

Report for the purposes of Appropriate Assessment Screening

Ballycummin 110kV Substation

Prepared by: Moore Group – Environmental Services

21 October 2025



On behalf of the ESB

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Project	Ballycummin 110kV Substation
Title	Report for the purposes of Appropriate Assessment Screening Ballycummin 110kV Substation

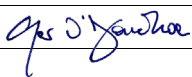
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Abbreviations

AA	Appropriate Assessment
ABP	An Bord 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 new electrical substation at Ballycummin, 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 a 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 1995-2025;
- 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

3. Description of the Project

3.1. Description of the Proposed Development

The proposed development involves the installation of a new 110/38kV/MV station at a site in Raheen Business Park beside the Eli Lilly plant in Ballycummin, County Limerick. The proposed development constitutes the provision of a new 110 /38 / 20 kV Gas Insulated Switchgear (GIS) electrical substation and will include the following elements:

1. Removal of four existing 110 kV Overhead Line timber pole sets (c. 15 m in height) and c.800 m of Overhead Line conductor;
2. Relocation of the existing Interface Transformer;
3. Construction of:
 - i. A new substation compound (c. 5,950 sq.m.) with a 2.6 m high palisade fencing;
 - ii. A new 110 kV GIS building with eight 110 kV bays (c. 700 sq.m.; 12 m in height);
 - iii. A new 38 / 20 kV GIS building with fourteen 38 kV bays and eighteen MV (20 kV) bays (c. 235 sq.m.; 7 m in height);
 - iv. Two bundled 110 / 38 kV power transformers in transformer bays (c. 5 m high) with associated electrical equipment;
 - v. Two bundled 38 / 20 kV power transformers in transformer bays (c. 5 m high) with associated electrical equipment;
 - vi. Three Arc Suppression Coils (c. 4 m high) with associated electrical equipment;
 - vii. Two new 110 kV double circuit overhead (OHL) line / cable interface end masts (c. 17m in height);
 - viii. One new 110 kV double circuit overhead (OHL) line angle mast (c. 17 m in height);
 - ix. One temporary 110 kV Overhead Line timber pole set (c. 16 m in height);
 - x. Temporary diversion of the existing 110 kV overhead line to the temporary timber pole set (c. 320 m of OHL conductor);
 - xi. Diversion of the existing 110 kV overhead line to the new end masts (c. 510 m of OHL conductor);
 - xii. 110 kV underground cabling between the 110 kV GIS building and the new line / cable interface end masts;
 - xiii. Associated and ancillary outdoor electrical equipment and other apparatus, including installation of underground cables and ducts;
4. Site development works including provision of access roads, car parking area, lighting, telecommunications, fencing, landscaping, site services including drainage and all other ancillary works.

3.2. Description of the Existing Environment

A habitat survey was carried out by Moore Group on 29 July 2025 as part of the ecological impact assessment undertaken to prepare the Biodiversity Chapter of the project EIAR. Areas which were highlighted during desktop assessment were investigated in closer detail according to the Heritage Council Best Practice Guidance for Habitat Survey and Mapping (Smith *et al.*, 2011). Habitats in the proposed development area were classified according to the Heritage Council publication “A Guide to Habitats in Ireland” (Fossitt, 2000). This publication sets out a standard scheme for identifying, describing and classifying wildlife habitats in Ireland. This form of classification uses codes to classify different habitats based on the plant species present. Species recorded in the assessment are given in both their Latin and English names. Latin names for plant species follow the nomenclature of “An Irish Flora” (Parnell & Curtis, 2012).

Signs of mammals such as badgers and otters were searched for while surveying the study area noting any sights, signs or any activity in the vicinity especially along adjacent boundaries.

Birds were surveyed using standard transect methodology and signs were recorded where encountered during the field walkover surveys.

The lands on which the proposed substation are to be constructed, comprise an area of hardstanding currently used for the storage of construction materials for the Eli Lilly development in progress, as well as an area of grassland adjacent to the northeast. This grassland is dry but has had no recent management and a rank sward has developed, comprising species such as Cock's Foot (*Dactylis glomerata*), Spear Thistle (*Cirsium vulgare*), Tufted Vetch (*Vicia cracca*), False Oat-Grass (*Arrhenatherum elatius*), Red Clover (*Trifolium pratense*), Meadow Vetchling (*Lathyrus pratensis*) and Meadow Buttercup (*Ranunculus acris*). Small areas in the centre of this grassland support some more calcareous flora, including Quaking Grass (*Briza media*), Bird's Foot Trefoil (*Lotus corniculatus*), Common Knapweed (*Centaurea nigra*), and Common Spotted Orchid (*Dactylorhiza fuchsii*). This latter habitat does not correspond to an Annexed habitat.

