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APPROPRIATE ASSESSMENT SCREENING REPORT

FOR
PROPOSED DEVELOPMENT

AT
BALLYMACAULA, CIRCULAR ROAD,
ENNIS, CO. CLARE

ON BEHALF OF
Glenveagh Homes Ltd.

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TABLE OF CONTENTS

LIST OF TABLES	ii
LIST OF FIGURES.....	ii
1 INTRODUCTION	1
1.1 BACKGROUND	1
1.2 LEGISLATIVE BACKGROUND	1
1.2.1 <i>Legislative Context</i>	1
1.2.2 <i>Stages of AA</i>	2
2 METHODOLOGY	3
2.2 SCREENING STEPS	3
2.3 DESK STUDY.....	4
2.4 FIELD SURVEYS	5
2.5 ASSESSMENT OF SIGNIFICANT EFFECTS	5
3 STAGE 1 SCREENING	5
3.1 MANAGEMENT OF EUROPEAN SITES	5
3.2 DESCRIPTION OF PROPOSED DEVELOPMENT	5
3.2.1 <i>Site location</i>	5
3.2.2 <i>Description of Development</i>	6
3.3 EXISTING ENVIRONMENT	9
3.3.1 <i>Geology, Hydrology and Hydrogeology</i>	9
3.3.2 <i>Habitats</i>	9
3.3.3 <i>Fauna</i>	10
3.4 IDENTIFICATION OF RELEVANT EUROPEAN SITES.....	15
3.5 ASSESSMENT OF LIKELY SIGNIFICANT EFFECTS	24
3.5.1 <i>Conservation objectives</i>	24
3.5.2 <i>Identification and Assessment of Likely Significant Effects</i>	25
4 APPROPRIATE ASSESSMENT SCREENING CONCLUSION	32
5 REFERENCES	34

LIST OF TABLES

Table 1. Birds Recorded On The Site – 11 th Of June 2021	12
Table 2. Birds recorded on Site on the 19 th of May 2022	11
Table 3. European sites within the 15km precautionary zone of influence of the Proposed Development and potential pathways between them. Those European sites for which a S-P-R link was identified are highlighted in green.	17
Table 4. Summary of impact assessment on European sites as a result of the Proposed Development.	31

LIST OF FIGURES

Figure 1. The four stages of the Appropriate Assessment Process (DEHLG, 2010).	2
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Figure 2. Site location 7
Figure 3. Proposed Site Layout (DG Architects)..... 8
Figure 4. Bedrock Aquifer underlying and surrounding the Site of the Proposed Development. 14
Figure 5. European sites within 15km of the Proposed Development Site..... 23

1 INTRODUCTION

1.1 Background

Enviroguide Consulting was commissioned by Glenveagh Homes Ltd to undertake a screening for Appropriate Assessment (AA) in relation to the Proposed Strategic Housing Development at the Site at Ballymacaula, Circular Road, Ennis, Co. Clare. This report contains information to enable the competent authority to undertake Stage 1 Appropriate Assessment screening in respect of the Proposed Development.

1.2 Legislative Background

The Habitats Directive (92/43/EEC) seeks to conserve natural habitats and wild fauna and flora by the designation of Special Areas of Conservation (SACs) and the Birds Directive (2009/147/EC) seeks to protect birds of special importance by the designation of Special Protection Areas (SPAs). SACs and SPAs are collectively known as Natura 2000 or European Sites. The Birds and Habitats Directives have been transposed into Irish law through the EC (Birds and Natural Habitats) Regulations 2011 (SI 477 of 2011).

It is the responsibility of each member state to designate SPAs and SACs. SACs are selected for the conservation of Annex I habitats (including priority types which are in danger of disappearance) and Annex II species (other than birds). SPAs are selected for the conservation of Annex I birds and other regularly occurring migratory birds and their habitats. The annexed habitats and species for which each site is selected correspond to the qualifying interests of the sites; from these the conservation objectives of the site are derived.

An 'Appropriate Assessment' (AA) is a required assessment to determine the likelihood of significant impacts, based on best scientific knowledge, of any plans or projects on European sites. A screening for AA determines whether a plan or project, either alone or in combination with other plans and projects, is likely to have significant effects on a European Site, in view of its conservation objectives.

This AA Screening has been undertaken to determine the potential for significant effects on relevant European Sites. The purpose of this assessment is to determine, the appropriateness, or otherwise, of the Proposed Development in the context of the conservation objectives of such sites.

1.2.1 Legislative Context

An Appropriate Assessment is required under Article 6 of the Habitats Directive where a project or plan may give rise to significant effects upon a European site. Paragraph 3 states that:

“6(3) Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site, in view of the site's conservation objectives. In the light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained

that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public.”

These obligations in relation to Appropriate Assessment have been implemented in Ireland under Part XAB of the Planning and Development Act 2000, as amended (“the 2000 Act”), and in particular Section 177U and Section 177V thereof. The relevant provisions of Section 177U in relation to AA screening have been set out below:

“177U.— (1) A screening for appropriate assessment of a draft Land use plan or application for consent for proposed development shall be carried out by the competent authority to assess, in view of best scientific knowledge, if that Land use plan or proposed development, individually or in combination with another plan or project is likely to have a significant effect on the European site.

(2)...

(3)...

(4) The competent authority shall determine that an appropriate assessment of a draft Land use plan or a proposed development, as the case may be, is required if it cannot be excluded, on the basis of objective information, that the draft Land use plan or proposed development, individually or in combination with other plans or projects, will have a significant effect on a European site.

(5) The competent authority shall determine that an appropriate assessment of a draft Land use plan or a proposed development, as the case may be, is not required if it can be excluded, on the basis of objective information, that the draft Land use plan or proposed development, individually or in combination with other plans or projects, will have a significant effect on a European site.”

1.2.2 Stages of AA

This Appropriate Assessment Screening Report (the “**Screening Report**”) has been prepared by Enviroguide Consulting. It considers whether the Proposed Development is likely to have a significant effect on a European Site and whether a Stage 2 Appropriate Assessment is required.

The AA process is a four-stage process, with issues and tests at each stage. An important aspect of the process is that the outcome at each successive stage determines whether a further stage in the process is required.

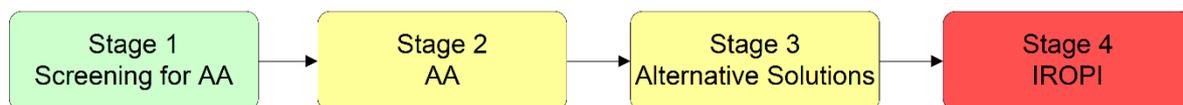


FIGURE 1. THE FOUR STAGES OF THE APPROPRIATE ASSESSMENT PROCESS (DEHLG, 2010).

The four stages of an AA, can be summarised as follows:

- Stage 1 *Screening* addresses:

- whether a plan or project is directly connected to or necessary for the management of the site, or
- whether a plan or project, alone or in combination with other plans and projects, is likely to have significant effects on a European site in view of its conservation objectives.
- **Stage 2: *Natura Impact Statement (NIS)*.** The second stage of the AA process assesses the impact of the project or plan (either alone or in combination with other projects or plans) on the integrity of the European Site, having regard to the conservation objectives of the site and its ecological structure and function. A NIS must provide the objective scientific information to enable the competent authority to carry out an appropriate assessment of the proposed development. It should describe any mitigation measures to avoid and reduce significant negative impacts.
- **Stage 3: *Assessment of alternative solutions*.** If the outcome of Stage 2 is negative i.e., adverse impacts to the sites cannot be scientifically ruled out, despite mitigation, the plan or project should proceed to Stage 3 or be abandoned. This stage examines alternative solutions to the proposal.
- **Stage 4: *Assessment where no alternative solutions exist and where adverse impacts remain*.** The final stage is the main derogation process examining whether there are imperative reasons of overriding public interest (IROPI) for allowing a plan or project to adversely affect a European Site, where no less damaging solution exists.

2 METHODOLOGY

2.1 Guidance

This AA Screening Report has been undertaken in accordance with the following guidance:

- *Appropriate Assessment of Plans and Projects in Ireland - Guidance for Planning Authorities*. (Department of Environment, Heritage and Local Government, 2010 revision),
- *Appropriate Assessment under Article 6 of the Habitats Directive: Guidance for Planning Authorities*. Circular NPW 1/10 & PSSP 2/10,
- *Communication from the Commission on the precautionary principle* (European Commission, 2000),
- *Managing Natura 2000 Sites: The Provisions of Article 6 of the Habitat's Directive 92/43/EEC* (European Commission, 2019),
- *Assessment of plans and projects in relation to Natura 2000 sites – Methodological guidance on Article 6(3) and (4) of the Habitats Directive 92/43/EEC* (European Commission, 2021), and,
- *Appropriate Assessment Screening for Development Management, OPR Practice Note PN01*, (Office of the Planning Regulator March 2021).

2.2 Screening Steps

Screening for AA involves the following steps:

- Establish whether the plan or project is directly connected with or necessary for the management of a European Site.
- Description of the plan or project and the description and characterisation of other projects or plans that in combination have the potential for having significant effects on the European site.
- Identification of European Sites potentially affected.
- Identification and description of potential effects on the European Site.
- Assessment of the likely significance of the effects identified on the European Site; and
- Exclusion of sites where it can be objectively concluded that there will be no significant effects.

2.3 Desk Study

A desktop study was carried out to collate and review available information, datasets and documentation sources relevant for the completion of this Screening Report. The desktop study relied on the following sources:

- Information on the network of European Sites, boundaries, qualifying interests and conservation objectives, obtained from the National Parks and Wildlife Service (NPWS) at www.npws.ie;
- Text summaries of the relevant European Sites taken from the respective Standard Data Forms and Site Synopses available at www.npws.ie;
- Information on species records and distributions, obtained from the National Biodiversity Data Centre (NBDC) at www.maps.biodiversityireland.ie;
- Information on waterbodies, catchment areas and hydrological connections obtained from the Environmental Protection Agency (EPA) at www.gis.epa.ie;
- Information on bedrock, groundwater, aquifers and their statuses, obtained from Geological Survey Ireland (GSI) at www.gsi.ie;
- Satellite imagery and mapping obtained from various sources and dates including Google, Digital Globe, Bing and Ordnance Survey Ireland.
- Information on the existence of permitted developments, or developments awaiting decision, in the vicinity of the Proposed Development available at the National Planning Application Database and Clare County Council.

