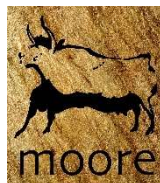


Report for the purposes of
Appropriate Assessment Screening

Parkway Valley Residential Development

Prepared by: Moore Group – Environmental Services

26 May 2026



On behalf of Kirkland Investments

Project Proponent	Kirkland Investments
Project	Parkway Valley LRD
Title	Report for the purposes of Appropriate Assessment Screening Parkway Valley LRD


Project Number	25012	Document Ref	25012 Parkway Valley LRD AAS1 Rev5
Revision	Description	Author	Date
Rev5	Updated per LRD Opinion	G. O'Donohoe 	26 May 2026
Moore Archaeological and Environmental Services Limited			

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Abbreviations

AA	Appropriate Assessment
ACP	An Coimisiún Pleanála
CEMP	Construction Environmental Management Plan
EEC	European Economic Community
EPA	Environmental Protection Agency
EU	European Union
FWPM	Freshwater Pearl Mussel
GIS	Geographical Information System
LAP	Local Area Plan
NHA	Natural Heritage Area
NIS	Natura Impact Statement
NPWS	National Parks and Wildlife Service
OSI	Ordnance Survey Ireland
pNHA	proposed Natural Heritage Area
SAC	Special Area of Conservation
SPA	Special Protection Area
SuDS	Sustainable Drainage System
UÉ	Uisce Éireann
WFD	Water Framework Directive

1. Introduction

1.1. General Introduction

This report for the purposes of Appropriate Assessment (AA) Screening contains information required for the competent authority to make a determination on screening for Appropriate Assessment (AA) in respect of the construction and operation of a large residential development (LRD) at Parkway Valley on the Dublin Road (R445), Limerick (hereafter referred to as the Proposed Development) to determine whether it is likely individually or in combination with other plans or projects to have a significant effect on any European sites, in light of best scientific knowledge.

Having regard to the provisions of the Planning and Development Act 2000, as amended (the "Planning Acts") (section 177U), the purpose of a screening exercise under section 177U of the PDA 2000 is to assess, in view of best scientific knowledge, if the proposed development, individually or in combination with other plans or projects is likely to have a significant effect on a European site.

If it cannot be *excluded* on the basis of objective information that the proposed development, individually or in combination with other plans or projects, will have a significant effect on a European site then it is necessary to carry out a Stage 2 appropriate assessment under section 177V of the Planning Acts.

When screening the project, there are two possible outcomes:

- the project poses no potential for the possibility of a significant effect and as such requires no Stage 2 assessment; or
- the project has potential to have a significant effect (or this is uncertain and therefore cannot be excluded) and therefore a Stage 2 Appropriate Assessment of the project is necessary.

This report has been prepared by Moore Group - Environmental Services to enable the competent authority to make a determination on AA screening in relation to the Proposed Development. The report was compiled by Ger O'Donohoe B.Sc. Applied Aquatic Sciences (ATU Galway, 1993) & M.Sc. Environmental Sciences (TCD, 1999) who has over 30 years' experience in environmental impact assessment and has completed numerous Appropriate Assessment Screening Reports and Natura Impact Statements on terrestrial and aquatic habitats for various development types.

1.2. Legislative Background - The Habitats and Birds Directives

Article 6(3) and 6(4) of the Habitats Directive are transposed into Irish Law inter alia by the Part XAB of the Planning Acts (in particular section 177U and 177V) which governs the requirement to carry out appropriate assessment screening and appropriate assessment, where required, per Section 1.1 above.

The Habitats Directive (Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora) is the main legislative instrument for the protection and conservation of biodiversity in the European Union (EU). Under the Habitats Directive, Member States are obliged to designate Special Areas of Conservation (SACs) which contain habitats or species considered important for protection and conservation in an EU context.

The Birds Directive (Council Directive 2009/147/EC on the conservation of wild birds), transposed into Irish law by the Bird and Natural Habitats Regulations 2011 as amended, and the Wildlife Act 1976, as amended, is concerned with the long-term protection and management of all wild bird species and their habitats in the EU. Among other things, the Birds Directive requires that Special Protection Areas (SPAs) be established to protect migratory species and species which are rare, vulnerable, in danger of extinction, or otherwise require special attention.

SACs designated under the Habitats Directive and SPAs, designated under the Birds Directive, form a pan-European network of protected sites known as Natura 2000. The Habitats Directive sets out a unified system for the protection and management of SACs and SPAs. These sites are also referred to as European sites.

Articles 6(3) and 6(4) of the Habitats Directive set out the requirement for an assessment of proposed plans and projects likely to have a significant effect on Natura 2000 sites.

Article 6(3) establishes the requirement to screen all plans and projects and to carry out an appropriate assessment if required (Appropriate Assessment (AA)).

Article 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 subjected to an appropriate assessment of its implications for the site in view of the site’s conservation objectives. In 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.”*

Article 6(4) establishes requirements in cases of imperative reasons of overriding public interest.

2. Methodology

The Commission’s methodological guidance (EC, 2002, 2018, 2021 see Section 2.1 below) promotes a four-stage process to complete the AA and outlines the 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.

Stages 1 and 2 deal with the main requirements for assessment under Article 6(3). Stage 3 may be part of Article 6(3) or may be a necessary precursor to Stage 4. Stage 4 is the main derogation step of Article 6(4).

Stage 1 Screening: This stage examines the likely effects of a project either alone or in combination with other plans and projects upon a Natura 2000 site and considers whether it can be objectively concluded that these effects will not be significant. In order to screen out a project, it must be excluded, on the basis of objective information, that the Proposed Development, individually or in combination with other plans or projects, will have a significant effect on a European site.

Stage 2 Appropriate Assessment: This stage considers whether the plan or project, alone or in combination with other projects or plans, will have adverse effects on the integrity of a Natura 2000 site, and includes any mitigation measures necessary to avoid, reduce or offset negative effects. The proponent of the plan or project will be required to submit a Natura Impact Statement, i.e. the report of a targeted professional scientific examination of the plan or project and the relevant Natura 2000 sites, to identify and characterise any possible implications for the site in view of the site's conservation objectives, taking account of in combination effects.

Stage 3 Assessment of Alternative Solutions: This stage examines alternative ways of implementing the project that, where possible, avoid any adverse impacts on the integrity of the Natura 2000 site.

Stage 4 Assessment where no alternative solutions exist and where adverse impacts remain: Where imperative reasons of overriding public interest (IROPI) exist, an assessment to consider whether compensatory measures will or will not effectively offset the damage to the sites will be necessary.

To ensure that the Proposed Development complies fully with the requirements of Article 6 of the Habitats Directive and all relevant Irish transposing legislation, Moore Group compiled this report to enable the competent authority to make a determination on AA screening in relation to the Proposed Development to determine whether it can be excluded, on the basis of objective information, that the Proposed Development, individually or in combination with other plans or projects, will have a significant effect on a European site(s).

2.1. Guidance

This report has been compiled in accordance with guidance contained in the following documents:

- Appropriate Assessment of Plans and Projects in Ireland - Guidance for Planning Authorities. (Department of Environment, Heritage and Local Government, 2010 rev.).
- Appropriate Assessment under Article 6 of the Habitats Directive: Guidance for Planning Authorities. Circular NPWS 1/10 & PSSP 2/10.
- Managing Natura 2000 Sites: The Provisions of Article 6 of the Habitat's Directive 92/43/EEC (EC, 2018).
- Guidance document on the strict protection of animal species of Community interest under the Habitats Directive (EC, 2021).

