54	Leisler's Bat (<i>Nyctalus leisleri</i>)	South
4	21:54	Leisler's Bat (<i>Nyctalus leisleri</i>)	South
5	21:55	Leisler's Bat (<i>Nyctalus leisleri</i>)	South
6	21:56	Leisler's Bat (<i>Nyctalus leisleri</i>)	Southeast
7	21:56	Leisler's Bat (<i>Nyctalus leisleri</i>)	Southeast
8	22:01	Leisler's Bat (<i>Nyctalus leisleri</i>)	North
9	22:03	Soprano Pipistrelle (<i>Pipistrellus pygmaeus</i>)	Northwest
10	22:11	Soprano Pipistrelle (<i>Pipistrellus pygmaeus</i>)	North
11	22:12	Soprano Pipistrelle (<i>Pipistrellus pygmaeus</i>)	North

¹ The maps are a visualisation of the results of the analyses based on a 'habitat suitability' index. The index ranges from 0 to 100 with 0 being least favourable and 100 most favourable for bats. The maps are constructed using spatial units of the OSi National Grid. The index presented is for all species combined, in addition to the individual species' indices.

12	22:12	Soprano Pipistrelle (<i>Pipistrellus pygmaeus</i>)	North
13	22:13	Soprano Pipistrelle (<i>Pipistrellus pygmaeus</i>)	Centre
14	22:14	Soprano Pipistrelle (<i>Pipistrellus pygmaeus</i>)	Centre
15	22:15	Soprano Pipistrelle (<i>Pipistrellus pygmaeus</i>)	Centre
16	22:15	Soprano Pipistrelle (<i>Pipistrellus pygmaeus</i>)	South
17	22:15	Soprano Pipistrelle (<i>Pipistrellus pygmaeus</i>)	South
18	22:16	Soprano Pipistrelle (<i>Pipistrellus pygmaeus</i>)	South
19	22:17	Leisler's Bat (<i>Nyctalus leisleri</i>)	South
20	22:18	Soprano Pipistrelle (<i>Pipistrellus pygmaeus</i>)	South
21	22:18	Leisler's Bat (<i>Nyctalus leisleri</i>)	South
22	22:18	Soprano Pipistrelle (<i>Pipistrellus pygmaeus</i>)	South
23	22:19	Soprano Pipistrelle (<i>Pipistrellus pygmaeus</i>)	South
24	22:19	Soprano Pipistrelle (<i>Pipistrellus pygmaeus</i>)	South
25	22:20	Soprano Pipistrelle (<i>Pipistrellus pygmaeus</i>)	Southeast
26	22:24	Soprano Pipistrelle (<i>Pipistrellus pygmaeus</i>)	Northwest
27	22:24	Soprano Pipistrelle (<i>Pipistrellus pygmaeus</i>)	Northwest
28	22:25	Soprano Pipistrelle (<i>Pipistrellus pygmaeus</i>)	North
29	22:25	Soprano Pipistrelle (<i>Pipistrellus pygmaeus</i>)	North
30	22:26	Soprano Pipistrelle (<i>Pipistrellus pygmaeus</i>)	North
31	22:27	Soprano Pipistrelle (<i>Pipistrellus pygmaeus</i>)	North
32	22:28	Soprano Pipistrelle (<i>Pipistrellus pygmaeus</i>)	Northwest
33	22:30	Leisler's Bat (<i>Nyctalus leisleri</i>)	Northwest
34	22:31	Soprano Pipistrelle (<i>Pipistrellus pygmaeus</i>)	North
35	22:34	Soprano Pipistrelle (<i>Pipistrellus pygmaeus</i>)	Centre
36	22:34	Soprano Pipistrelle (<i>Pipistrellus pygmaeus</i>)	Centre
37	22:36	Soprano Pipistrelle (<i>Pipistrellus pygmaeus</i>)	South
38	22:36	Soprano Pipistrelle (<i>Pipistrellus pygmaeus</i>)	South
39	22:37	Soprano Pipistrelle (<i>Pipistrellus pygmaeus</i>)	South
40	22:37	Nathusius' pipistrelle (<i>Pipistrellus nathusii</i>)	South
41	22:40	Leisler's Bat (<i>Nyctalus leisleri</i>)	East
42	22:40	Leisler's Bat (<i>Nyctalus leisleri</i>)	East
43	22:45	Leisler's Bat (<i>Nyctalus leisleri</i>)	North
44	22:50	Common Pipistrelle (<i>Pipistrellus pipistrellus</i>)	Centre
45	22:53	Soprano Pipistrelle (<i>Pipistrellus pygmaeus</i>)	Centre
46	22:54	Nathusius' pipistrelle (<i>Pipistrellus nathusii</i>)	South
47	22:55	Soprano Pipistrelle (<i>Pipistrellus pygmaeus</i>)	South
48	22:56	Soprano Pipistrelle (<i>Pipistrellus pygmaeus</i>)	South
49	22:56	Soprano Pipistrelle (<i>Pipistrellus pygmaeus</i>)	South
50	22:57	Soprano Pipistrelle (<i>Pipistrellus pygmaeus</i>)	South
51	23:00	Nathusius' pipistrelle (<i>Pipistrellus nathusii</i>)	Southeast

5.1.3 Static Survey

The Static survey took place over a period of 30 nights from the 25th of June 2024 until the 25th of July 2024. The equipment used was a song meter mini bat ultrasonic recorder which was placed along the southern boundary of the application site.

Temperatures during the static survey ranged from 6.3°C to 22.2°C. Table 5.1.6 shows the weather conditions while the static was deployed.

The most abundant species recorded on site was Leisler's which is one of the most common bat species in Ireland (See Table 5.1.3 below).

The static was placed within a hawthorn tree at the south of the site. Given the considerable length of time the static was recording, these results are clearly representative for the levels of activity on site. Overall, bat activity on site was low. The most abundant species on site was a Leisler's which is one of the most common bat species in Ireland.