For a complete list of the specific documents consulted as part of this assessment, see *Section 5 References*.

2.4 Field Surveys

Field surveys were carried out at the Site of the Proposed Development on the 11th of June 2021, the 19th of May 2022, and the 8th of June 2022 by Enviroguide Ecologist Shannen O'Brien. Habitats were categorised according to the Heritage Council's 'A Guide to Habitats in Ireland' (Fossitt, 2000) to level 3. The habitat mapping exercise had regard to the 'Best Practice Guidance for Habitat Survey and Mapping' (Smith et al., 2010) published by the Heritage Council. Habitat categories, characteristic plant species, invasive species and other ecological features were recorded. The Site was searched for tracks, scat and other signs of mammals. The habitat types recorded throughout the survey area were used to assist in identifying the fauna considered likely to utilise the area.

Breeding bird surveys were carried out by Enviroguide Ecologist and Ornithologist Brian McCloskey on the 1st of July and the 12th of July 2022. The Site was walked in transects, with all birds encountered on Site, through visual and/or audio means, recorded during this survey.

Preliminary bat surveys were carried out on the 7th of September 2021 by Ash Ecology & Environmental Ltd (AEE).

Dusk, dawn, and walking transect bat surveys, along with static monitoring, were undertaken by Bat Eco Services from the 1st of August to the 7th of August 2022.

2.5 Assessment of Significant Effects

The potential for significant effects that may arise from the Proposed Development were considered through the use of key indicators, namely:

- Habitat loss or alteration
- Habitat/species fragmentation
- Disturbance and/or displacement of species
- Changes in population density
- Changes in water quality and resource

In addition, information pertaining to the conservation objectives of the European Sites, the ecology of the designated habitats and species and known or perceived sensitivities of the habitats and species were considered.

3 STAGE 1 SCREENING

3.1 Management of European Sites

The Proposed Development is not directly connected with or necessary to the management of European Sites.

3.2 Description of Proposed Development

3.2.1 Site location

The Site is comprised of 9 discrete areas of agricultural land separated by hedgerows and treelines, measuring 11.32ha (gross), and located 1.3km southwest of Ennis. The Site is

bounded to the west by the N85, to the south by a live construction site, with a portion of the eastern boundary abutted by residential dwellings, and the remaining eastern and north boundaries are bordered by Ennis Golf Club. The lands to the west and south are predominantly agricultural in nature, while the lands to the north and east are urbanised.

3.2.2 Description of Development

The Proposed Development will consist of the following components:

1. The construction of 289 no. residential units comprising a mixture of 12 no. 1 bed apartments, 78 no. 2 bed townhouse/duplex units, 165 no. 3 bed dwelling houses, and 34 no. dwelling houses which will have an option of a 3 or 4 bedroom house-type;
2. A 400.7m² creche/childcare facility;
3. The provision of landscaping, open space and amenity areas, including play/exercise equipment, a linear amenity walkway, informal play areas and local play areas;
4. The provision 2 no. pedestrian connections to the existing public footpath along the N85, 2 no. pedestrian connections into Ballymacaula View Estate, improvements/upgrades to the pedestrian footpaths along Circular Road including an uncontrolled pedestrian crossing and pedestrian footpath provision along part of the Drumbiggle and Cahercalla Roads;
5. All associated infrastructure and services including 1 no. vehicular access point onto Circular Road, car parking and bin storage, lighting, 2 no. ESB substations, drainage and 1 pumping station, boundary treatments at Ballymacaula, Drumbiggle, Circular Road, Ennis, Co. Clare.