- 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 (EC, 2021).
- Office of the Planning Regulator (OPR) Practice Note PN01 Appropriate Assessment Screening for Development Management (OPR, 2021).
- Natura Impact Statement Sustainable Residential Development and Compact Settlement Guidelines for Planning Authorities (NPWS, 2024).

2.2. Data Sources

Sources of information that were used to collect data on the Natura 2000 network of sites, and the environment within which they are located, are listed below:

- The following mapping and Geographical Information Systems (GIS) data sources, as required:
 - National Parks & Wildlife (NPWS) protected site boundary data;
 - Ordnance Survey of Ireland (OSI) mapping and aerial photography;
 - OSI/Environmental Protection Agency (EPA) rivers and streams, and catchments;
 - Digital Elevation Model over Europe (EU-DEM);
 - Google Earth and Bing aerial photography 1995-2026;
- Online data available on Natura 2000 sites as held by the National Parks and Wildlife Service (NPWS) from www.npws.ie including:
 - Natura 2000 - Standard Data Form;
 - Conservation Objectives;
 - Site Synopses;
- National Biodiversity Data Centre records;
 - Online database of rare, threatened and protected species;
 - Publicly accessible biodiversity datasets.
- Status of EU Protected Habitats in Ireland. (National Parks & Wildlife Service, 2019); and
- Relevant Development Plans;
 - Limerick Development Plan 2022-2028
- Relevant Reports;
 - Éire Ecology Bird and Bat Report - appendix to the Project EIAR.

3. Description of the Proposed Development

3.1. Description of the Existing Environment

The site comprises the footprint of a now demolished structure, with some remaining concrete surfaces (BL3) within a large area of Scrub (WS1), bare and recolonising ground (ED2/ED3), with smaller areas of Dry grassland (GS2) and reed swamp (FS1). A description of Habitats and Species surveyed during fieldwork on 18/06/25 and 11/09/2025 by Moore Group Ecologists is presented as follows. Information on Birds and Bats is provided from Éire Ecology Surveys commenced in February 2025 on Wintering Birds, continuing on Breeding Birds in June 2025 and commencing Bat Surveys in June 2025 and continuing into September 2025. Habitats are presented in Section 3.2, Figure 2 below.

Dry meadows and grassy verges (GS2)

This habitat occurs principally in the northeastern section of the site, adjacent to the Dublin Road (R445), as well as small, scattered patches along tracks. It generally occurs intermixed with scattered Scrub (WS1). Species present includes Cock's Foot (*Dactylis glomerata*), Red Fescue (*Festuca rubra*), Oxeye Daisy (*Leucanthemum vulgare*), Ribwort Plantain (*Plantago lanceolata*) and Bird's foot Trefoil (*Lotus corniculatus*).

Scrub (WS1)

Scrub occurs around the margins of the entire site, both as large stands and scattered patches among other transitional habitats. Where it is longest established, for example along the southwestern boundary, it comprises stands of fast growing trees and shrubs, including Downy Birch (*Betula pubescens*), Grey Willow (*Salix cinerea*), Goat Willow (*Salix caprea*), Gorse (*Ulex europaeus*), Rowan (*Sorbus aucuparia*), Swedish Whitebeam (*Sorbus intermedia*), and *Buddleia*.

Spoil and bare ground (ED2)

This habitat occurs throughout the site, often in an intimate mosaic with WS1 and ED3 habitats. The substrate is largely crushed stone, with smaller areas of barish earth and spoil heaps. A broad range of species occur on this habitat across the site, including Red Valerian (*Centranthus ruber*), Fox and Cubs (*Pilosella aurantiaca*), Bilbao's Fleabane (*Erigeron floribundus*), Grey Willow saplings and Charlock (*Sinapis arvensis*).

Recolonising bare ground (ED3)

This category refers to habitats with greater vegetation cover than the previous category; both habitats are intermixed throughout the site however. A large suite of ruderal species occupy this habitat, with Common Centaury (*Centaureum erythraea*), Yellowwort (*Blackstonia perfoliata*), Broad-leaved Willowherb (*Epilobium*

montanum), Self Heal (*Prunella vulgaris*), Scarlet Pimpernel (*Lysimachia arvensis*), Cat's Ear (*Hypochaeris radicata*), Hawksbeards (*Crepis* sp.), Creeping Bent (*Agrostis stolonifera*) and Yorkshire Fog (*Holcus lanatus*).

Reed and large sedge swamps (FS1)

This category refers to a small hollow adjacent to a pylon in the northeastern section of the site. Bulrush (*Typha latifolia*) is the dominant species.

Buildings and artificial surfaces (BL3)

This category refers to hard surfaces on site. This includes the paved section of access road on the western side of the site, the concrete basement walls, and the raised concrete surface at the southwestern section of the site.

Badgers

The NBDC database was consulted for details on badger records held for the Proposed Development area. The database was consulted on the 22/09/2025 for details on historical records from the site. There is a single record for a roadkill badger on the Dublin Road (R445) immediately north of the proposed development site (McLoughlin, 2012). There were no signs of badgers or setts within the proposed development area. The area is heavily disturbed brownfield, curtailed by intervening wire mesh fences and road development restricting badger movement into the site.

Otters

There were no signs of otters in the study area. The nearest NBDC records refer to records on the River Shannon 1km to the north downstream from 13/12/2012.

Bats

Six species of bat were positively identified during the various bat surveys: Common Pipistrelle (*Pipistrellus pipistrellus*), Soprano Pipistrelle (*Pipistrellus pygmaeus*), Nathusius Pipistrelle (*Pipistrellus nathusii*), Brown Long-eared bat (*Plecotus auritus*), Leisler's bat (*Nyctalus leisleri*) and Lesser Horseshoe bat (*Rhinolophus hipposideros*). In addition, five unidentified Myotis bat species were recorded, these being either Whiskered, Natterers or Daubenton's bats. Finally, several Pipistrelle calls recorded from the static detectors had a peak frequency of 40kHz thus could be either Common or Nathusius Pipistrelle.

Surveys reveal the site is unsuitable for roosting bats but is used for feeding purposes.

Lesser Horseshoe bat recordings did not occur close to sunset thus suggesting records are not from bats roosting close to the site. At the D1 survey point, located immediately outside the site boundary along the Dublin Road, a recording was made on the 08th of May at 22:52. At the D2 survey point, located at the southern boundary of the site, the recording was dated 17th of May at 00:56. While surveys demonstrate the site has very low usage

by this species it confirms a corridor for this species does exist in the city, with Lesser Horseshoe likely utilising the Groody River system as a navigational aid.

There are no European sites designated for Lesser Horseshoe bats in the zone of influence of the Proposed Development.

Birds

Bird surveys were conducted in both winter and the breeding season. Overall, low activity was recorded with gull species noted overfly generally not interacting with the site; Herring gull were noted resting on the ground on one occasion. Oystercatchers were recorded during a February survey. During the breeding season several passerines were recorded as probably breeding, however these were confined to scrub rather than open areas.

Overall, no large flocks of species of interest were noted in the surrounding wet grassland meadows. This is likely due to management and height of vegetation. Short cropped grass is favoured by wintering waterbirds such as lapwing and golden plover while geese and swans favour improved grassland fields.

Lapwing was the primary species of interest noted in Wintering surveys at the Parkway Valley development. Lapwing was observed 10 times during VP surveys between October 2025 and January 2026. The largest flock observed was made up of 165 individuals was noted in January 2026.

This species was most noted perched on bare, built land south of ponding water located outside the boundary of the current planning proposal. The ponded area is screened from the road by a large fence effectively isolating the site from road traffic.

While this is not a Nationally important flock (c. 850), it can be considered of regional importance. The regionally important numbers were recorded only once and are likely to represent small flocks gathering in preparation to move north. Lapwing was not found to be present on site in February 2025 despite January 2026 showing highest levels of activity. This shows the current site is of highest value at mid-winter.