Table 5.1.3 Summary of recordings for the Static bat detector

Dates	Leisler's	Brown Long-eared	Soprano pipistrelle	Common pipistrelle	Nathusius' pipistrelle	Total Passes	Bat
25 th of June	22	0	1	3	0	26	
26 th of June	57	0	6	4	2	69	
27 th of June	13	5	18	7	0	43	
28 th of June	11	0	1	0	0	12	
29 th of June	15	0	0	0	0	15	
30 th of June	8	0	1	0	0	9	
1 st of July	30	0	1	0	0	31	
2 nd of July	47	0	1	2	0	50	
3 rd of July	26	0	18	2	0	46	
4 th of July	17	0	0	1	0	18	
5 th of July	14	0	1	0	1	16	
6 th of July	20	0	0	0	0	20	
7 th of July	22	0	0	0	0	22	
8 th of July	21	0	2	1	0	24	
09 th of July	12	0	0	0	0	12	
10 th of July	61	0	5	0	0	66	
11 th of July	143	0	8	0	0	151	
12 th of July	38	0	3	0	0	41	
13 th of July	26	0	1	0	0	27	
14 th of July	49	0	0	0	0	49	
15 th of July	15	0	0	0	0	15	
16 th of July	11	0	0	0	1	12	
17 th of July	9	0	0	0	2	11	
18 th of July	29	0	1	0	0	30	
19 th of July	34	0	0	0	2	36	
20 th of July	56	0	0	0	1	57	
21 st of July	2	0	0	0	0	2	
22 nd of July	59	0	0	0	0	59	
23 rd of July	11	0	0	0	0	11	
24 th of July	4	0	0	0	0	4	
25 th of July	4	0	0	0	0	4	
Total	886	5	68	20	9	988	

Table 5.1.4 First and Last calls recorded and the species for the night's static was deployed

Dates	First Call and Species	Last Call and Species
25 th of June	22:46:36 - Common Pipistrelle	23:57:17 - Leisler's Bat
26 th of June	22:17:34 - Leisler's Bat	05:11:56 - Leisler's Bat
27 th of June	22:27:35 - Leisler's Bat	04:27:13 - Leisler's Bat
28 th of June	22:37:25 - Leisler's Bat	02:34:42 - Soprano pipistrelle
29 th of June	22:50:40 - Leisler's Bat	23:46:27 - Leisler's Bat

30th of June	22:34:31 - Leisler's Bat	04:02:44 - Leisler's Bat
1st of July	22:45:04 - Leisler's Bat	01:00:54 - Leisler's Bat
2nd of July	22:19:11 - Leisler's Bat	04:53:33 - Leisler's Bat
3rd of July	22:11:16 - Leisler's Bat	04:32:30 - Leisler's Bat
4th of July	22:45:10 - Leisler's Bat	04:43:47 - Leisler's Bat
5th of July	22:12:02 - Leisler's Bat	04:40:31 - Leisler's Bat
6th of July	22:33:39 - Leisler's Bat	02:13:59 - Soprano pipistrelle
7th of July	22:34:37 - Leisler's Bat	04:20:41 - Leisler's Bat
8th of July	22:30:24 - Soprano pipistrelle	04:48:27 - Leisler's Bat
09th of July	22:41:34 - Leisler's Bat	03:55:34 - Leisler's Bat
10th of July	22:06:03 - Leisler's Bat	02:28:21 - Soprano pipistrelle
11th of July	22:10:34 - Leisler's Bat	05:33:48 - Leisler's Bat
12th of July	22:12:47 - Leisler's Bat	04:52:46 - Leisler's Bat
13th of July	22:24:01 - Leisler's Bat	02:00:04 - Leisler's Bat
14th of July	22:01:54 - Leisler's Bat	05:03:11 - Leisler's Bat
15th of July	22:22:09 - Leisler's Bat	04:36:58 - Leisler's Bat
16th of July	22:33:45 - Leisler's Bat	04:48:35 - Leisler's Bat
17th of July	22:14:53 - Leisler's Bat	04:49:33 - Leisler's Bat
18th of July	22:25:02 - Leisler's Bat	04:52:12 - Leisler's Bat
19th of July	21:52:34 - Leisler's Bat	04:56:51 - Leisler's Bat
20th of July	21:32:35 - Leisler's Bat	23:28:27 - Leisler's Bat
21st of July	22:24:19 - Leisler's Bat	23:46:53 - Leisler's Bat
22nd of July	22:18:36 - Leisler's Bat	04:47:34 - Leisler's Bat
23rd of July	22:09:54 - Leisler's Bat	05:08:17 - Leisler's Bat
24th of July	23:00:27 - Leisler's Bat	05:04:29 - Leisler's Bat
25th of July	05:02:34 - Leisler's Bat	05:06:44 - Leisler's Bat

Table 5.1.5 Sunset and Sunrise times for the 30 nights static was deployed.

Dates	Sunset	Sunrise
25th of June	22:07	05:09
26th of June	22:07	05:10
27th of June	22:07	05:10
28th of June	22:07	05:11
29th of June	22:07	05:12
30th of June	22:06	05:12
1st of July	22:06	05:13
2nd of July	22:06	05:14
3rd of July	22:05	05:15
4th of July	22:05	05:15
5th of July	22:04	05:16
6th of July	22:03	05:17
7th of July	22:03	05:18
8th of July	22:02	05:19
09th of July	22:01	05:20
10th of July	22:00	05:22
11th of July	21:59	05:23
12th of July	21:58	05:24
13th of July	21:57	05:25
14th of July	21:56	05:26
15th of July	21:55	05:28
16th of July	21:54	05:29
17th of July	21:53	05:30
18th of July	21:51	05:32
19th of July	21:50	05:33
20th of July	21:49	05:34
21st of July	21:48	05:36
22nd of July	21:46	05:37
23rd of July	21:45	05:39
24th of July	21:43	05:40
25th of July	21:42	05:42

Table 5.1.6 Local night weather conditions in Galway during the static detector deployment