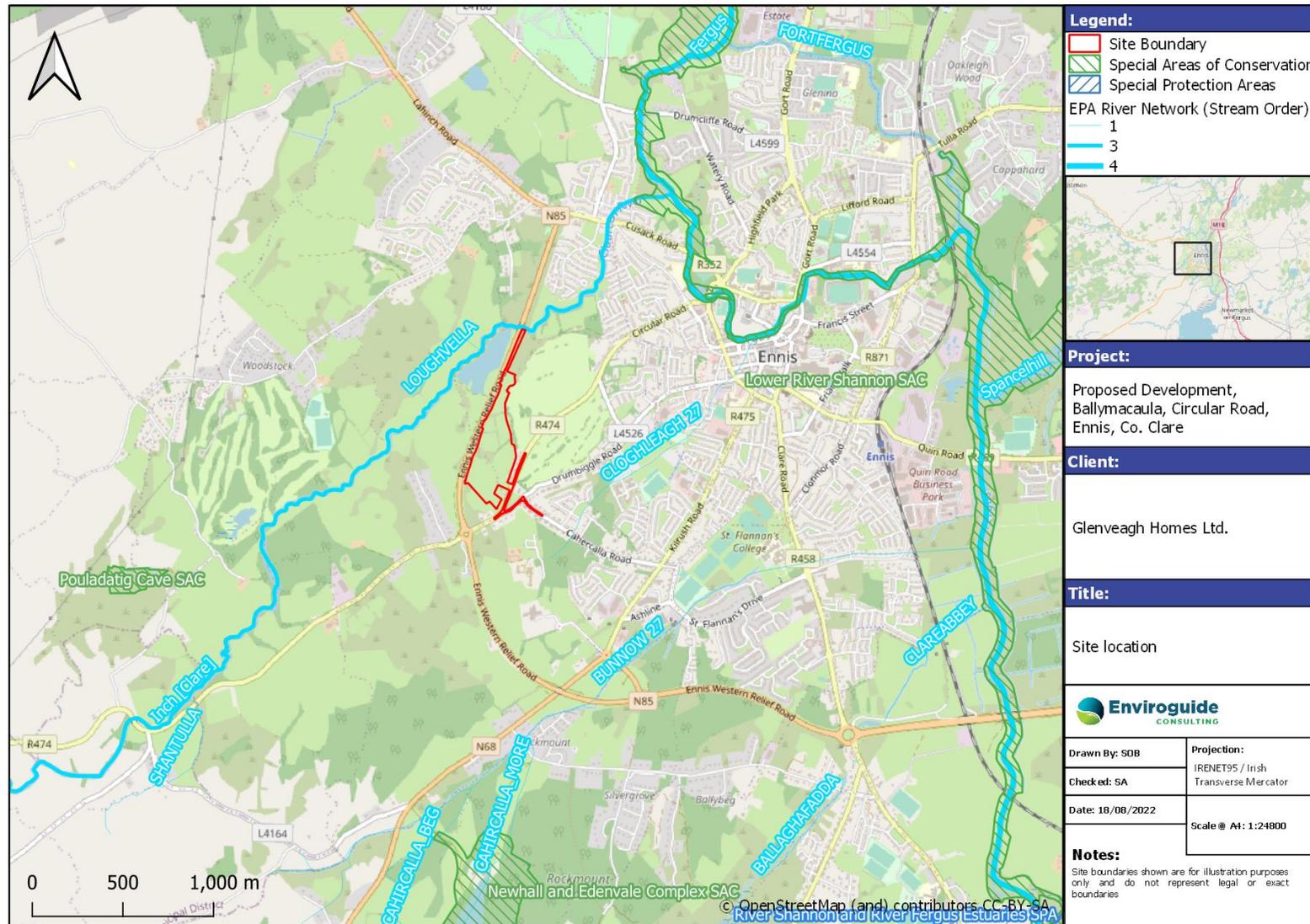


FIGURE 2. SITE LOCATION

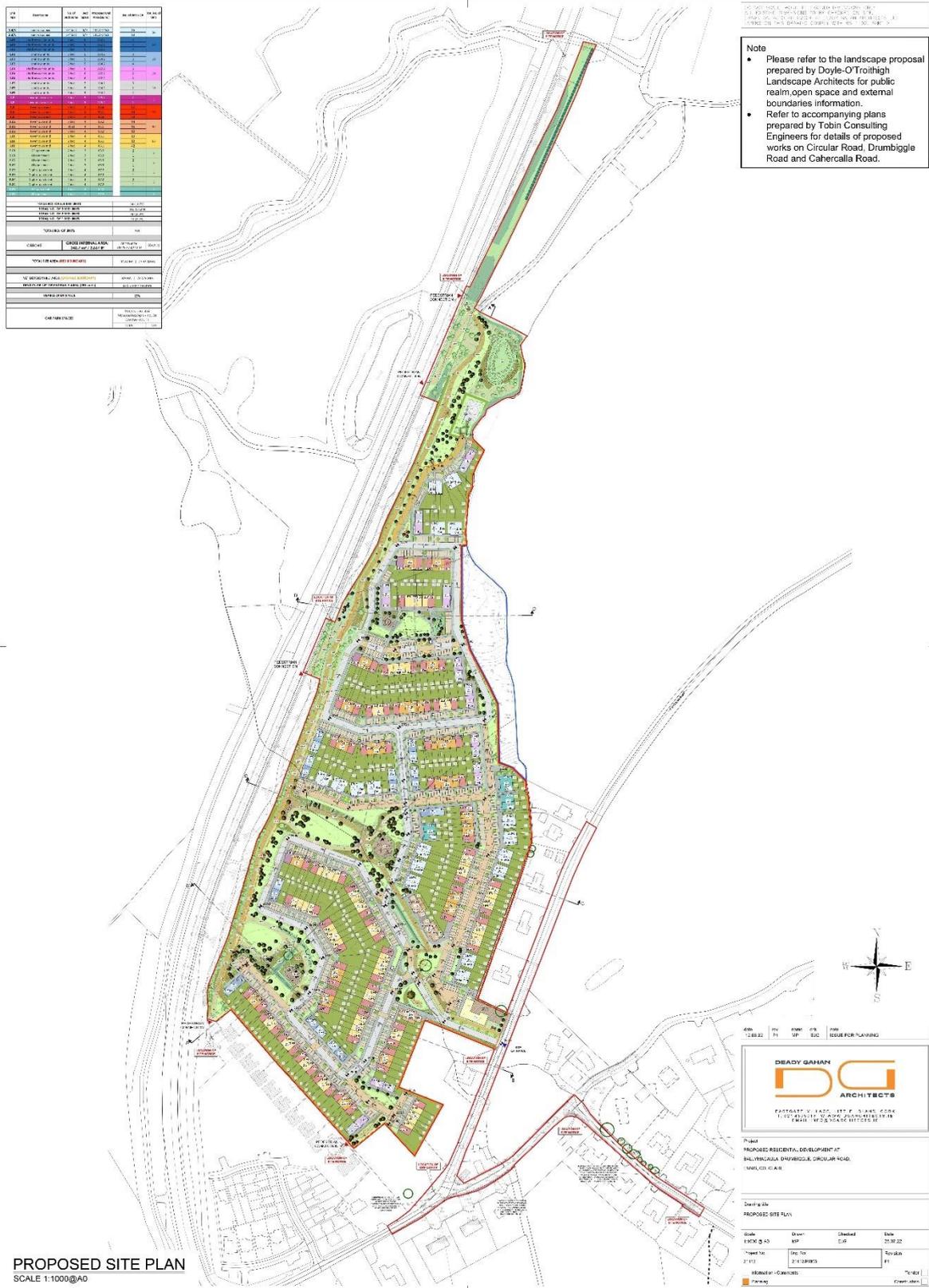


FIGURE 3. PROPOSED SITE LAYOUT (DG ARCHITECTS, 2022).

3.3 Existing Environment

3.3.1 Geology, Hydrology and Hydrogeology

The Site of the Proposed Development is within the Shannon Estuary North catchment and Fergus_SC_050 sub catchment. The closest watercourse to the Site is the Inch River (also referred to as Claureen River), which flow adjacent to the north boundary of the Site. Inch River then discharges into Fergus River 1.3km northeast of the Site, and ultimately enters the Shannon Estuary. The status of the Inch River was designated as *Poor* by the EPA in 2019 (station code: RS271010800), and, during the most recent survey period of 2013-2018, this watercourse was classified as *At Risk* of not meeting its WFD objectives.

The Site is situated on the Ennis groundwater body, which is *At Risk* of not meeting its WFD objectives. The aquifer type within the Site boundary is a *Regionally Important Aquifer* (Rkc) aquifer on bedrock which is *Karstified*. The groundwater rock units underlying the aquifer are classified as *Dinantian Pure Bedded Limestones* (GSI, 2022). The level of vulnerability of the Site to groundwater contamination via human activities is predominantly *Rock at or near surface*, followed by *Extreme*, with a small area of *High* along the east of the Site, and the northern area of Golf Links Road is designated as *Moderate*.

The soil in the north of the Site is classified as *Burren* (Loamy over limestone bedrock), while the south is *Kilrush* (Fine loamy drift with siliceous stones), and the Golf Links Road is designated as *Urban*. The subsoil within the southwest and north of the Site is Karstified limestone bedrock at surface (*KaRck*), while the centre and southeast of the Site is Limestone till (Carboniferous) (*TLs*), and Gold Links Road is *Made ground* (EPA, 2022).

3.3.2 Habitats

The fields that comprise the majority of the Site classified as *Improved Agricultural Grassland* (GA1) habitat due to the species present. Floral species found within this habitat on the Site include Buttercup (*Ranunculus sp.*), White Clover (*Trifolium repens*), Red Clover (*Trifolium pratense*), Selfheal (*Prunella vulgaris*), Ribwort Plantain (*Plantago lanceolata*), Bird's-foot Trefoil (*Lotus corniculatus*), Daisy (*Bellis perennis*), Oxeye Daisy (*Leucanthemum vulgare*), and Ragwort (*Senecio jacobaea*), with Nettle (*Urtica dioica*) present closer to the field margins. Heath Spotted-Orchid (*Dactylorhiza maculata*) and Common Spotted-Orchid (*Dactylorhiza fuchsia*) were observed within the north-most grassland on Site. Areas of *Wet Grassland* (GS4) habitat were recorded within the fields on Site, with rushes (*Juncus sp.*), Marsh Thistle (*Cirsium palustre*), and Silverweed (*Potentilla anserina*) present.

This habitat is both bounded and separated by *Hedgerow* (WL1) and *Treeline* (WL2) habitat, with some areas of this linear vegetation transitioning into *Scrub* (WS1). Species found within the hedgerow habitat include Bramble (*Rubus fruticosus agg.*), Blackthorn (*Prunus spinosa*), Hazel (*Corylus avellana*), young Oak (*Quercus robur*), and Ivy (*Hedera helix*), while the treelines were comprised of older Oak, Hazel, Ivy and Beech (*Fagus sylvatica*).

Older stone walls (*Stone Walls and Other Stoneworks* (BL1)) are present within lengths of the hedgerows and treelines, although due to the dense nature of this vegetation, the presence of the stonewalls could not be confirmed throughout. A more modern stone wall exists along the east boundary, separating the residential dwellings that abut the Site. Large stands of *Scrub* (WS1), consisting primarily of Bramble, are found within the central area and northern area of

the Site, with the remaining Scrub habitat found within the centre of the Site as hedgerows and treelines merge and have become overgrown. *Buildings and Artificial Surfaces (BL3)* habitat is created by Golf Links Road along the east of the Site.

No species listed on the Third Schedule of the European Communities (Birds and Natural Habitats) Regulations (S.I. 477 of 2011) including Japanese Knotweed (*Reynoutria japonica*) were recorded at the Site.

One ‘Medium Impact’ invasive species was recorded on Site, namely Sycamore (*Acer pseudoplatanus*), which was recorded within the treeline which bounds the south of the north-most Site.

3.3.3 Fauna

There was evidence of Fox *Vulpes vulpes* scat and Rabbit *Oryctolagus cuniculus* droppings observed throughout the Site. It is considered likely these species inhabit the Site. An adult Fox was also observed on Site on the 11th of June 2021, which travelled through the grassland into an area of overgrown hedgerow where it could no longer be observed. Although protected from direct harm and certain forms of hunting/trapping, Foxes are not considered to be of conservation concern in Ireland.

The large mammal trails observed on Site also suggest that Badger *Meles meles* may utilise this Site, particularly within the areas of scrub habitat, although no other signs, including dens, latrines, or prints, were found.

Breeding bird surveys were carried out on Site on the 1st of July 2022 and 12th of July 2022. The majority of bird species were associated with the hedgerows and treelines that run along the field margins of the Site lands, with birdsong heard throughout the Site, and particularly within the dense areas of Scrub within the central area of the Site. These bird species are listed in Table 1.

TABLE 1. BIRD SPECIES RECORDED DURING THE BREEDING BIRD SURVEYS ON THE 1ST OF JULY AND THE 12TH OF JULY 2022

Species	BoCCI ¹	BBS Survey 1 & 2 or 1/2	Breeding Activity
Blackbird <i>Turdus merula</i>	Green	1 & 2	Confirmed. Recently fledged young.
Blackcap <i>Sylvia atricapilla</i>	Green	1 & 2	
Bullfinch <i>Pyrrhula pyrrhula</i>	Green	1 & 2	
Blue Tit <i>Cyanistes caeruleus</i>	Green	1 & 2	Confirmed. Recently fledged young
Chaffinch <i>Fringilla coelebs</i>	Green	1 & 2	
Chiffchaff <i>Phylloscopus collybita</i>	Green	1 only	
Collared Dove <i>Streptopelia decaocto</i>	Green	2 only	
Dunnock <i>Prunella modularis</i>	Green	1 & 2	Confirmed. Recently fledged young

¹ Gilbert et al. (2021) Birds of Conservation Concern in Ireland 4: 2020–2026. *Irish Birds* 43: 1–22

Goldcrest <i>Regulus regulus</i>	Amber	1 & 2	Confirmed. Recently fledged young
Goldfinch <i>Carduelis carduelis</i>	Green	1 & 2	Confirmed. Recently fledged young
Great Tit <i>Parus major</i>	Green	2 only	
Hooded Crow <i>Corvus cornix</i>	Green	1 & 2	
House Martin <i>Delichon urbicum</i>	Amber	1 & 2	
House Sparrow <i>Passer domesticus</i>	Amber	1 & 2	Confirmed. Recently fledged young.
Lesser Redpoll <i>Acanthis flammea</i>	Green	1 & 2	
Linnet <i>Linaria cannabina</i>	Amber	1 & 2	
Meadow Pipit <i>Anthus pratensis</i>	Red	1 & 2	Confirmed. Carrying food + recently fledged young present
Pied Wagtail <i>Motacilla alba yarrelli</i>	Green	1 & 2	
Reed Bunting <i>Emberiza schoeniclus</i>	Green	1 & 2	Confirmed. Recently fledged young
Robin <i>Erithacus rubecula</i>	Green	1 & 2	Confirmed. Recently fledged young.
Rook <i>Corvus frugilegus</i>	Green	1 & 2	
Siskin <i>Spinus spinus</i>	Green	2 only	
Stonechat <i>Sturnus vulgaris</i>	Amber	1 & 2	Confirmed. Recently fledged young
Swallow <i>Hirundo rustica</i>	Amber	1 & 2	
Song Thrush <i>Turdus philomelos</i>	Green	1 & 2	Confirmed. Recently fledged young
Whitethroat <i>Sylvia communis</i>	Green	1 & 2	Confirmed. Recently fledged young
Woodpigeon <i>Columba palumbus</i>	Green	1 & 2	
Wren <i>Troglodytes troglodytes</i>	Green	1 & 2	Confirmed. Recently fledged young
Willow Warbler <i>Phylloscopus trochilus</i>	Amber	1 & 2	Confirmed. Recently fledged young

The species recorded on Site on the 19th of May 2022 are outlined in Table 2. It is highly likely these birds were breeding on Site.