The section of proposed underground cable currently comprises temporary access roads and car parking without vegetation. The footprints of the proposed re-sited pylons comprise hard standing at the western pylon, and a section of recently deposited earth bunding at the eastern pylon. The land between these pylons includes a fenced and signposted area of grassland where translocated Meadow Barley (*Hordeum secalinum*) has been propagated. Re-strung electrical wires will cross this area, as they will the section between the western pylon and an existing pylon in grassland to the southwest, which will cross the R526 road and a number of hedgerows of Ash (*Fraxinus excelsior*), Hawthorn (*Crataegus monogyna*), Elder (*Sambucus nigra*), Bramble (*Rubus fruticosus*) and Blackthorn (*Prunus spinosa*). This area has been previously identified as a key ecological receptor under the permitted development and is the subject of management plan for the protection of the Meadow Barley.

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.

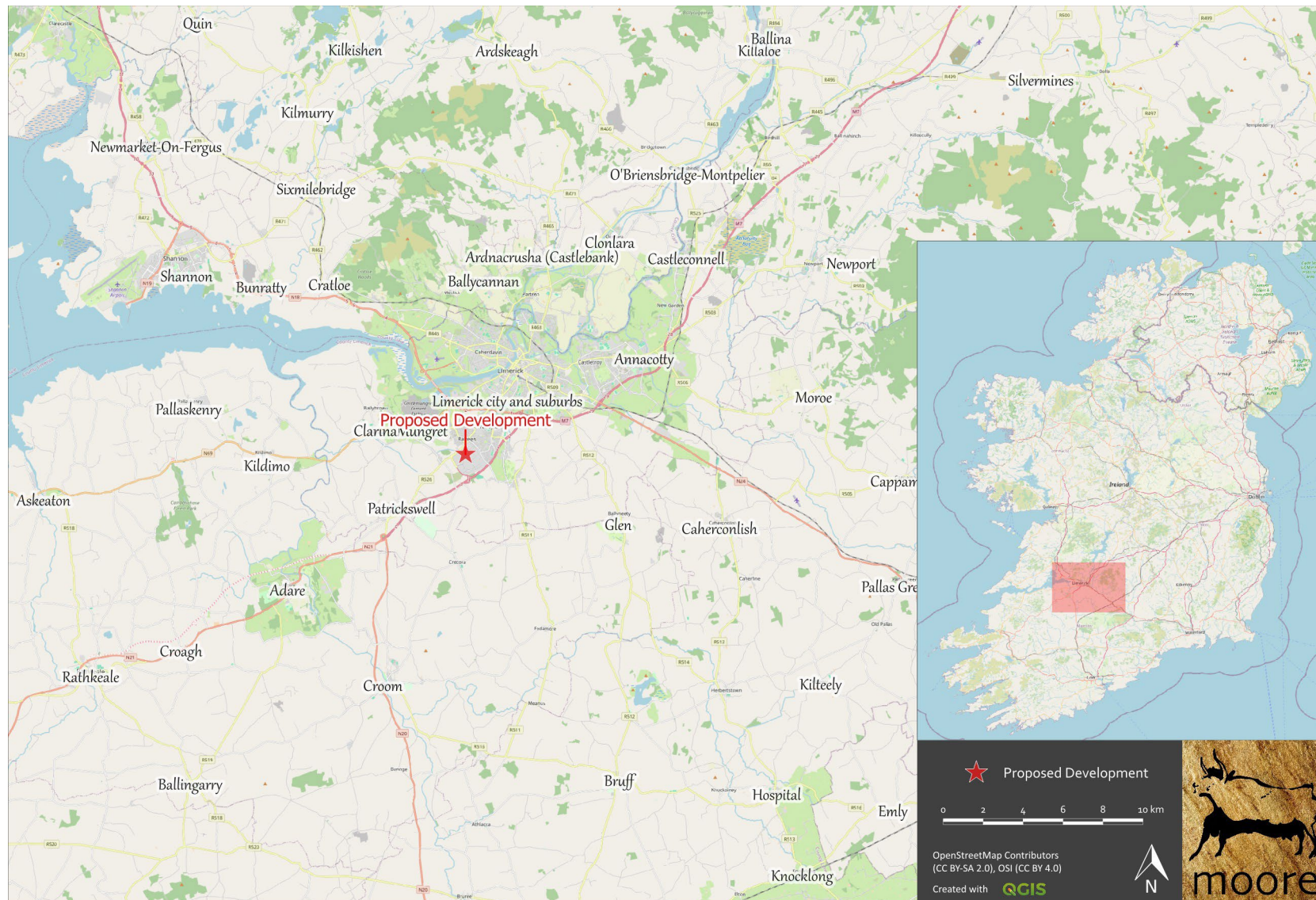


Figure 1. Showing the Proposed Development location at Raheen, Limerick.



Figure 2. Showing the Proposed Development boundary on recent aerial photography.



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 21 October 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	2.39
004077	River Shannon and River Fergus Estuaries SPA	2.67

Given the relatively high levels of disturbance associated with the existing industrial estate and that there are no water courses on site and no pathways to ex situ water bodies, the Zol for ecology is considered to be less than 1km and as low as 500m for this Proposed Development. The nearest European sites to the Proposed Development are the Lower River Shannon SAC (Site Code 002165), 2.37km to the north, and the River Shannon and River Fergus Estuaries SPA (Site Code 004077), 2.67km to the north.

The Proposed Development is located within and adjacent to the Eli Lilly manufacturing facility at Ballycummin, in a largely industrial area on the southern outskirts of Limerick City. A review of aerial photography, Ordnance Survey Ireland (OSI) mapping and OSI Geographical Information System (GIS) data for rivers and streams indicates that there are no notable surface water features onsite and no direct hydrological pathways to offsite surface water bodies. This was confirmed during fieldwork on habitat assessment on 29 July 2025.

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 no connectivity to any European sites within a potential Zone of Influence of the Proposed Development. 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.