Dates	Rain (mm)	Temperature (°C) (Max-Min)	Wind (knots)
25 th of June	0.4	22.2 - 10.4	6.8
26 th of June	0.3	20.0 - 6.3	7.9
27 th of June	6.2	14.1 - 11.4	12.7
28 th of June	1.8	15.7 - 11.1	6.6
29 th of June	9.0	17.5 - 9.1	7.1
30 th of June	2.7	18.2 - 10.6	5.9
1 st of July	0.3	18.1 - 7.8	7.1
2 nd of July	0.2	16.9 - 6.3	5.3
3 rd of July	1.4	16.9 - 9.7	9.5
4 th of July	2.2	15.9 - 10.1	8.5
5 th of July	0.6	15.2 - 7.5	6.0
6 th of July	1.9	18.0 - 7.0	6.3
7 th of July	4.9	17.0 - 8.3	2.5
8 th of July	tr	20.3 - 7.3	5.2
09 th of July	0.2	16.8 - 12.0	7.9
10 th of July	tr	20.1 - 10.8	11.1
11 th of July	tr	17.9 - 11.6	9.0
12 th of July	tr	18.4 - 10.7	6.9
13 th of July	0.3	22.2 - 11.7	5.5
14 th of July	8.4	21.7 - 9.8	2.9
15 th of July	tr	20.1 - 9.7	4.0
16 th of July	0.0	18.7 - 12.8	6.5
17 th of July	1.5	19.0 - 11.5	6.1
18 th of July	2.6	21.7 - 11.8	4.9
19 th of July	8.0	20.3 - 10.7	5.8
20 th of July	7.6	18.4 - 11.0	8.0
21 st of July	9.5	16.9 - 12.5	5.7
22 nd of July	4.4	17.5 - 11.4	4.6
23 rd of July	tr	19.8 - 11.0	3.6
24 th of July	3.2	18.5 - 13.7	6.1
25 th of July	2.8	18.1 - 12.0	7.2

5.2 OTHER MAMMALS

A search of the National Biodiversity Data Centre website revealed only one mammal recorded within 1km² of the site.

West European Hedgehog (*Erinaceus europaeus*) – No visual signs of hedgehogs were identified on site including hedgehog tracks and hedgehog droppings. The site is not an ideal habitat for hedgehogs given the urban location and busy road to the east and north. Therefore, no impacts/effects are predicted.

5.3 BIRDS

A summer bird survey was carried out on the 09th of August 2024 by Consultant Ecologist, Edel Hardiman. The survey lasted two hours, under favorable weather conditions. **Table 5.3** shows the bird species found on site during the survey. The most frequent and abundant bird species identified on site included Swallow (*Hirundo rustica*), Rook (*Corvus frugilegus*) and Ravens (*Corvus corax*).

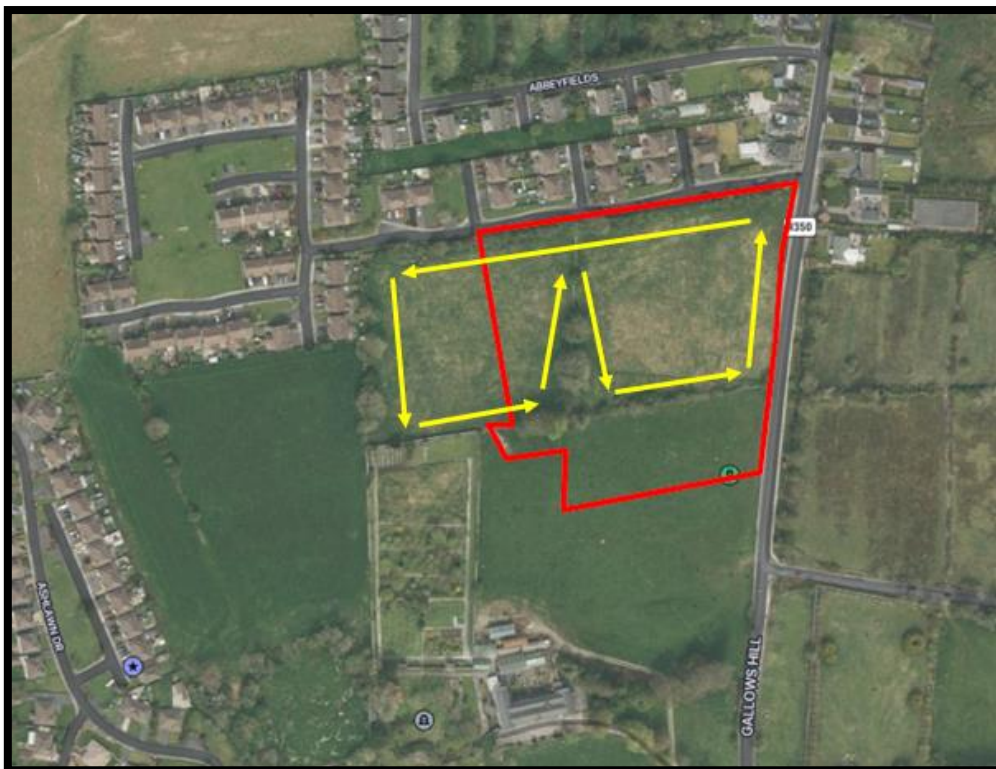


Plate 5.3 Map of route walked (yellow arrows) along the site (red line boundary)

Table 5.3 Bird Survey Results

Number	Time	Species	Direction	Number recorded	Activity
1	13:58	Woodpigeon (<i>Columba palumbus</i>)	North	1	In Flight
2	14:02	Magpies (<i>Pica pica</i>)	North to South	1	In Flight
3	14:03	Swallow (<i>Hirundo rustica</i>)	South to North	1	In Flight
4	14:05	Ravens (<i>Corvus corax</i>)	Northeast to Southeast	1	In Flight
5	14:06	Swallow (<i>Hirundo rustica</i>)	Centre to South	1	In Flight
6	14:08	Swallow (<i>Hirundo rustica</i>)	Northeast to Northwest	1	In Flight
7	14:10	Swallow (<i>Hirundo rustica</i>)	Northwest to West	5	In Flight
8	14:11	Rook (<i>Corvus frugilegus</i>)	South to North	1	In Flight
9	14:11	Swallow (<i>Hirundo rustica</i>)	South to North	2	In Flight
10	14:13	Common Gull (<i>Larus canus</i>)	West	6	In Flight
11	14:13	Rook (<i>Corvus frugilegus</i>)	West to North	1	In Flight
12	14:15	Woodpigeon (<i>Columba palumbus</i>)	South to West	1	In Flight
13	14:17	Swallow (<i>Hirundo rustica</i>)	South to North	2	In Flight
14	14:17	Swallow (<i>Hirundo rustica</i>)	West	1	In Flight
15	14:20	Swallow (<i>Hirundo rustica</i>)	Southeast to Northeast	3	In Flight
16	14:23	Jackdaw (<i>Corvus monedula</i>)	West to South	1	In Flight
17	14:23	Swallow (<i>Hirundo rustica</i>)	South to North	2	In Flight
18	14:25	Common Gull (<i>Larus canus</i>)	North to Northwest	1	In Flight