TABLE 2. BIRDS RECORDED ON SITE ON THE 19TH OF MAY 2022

Species	BoCCI	Observations/Notes
Goldfinch <i>Carduelis carduelis</i>	Green	Several individuals observed throughout the hedgerow and treeline habitat on Site

Chiffchaff <i>Phylloscopus collybita</i>	Green	Several individuals heard singing throughout the Site
Starling <i>Sturnus vulgaris</i>	Amber	Several individuals observed throughout the hedgerow and treeline habitat on Site
Wood Pigeon <i>Columba palumbus</i>	Green	Several individuals observed within the treeline habitat on Site
Great tit <i>Parus major</i>	Green	Several individuals observed within the scrub habitat within the north of the Site
Herring Gull <i>Larus argentatus</i>	Amber	Observed flying over the Site
Swallow <i>Hirundo rustica</i>	Amber	Observed flying over and throughout the Site
Wren <i>Troglodytes troglodytes</i>	Green	Several individuals observed throughout the hedgerow and treeline habitat on Site
Robin <i>Erithacus rubecula</i>	Green	Several individuals observed throughout the hedgerow and treeline habitat on Site
Blue Tit <i>Cyanistes caeruleus</i>	Green	Several individuals observed throughout the hedgerow and treeline habitat on Site
Blackcap <i>Sylvia atricapilla</i>	Green	Several individuals heard singing throughout the Site

The bird species recorded during the site visit on 11th of June 2021 are outlined in Table 3.

TABLE 3. BIRDS RECORDED ON THE SITE ON THE 11TH OF JUNE 2021

Species	BoCCI	Observations/Notes
Wren <i>Troglodytes troglodytes</i>	Green	Several individuals observed throughout the hedgerow and treeline habitat on Site
Blue Tit <i>Cyanistes caeruleus</i>	Green	Several individuals observed throughout the hedgerow and treeline habitat on Site
Hooded Crow <i>Corvus cornix</i>	Green	Observed foraging within the grassland on Site
Wood Pigeon <i>Columba palumbus</i>	Green	Several individuals observed within the treeline habitat on Site
Starling <i>Sturnus vulgaris</i>	Amber	Several individuals observed within the scrub habitat within the north of the Site
Herring Gull <i>Larus argentatus</i>	Amber	Observed flying over the Site
House Martin <i>Delichon urbicum</i>	Amber	Observed flying over the Site
Swallow <i>Hirundo rustica</i>	Amber	Observed flying over the Site
Bullfinch <i>Pyrrhula pyrrhula</i>	Green	Several individuals observed throughout the hedgerow and treeline habitat on Site
Feral Pigeon <i>Columba livia</i>	Green	Several individuals observed within the treeline habitat on Site
Magpie <i>Pica pica</i>	Green	Several individuals observed within the treeline habitat on Site
Blackcap <i>Sylvia atricapilla</i>	Green	One individual observed sitting on the overhead wires on Site

A preliminary Bat Survey Report was carried out on Site on the 7th of September 2021 by AEE. Six bat species were recorded on Site, namely Common Pipistrelle *Pipistrellus pipistrellus*, Soprano Pipistrelle *Pipistrellus pygmaeus*, Leisler's Bat *Nyctalus leisleri*, Brown Long Eared Bat *Plecotus auritus*, Natterer's Bat *Myotis nattereri*, and Lesser Horseshoe Bat *Rhinolophus hipposideros*. The mature treelines on Site offer Moderate and High bat potential due to high Ivy cover, along with crevices in these trees. The old stone walls within the Site were visually assessed and suggest the stone wall structures over 1m were of 'Moderate-High' bat potential. The landscape is considered to be of local importance for bats due to a very high landscape suitability score for bats. The treelines, hedgerows, scrub and old stone walls containing add to the habitat diversity. The treelines and hedgerows radiating out from the site provide commuting and foraging corridors to other important habitats for bats in the wider landscape.

Further dusk, dawn, and walking transect surveys, along with static monitoring, were carried out by Bat Eco Services from the 1st of August to the 7th of August 2022. Six bat species were recorded on the Site of the Proposed Development between the 1st and the 6th of August 2022, namely Soprano Pipistrelle *Pipistrellus pygmaeus* (134 bat passes), Common Pipistrelle *Pipistrellus pipistrellus* (116 bat passes), Leisler's Bat *Nyctalus leisleri* (92 bat passes), Natterer's Bat *Myotis nattereri* (6 bat passes), Lesser Horseshoe Bat *Rhinolophus hipposideros* (5 bat passes) and Brown Long-eared Bat *Plecotus auritus* (2 bat passes).

The first three species were recorded during bat detector surveys, and static surveillance bat activity levels were indicative of commuting and foraging individuals. The latter three bat species were recorded at a lower level of bat passes, which is to be expected as these three bat species are less common. All bat species were recorded at a Low level of bat activity during the static surveillance. However, due to the quiet echolocation calls of Lesser Horseshoe Bat, Natterer's Bat and Brown Long-eared Bat, their presence is significant.

Four of the trees proposed to be felled to facilitate the Proposed Development were recorded as Potential Bat Roosts (PBRs).

An overall *Medium* level of bat activity was recorded on the Site of the Proposed Development and the results indicate that the boundaries and internal network of hedgerows/treelines/scrub on Site are commuting and foraging habitat for local bat populations.

The presence and distribution of this species is primarily determined by the occurrence of Devil's-bit Scabious (*Succisa pratensis*) within a mixed sward of varied structure, ideally between 12-25cm in height, often dominated by Purple Moor-grass (*Molinia caerulea*).

The sward structure at the Site of the Proposed Development is primarily a uniform height above 30cm through the fields on Site. No Marsh Fritillary butterflies were encountered on Site on the 19th of May or 8th of June 2022, nor was suitable sward structure for the Marsh Fritillary butterfly recorded within the Site of the Proposed Development. The Site was also surveyed on the 22nd of June 2022 for the presence of Devil's-bit Scabious. This plant was not recorded within the Site of the Proposed Development, and as such the Site does not contain suitable Marsh Fritillary habitat.

There is potential habitat for common lizard within the Site of the Proposed Development in the form of stone walls, hedgerows, and scrub.

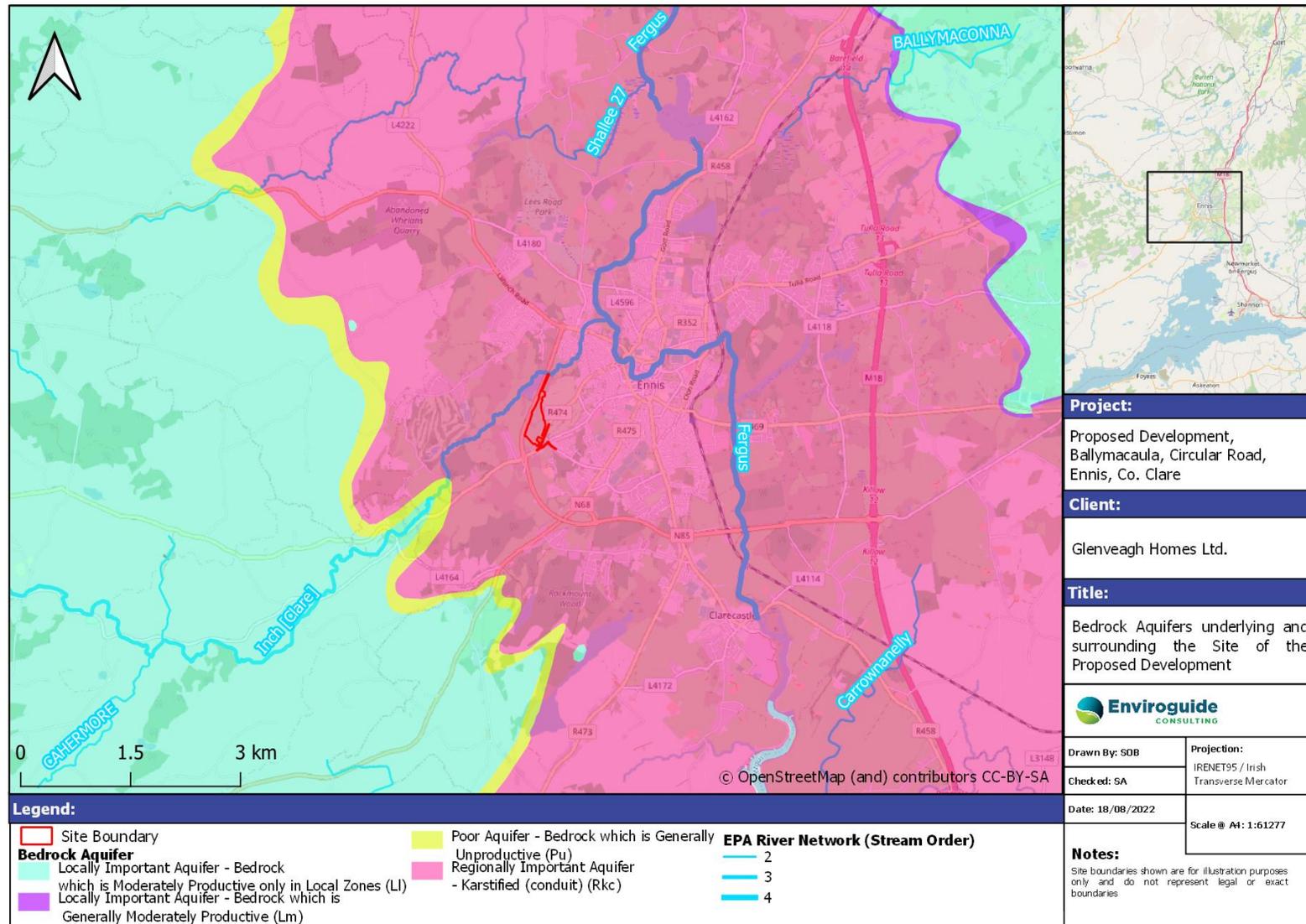


FIGURE 4. BEDROCK AQUIFER UNDERLYING AND SURROUNDING THE SITE OF THE PROPOSED DEVELOPMENT.