This Lapwing flock recorded east of Limerick City is unlikely to represent an *ex-situ* component of the River Shannon and River Fergus Estuaries SPA population. The SPA Supporting Document and associated distribution mapping indicate that SPA-linked Lapwing are concentrated west of the city, associated with estuarine margins and adjacent supratidal grasslands. The observed inland flock is therefore best interpreted as a discrete, non-SPA-dependent wintering group.

Loughmore Common Turlough, located 6.8km SW from the site is noted as having populations of Lapwing present. Given the Lapwing on site were seen entering from the North and East, and that Limerick City is located between the site and pNHA, it is highly unlikely that birds present on site represent an *ex-situ* population of Lapwing associated with the pNHA.

Aquatic Species

There are no water courses with flowing water on site (See Figure 2 below). The site has large areas of pooled standing water which is ephemeral in nature depending on rainfall. Drainage is generally to ground or diffuse to distant drainage ditches to the east of the site. These drainage ditches were observed in September 2025 to be stagnant, but they have distant connectivity to the Groody River in that they link to the floodplain of the river and/or to more established water courses such as the EPA named Industrial Estate/Galvone Stream, which discharges the Groody c. 200m to the east of the site.

The ditches nearest the site were observed to have shallow stagnant stands of water with no instream flora and heavy/dense vegetation cover. They do not have fisheries value and have sub-optimal value to amphibians such as newts and frogs.

There are no plans to directly affect these drainage ditches. The proposed development does include surface water drainage design to link to one drainage ditch in the east to discharge treated surface water. Thus, the primary concern for aquatic species is upholding good water quality. Information from the Hydrological and Hydrogeological Risk Assessment presented in the Project EIAR is included as follows with regard to groundwater. There would be a potential pathway to the underlying aquifer through the bedrock via vertical migration following the proposed localised excavation of bedrock. The bedrock will be temporarily unprotected by any overburden subsoil from any localised diesel/fuel oil spills during construction. The site is underlain by an aquifer which is 'moderately productive in local zones', with a combination of 'low', 'moderate' and 'high' vulnerability across the site. This aquifer is characterised by discrete local fracturing with little connectivity. As such, flow paths are generally local. The potential for offsite migration due to any construction discharges is low as there is no significant pathway in the aquifer.

3.2. Description of the Proposed Development

The Proposed Development consists of the construction and operation of a large residential development comprising 403 no. residential units over 5 no. apartment blocks, a crèche and medical centre and all associated and ancillary development. Figure 1 shows the Proposed Development location and Figure 2 shows a detailed view of the Proposed Development boundary on recent aerial photography. Figure 3 shows the layout of the Proposed Development.

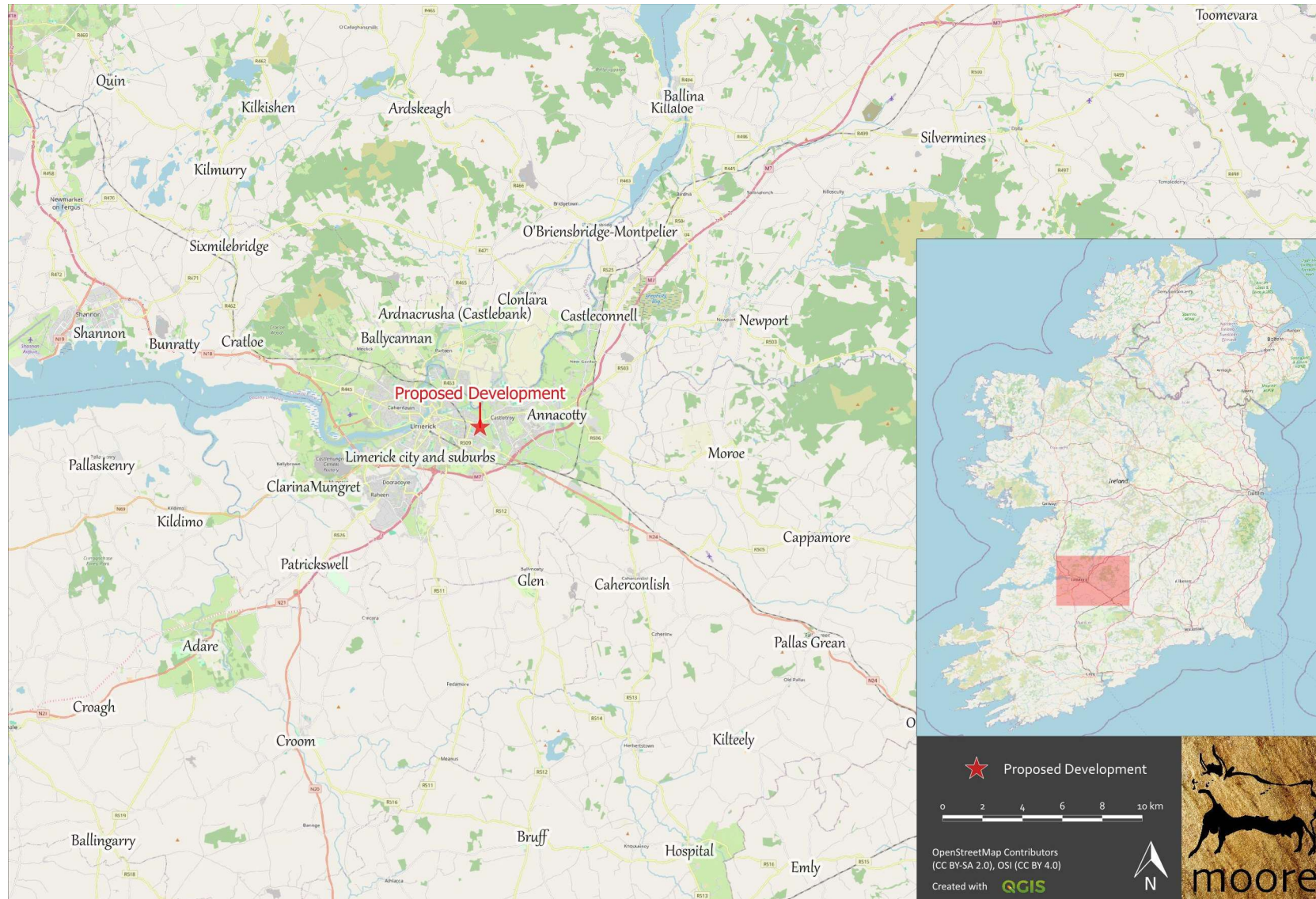


Figure 1. Showing the Proposed Development location at Parkway, Limerick.