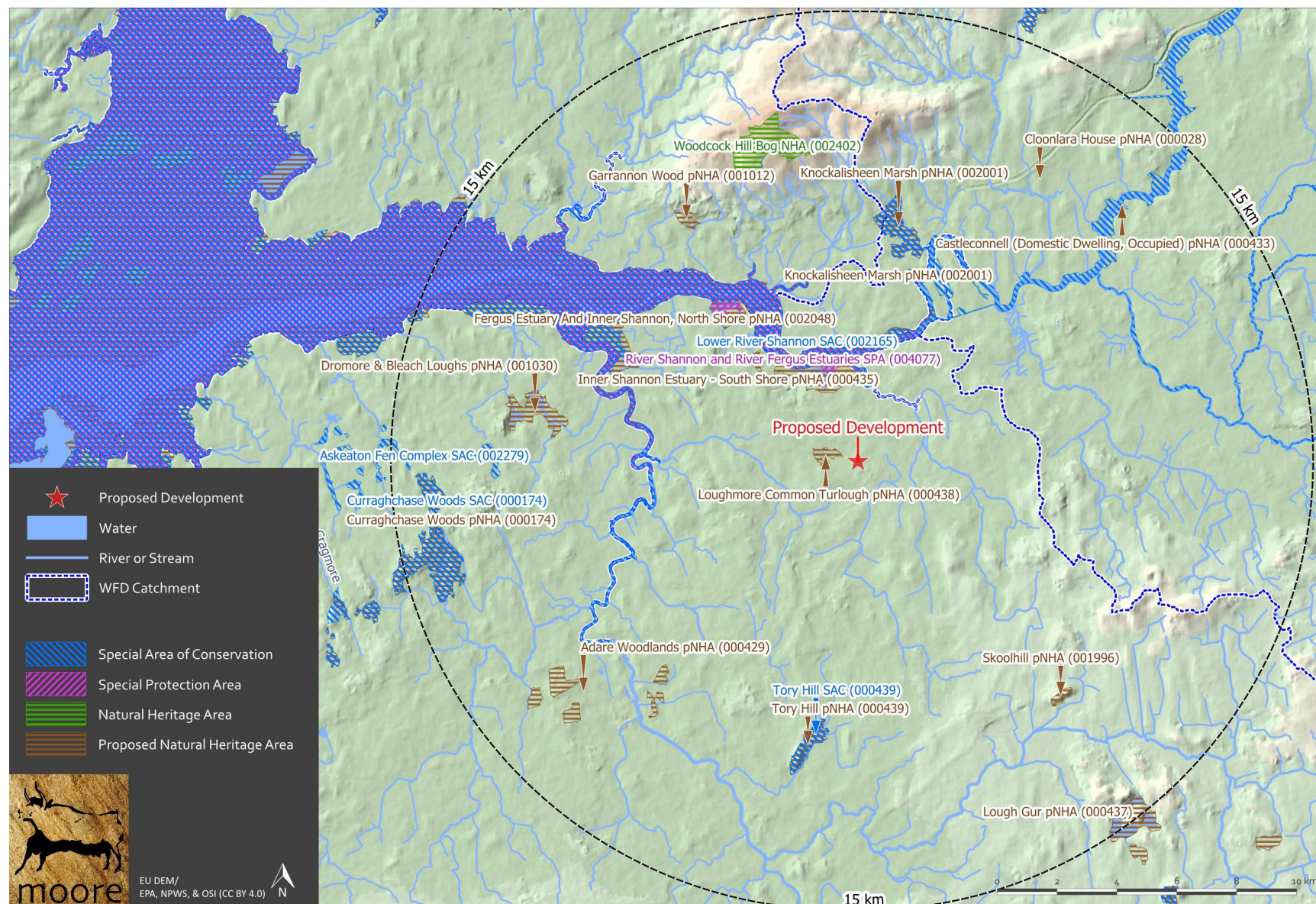


Figure 4. Showing European sites and NHAs/pNHAs within the wider Potential Zone of Influence of the Proposed Development.