3.4 Identification of Relevant European Sites

In order to identify the European Sites that potentially lie within the Zone of Influence (ZOI) of the Proposed Development, a Source-Path-Receptor method (S-P-R) was adopted, as described in 'OPR Practice Note PN01 - Appropriate Assessment Screening for Development Management' (OPR, 2021), a practice note produced by the Office of the Planning Regulator, Dublin. This note was published to provide guidance on screening for appropriate assessment (AA) during the planning process, and although it focuses on the approach a planning authority should take in screening for AA, the methodology is also readily applied in the preparation of Appropriate Assessment Screening Reports such as this.

The guidance document published by the Department of Housing, Planning and Local Government (then DEHLG) 'Appropriate Assessment of Plans and Projects in Ireland - Guidance for Planning Authorities' (2009) recommends an arbitrary distance of 15km as the precautionary ZOI for a plan or project being assessed for likely significant effects on European Sites, stating however that this should be evaluated on a case-by-case basis.

As such, the 15km ZOI is used in this report as an initial starting point for collating European Sites for AA screening.

The methodology used to identify relevant European Sites comprised the following:

- Use of up-to-date GIS spatial datasets for European designated sites and water catchments – downloaded from the NPWS website (www.npws.ie) and the EPA website (www.epa.ie) to identify European Sites which could potentially be affected by the Proposed Development;
- The catchment data were used to establish or discount potential hydrological connectivity between the Project Boundary and any European Sites.
- All European Sites within the zone of influence (within 15km of the Proposed Development Site) were identified and are shown in Figure 5.
- The potential for connectivity with European Sites at distances greater than 15km from the Proposed Development was also considered in this initial assessment. In this case, there is no potential connectivity between the Proposed Development Site and European Sites located at a distance greater than 15km from the Proposed Development based on the S-P-R model.
- Table 4 provides details of all relevant European Sites as identified in the preceding steps. The potential for pathways between European Sites and the Proposed Development Site was assessed on a case-by-case basis using the Source-Pathway-Receptor framework as per the OPR Practice Note PN01 (March 2021). Those European Sites where a pathway has been identified are highlighted in green. Pathways considered included:
 - a. Direct pathways e.g., proximity (i.e., location within the European Site), water bodies, air (for both air emissions and noise impacts).
 - b. Indirect pathways e.g., disruption to migratory paths, 'Sightlines' where noisy or intrusive activities may result in disturbance to shy species.

- The site synopses and conservation objectives of these sites, as per the NPWS website (www.npws.ie), were consulted and reviewed at the time of preparing this report.
- There is absolutely no reliance placed in this Appropriate Assessment Screening Report on measures intended to avoid/reduce harmful effects on the European Sites.

The result of this preliminary screening concluded that there is a total of 18 SACs and 4 SPAs located within the ZOI of the Proposed Development Site. The distances to each site listed are taken from the nearest possible point of the Proposed Development Site boundary to the nearest possible point of each European Site.

Potential pathways between the Proposed Development Site and fourteen European Sites within the ZOI were identified, namely via hydrological pathways (via the Inch River), hydrogeological pathways² and land/air pathways due to proximity to Sites in which Lesser Horseshoe bats are listed. The European Sites linked to the Proposed Development include:

- Lower River Shannon SAC
- Newhall and Edenvale Complex SAC
- Pouladatig Cave SAC
- Ballyallia Lake SAC
- Dromore Woods And Loughs SAC
- Ballycullinan Lake SAC
- East Burren Complex SAC
- Poulmagordon Cave (Quin) SAC
- Lough Gash Turlough SAC
- Moyree River System SAC
- Ballyogan Lough SAC
- Ballyallia Lough SPA
- River Shannon and River Fergus Estuaries SPA
- Corofin Wetlands SPA

² Given the karst bedrock aquifer underlying the Site, there is a possibility that groundwater within the Site could be linked with groundwater dependent habitats associated with European sites within the zone of influence. Typically, there is strong interconnection between surface water and groundwater in karstified bedrock aquifers (GSI, 2017).

TABLE 4. EUROPEAN SITES WITHIN THE 15KM PRECAUTIONARY ZONE OF INFLUENCE OF THE PROPOSED DEVELOPMENT AND POTENTIAL PATHWAYS BETWEEN THEM. THOSE EUROPEAN SITES FOR WHICH A S-P-R LINK WAS IDENTIFIED ARE HIGHLIGHTED IN GREEN.

Site Name & Site Code	Qualifying Interests (*= priority habitats)	Distance to Site	Connections (Source- Pathway- Receptor)
Special Areas of Conservation (SAC)			
Lower River Shannon SAC (002165)	[1110] Sandbanks which are slightly covered by sea water all the time; [1130] Estuaries; [1140] Mudflats and sandflats not covered by seawater at low tide; [1150] Coastal lagoons; [1160] Large shallow inlets and bays; [1170] Reefs; [1220] Perennial vegetation of stony banks; [1230] Vegetated sea cliffs of the Atlantic and Baltic coasts; [1310] Salicornia and other annuals colonising mud and sand; [1330] Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>); [1410] Mediterranean salt meadows (<i>Juncetalia maritimi</i>); [3260] Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitricho-Batrachion</i> vegetation; [6410] Molinia meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinion caeruleae</i>); [91E0] Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i>); [1029] <i>Margaritifera margaritifera</i> (Freshwater Pearl Mussel); [1095] <i>Petromyzon marinus</i> (Sea Lamprey); [1096] <i>Lampetra planeri</i> (Brook Lamprey); [1099] <i>Lampetra fluviatilis</i> (River Lamprey); [1106] <i>Salmo salar</i> (Salmon); [1349] <i>Tursiops truncatus</i> (Common Bottlenose Dolphin); [1355] <i>Lutra lutra</i> (Otter)	0.9km	Yes – Weak hydrological pathway via surface water discharge into the Inch River during the Construction and Operational Phases and via discharges from Ennis North WwTP into River Fergus during the Operational Phase. There is also a potential hydrogeological pathway via groundwater during the Construction and Operational Phases of the Proposed Development.
Newhall and Edenvale Complex SAC (002091)	[8310] Caves not open to the public; [1303] <i>Rhinolophus hipposideros</i> (Lesser Horseshoe Bat)	1.7km	Yes – The Site of the Proposed Development is located within the 2.5km foraging range of the Lesser Horseshoe Bat population associated with these SACs (NPWS, 2018o). There is potential for an indirect impact on this species during the Construction and Operational Phases of the Proposed Development via habitat loss and fragmentation, and disturbance due to human activity, including noise and lighting.
Pouladatig Cave SAC (000037)	[8310] Caves not open to the public; [1303] <i>Rhinolophus hipposideros</i> (Lesser Horseshoe Bat)	1.7km	

Site Name & Site Code	Qualifying Interests (*= priority habitats)	Distance to Site	Connections (Source- Pathway- Receptor)
			There is also a potential hydrogeological pathway via groundwater during the Construction and Operational Phases of the Proposed Development.
Ballyallia Lake SAC (000014)	[3150] Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation	2.5km	Yes – Potential hydrogeological pathway via groundwater during the Construction and Operational Phases of the Proposed Development.
Toonagh Estate SAC (002247)	[1303] <i>Rhinolophus hipposideros</i> (Lesser Horseshoe Bat)	4.8km	None – There is no hydrological connection and the Site does not lie within the 2.5km foraging range of the species associated with this SAC. In addition, the intervening distances between the Site and the SACs are sufficient to exclude the possibility of significant effects on the SAC arising from: emissions of noise, dust, pollutants and/or vibrations emitted from the Site during the Construction Phase; increased traffic volumes during the Construction and Operational Phase and associated emissions; potential increased lighting emitted from the Site during Construction and Operational Phase; and increased human presence at the Site during Construction and Operational Phase.
Dromore Woods And Loughs SAC (000032)	[3150] Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation; [6430] Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels; [8240] Limestone pavements; [1303] <i>Rhinolophus hipposideros</i> (Lesser Horseshoe Bat); [1355] <i>Lutra lutra</i> (Otter)	6.6km	Yes – Potential hydrogeological pathway via groundwater during the Construction and Operational Phases of the Proposed Development as this SAC is located on the same karst bedrock aquifer.
Knockanira House SAC (002318)	[1303] <i>Rhinolophus hipposideros</i> (Lesser Horseshoe Bat)	6.7km	None – There is no hydrological connection and the Site does not lie within the 2.5km foraging range of the species associated with these SACs. In addition, the intervening distances between the Site and the SACs are sufficient to exclude the possibility of significant effects on the SAC arising
Old Domestic Building (Keevagh) SAC (002010)	[1303] <i>Rhinolophus hipposideros</i> (Lesser Horseshoe Bat)	7.8km	

Site Name & Site Code	Qualifying Interests (*= priority habitats)	Distance to Site	Connections (Source- Pathway- Receptor)
Ballycullinan, Old Domestic Building SAC (002246)	[1303] <i>Rhinolophus hipposideros</i> (Lesser Horseshoe Bat)	8.3km	from: emissions of noise, dust, pollutants and/or vibrations emitted from the Site during the Construction Phase; increased traffic volumes during the Construction and Operational Phase and associated emissions; potential increased lighting emitted from the Site during Construction and Operational Phase; and increased human presence at the Site during Construction and Operational Phase.
Ballycullinan Lake SAC (000016)	[7210] Calcareous fens with <i>Cladium mariscus</i> and species of the <i>Caricion davallianae</i>	8.4km	Yes – Potential hydrogeological pathway via groundwater during the Construction and Operational Phases of the Proposed Development as this SAC is located on the same karst bedrock aquifer.
Old Farm Buildings, Ballymacrogan SAC (002245)	[1303] <i>Rhinolophus hipposideros</i> (Lesser Horseshoe Bat)	8.9km	None – There is no hydrological connection and the Site does not lie within the 2.5km foraging range of the species associated with this SAC. In addition, the intervening distances between the Site and the SACs are sufficient to exclude the possibility of significant effects on the SAC arising from: emissions of noise, dust, pollutants and/or vibrations emitted from the Site during the Construction Phase; increased traffic volumes during the Construction and Operational Phase and associated emissions; potential increased lighting emitted from the Site during Construction and Operational Phase; and increased human presence at the Site during Construction and Operational Phase.
East Burren Complex SAC (001926)	[3140] Hard oligo-mesotrophic waters with benthic vegetation of <i>Chara</i> spp.; [3180] Turloughs; [3260] Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitriche-Batrachion</i> vegetation; [4060] Alpine and Boreal heaths; [5130] <i>Juniperus communis</i> formations on heaths or calcareous grasslands; [6130] Calaminarian grasslands of the <i>Violetalia calaminariae</i> ; [6210] Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco-Brometalia</i>) (* important orchid sites); [6510] Lowland hay meadows (<i>Alopecurus</i>	9.5km	Yes – Potential hydrogeological pathway via groundwater during the Construction and Operational Phases of the Proposed Development as this SAC is located on the same karst bedrock aquifer.