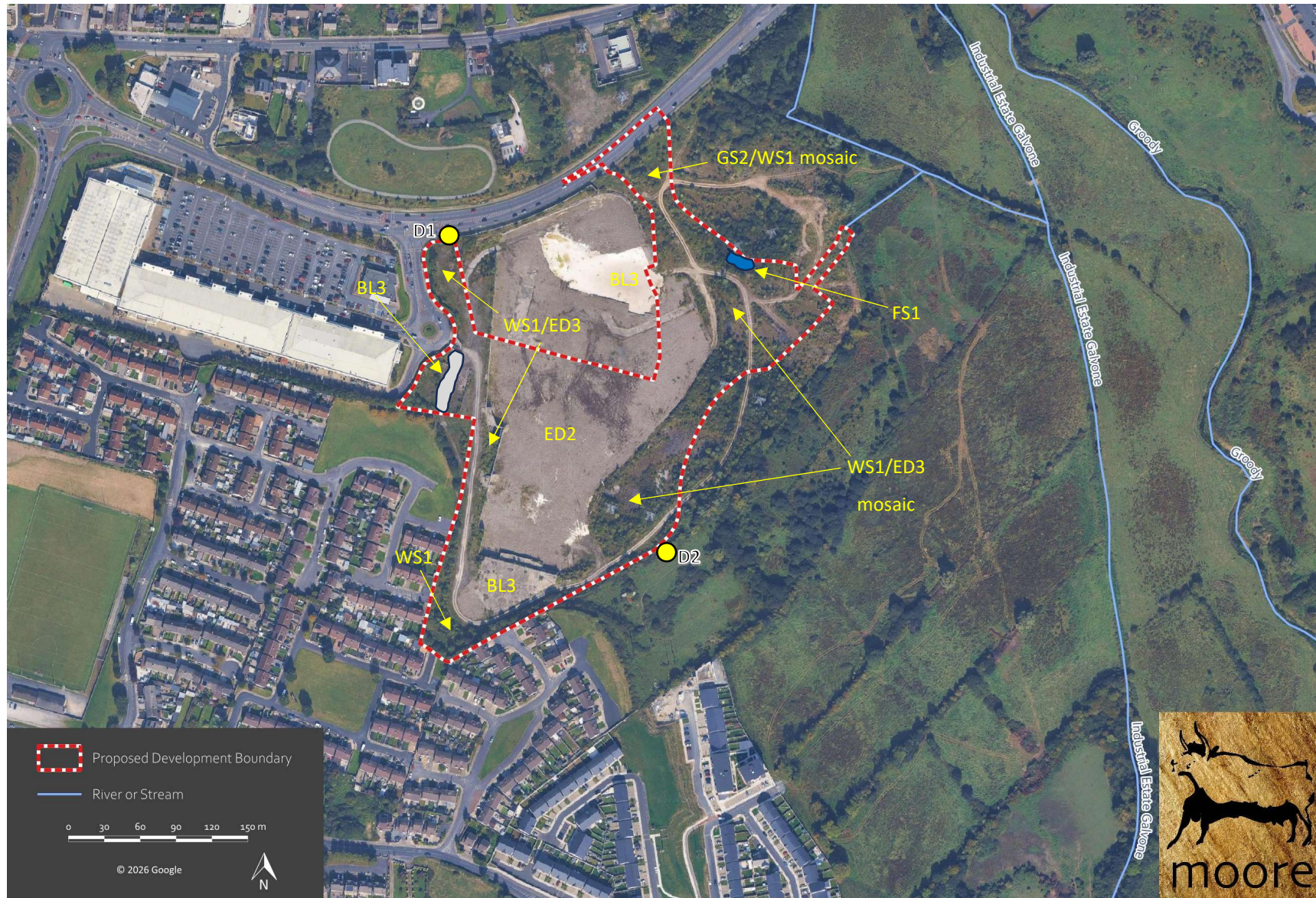


Figure 2. Showing the Proposed Development boundary and habitats present on recent aerial photography (D1& D2 Static Detector locations).



Figure 3. Plan of the Proposed Development.

4. Identification of Natura 2000 Sites

4.1. Description of Natura Sites Potentially Significantly Affected

A Zone of Influence (Zoi) of a proposed development is the geographical area over which it could affect the receiving environment in a way that could have significant effects on the Qualifying Interests of a European site. In accordance with the OPR Practice Note (2021), PN01, the Zoi should be established on a case-by-case basis using the Source- Pathway-Receptor framework.

The European Commission's "Assessment of plans and projects in relation to Natura 2000 sites guidance on Article 6(3) and (4) of the Methodological Habitats Directive 92/43/EEC" published 28 September 2021 states at section 3.1.3, that:

"Identifying the Natura 2000 sites that may be affected should be done by taking into consideration all aspects of the plan or project that could have potential effects on any Natura 2000 sites located within the zone of influence of the plan or project. This should take into account all of the designating features (species, habitat types) that are significantly present on the sites and their conservation objectives. In particular, it should identify:

- *any Natura 2000 sites geographically overlapping with any of the actions or aspects of the plan or project in any of its phases, or adjacent to them;*
- *any Natura 2000 sites within the likely zone of influence of the plan or project Natura 2000 sites located in the surroundings of the plan or project (or at some distance) that could still be indirectly affected by aspects of the project, including as regards the use of natural resources (e.g. water) and various types of waste, discharge or emissions of substances or energy;*
- *Natura 2000 sites in the surroundings of the plan or project (or at some distance) which host fauna that can move to the project area and then suffer mortality or other impacts (e.g. loss of feeding areas, reduction of home range);*
- *Natura 2000 sites whose connectivity or ecological continuity can be affected by the plan or project".*

The range of Natura 2000 sites to be assessed, i.e. the zone in which impacts from the plan or project may arise, will depend on the nature of the plan or project and the distance at which effects may occur. For Natura 2000 sites located downstream along rivers or wetlands fed by aquifers, it may be that a plan or project can affect water flows, fish migration and so forth, even at a great distance. Emissions of pollutants may also have effects over a long distance. Some projects or plans that do not directly affect Natura 2000 sites may still have a significant impact on them if they cause a barrier effect or prevent ecological linkages. This may happen, for example, when plans affect features of the landscape that connect Natura 2000 sites or that may obstruct the

movements of species or disrupt the continuity of a fluvial or woodland ecosystem. To determine the possible effects of the plan or project on Natura 2000 sites, it is necessary to identify not only the relevant sites but also the habitats and species that are significantly present within them, as well as the site objectives.

The Zone of Influence may be determined by considering the Proposed Development's potential connectivity with European sites, in terms of:

- Nature, scale, timing and duration of all aspects of the proposed works and possible impacts, including the nature and size of excavations, storage of materials, flat/sloping sites;
- Distance and nature of potential pathways (dilution and dispersion; intervening 'buffer' lands, roads etc.); and
- Location of ecological features and their sensitivity to the possible impacts.

The potential for source pathway receptor connectivity is firstly identified through GIS interrogation and detailed information is then provided on sites with connectivity. European sites that are located within a potential Zone of Influence of the Proposed Development are listed in Table 1 and presented in Figures 4 and 5, below. Spatial boundary data on the Natura 2000 network was extracted from the NPWS website (www.npws.ie) on 22 September 2025. This data was interrogated using GIS analysis to provide mapping, distances, locations and pathways to all sites of conservation concern including pNHAs, NHA and European sites.

Table 1 European Sites located within the potential Zone of Influence¹ of the Proposed Development.

Site Code	Site name	Distance (km) ²
002165	Lower River Shannon SAC	0.705
004077	River Shannon and River Fergus Estuaries SPA	2.97

The Proposed Development is situated on a largely brownfield site in the eastern suburbs of Limerick City. The Groody River, which discharges to the River Shannon to the north, flows past c. 200m to the east.

The nearest European sites to the Proposed Development, and the only sites considered to lie within its potential Zone of Influence are the Lower River Shannon SAC (Site Code 002165), c. 705m to the north, and the River Shannon and River Fergus Estuaries SPA (Site Code 004077), c. 2.97km to the west.

There is no direct source pathway linkage between the Proposed Development site and any Natura 2000 sites. There is indirect source pathway linkage from the Proposed Development through the surface water drainage design which discharges to an open drain which flows into an OPW arterial drainage channel, ultimately discharging to the Groody River and eventually to the River Shannon.

¹ All European sites potentially connected irrespective of the nature or scale of the Proposed Development.

² Distances indicated are the closest geographical distance between the Proposed Development and the European site boundary, as made available by the NPWS.