19	14:25	Rook (<i>Corvus frugilegus</i>)	Southwest to Northwest	7	In Flight
20	14:30	Rook (<i>Corvus frugilegus</i>)	South to North	1	In Flight
21	14:32	Goldcrest (<i>Regulus regulus</i>)	North to Centre	2	In Flight to Perch
22	14:33	Swallow (<i>Hirundo rustica</i>)	South to North	1	In Flight
23	14:34	Swallow (<i>Hirundo rustica</i>)	Southeast to East	3	In Flight
24	14:34	Swallow (<i>Hirundo rustica</i>)	South to North	1	In Flight
25	14:35	Swallow (<i>Hirundo rustica</i>)	East to South	2	In Flight
26	14:40	Spotted Flycatcher (<i>Muscicapa striata</i>)	South	2	Perched
27	14:40	Swallow (<i>Hirundo rustica</i>)	South	5	In Flight
28	14:42	Swallow (<i>Hirundo rustica</i>)	South to North	1	In Flight
29	14:44	Swallow (<i>Hirundo rustica</i>)	South to Southwest	2	In Flight
30	14:47	Swallow (<i>Hirundo rustica</i>)	East to North	1	In Flight
31	14:48	Swallow (<i>Hirundo rustica</i>)	North to South	1	In Flight
32	14:48	Swallow (<i>Hirundo rustica</i>)	North to East	2	In Flight
33	14:51	Ravens (<i>Corvus corax</i>)	North to South	1	In Flight
34	14:51	Rook (<i>Corvus frugilegus</i>)	North to South	1	In Flight
35	14:52	Jackdaw (<i>Corvus monedula</i>)	Northeast to Northwest	4	In Flight
36	14:54	Common Gull (<i>Larus canus</i>)	East to Northeast	2	In Flight
37	14:54	Hooded Crow (<i>Corvus cornix</i>)	Northeast to northwest	1	In Flight
38	14:55	Rook (<i>Corvus frugilegus</i>)	West to South	1	In Flight
39	14:55	Swallow (<i>Hirundo rustica</i>)	North to South	1	In Flight
40	14:56	Swallow (<i>Hirundo rustica</i>)	South to Northwest	1	In Flight
41	14:56	Swallow (<i>Hirundo rustica</i>)	Southeast to South	1	In Flight
42	14:58	Woodpigeon (<i>Columba palumbus</i>)	North to South	1	In Flight
43	14:59	Magpies (<i>Pica pica</i>)	Southwest to Southeast	1	In Flight
44	15:00	Swallow (<i>Hirundo rustica</i>)	South to West	1	In Flight
45	15:01	Swallow (<i>Hirundo rustica</i>)	North to South	4	In Flight
46	15:03	Swallow (<i>Hirundo rustica</i>)	Northeast to Southeast	1	In Flight
47	15:07	Woodpigeon (<i>Columba palumbus</i>)	Northwest to Southwest	1	In Flight
48	15:11	Swallow (<i>Hirundo rustica</i>)	Southwest to Southeast	2	In Flight
49	15:13	Swallow (<i>Hirundo rustica</i>)	South to North	2	In Flight
50	15:16	Swallow (<i>Hirundo rustica</i>)	Southeast to Southwest	1	In Flight
51	15:16	Ravens (<i>Corvus corax</i>)	West to East	1	In Flight
52	15:18	Swallow (<i>Hirundo rustica</i>)	Northwest to Southwest	1	In Flight
53	15:20	Woodpigeon (<i>Columba palumbus</i>)	South to North	2	In Flight
54	15:20	Jackdaw (<i>Corvus monedula</i>)	South to North	1	In Flight
55	15:22	Ravens (<i>Corvus corax</i>)	Northeast to Northwest	1	In Flight
56	15:26	Swallow (<i>Hirundo rustica</i>)	Northwest to Northeast	1	In Flight

57	15.26	Swallow (<i>Hirundo rustica</i>)	South to North	2	In Flight
58	15.28	Swallow (<i>Hirundo rustica</i>)	East to West	1	In Flight
59	15.29	Swallow (<i>Hirundo rustica</i>)	North to East	2	In Flight
60	15.31	Ravens (<i>Corvus corax</i>)	East to Northeast	1	In Flight
61	15.35	Woodpigeon (<i>Columba palumbus</i>)	East to West	1	In Flight
62	15.35	Swallow (<i>Hirundo rustica</i>)	South to North	1	In Flight
63	15.38	Ravens (<i>Corvus corax</i>)	North to South	1	In Flight
64	15.38	Woodpigeon (<i>Columba palumbus</i>)	East to West	1	In Flight
65	15.39	Woodpigeon (<i>Columba palumbus</i>)	East to West	2	In Flight
66	15.39	Swallow (<i>Hirundo rustica</i>)	Northwest to South	1	In Flight
67	15.40	Swallow (<i>Hirundo rustica</i>)	Southwest to Northeast	1	In Flight
68	15.42	Swallow (<i>Hirundo rustica</i>)	South to North	1	In Flight
69	15.43	Ravens (<i>Corvus corax</i>)	Southeast to North	1	In Flight
70	15.46	Common Gull (<i>Larus canus</i>)	North to West	1	In Flight
71	15.48	Jackdaw (<i>Corvus monedula</i>)	North to South	7	In Flight
72	15.51	Woodpigeon (<i>Columba palumbus</i>)	South to West	1	In Flight
73	15.52	Spotted Flycatcher (<i>Muscicapa striata</i>)	North to Northeast	3	In Flight

5.3.1 Barn Owl

A desktop research of this application site was conducted on the National Biodiversity Data Centre. Reports show that there have been one sighting of a Barn Owl within 1km to the north of the application site. However this sighting was on the 29th of April 2018. Based off of the wildlife surveys of the site, it is deemed unfavourable to Barn Owl, due to the site location within Loughrea town and the several housing estates nearby. This level of human activity, noise and lighting would deter Barn Owls from nesting on site.