Site Name & Site Code	Qualifying Interests (*= priority habitats)	Distance to Site	Connections (Source- Pathway- Receptor)
	<i>pratensis</i> , <i>Sanguisorba officinalis</i>); [7210] Calcareous fens with <i>Cladium mariscus</i> and species of the <i>Caricion davallianae</i> ; [7220] Petrifying springs with tufa formation (Cratoneurion); [7230] Alkaline fens; [8240] Limestone pavements; [8310] Caves not open to the public; [91E0] Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i>); [1065] <i>Euphydryas aurinia</i> (Marsh Fritillary); [1303] <i>Rhinolophus hipposideros</i> (Lesser Horseshoe Bat); [1355] <i>Lutra lutra</i> (Otter)		
Poulnagordon Cave (Quin) SAC (000064)	[8310] Caves not open to the public; [1303] <i>Rhinolophus hipposideros</i> (Lesser Horseshoe Bat)	10.2km	Yes – Potential hydrogeological pathway via groundwater during the Construction and Operational Phases of the Proposed Development as this SAC is located on the same karst bedrock aquifer.
Lough Gash Turlough SAC (000051)	[3180] Turloughs; [3270] Rivers with muddy banks with <i>Chenopodium rubri</i> p.p. and <i>Bidention</i> p.p. vegetation	10.7km	
Moyree River System SAC (000057)	[3260] Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and Callitricho-Batrachion vegetation; [7230] Alkaline fens; [8240] Limestone pavements; [8310] Caves not open to the public; [1303] <i>Rhinolophus hipposideros</i> (Lesser Horseshoe Bat); [1355] <i>Lutra lutra</i> (Otter)	11.2km	
Old Domestic Buildings, Rylane SAC (002314)	[1303] <i>Rhinolophus hipposideros</i> (Lesser Horseshoe Bat)	12.0km	None – There is no hydrological connection and the Site does not lie within the 2.5km foraging range of the species associated with these SACs. In addition, the intervening distances between the Site and the SACs are sufficient to exclude the possibility of significant effects on the SAC arising from: emissions of noise, dust, pollutants and/or vibrations emitted from the Site during the Construction Phase; increased traffic volumes during the Construction and Operational Phase and associated emissions; potential increased lighting emitted from the Site during Construction
Newgrove House SAC (002157)	[1303] <i>Rhinolophus hipposideros</i> (Lesser Horseshoe Bat)	12.2km	

Site Name & Site Code	Qualifying Interests (*= priority habitats)	Distance to Site	Connections (Source- Pathway- Receptor)
			and Operational Phase; and increased human presence at the Site during Construction and Operational Phase.
Ballyogan Lough SAC (000019)	[7210] Calcareous fens with <i>Cladium mariscus</i> and species of the <i>Caricion davallianae</i>	12.6km	Yes – Potential hydrogeological pathway via groundwater during the Construction and Operational Phases of the Proposed Development as this SAC is located on the same karst bedrock aquifer.
Special Protected Area (SPA)			
Ballyallia Lough SPA (004041)	[A050] Wigeon <i>Anas penelope</i> ; [A051] Gadwall <i>Anas strepera</i> ; [A052] Teal <i>Anas crecca</i> ; [A053] Mallard <i>Anas platyrhynchos</i> ; [A056] Shoveler <i>Anas clypeata</i> ; [A125] Coot <i>Fulica atra</i> ; [A156] Black-tailed Godwit <i>Limosa limosa</i> ; [A999] Wetland and Waterbirds	2.9km	Yes – Potential hydrogeological pathway via groundwater during the Construction and Operational Phases of the Proposed Development.
River Shannon and River Fergus Estuaries SPA (004077)	[A017] Cormorant <i>Phalacrocorax carbo</i> ; [A038] Whooper Swan <i>Cygnus cygnus</i> ; [A046] Light-bellied Brent Goose <i>Branta bernicla hrota</i> ; [A048] Shelduck <i>Tadorna tadorna</i> ; [A050] Wigeon <i>Anas penelope</i> ; [A052] Teal <i>Anas crecca</i> ; [A054] Pintail <i>Anas acuta</i> ; [A056] Shoveler <i>Anas clypeata</i> ; [A062] Scaup <i>Aythya marila</i> ; [A137] Ringed Plover <i>Charadrius hiaticula</i> ; [A140] Golden Plover <i>Pluvialis apricaria</i> ; [A141] Grey Plover <i>Pluvialis squatarola</i> ; [A142] Lapwing <i>Vanellus vanellus</i> ; [A143] Knot <i>Calidris canutus</i> ; [A149] Dunlin <i>Calidris alpina</i> ; [A156] Black-tailed Godwit <i>Limosa limosa</i> ; [A157] Bar-tailed Godwit <i>Limosa lapponica</i> ; [A160] Curlew <i>Numenius arquata</i> ; [A162] Redshank <i>Tringa totanus</i> ; [A164] Greenshank <i>Tringa nebularia</i> ; [A179] Black-headed Gull <i>Chroicocephalus ridibundus</i> ; [A999] Wetland and Waterbirds	3.8km	Yes – Weak hydrological pathway via surface water discharge into the Inch River during the Construction and Operational Phases and via discharges from Ennis North WwTP into River Fergus during the Operational Phase. There is also a potential hydrogeological pathway via groundwater during the Construction and Operational Phases of the Proposed Development.
Slieve Aughty Mountains SPA (004168)	[A082] Hen Harrier <i>Circus cyaneus</i> ; [A098] Merlin <i>Falco columbarius</i>	10.3km	None – There is no hydrological connection. In addition, the intervening distance between the Site and the SPA is sufficient to exclude the possibility of significant effects on the SPA arising from: emissions of noise, dust, pollutants and/or vibrations emitted from the Site during the Construction

Site Name & Site Code	Qualifying Interests (*= priority habitats)	Distance to Site	Connections (Source- Pathway- Receptor)
			<p>Phase; increased traffic volumes during the Construction and Operational Phase and associated emissions; potential increased lighting emitted from the Site during Construction and Operational Phase; and increased human presence at the Site during Construction and Operational Phase.</p> <p>The Site does not provide significant <i>ex-situ</i> habitat for QI/SCI species within the Site of the Proposed Development.</p>
Corofin Wetlands SPA (004220)	[A004] Little Grebe <i>Tachybaptus ruficollis</i> ; [A038] Whooper Swan <i>Cygnus cygnus</i> ; [A050] Wigeon <i>Anas penelope</i> ; [A052] Teal <i>Anas crecca</i> ; [A156] Black-tailed Godwit <i>Limosa limosa</i> ; [A999] Wetland and Waterbirds	10.8km	Yes – Potential hydrogeological pathway via groundwater during the Construction and Operational Phases of the Proposed Development as this SAC is located on the same karst bedrock aquifer.