There is an indirect hydrological connection to the River Shannon SAC. The Proposed Development would have a hydrological linkage through the drainage albeit via a long pathway with significant dilution and attenuation factors downstream in the river network. There will also be a hydrological connection via the wastewater drainage although, as mentioned above, the facility is required to operate under a licence which prevents water exceeding the SI threshold concentrations to be discharged.

The Proposed Development has an indirect hydrological linkage to the Upper Shannon Estuary and its associated Natura 2000 site (mentioned above), once operational via the wastewater network and surface water drainage, albeit the source pathway linkage is over a significant distance allowing for significant attenuation and large dilution factor within the river catchment and estuary.

In addition to the identified surface water pathways, a potential indirect hydrogeological linkage to the Lower River Shannon SAC and the River Shannon and River Fergus Estuaries SPA has been considered. During construction, excavation works, including foundation construction and localised bedrock excavation, could provide a pathway for contaminants to enter the underlying aquifer in the absence of control measures. Given the localised nature of groundwater flow, limited aquifer connectivity, attenuation within subsoils and dilution within the receiving river system, any such pathway would be indirect and limited; however, it is considered further on a precautionary basis.

The Qualifying Interests (QIs) and Special Conservation Interests (SCIs) of the European sites in the Zone of influence of the Proposed Development are provided in Table 2 below.

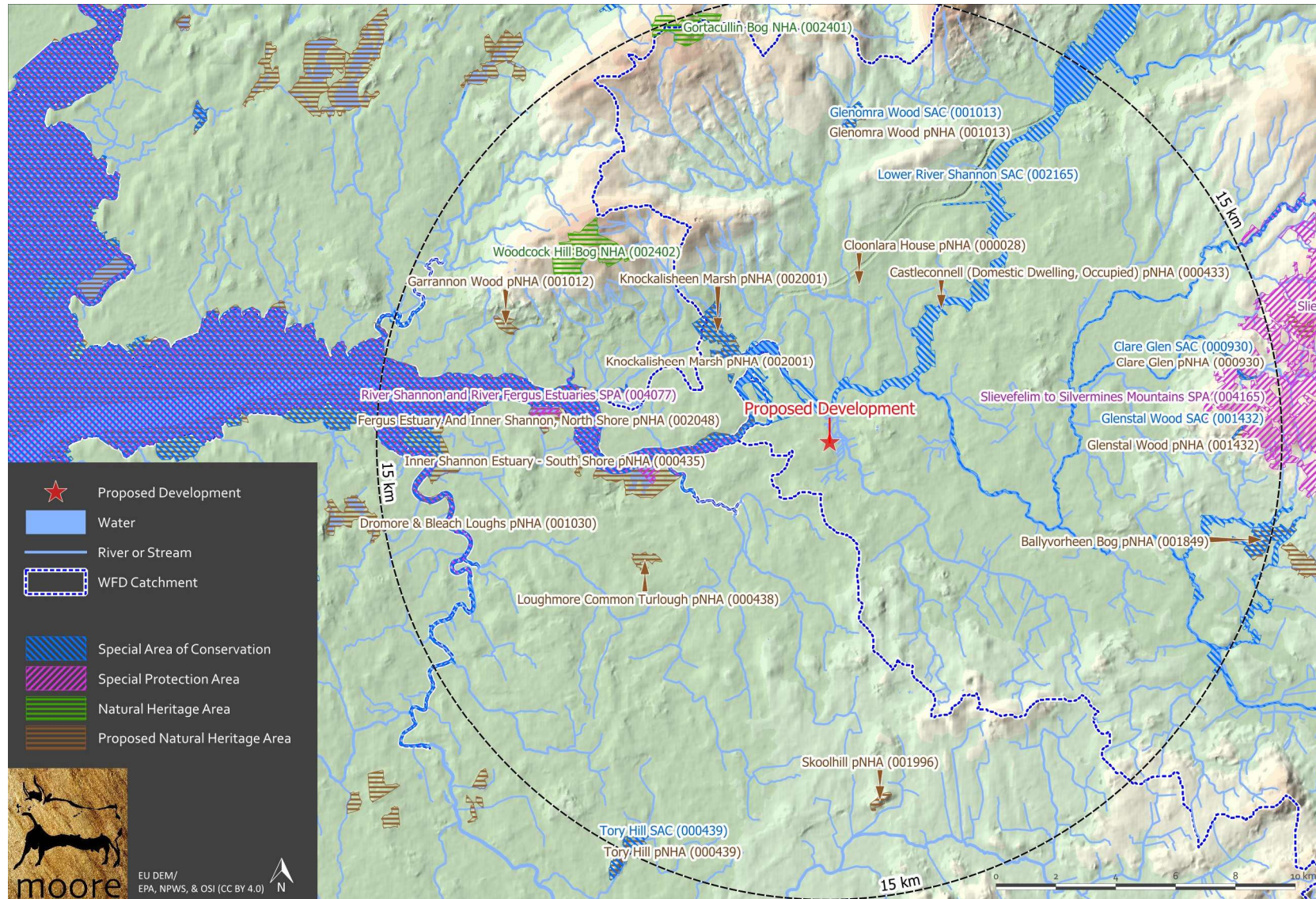


Figure 4. Showing European sites and NHAs/pNHAs within the wider Potential Zone of Influence of the Proposed Development.



Figure 5. Detailed view of European sites in the nearer Potential Zone of Influence of the Proposed Development.

Table 2 Identification of relevant European sites using Source-Pathway-Receptor model and compilation of information on QIs and conservation objectives. *Priority Habitats

European Site name, Site code and Conservation Objectives	Location Relative to the Proposed Development Site	Connectivity – Source-Pathway-Receptor	Considered further in Screening – Y/N
<p>Lower River Shannon SAC (002165)</p> <p>The overall aim of the Habitats Directive is to maintain or restore the favourable conservation status of habitats and species of community interest:</p> <p>1029 Freshwater Pearl Mussel <i>Margaritifera margaritifera</i></p> <p>1095 Sea Lamprey <i>Petromyzon marinus</i></p> <p>1096 Brook Lamprey <i>Lampetra planeri</i></p> <p>1099 River Lamprey <i>Lampetra fluviatilis</i></p> <p>1106 Atlantic Salmon <i>Salmo salar</i> (only in fresh water)</p> <p>1110 Sandbanks which are slightly covered by sea water all the time</p> <p>1130 Estuaries</p> <p>1140 Mudflats and sandflats not covered by seawater at low tide</p> <p>1150 *Coastal lagoons</p> <p>1160 Large shallow inlets and bays</p> <p>1170 Reefs</p> <p>1220 Perennial vegetation of stony banks</p> <p>1230 Vegetated sea cliffs of the Atlantic and Baltic coasts</p> <p>1310 <i>Salicornia</i> and other annuals colonizing mud and sand</p> <p>1330 Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>)</p> <p>1349 Bottlenose Dolphin <i>Tursiops truncatus</i></p> <p>1355 Otter <i>Lutra lutra</i></p> <p>1410 Mediterranean salt meadows (<i>Juncetalia maritimi</i>)</p> <p>3260 Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitriche-Batrachion</i> vegetation</p> <p>6410 <i>Molinia</i> meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinion caeruleae</i>)</p>	<p>0.705km to the north of the Proposed Development</p>	<p>Yes.</p> <p>There is indirect source pathway linkage from the Proposed Development through the surface water drainage to the Groody River and eventually to the River Shannon.</p> <p>A CEMP will be required to ensure there are no impacts on this site.</p> <p>There would be a potential pathway to the underlying aquifer through the bedrock via vertical migration following the proposed localised excavation of bedrock. The bedrock will be temporarily unprotected by any overburden subsoil from any localised diesel/fuel oil spills during construction. The site is underlain by an aquifer which is 'moderately productive in local zones', with a combination of 'low', 'moderate' and 'high' vulnerability across the site. This aquifer is characterised by discrete local fracturing with little connectivity. As such, flow paths are generally local. The potential for offsite migration due to any construction discharges is low as there is no significant pathway in the aquifer.</p> <p>Indirect effects could have a negative effect on the aquatic QIs for this site including:</p> <p>1095 Sea Lamprey, 1096 Brook Lamprey, 1099 River Lamprey, 1106 Atlantic Salmon, 1355 Otter.</p>	<p>Yes, see Table 3 below.</p>