5.3.2 Other Bird Species

A desktop research of this application site was conducted on the National Biodiversity Data Centre. Reports show that there have been one sighting of a Northern Wheatear (*Oenanthe oenanthe*) and one sighting of a Common Buzzard (*Buteo buteo*) within 1km of the application site. There was one site sighting of a Whimbrel (*Numenius phaeopus*) within 1km of the application site in 2018 to the west of the application site. Given the significant time, the large number of residential dwellings intervening this sighting and the lack of sightings during the recent bird surveys, no impacts are predicted for this species.

5.3.3 Conclusions

However, on a precautionary approach and to ensure the proposed development promotes biodiversity and wildlife, all removal of vegetation on site will be carried out in accordance with the Wildlife Act, in order to protect nesting bird species. Other measures to protect any wildlife on site will be implemented and are set out in section 8 below.

The distance between the proposed development area and the Lough Rea SPA is significant enough that no impacts are predicted. The intervening distance between the application site and the SPA is a built-up environment, there is no intervisibility between the application site and the SPA.

Given the existing environment present the proposed development is not expected to cause a significant impact in this regard.

Having regard to the above given that;

- The subject site is a habitat that would be unsuitable for wetland and waterbirds. Due to the lack of vegetation and water features.
- The subject site is bounded by multiple residential development to the north with Loughrea town further to the south, where anthropogenic activity is well established.

It is considered that the proposed development is not expected to have a significant effect on any of the Bird species associated with the Lough Rea SPA.

6 DESCRIPTION OF BASELINE ENVIRONMENT

6.1 CHARACTERISTICS OF THE STUDY AREA

The application site is located in the townland of Cosmona, to the north of the town centre of Loughrea. The Hazelwood estate Road borders the north of the site (L-81993 County Road). Access is proposed from the L-4228 county road which runs along the eastern boundary of the site. A creche/montessori is located across the road to the northeast. There are residential dwellings to the north and further to the northwest of the site. Agricultural fields border the south and southwest of the application site.

The site itself consists of improved agricultural grassland (GA1) with hedgerows (WL1) and periodic treelines (WL2) enclosing the site. As the site is used for agricultural purposes, mainly grazing animals, this is not an ecologically diverse site. Vegetation noted during the site visit include Hawthorn (*Crataegus monogyna*), Brambles (*Rubus fruticosus*), Common nettle (*Urtica dioica*), Thistles (*Cirsium spp*), Herb Robert (*Geranium robertianum*), Red Bartsia (*Odontites vernus*) and Dock leaves (*Rumex Obtusifolius*). Stone walls (BL1) border the site.