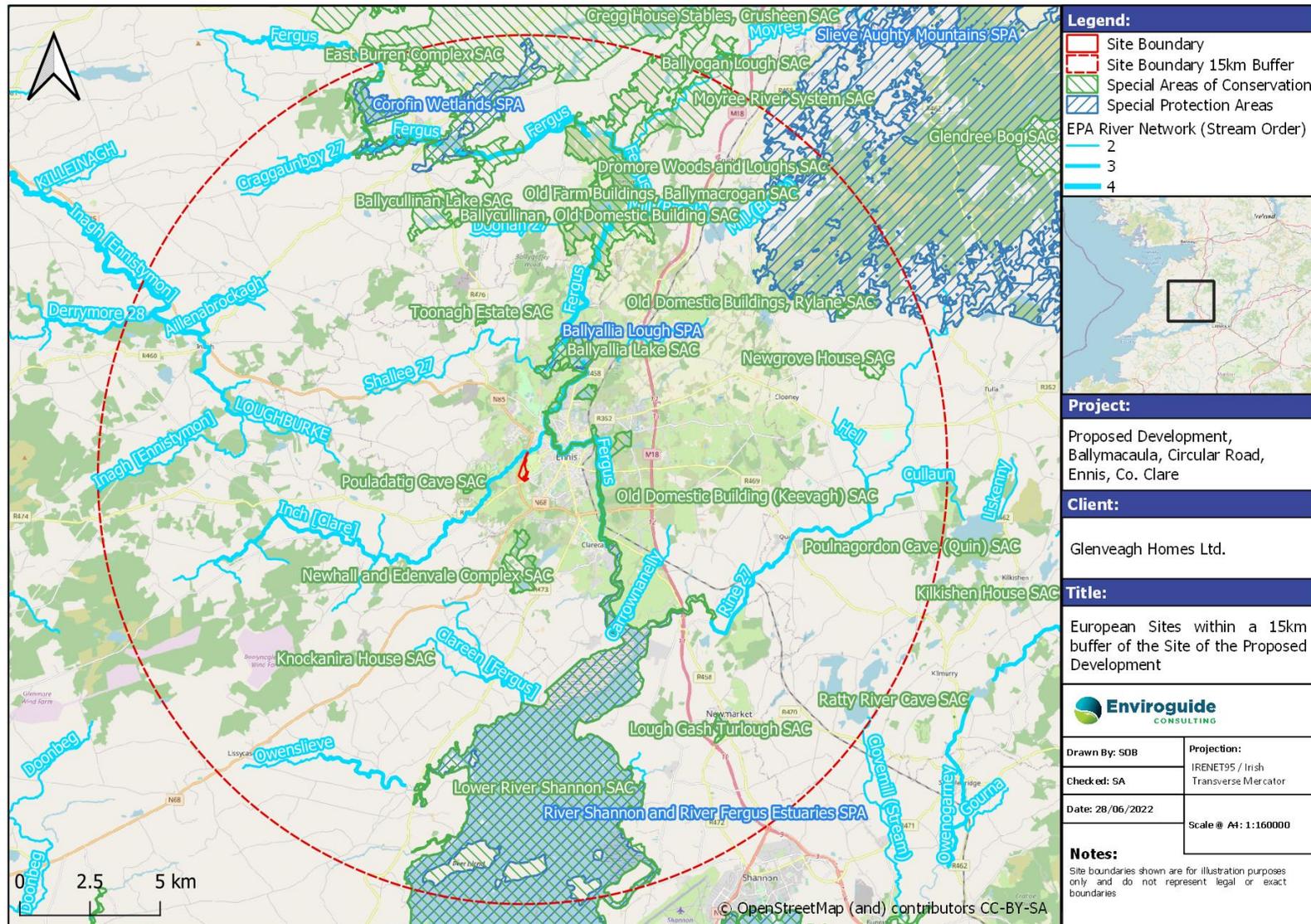


FIGURE 5. EUROPEAN SITES WITHIN 15KM OF THE PROPOSED DEVELOPMENT SITE.

3.5 Assessment of Likely Significant Effects

A European Site will only be at risk from likely significant effects where the Source-Pathway-Receptor link exists between the Proposed Development and the European Site. As such, the remainder of this AA Screening report will focus on the European Sites for which a S-P-R link was identified, namely:

- Lower River Shannon SAC
- Newhall and Edenvale Complex SAC
- Pouladatig Cave SAC
- Ballyallia Lake SAC
- Dromore Woods And Loughs SAC
- Ballycullinan Lake SAC
- East Burren Complex SAC
- Poulmagordon Cave (Quin) SAC
- Lough Gash Turlough SAC
- Moyree River System SAC
- Ballyogan Lough SAC
- Ballyallia Lough SPA
- River Shannon and River Fergus Estuaries SPA
- Corofin Wetlands SPA

3.5.1 Conservation objectives

The overall aim of the Habitats Directive is to maintain or restore the favourable conservation status of habitats and species of community interest. These habitats and species are listed in the Habitats and Birds Directives and Special Areas of Conservation and Special Protection Areas are designated to afford protection to the most vulnerable of them.

Site specific conservation objectives (SSCO) have been compiled for the SACs listed above. Site-specific conservation objectives aim to define favourable conservation condition for habitats or species at a site. Ballyallia Lough SPA and Corofin Wetlands SPA both have generic conservation objectives, which aim to maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for these SPAs.

The maintenance of habitats and species within European Sites at favourable conservation condition will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level.

Favourable conservation status of a habitat is achieved when:

- its natural range, and area it covers within that range, are stable or increasing.

- the specific structure and functions which are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future.
- the conservation status of its typical species is favourable.

The favourable conservation status of a species is achieved when:

- population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats.
- the natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future.
- there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

3.5.2 Identification and Assessment of Likely Significant Effects

The conservation objectives of the European Sites within the zone of influence were reviewed and assessed in order to establish whether the construction and operation of the Proposed Development has the potential to have a negative impact on any of the qualifying interests and/or conservation objectives of the European Sites listed above.

The assessment framework is taken from the best practice guidelines issued by the European Commission, i.e., “Assessment of plans and projects significantly affecting Natura 2000 sites – Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC”.

The potential for significant effects resulting from the Proposed Development during the Construction and Operational Phases was determined based on a range of indicators, including:

- Habitat loss or alteration.
- Habitat/species fragmentation.
- Disturbance and/or displacement of species.
- Changes in population density; and
- Changes in water quality and resource.

The following elements of the Proposed Development were assessed for their potential for likely significant effects on European Sites.

- **Construction Phase**

- Uncontrolled releases of silt, sediments and/or other pollutants to air due to earthworks
- Surface water run-off containing silt, sediments and/or other pollutants into nearby waterbodies.
- Surface water run-off containing silt, sediments and/or other pollutants into the local groundwater.
- Waste generation during the Construction Phase comprising soils, construction and demolition wastes.
- Increased noise, dust and/or vibrations as a result of construction activity.
- Increased dust and air emissions from construction traffic.
- Increased lighting in the vicinity as a result of construction activity.

- **Operational Phase**

- Surface water drainage from the Site of the Proposed Development.
- Increased lighting in the vicinity emitted from the Proposed Development; and
- Increased human presence in the vicinity as a result of the Proposed Development.
- Foul water from the Proposed Development leading to increased loading on the receiving wastewater treatment plant.

3.5.2.1 Habitat Loss and Alteration

The Proposed Development is not located within any European Site and therefore there will be no direct loss or alteration of habitat as a result of the Proposed Development.

3.5.2.2 Habitat / Species Fragmentation

As there will be no direct habitat loss within any European Sites, no habitat fragmentation will arise as a result of the Proposed Development.

3.5.2.3 Changes in Water Quality and Resource

The Proposed Development has been divided into 7 catchments. Surface water from the Proposed Development will flow to soakaways for 6 of these catchments and to an infiltration basin for the catchment located within the northernmost area of the Site. The surface water from the infiltration basin will discharge surface water to the Inch River. Therefore, there is a hydrological connection between the Site and Lower River Shannon SAC and River Shannon and River Fergus Estuaries SPA via surface water discharges from the Site during the Construction and Operational Phases.

In the absence of appropriate mitigation measures, there is potential for sediments/pollutants from the Site to enter the Inch River and ultimately the SACs and SPAs downstream of the Site of the Proposed Development through surface water discharge from the Site. This could result in impacts on water quality in Lower River Shannon SAC and River Shannon and River Fergus Estuaries SPA.

Karst bedrock aquifer underlies the Site of the Proposed Development, and therefore there is a potential pathway from the Site to Lower River Shannon SAC, Ballyallia Lake SAC, Dromore Woods And Loughs SAC, Ballycullinan Lake SAC, East Burren Complex SAC, Lough Gash Turlough SAC, Moyree River System SAC, Ballyogan Lough SAC, River Shannon and River Fergus Estuaries SPA, and Corofin Wetlands SPA via groundwater during the Construction and Operational Phases.

Although unlikely, in the absence of appropriate mitigation measures, there is potential for pollutants to migrate through the aquifer into the above European Sites and the Annex I habitats associated with these European Sites. This could result in impacts on water quality in these European Sites.

The Site will be connected to the existing foul water sewer. Therefore, there is a weak hydrological link between the Site and Lower River Shannon SAC and River Shannon and River Fergus Estuaries SPA via discharges from Ennis North WwTP during the Operational Phase.

The potential for foul waters generated at the Site of the Proposed Development to reach European Sites downstream of the Site of the Proposed Development and cause significant effects, during the Operational Phase, is negligible due to:

- The potential for dilution in the surface water network during heavy rainfall events.
- The Ennis North WwTP is currently compliant with the Emission Limit Values set in the Wastewater Discharge Licence (Irish Water, 2020).

3.5.2.4 Disturbance and / or Displacement of Species

As outlined in section 3.5.2.3 above, the hydrological link between the Site and the European Sites that are assessed here has the potential to cause disturbance and/or displacement to the bird and aquatic species associated with the above European Sites due to effects on the water quality and resource indicator during both the Construction and Operational Phases.

The Site of the Proposed Development lies within the 2.5km foraging range of the Lesser Horseshoe bat population associated with Newhall and Edenvale Complex SAC and Pouladatig Cave SAC (NPWS, 2018o). In the absence of appropriate mitigation, there is potential for an indirect impact on this species during the Construction and Operational Phases of the Proposed Development via habitat loss and fragmentation, and disturbance due to human activity, including noise and lighting.

3.5.2.5 Changes in Population Density

The Proposed Development does not have the capacity to cause any significant changes in the population density of any species within any European Site.

3.5.2.6 Potential for In-combination Effects

Existing Planning Permissions

There are several existing planning permissions on record in the area ranging from small-scale extensions and alterations to existing residential properties to some larger-scale developments. The larger-scale developments identified within the vicinity of the Proposed Development are as follows:

Planning Application Reference: 17/237

For development which will consist of the following: (1) Demolition of an existing dwelling house and garage; (2) The construction of 39 No. 2 storey dwelling houses and 3 No. Single storey dwelling houses; (3) The provision of a foul pumping station and associated rising main to existing foul sewer; (4) Retire existing 38Kv overhead lines and associate poles within the proposed development and erect 2 number triple pole 38 Kv cable end poles arrangement as per E.S.B International drawings pg567- D020-070-001-00 at the northern and southern boundary of the site; (5) All ancillary site works and connection to public services. **(Decision: Conditional Permission. Decision Date: 07/12/2017. Appeal Date: 04/01/2018. An Bord Pleanála Decision: Grant Permission with Conditions. Decision Date: 29/05/2018).**

Planning Application Reference: 20/380

For development which will consist of the replacement of 2 no dwelling houses on sites 35 and 36 with one no. detached 2 storey dwelling house including services connections and site works, all to that previously granted under Planning Ref. 17-237. **(Decision: Conditional Permission. Decision Date: 30/07/2020).**

Planning Application Reference: 20/379

For development which will consist of the replacement of 2 no dwelling houses on sites 39 and 40 with one no. detached 2 storey dwelling house including services connections and site works, all to that previously granted under Planning Ref. 17-237. **(Decision: Conditional Permission. Decision Date: 30/07/2020).**