European Site name, Site code and Conservation Objectives	Location Relative to the Proposed Development Site	Connectivity – Source-Pathway-Receptor	Considered further in Screening – Y/N
<p>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>)</p> <p>NPWS (2012) Conservation Objectives: Lower River Shannon SAC 002165. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.</p>			
<p>River Shannon and River Fergus Estuaries SPA (004077)</p> <p>The overall aim of the Birds Directive is to maintain or restore the favourable conservation status of habitats and species of community interest:</p> <p>A017 Cormorant <i>Phalacrocorax carbo</i> breeding + wintering</p> <p>A038 Whooper Swan <i>Cygnus cygnus</i> wintering</p> <p>A046 Light-bellied Brent Goose <i>Branta bernicla hrota</i> wintering</p> <p>A048 Shelduck <i>Tadorna tadorna</i> wintering</p> <p>A050 Wigeon <i>Anas penelope</i> wintering</p> <p>A052 Teal <i>Anas crecca</i> wintering</p> <p>A054 Pintail <i>Anas acuta</i> wintering</p> <p>A056 Shoveler <i>Anas clypeata</i> wintering</p> <p>A062 Scaup <i>Aythya marila</i> wintering</p> <p>A137 Ringed Plover <i>Charadrius hiaticula</i> wintering</p> <p>A140 Golden Plover <i>Pluvialis apricaria</i> wintering</p> <p>A141 Grey Plover <i>Pluvialis squatarola</i> wintering</p> <p>A142 Lapwing <i>Vanellus vanellus</i> wintering</p> <p>A143 Knot <i>Calidris canutus</i> wintering</p> <p>A149 Dunlin <i>Calidris alpina</i> wintering</p> <p>A156 Black-tailed Godwit <i>Limosa limosa</i> wintering</p> <p>A157 Bar-tailed Godwit <i>Limosa lapponica</i> wintering</p> <p>A160 Curlew <i>Numenius arquata</i> wintering</p> <p>A162 Redshank <i>Tringa totanus</i> wintering</p> <p>A164 Greenshank <i>Tringa nebularia</i> wintering</p>	<p>2.97km to the west of the Proposed Development</p>	<p>Yes.</p> <p>There is indirect source pathway linkage from the Proposed Development through the surface water drainage to the Groody River and eventually to the River Shannon.</p> <p>A CEMP will be required to ensure there are no impacts on this site.</p> <p>While the site is unsuitable for the listed annexed bird species, the consideration of potential effects on water quality is considered further.</p> <p>There would be a potential pathway to the underlying aquifer through the bedrock via vertical migration following the proposed localised excavation of bedrock. The bedrock will be temporarily unprotected by any overburden subsoil from any localised diesel/fuel oil spills during construction. The site is underlain by an aquifer which is 'moderately productive in local zones', with a combination of 'low', 'moderate' and 'high' vulnerability across the site. This aquifer is characterised by discrete local fracturing with little connectivity. As such, flow paths are generally local. The potential for offsite migration due to any construction discharges is low as there is no significant pathway in the aquifer.</p>	<p>Yes, see Table 3 below.</p>

European Site name, Site code and Conservation Objectives	Location Relative to the Proposed Development Site	Connectivity – Source-Pathway-Receptor	Considered further in Screening – Y/N
<p>A179 Black-headed Gull <i>Chroicocephalus ridibundus</i> wintering</p> <p>A999 Wetlands</p> <p>NPWS (2012) Conservation Objectives: River Shannon and River Fergus Estuaries SPA 004077. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.</p>		<p>These Annex 1 bird species are located in the lower River Shannon and Fergus Estuary and predominantly outside zone of influence of the Project.</p> <p>While the site is unsuitable for the listed annexed bird species, the consideration of potential effects on water quality is considered further.</p>	

4.2. Ecological Network Supporting Natura 2000 Sites

A concurrent GIS analysis of the proposed Natural Heritage Areas (pNHA) and designated Natural Heritage Areas (NHA) in terms of their role in supporting the species using Natura 2000 sites was undertaken along with GIS investigation of European sites. These supporting roles mainly relate to mobile fauna such as mammals and birds which may use pNHAs and NHAs as ecological corridors or “stepping stones” between Natura 2000 sites.

Article 10 of the Habitats Directive and the Habitats Regulations 2011 place a high degree of importance on such non-Natura 2000 areas as features that connect the Natura 2000 network. Features such as ponds, woodlands and important hedgerows were taken into account in the decision process and during the preparation of this AA Screening report.

The NHAs and pNHAs identified in Figure 4 are located outside the Zone of Influence, with the exception of those which share the boundaries of European sites; these are considered under their higher conservation status as European sites.

Loughmore Common Turlough, located 6.8km SW from the site is noted as having populations of Lapwing present. Given the Lapwing on site were seen entering from the North and East, and that Limerick City is located between the site and pNHA, it is highly unlikely that birds present on site represent an *ex-situ* population of Lapwing associated with the pNHA.

5. Identification of Potential Impacts & Assessment of Significance

The Proposed Development is not directly connected with or necessary to the management of the sites considered in the assessment and therefore potential impacts must be identified and considered.

5.1. Assessment of Likely Significant Effects

The consideration of all potential direct and indirect impacts that may result in significant effects on the conservation objectives of a European site, taking into account the size and scale of the Proposed Development are presented in Table 3.

Table 3 Assessment of Likely Significant Effects.

Identification of all potential direct and indirect impacts that may result in significant effects on the conservation objectives of a European site, taking into account the size and scale of the project.	
Impacts:	Significance of Impacts:
<p>Construction phase e.g.</p> <p>Vegetation clearance</p> <p>Demolition</p> <p>Surface water runoff from soil excavation/infill/landscaping (including borrow pits)</p> <p>Dust, noise, vibration</p> <p>Lighting disturbance</p> <p>Impact on groundwater/dewatering</p> <p>Storage of excavated/construction materials</p> <p>Access to site</p> <p>Pests</p>	<p>There is indirect source pathway linkage from the Proposed Development through the surface water drainage to the Groody River and eventually to the River Shannon.</p> <p>The potential effects on surface water is indeterminable in the absence of construction management. The potential for impact on the aquifer is low based on the absence of any bulk chemical storage on site. Any silt-laden stormwater from construction or hydrocarbon-contaminated water from a construction vehicle leak/tank leak will be attenuated and treated through attenuation and hydrocarbon interception on site. No exceedance of water quality objectives is likely by the time the stormwater reaches the nearest European Sites which would involve a large dilution factor (River Shannon, c. 705 m north downgradient).</p> <p>Hydrocarbons or any hazardous chemicals will be stored in specific bunded areas. Refuelling of plant and machinery will also be carried out in bunded areas to minimise risk of any potential being discharged from the site. As a worst-case scenario, a rupture of a 1,000-litre tank to ground is considered in this analysis which disregards the effect of bunding. This would be a single short-term event.</p> <p>A leakage may occur from site equipment and/or machinery during the construction phase. As a worst-case scenario an unmitigated leak of 300 litres.</p>