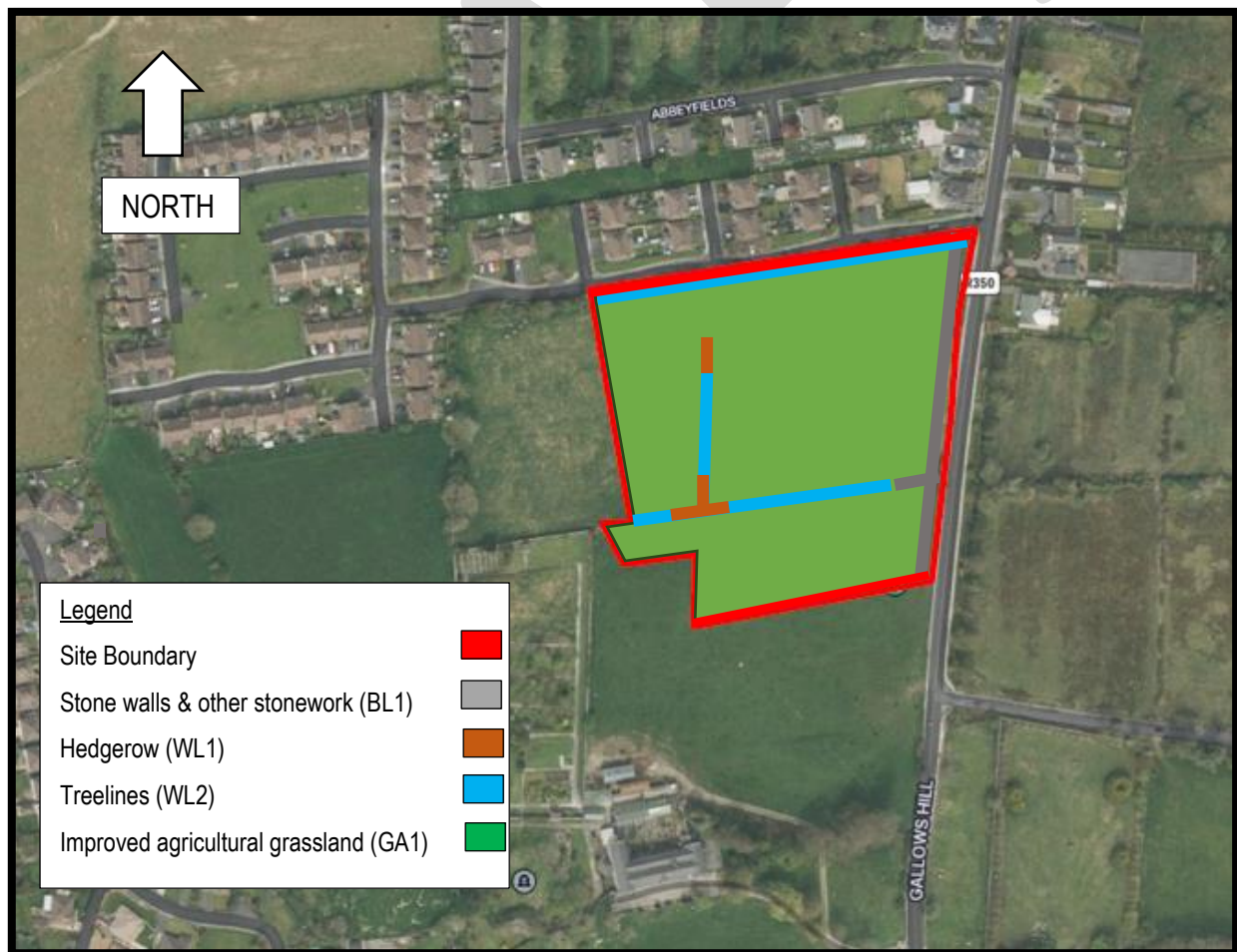


Figure 6.1 Habitat map of the indicative site layout



Plate 6.1 Image showing north of the site



Plate 6.2 Images showing central tree line



Plate 6.3 Image showing western boundary



Plate 6.4 Image showing southern boundary



Plate 6.5 Image looking to the west of the site



Plate 6.6 Image looking east at entrance gate onto the local road

7 PLANNING SEARCH

A search was carried out on Galway County Council's online planning query system on the 09/10/2024. It was ascertained that the following local planning applications have been granted within a 300m radius of the site in the past 5 years.

- **PI ref: 22748** - for (1) demolition of existing derelict house (2) construction of a residential development consisting of an overall 13 no. units comprising of (a) 1 no. 4 bed detached house, (b) 4 no. 3 bed semi-detached houses & (c) 8 no. 2 bed houses in 2 blocks of 4 and all associated site works and connection to services and (3) new vehicular site access onto local road. Gross floor space of proposed works: 1292.8 sqm
- **PI ref: 191952** - sought for 1) demolition of old house and shed & 2) Construction of three 2-bedroom terrace houses in addition to previously approved housing development granted under 18/227 along with all ancillary site works. Gross floor space of proposed works: 287.6 sqm. Gross floor space of any demolition; 186.9 sqm
- **PI ref: 20622** - completion of minor alterations to dwelling houses under construction on revised site boundaries and all ancillary site works, previous Planning Ref No. 18/227. Gross floor space of work to be retained: 1184.9 sqm
- **PI ref: 20254** - for change of house plans and relocation of internal site boundary in relation to dwelling houses granted permission under planning reference number 16/485 all associated services. Gross floor space of proposed works 170sqm x 2 = 340sqm
- **PI ref: 211616** - to demolish existing house, construction of 2 two-storey dwellings with one additional entrance and associated services (gross floor space demolition 215sqm; proposed 281sqm)
- **PI ref: 2360688** - (1) of the insertion of an automatic opening vent (AOV) over an internal stairs, (2) full permission to install a new external stairway to the rear of building & all ancillary works
- **PI ref: 2260376** - for the revisions to front elevation of existing 2 storey mid terrace dwelling, removal of chimney, extension to rear, internal alterations and all associated site development works. Gross floor area of extension: 42sqm

8 ECOLOGICAL IMPACT ASSESSMENT

8.1 DO NOTHING IMPACT

If the proposed development did not go ahead, it is likely that the site would continue to be subject to overgrown vegetation.

8.2 IMPACTS DURING CONSTRUCTION

8.2.1 Impacts to Fauna

General Fauna

Permanent Slight Negative Impact

The proposed development works will be temporary in duration and will be confined to the application site.

Bird activity recorded several species in the surrounding area, however from the 2024 results, it is clear that not many birds utilize the trees on the site, as very few were seen perching on the branches, with the majority flying over the site. No swifts were observed on site during the 2024 survey, swallows being the most popular bird seen on site. Despite the lack of bird sightings flying to perch on this site, incorporating bird boxes on this site would be ecologically beneficial.

Overall bat activity on the site was low. Leisler bat activity was significantly higher on site compared to other bat species, as shown in the 2024 static results. The proposed development should retain as many trees on site as possible. There were also several Soprano pipistrelles recorded during the transect survey. Incorporating bat boxes specifically designed for Leisler's and Soprano pipistrelles on site should mitigate any loss of habitat.

Best Practice Incorporated into the project design

- Confine disturbance of vegetation to a minimum and where possible stay out of area where no work is to take place.
- Care should be taken during the removal of vegetation for animals which may be using, hibernation, nesting or feeding in. If wildlife is encountered such as hedgehogs, badgers and/or foxes the area of work should be changed until animal moves away or is relocated.
- Vegetation should be removed in accordance with the Wildlife act and at the appropriate times outside of the bird nesting season. Hedge cutting should not take place between the 1st of March and the 31st of August, in order to ensure minimal disturbance to wildlife active during this time.
- The All-Ireland Pollinator plan will be considered for the proposed project.
- As a large number of swallows were sighted during the bird survey installing bird boxes specifically designed for swallows is recommended. An example of this is the Swift & Swallow 300 Nesting Box with Adaptable Entrance & SIG® Slate Roof. These should be placed in the proper location with best practice measure for example, the

trees at the north and southwest of the site which are proposed to be retained. An example of this bird box can be seen in **Figure 8.2.1**.

- As Leisler bats were most frequent on this site, bat boxes that tailor to this species in particular are recommended for this site. An example of this is the Cavity chambered Rocket Bat Box, which is suitable for Leisler's bats, Daubenton's bats and Brown Long-eared bats. This can be seen in **Figure 8.2.2**. As several Soprano pipistrelles were recorded during the transect survey incorporation bat boxes suitable for these species is also recommended. A suitable example is an Eco Kent Bat Box, which can be seen in **Figure 8.2.3**. These bat boxes should be placed in dark areas near suitable vegetation, for example within the trees in the north and southeast of the site.



Figure 8.2.1 A Swift & Swallow 300 Nesting Box with Adaptable Entrance & SIG® Slate Roof



Figure 8.2.2 A Cavity chambered Rocket Bat Box



Figure 8.2.3 An Eco Kent Bat Box

Residual Impact

No residual significant impacts on fauna are expected. Landscaping will provide a designated area on the site for fauna following the removal of vegetation.