Planning Application Reference: 20/378

For development which will consist of the replacement of 2 no dwelling houses on sites 37 and 38 with one no. detached 2 storey dwelling house including services connections and site works, all to that previously granted under Planning Ref. 17-237. **(Decision: Conditional Permission. Decision Date: 30/07/2020).**

Planning Application Reference: 20/864

For development which will consist of (1) A revised house design on sites 41/42 to that previously granted under Planning Ref. 20-377. The revisions will include for (a) changes to elevations (b) Changes to internal layout (c) First floor accommodation over single storey annex (d) Changes to front gable projection. 2. Services connections and site works, all to that previously granted under planning Ref. 17-237. **(Decision: Conditional Permission. Decision Date: 12/01/2021).**

Planning Application Reference: 18/8009

For the proposed development which will consist of: 1) Demolition of existing farm shed; 2) Refurbishment and conversion of the existing farmyard buildings into 10 No. Housing Units (4 No. 1 Bedroom Units, 5 No. 2 Bedroom Units, 1 No. 3 Bedroom Units); 3) Refurbishment and conversion of the existing coach house into 1 No. Housing Unit (2 Bedroom Unit); 4) Construct 4 No. Terraced Dwelling Houses (2 Bedroom Units) and 5) All associated site works and services. The proposed development is within the curtilage of the Protected Structure of Cahercalla House (RPS No. 045). **(Decision: Conditional Permission. Decision Date: 17/09/2018).**

Planning Application Reference: 21/756

For development at this c.126ha site located at Westpoint, Kilrush Road, Clonroadbeg, Ennis, Co. Clare. The development will consist of: change of use of part of the ground floor level and subdivision and change of use of part of the first floor level within the existing Westpoint building, from retail warehouse to a discount foodstore (including off licence use); Extension of the existing building to include a new lobby area at the north elevation to serve the foodstore (c.29sqm); Extension of the rear of the existing building to accommodate a new single storey loading bay HGV Loading bay ramp (c. 80sqm); resulting in a total gross floor area of 2,270sqm (1,000sqm net retail area for the discount foodstore use; Additional works to accommodate the subdivided first floor unit (no change of use proposed) will include: - Extension of the existing lobby at ground and first floor level at the northern elevation to accommodate a new entrance to the existing unit at the first floor level; - Construction of a new goods lift and circulation stair core (southern elevation) at ground and first floor levels (resulting in a total of c.154sqm of additional new floor area) to serve the reconfigured (separate) existing unit at first floor level; Other works will include: - All associated internal revised layout and external (elevation) alterations to the building at to ground and first floors;

- Reconfiguration of the carpark layout including provision of 8 no. cycle paces, removal of the existing service yard and 7 no. carparking paces to provide a revised parking layout; - Erection of 2 no free standing double sided internally illuminated totem signs at the sign entrance, 2 no internally illuminated gable signs, 3 no. shop front signs; - C. 121sqm of solar panels at roof level. **(Decision: Conditional Permission. Decision Date: 09/09/2021. Appeal Date: 05/10/2021. Under Appeal with An Bord Pleanála, decision due 16/02/2022).**

Planning Application Reference: 21/599

For development at this site on lands to the west of Pairc na Coille Retirement Village, in the townland of Drumbiggle, Ennis, County Clare. The development will consist of: 1) Construction of 58 no. residential units comprising: 10 no. four-bed houses, 26 no. three-bed houses, and 22 duplex units comprising 11 no. two-bed ground floor apartment units with 11 no. three-bed house units above. 2) Alterations and upgrade to the existing access road to provide additional footpath, cycle paths and raised traffic tables. 3) Shared communal and semi-private open space, car and bicycle parking, bin stores, site landscaping/boundary treatment works and public lighting. 4) Provision of all associated surface water and foul drainage services and all associated site development works. The application is accompanied by a Natura Impact Statement (NIS). **(Decision: Conditional Permission. Decision Date: 11/03/2022. Under Appeal with An Bord Pleanála, decision due 08/08/2022).**

Planning Application Reference: 22/139

For the proposed building upgrade works to, DSP Intro Office, Block 1, Government Buildings, Kilrush Road, Ennis, Co Clare. Works include: a) Replacement roof finish and rooflight; b) New PV panels to roof; c) New external wall insulation and render; d) Elevational changes to include new doors and entrance lobby screens; e) New service yard to the south-west of the building; f) Changes to the site layout to include EV charge points. All with associated site works. **(Decision: Conditional Permission. Decision Date: 13/04/2022).**

These sites lies within 1km of the Proposed Development Site. The distance between the Proposed Development Site, the permitted development sites above and the closest European Site is 1km. This distance, in addition to the significant urban buffer between the sites and European Sites, is sufficient to exclude the possibility of significant effects on the European Site arising from *combined* emissions of noise, dust, pollutants and/or vibrations emitted from the Site during the Construction Phase; increased traffic volumes during the Construction and Operational Phase and associated emissions; potential increased lighting emitted from the Site during Construction and Operational Phase; and increased human presence at the Site during Construction and Operational Phase.

At the time of writing, there are no proposed or permitted forestry operations (thinning, clear felling, road construction) in close proximity to the Site of the Proposed Development³.

Relevant Policies and Plans

The following policies and plans were reviewed and considered for possible in-combination effects with the Proposed Development.

- Clare Biodiversity Action Plan 2017-2023

³ <https://forestry-maps.apps.rhos.agriculture.gov.ie/>

- Clare County Council Development Plan 2017-2023

The Clare Biodiversity Action Plan 2017-2023 is set out to protect and improve biodiversity, and as such will not result in negative in-combination effects with the Proposed Development. The Clare County Council Development Plan 2017-2023 has directly addressed the protection of European Sites through specific policies (CDP14.2). The relevant recommendations and mitigation measures have been integrated into the plan.

On examination of the above it is considered that there are no means for the Proposed Development to act in-combination with any plans or projects, that would cause any likely significant effects on any European Sites.

TABLE 5. SUMMARY OF IMPACT ASSESSMENT ON EUROPEAN SITES AS A RESULT OF THE PROPOSED DEVELOPMENT.

Site	Habitat Loss / Alteration	Habitat or Species Fragmentation	Disturbance and/or Displacement of Species	Changes in Population Density	Changes in Water Quality and/or Resource	In-combination effects	Stage 2 AA Required
SAC							
Lower River Shannon SAC (002165)	No	No	YES	None	YES	None	YES
Newhall and Edenvale Complex SAC (002091)	No	No	YES	None	None	None	YES
Pouladatig Cave SAC (000037)	No	No	YES	None	None	None	YES
Ballyallia Lake SAC (000014)	No	No	YES	None	YES	None	YES
Toonagh Estate SAC (002247)	No	No	No	None	None	None	NO
Dromore Woods And Loughs SAC (000032)	No	No	YES	None	YES	None	YES
Knockanira House SAC (002318)	No	No	No	None	None	None	NO
Old Domestic Building (Keevagh) SAC (002010)	No	No	No	None	None	None	NO
Ballycullinan, Old Domestic Building SAC (002246)	No	No	No	None	None	None	NO
Ballycullinan Lake SAC (000016)	No	No	YES	None	YES	None	YES
Old Farm Buildings, Ballymacrogan SAC (002245)	No	No	No	None	None	None	NO
East Burren Complex SAC (001926)	No	No	YES	None	YES	None	YES
Poulnagordon Cave (Quin) SAC (000064)	No	No	YES	None	YES	None	YES
Lough Gash Turlough SAC (000051)	No	No	YES	None	YES	None	YES
Moyree River System SAC (000057)	No	No	YES	None	YES	None	YES
Old Domestic Buildings, Rylane SAC (002314)	No	No	No	None	None	None	NO
Newgrove House SAC (002157)	No	No	No	None	None	None	NO
Ballyogan Lough SAC (000019)	No	No	YES	None	YES	None	YES
SPA							
Ballyallia Lough SPA (004041)	No	No	YES	None	YES	None	YES
River Shannon and River Fergus Estuaries SPA (004077)	No	No	YES	None	YES	None	YES
Slieve Aughty Mountains SPA (004168)	No	No	No	None	None	None	NO
Corofin Wetlands SPA (004220)	No	No	YES	None	YES	None	YES

4 APPROPRIATE ASSESSMENT SCREENING CONCLUSION

The Proposed Development at Ballymacaula, Circular Road, Ennis, Co. Clare has been assessed taking into account:

- the nature, size and location of the proposed works and possible impacts arising from the construction works.
- the qualifying interests and conservation objectives of the European Sites
- the potential for in-combination effects arising from other plans and projects.

In conclusion, upon the examination, analysis and evaluation of the relevant information and applying the precautionary principle, it is concluded by the authors of this report that, on the basis of objective information; the possibility **may be excluded** that the Proposed Development will have a significant effect on any of the European sites listed below:

Toonagh Estate SAC (002247)

Knockanira House SAC (002318)

Old Domestic Building (Keevagh) SAC (002010)

Ballycullinan, Old Domestic Building SAC (002246)

Old Farm Buildings, Ballymacrogan SAC (002245)

Old Domestic Buildings, Rylane SAC (002314)

Newgrove House SAC (002157)

Slieve Aughty Mountains SPA (004168)

However, upon examination of the relevant information including in particular the nature of the Proposed Development and the likelihood of significant effects on European Sites, the possibility may not be excluded that the Proposed Development will have a likely significant effect on any of the European Sites listed below:

Lower River Shannon SAC (002165)

Newhall and Edenvale Complex SAC (002091)

Pouladatig Cave SAC (000037)

Ballyallia Lake SAC (000014)

Dromore Woods And Loughs SAC (000032)

Ballycullinan Lake SAC (000016)

East Burren Complex SAC (001926)

Poulnagordon Cave (Quin) SAC (000064)

Lough Gash Turlough SAC (000051)

Moyree River System SAC (000057)

Ballyogan Lough SAC (000019)

Ballyallia Lough SPA (004041)

River Shannon and River Fergus Estuaries SPA (004077)

Corofin Wetlands SPA (004220)

Accordingly, a Natura Impact Statement has been prepared for the Proposed Development and is included under separate cover.

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