	<p>Use of wet cement is a requirement during construction. Run-off water from recent cemented areas will result in highly alkaline water with high pH. As this would only occur during particular phases of work, this is again considered as a single short-term event rather than an ongoing event.</p> <p>The proposed piling methodology (CFA) forms a sealed, in-situ concrete pile that limits groundwater interaction to a very short, localised period.</p> <p>In the event of a leak or spill, hydrogeological connections may exist through lateral migration with the River Shannon. However, the potential for impacts is low given the distance of removal, allowing for significant attenuation and large dilution factor within the river catchment and estuary, should an accidental release occur.</p> <p>Site management/mitigation measures will be required to eliminate/minimise potential for pollution of surface water/ground water during construction, and they be included in a CEMP to which the contractor will be required to adhere.</p>
<p>Operational phase e.g.</p> <p>Direct emission to air and water</p> <p>Surface water runoff containing contaminant or sediment</p> <p>Lighting disturbance</p> <p>Noise/vibration</p> <p>Changes to water/groundwater due to drainage or abstraction</p> <p>Presence of people, vehicles and activities</p> <p>Physical presence of structures (e.g. collision risks)</p>	<p>Foul drainage will be contained on site and discharged to urban drainage systems.</p> <p>Surface drainage will drain through SUDs measures, attenuation and flow control prior to discharge into an open drain which flows into the Industrial Estate/Galvone stream and ultimately discharging to the Groody River.</p> <p>There is no real likelihood of any significant effects on European Sites in the wider catchment area.</p> <p>The facility is located at a distance of removal such that there will be no disturbance to qualifying interest species in any European sites.</p>
<p>Describe any likely changes to the European site:</p>	
<p>Examples of the type of changes to give consideration to include:</p> <p>Reduction or fragmentation of habitat area</p> <p>Disturbance to QI species</p> <p>Habitat or species fragmentation</p>	<p>None.</p> <p>The Proposed Development site is not located adjacent or within a European site, therefore there is no risk of habitat loss or fragmentation or any effects on QI habitats or species directly or ex-situ.</p> <p>However, in the absence of controls during construction the potential for indirect negative effects on aquatic</p>

Reduction or fragmentation in species density	habitats and aquatic based species located downstream in the River Shannon is uncertain.
Changes in key indicators of conservation status value (water quality etc.)	
Changes to areas of sensitivity or threats to QI	
Interference with the key relationships that define the structure or ecological function of the site	
Climate change	

5.2. Assessment of Potential In-Combination Effects

Cumulative effects are described by the EPA as *the addition of many minor or insignificant effects, including effects of other projects, to create larger, more significant effects*. In combination effects are considered in the appropriate assessment process as an assessment of the potential adverse effects of a plan or project in combination with other plans or projects. The underlying intention of the in-combination provision is to take account of cumulative effects.

As part of the Screening for an Appropriate Assessment, in addition to the Proposed Development, other relevant plans and projects in the area must also be considered at this stage. This step aims to identify at this early stage any possible significant in-combination effects of the Proposed Development with other such plans and projects on European sites.

A review of the National Planning Application Database was undertaken. The database was then queried for developments granted planning permission within 500m of the Proposed Development within the last three years, these are presented in Table 4 below.

Table 4. Planning applications granted permission in the vicinity of the Proposed Development.

Planning Ref.	Description of development	Comments
2560113	Large-Scale Residential Development (LRD) - development of a Purpose-Built Student Accommodation (PBSA) scheme on land fronting the Groody Road and Dublin Road, Castletroy, in the townland of Newcastle, Limerick for a period of seven years. Vehicular access to the site will be from the Groody Road with pedestrian access to the Dublin Road. Extensive landscaping proposals, including (a) landscaped courtyards; (b) pedestrian and cycle connections from the Groody Road to the Groody Green Wedge; (c) natural landscaping and public walkways within the Groody Green Wedge; and (d) a Wetland area adjacent to the Groody River are also proposed. Planning permission is also sought for use of the accommodation, outside of student term time, for short-term letting purposes. The planning	The Proposed development will require construction management measures and the potential for in-combination effects will be tested further in Stage 2 AA.

Planning Ref.	Description of development	Comments
	application is accompanied by a Natura Impact Statement.	
211501	modifications of the existing KFC restaurant located in the southern part of the car park, including the installation of 2no. leader boards c.1.805m high x c.0.34m wide, a free standing menu board c. 2.250m high x 2.400m wide, a banner sign c.2.200m high x 5.000m wide, a speaker post outside of the KFC unit c.1.200m high x c.0.600m wide, 4 entry/exit signs c. 1.805m high x 0.4m wide, and 1no. vehicle height restrictor c.3.000m high x c.3.900m wide, the installation of 6 cycle spaces outside of the KFC unit, and modifications to the existing hard standing outside of the KFC unit to facilitate drive through use of the restaurant(resulting in the loss of 2no. car parking spaces). Minor enhancements to the main internal site access road in the central area of the car park to enhance the priority afforded to traffic entering the Limerick One Shopping Park from the Childers Road and ancillary development to include all works above and below ground to facilitate the development	The Proposed development will require construction management measures and the potential for in-combination effects will be tested further in Stage 2 AA.
221208	the construction of a new detached dwelling house with connection to existing services and all ancillary site works	The Proposed development will require construction management measures and the potential for in-combination effects will be tested further in Stage 2 AA.
221216	Large-Scale Residential Development (LRD) on lands (0.53 Ha) at Old Dublin Road, Rhebogoe, Limerick City. The proposed development comprises of the construction of a Purpose-Built Student Accommodation (PBSA) scheme consisting of 26 no. apartments with a total of 202 no. student bedspaces distributed across 3 No. multi storey blocks with a gross development area of 5,771 sq. m. 'Block C' located at the southern end of the site addressing the Old Dublin Road provides 7 No. Student apartments and 52 No. Bedspaces and is 4 storeys with the uppermost floor setback. 'Block C' steps down to 2 storeys to the rear providing ancillary space (342 sq. m.) inclusive of a communal lounge, meeting room, reception area and laundry. Two additional Blocks proposed are located to the rear, namely 'Block B', a 5-storey block with 10 No. apartments and 79 No. Bedspaces and 'Block A', a 4/5 storey block with 9 No. Apartments and 71 No. Bedspaces located at the northern end of the site. A total of 1,519 sq. m. of landscaped public open space is provided across the scheme. The site will be accessed via a 4.8m shared surface and dedicated footpath from the old Dublin Road. The proposed development also includes parking for 16 No. cars and 142 No. bicycles, boundary treatments, bin storage, public lighting, EV charging Bays, electrical infrastructure including 1 no. electrical supply sub-station, water supply and foul and surface water drainage infrastructure and all associated and ancillary site and development works. The planning application	The Proposed development will require construction management measures and the potential for in-combination effects will be tested further in Stage 2 AA.