8.2.2 Loss of Floral Habitat

The degree of impact on floral habitat, in absence of best practice, is assessed as:

Permanent Slight Negative Impact

The application site for the proposed development is ecologically species poor as it was mainly used for agricultural reasons and grazing animals. The proposed landscaping for the development incorporates existing trees on site, specifically in the north and southwest. Additional landscaping measures are included, thus there won't be a significant loss to flora on site.

No long-term significant impacts/effects are predicted.

Best Practice incorporated into the project design

- All planting and landscaping will be carried out in line with the All-Ireland Pollinator Plan.
- Vegetation should be removed in accordance with the Wildlife act and at the appropriate times outside of the bird nesting season. Hedge cutting should not take place between the 1st of March and the 31st of August, in order to ensure minimal disturbance to wildlife active during this time.

Residual Impact

The proposed development will impact vegetation and the floral habitat within the proposed development site. However, due to the proposed landscaping measures for the site, no significant residual impacts are predicted.

8.2.3 Pollution of the Wider Area

Temporary Moderate Negative Impact

The construction phase of the proposed development will involve earth moving and levelling which create the potential for pollution in various forms to run off the site and enter the surrounding environment. Chemicals used in construction including hydrocarbons and cement-based products could potentially be washed off the site. Good construction practices will be in place to prevent any risk of pollution running off the site. Lighting during the construction phase should be minimal where possible.

The degree of impact, in the absence of best practice, is assessed as **Temporary Moderate Negative Impact**.

Best Practice incorporated into the project design

- All machinery maintenance and re-fuelling shall be carried out off-site. Spill kits for contaminants such as fuels oils and lubricants must be used.
- All petroleum products are to be bunded during the construction stage of the development.
- The works shall be planned and executed in accordance with Environmental Protection Agency Guidelines.
- Wash water from on-site mixers or lorries shall be disposed of appropriately off site.
- To prevent run-off from stripped ground, banks are to be placed on the downstream side of stockpiles.
- Water from excavations shall be pumped to land and allowed to settle.
- Washing out of concrete trucks should not be permitted within the site and should be conducted in hard standing areas.
- Works with concrete shall be done during dry conditions for a period sufficient to cure the concrete (at least 48 hours).
- Concrete pours shall occur in contained areas.
- Portable toilets and sanitary facilities will be provided for site use.
- Plant will be re-fuelled away from watercourses.
- All site operatives will have immediate access to spill kits when machinery is being used.
- No lighting should remain on after construction works on site have finished each day.

Residual Impact

With best practice incorporated into the design and the above mitigation in place, the potential for significant run off of pollutants from the site is greatly reduced. No significant residual impacts are anticipated.

8.2.4 Spread of Invasive Species

Long Term Slight Negative Impact

The proposed development will involve the movement of soil on the site and will create disturbed ground. In the absence of suitable control measures this impact is classed as **Long Term Slight Negative Impact**.

General Good Construction Management

If any construction machines or construction materials are being brought onsite ensure that the source is free of invasive species such as Japanese Knotweed, Gunnera and Rhododendron.

Residual Impacts

With control measures in place, there is deemed to be 'No Impact' in terms of the potential for the introduction and establishment of invasive alien species.

DRAFT

9 IMPACTS DURING OPERATION

9.1 INCREASED HUMAN ACTIVITY

The proposed development includes an application seeking permission for “a new residential development of 56 units comprising 01 No. 5 Bed house, 02 No. 4 Bed houses, 25 No. 3 Bed houses, 22 No. 2 Bed houses, and 06 No. 1 Bed Apartments, Site development works, landscaping and parking as well as an IW pumping station, all at lands in Cosmona Townland, Loughrea, Co Galway.”

It is anticipated that there will be an increase in human activity at the site.

9.2 DISTURBANCE TO FAUNA

The site of the proposed development is of low ecological significance.

- Care should be taken during the removal of vegetation for animals which may be using, hibernation, nesting or feeding in. If wildlife is encountered such as hedgehogs, badgers and/or foxes the area of work should be changed until the animal moves away or is relocated.
- Vegetation should be removed in accordance with the Wildlife act and at the appropriate times outside of the bird nesting season. Hedge cutting should not take place between the 1st of March and the 31st of August, in order to ensure minimal disturbance to wildlife active during this time.
- The All-Ireland Pollinator plan will be considered for the proposed project.
- As a large number of swallows were sighted during the bird survey installing bird boxes specifically designed for swallows is recommended. An example of this is the Swift & Swallow 300 Nesting Box with Adaptable Entrance & SIG® Slate Roof. These should be placed in the proper location with best practice measure
- As Lesser bats were most frequent during the static survey, bat boxes that are tailored to this species are recommended. A Cavity chambered Rocket Bat Box is a suitable option for this species.
- As soprano pipistrelles were most frequent on this site during the transect survey, bat boxes that tailor to this species in particular are recommended for this site. It is recommended that an Eco Kent Bat Box should be used as they are more suitable for the crevice roosting bats that frequent the area.
- Incorporating an insect hotel would benefit the birds in the area and increase the biodiversity of the site.
- These ecological measures are shown in Figure 9.3 below.
- Outdoor lighting on the site should be using motion sensors and below tree level, to ensure minimal disturbance for fauna and nocturnal animals.