Planning Ref.	Description of development	Comments
	may be inspected online at the following website URL setup by the applicant www.olddublinroadstudentvillage.ie	
221231	the raising of the end gable wall and the hip roof to facilitate an attic conversion and all ancillary site works	The Proposed development will require construction management measures and the potential for in-combination effects will be tested further in Stage 2 AA.
221278	the change of use of part of existing dwelling house to a Personal Training Studio and associated development works	The Proposed development will require construction management measures and the potential for in-combination effects will be tested further in Stage 2 AA.
2223	the installation of an all-weather training pitch with a 3.0 metre high surrounding fence and floodlighting on masts with ancillary site works	The Proposed development will require construction management measures and the potential for in-combination effects will be tested further in Stage 2 AA.
22369	'Change of Use' from existing Pub & Restaurant to co-working offices with an internal area of 965m ² , external building signage of 7m ² , hard & soft landscaping to the front of the building, installation of an EV charging pylon, bicycle shelter & all ancillary site works	The Proposed development will require construction management measures and the potential for in-combination effects will be tested further in Stage 2 AA.
22683	the construction of a new extension to the side and front of the existing dwelling, alterations to the fenestration of the existing dwelling and all associated site works	The Proposed development will require construction management measures and the potential for in-combination effects will be tested further in Stage 2 AA.
22718	the installation of solar photovoltaic panels and mounting system (c.2, 528 sqm) on Dunnes Stores roof, including all other associated site works/services	The Proposed development will require construction management measures and the potential for in-combination effects will be tested further in Stage 2 AA.
22814	the installation of solar photovoltaic panels and mounting system (C.2,794 sq.m) on Dunnes Stores roof, including all other associated site works/services	The Proposed development will require construction management measures and the potential for in-combination effects will be tested further in Stage 2 AA.
22907	the development of proposed revisions to the previously permitted development granted under planning permission Reg. Ref. 21/1272 to include proposed modifications to the testing and display area including a new outdoor covered canopy structure, proposed revisions to 4 no. internally illuminated signage, proposed additional external signage, and all ancillary site works	The Proposed development will require construction management measures and the potential for in-combination effects will be tested further in Stage 2 AA.
23205	The development will consist of the construction of a single store Deposit Return Scheme(DRS) Kiosk (Gross Floor Area: 17 sq. m), including 2 no. signage panel areas for branding on the side elevation of the DRS Kiosk (1.0m x 2.0m), and all associated site development works. The development will result in the removal of 3 no. existing car parking spaces in the car park that serves the existing Aldi store	The Proposed development will require construction management measures and the potential for in-combination effects will be tested further in Stage 2 AA.
23216	the change from permitted office use to student accommodation on floors 6,7, 8 and 9 together with ancillary foyer on ground floor level	The Proposed development will require construction management measures and the potential for in-combination effects will be tested further in Stage 2 AA.

Planning Ref.	Description of development	Comments
23240	the renovation of the protected structure No. 1628, known as the 'Groody' Toll House and the construction of a new extension. Connect to public services and carry out all ancillary site works at the above address. Previous permission granted under Planning Ref. No.18/774	The Proposed development will require construction management measures and the potential for in-combination effects will be tested further in Stage 2 AA.
2360242	the construction of a first floor extension to side of dwelling. I will also be seeking permission to convert the attic space to habitable area over existing two storey house, add three velux windows on the front elevation of the existing roof, a dormer window on the rear elevation of the existing roof and change the profile of the existing roof and carry out all other ancillary site works	The Proposed development will require construction management measures and the potential for in-combination effects will be tested further in Stage 2 AA.
23605	7no. two storey, 3 bedroom, terraced dwelling houses, all with off street car parking, connection to main sewer, public lighting and associated site works	The Proposed development will require construction management measures and the potential for in-combination effects will be tested further in Stage 2 AA.
2360797	the construction of a garage and all ancillary site works	The Proposed development will require construction management measures and the potential for in-combination effects will be tested further in Stage 2 AA.
2360934	a single storey extension to the side and rear of dwelling and construct a domestic store at the rear and all associated site works	The Proposed development will require construction management measures and the potential for in-combination effects will be tested further in Stage 2 AA.
2360940	the development that will consist of a proposed mezzanine level to provide for additional trading floorspace, proposed internal alterations to facilitate the development, proposed new signages to the front elevation, and all associated site works necessary to facilitate the development	The Proposed development will require construction management measures and the potential for in-combination effects will be tested further in Stage 2 AA.
24232	the installation of a cold store to the south side of the petrol station and all ancillary site works	The Proposed development will require construction management measures and the potential for in-combination effects will be tested further in Stage 2 AA.
2438	the demolition & removal of front wall, associated groundworks, internal surface water system and creation of off-road parking	The Proposed development will require construction management measures and the potential for in-combination effects will be tested further in Stage 2 AA.
2460978	the amalgamation of 4no. existing Ground Floor Retail Units no.s 30, 31/32, 33 & 34 accessed off the existing shopping centre Mall with existing Mall shopfronts and external escape doors on the South side elevation to create one larger Retail Unit with internal and external modifications to widen the escape doors on the South side elevation, new Mall shopfront signage and all associated works necessary to facilitate the development	The Proposed development will require construction management measures and the potential for in-combination effects will be tested further in Stage 2 AA.
2560123	the change of use of an existing garage structure to a living space, including minor alterations to the front facade of the garage	The Proposed development will require construction management measures and the potential for in-combination effects will be tested further in Stage 2 AA.

The Limerick County Development Plan in complying with the requirements of the Habitats Directive requires that all Projects and Plans that could affect the Natura 2000 sites in the same potential Zone of Influence of the Proposed Development site would be initially screened for Appropriate Assessment and if requiring Stage 2 AA, that appropriate employable mitigation measures would be put in place to avoid, reduce or ameliorate negative impacts. In this way any, in-combination impacts with Plans or Projects for the proposed development area and surrounding townlands in which the proposed development site is located, would be avoided.

The listed developments have been granted permission in most cases with conditions relating to sustainable development by the consenting authority in compliance with the relevant Local Authority Development Plan and in compliance with the Local Authority requirement with regard to the Habitats Directive. The development cannot have received planning permission without having met the consenting authority requirement in this regard.

Any new applications for the Proposed Development area will be assessed on a case by case basis *initially* by Limerick City and County Council which will determine the requirement for AA Screening as per the requirements of Article 6(3) of the Habitats Directive.

The potential for in-combination effects will be further tested as Stage 2 AA.

6. Conclusion

The potential effects on surface water is indeterminable in the absence of construction management.

The potential for impact on the aquifer is low based on the absence of any bulk chemical storage on site. Any silt-laden stormwater from construction or hydrocarbon-contaminated water from a construction vehicle leak/tank leak will be attenuated and treated through attenuation and hydrocarbon interception on site. No exceedance of water quality objectives is likely by the time the stormwater reaches the nearest European Sites which would involve a large dilution factor (River Shannon, c. 705 m north downgradient).

Site management/mitigation measures will be required to eliminate/minimise potential for pollution of surface water/ground water during construction, and they be included in a CEMP to which the contractor will be required to adhere. It cannot be excluded, on the basis of objective information, that the Proposed Development, individually or in combination with other plans or projects, will have a significant effect on a European site.

Thus, in line with Departmental Guidance and having regard to ECJ and Irish case law and the 'Precautionary Principle', Stage 2 Appropriate Assessment is required.

A final determination will be made by the competent authority in this regard.

7. References

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European Commission (2007) Guidance document on Article 6(4) of the 'Habitats Directive '92/43/EEC: Clarification of the concepts of: alternative solutions, imperative reasons of overriding public interests, compensatory measures, overall coherence and opinion of the Commission. European Commission, Brussels.

European Commission (2018) Managing Natura 2000 sites: the provisions of Article 6 of the 'Habitats' Directive 92/43/EEC.

European Commission (2021) 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, Brussels 28.9.21.

European Commission (2021) Guidance document on the strict protection of animal species of Community interest under the Habitats Directive, Brussels 12.10.21.

NPWS (2019) The Status of EU Protected Habitats and Species in Ireland. National Parks and Wildlife Service, Department of the Environment, Heritage and Local Government, Dublin.

NPWS (2026) National Parks and Wildlife Service Metadata available online at <https://www.npws.ie/maps-and-data>

Office-of-the-Planning-Regulator (2021) Appropriate Assessment Screening for Development Management OPR Practice Note PN01. March 2021