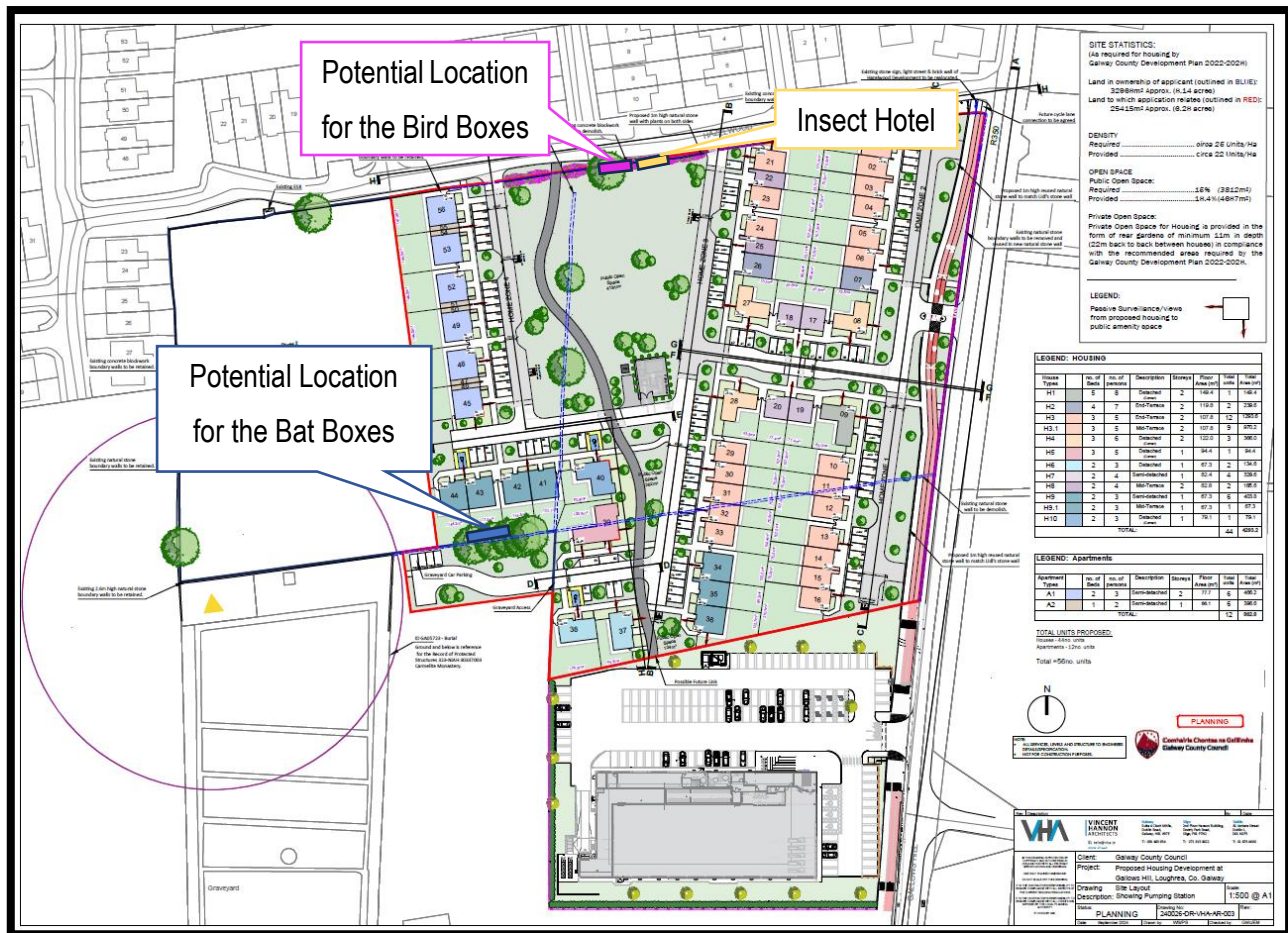


Figure 9.3: Landscape measures proposed

9.3 POLLUTION OF THE ENVIRONMENT – NO IMPACT

Surface water runoff from roads and footpaths throughout the site will be collected by a combination of channel drains, swales and gullies to a piped system. The drainage is proposed to discharge to the existing $\varnothing 300\text{mm}$ concrete pipe located along the public road to the east. The proposed surface water network will incorporate porous asphalt in parking bays, a series of swales and cellular infiltration tanks. To maximise the storage capacity of the network on site a combination of orifice plates and hydro-brake flow controls will be used. Prior to discharging to existing infrastructure, a Class 1 Bypass Separator will capture any oil / petrol contaminating the run-off. This will be located to the east of the site. A proposed infiltration tank will be located at the southeast of the site while an attenuation tank will be placed in the center of the site. No impacts are predicted regarding surface water and stormwater runoff due to these proposed systems.

10 IMPACTS ON NATIONALLY DESIGNATED SITES

Any potential impacts on European sites are discussed in the Appropriate Assessment Screening Report which accompanies this application. The site for the proposed development lies 689.6 meters from the Lough Rea SAC and the Lough Rea SPA.

There were no Lesser Horseshoe Bat passes recorded on the static detector deployed on the application site during the 2024 surveys. As the application site is located approximately 18.1 kilometers from the closest foraging range, indirect impacts/effects on local Lesser Horseshoe Bat populations can likely be ruled out.

There are no potential impacts potential for disturbance to the Lough Rea SAC and the Lough Rea SPA. The significant distance, the intervening built up environment and the lack of ecological/hydrological connectors and receptors pathways between the application site and this SAC/SPA, conclude that no impacts are predicted.

11 CONCLUSION

The development will involve the development of 56 residential units within Loughrea town at Cosmona. This is a large-scale development thus several ecological surveys have been carried out with the results outlined above.

No long-term impacts are predicted with regards to flora and fauna in the vicinity.

The 2024 transect survey resulted in low levels of bat activity, and this survey was conducted during active bat season under optimal weather conditions. Bat activity was low during the 2024 static survey. The 2024 static was deployed for a significant number of weeks concluding that bat activity on the site is currently low.

The site does not lie within a Lesser Horseshoe Bat Foraging Range. The closest Lesser Horseshoe Bat Foraging Range identified to the development site is approximately 18.1 kilometres southwest of the application site within the Coole-Garryland Complex SAC. Given that no calls were recorded during the surveys and the significant intervening distance, no impacts/ effects are predicted for Lesser Horseshoe Bat species.

The 2024 summer bird survey found a moderate level of birds within the vicinity of the area. No swifts were observed on site during the 2024 survey, swallows being the most popular bird seen on site. The distance and urbanisation between the proposed development area and the Lough Rea SPA is significant enough that no impacts are predicted. The subject site is a habitat that would be unsuitable for wetland and waterbirds due to the lack of vegetation and water features. Therefore, it is considered that the proposed development is not expected to have a significant effect on any of the Bird species associated with the Lough Rea SPA.

Provided that the proposed development is constructed and operated in accordance with the design, best practice and mitigation that is described within this application, significant effects on ecology are not anticipated.

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