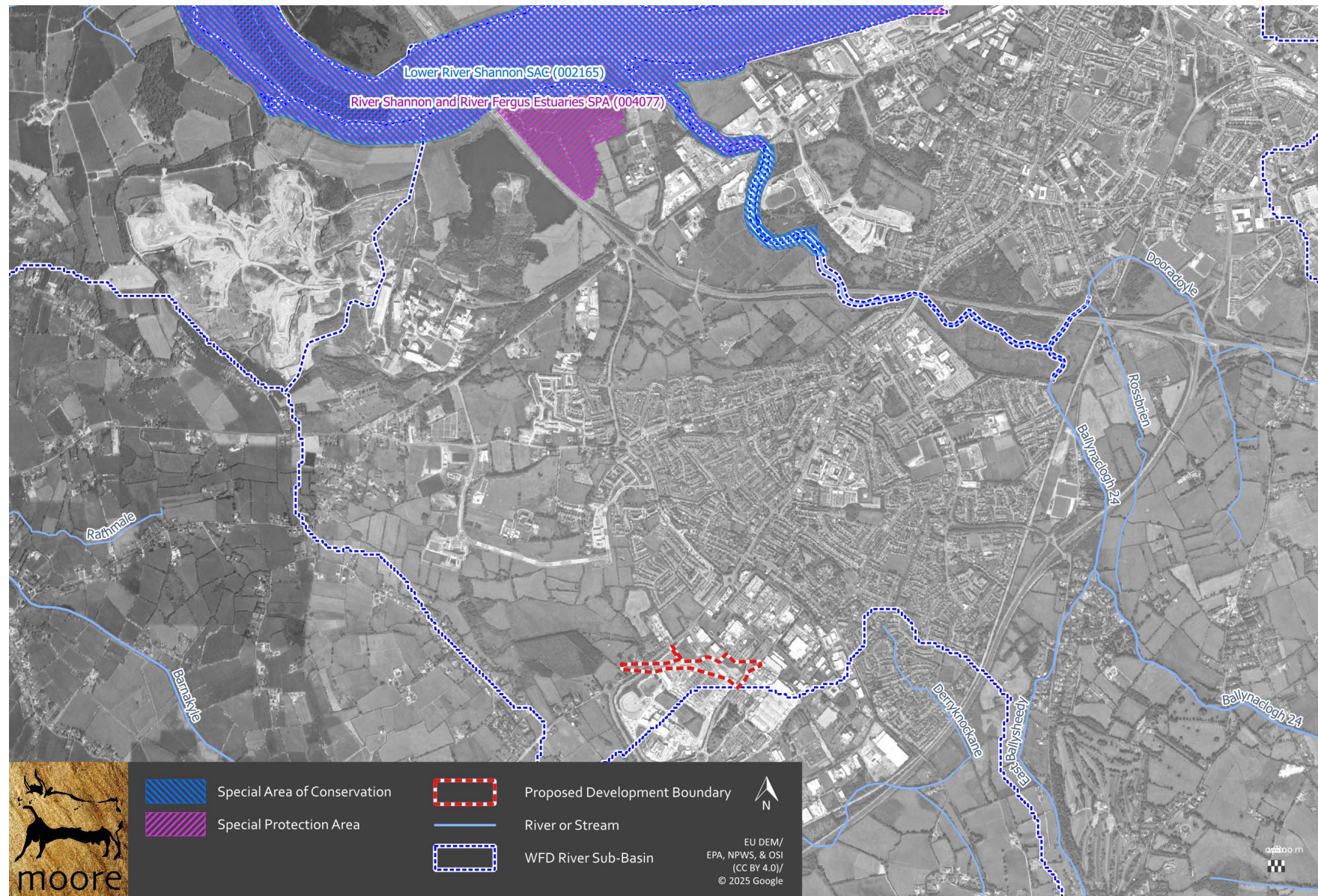


Figure 5. Detailed view of European sites in the nearer Potential Zone of Influence of the Proposed Development.

*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>Ranunculus 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>	2.39km to the north of the Proposed Development	<p>No</p> <p>There are no pathways or connectivity to the habitats and/or species of this site.</p>	No

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>	2.67km to the north of the Proposed Development	<p>No</p> <p>There are no pathways or connectivity to the habitats and/or species of this site.</p> <p>No</p> <p>Due to distance and the lack of any relevant ex-situ factors of significance to bird species or wetland habitat.</p> <p>The site is not suitable for the water fowl species listed for this European site.</p>	No

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
A179 Black-headed Gull <i>Chroicocephalus ridibundus</i> wintering A999 Wetlands 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.			

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 GIS interrogation and presented in Figure 4 are located outside the Zone of Influence of the Proposed Development.

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:
Construction phase e.g. Vegetation clearance Demolition Surface water runoff from soil excavation/infill/landscaping (including borrow pits) Dust, noise, vibration Lighting disturbance Impact on groundwater/dewatering Storage of excavated/construction materials Access to site Pests	None The Proposed Development is located within and adjacent to the Eli Lilly manufacturing facility at Ballycummin, in a largely industrial area on the southern outskirts of Limerick City. A review of aerial photography, Ordnance Survey Ireland (OSI) mapping and OSI Geographical Information System (GIS) data for rivers and streams indicates that there are no notable surface water features onsite and no direct hydrological pathways to offsite surface water bodies. There is no connectivity to any European sites within a potential Zone of Influence of the Proposed Development.
Operational phase e.g. Direct emission to air and water Surface water runoff containing contaminant or sediment Lighting disturbance Noise/vibration Changes to water/groundwater due to drainage or abstraction Presence of people, vehicles and activities Physical presence of structures (e.g. collision risks)	All surface water runoff, once the facility is operational, will be discharged to sustainable urban drainage systems. There is no likelihood of any significant effects on European Sites in the wider catchment area. The facility is located at a distance of removal such that there will be no disturbance to qualifying interest species in any European sites.
Describe any likely changes to the European site:	
Examples of the type of changes to give consideration to include:	None.

Reduction or fragmentation of habitat area	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.
Disturbance to QI species	
Habitat or species fragmentation	
Reduction or fragmentation in species density	
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	

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
22190	10-year permission for development of a Biopharmaceutical Manufacturing Campus with an overall floor area of 47,384 sqm. Construction of a 4-storey Biopharmaceutical Manufacturing building approx. 18,534 sqm and 33 metres high with roof-mounted plant/equipment & solar panels. A 2-storey canteen, laboratory and administration building. A 2-storey Warehouse building. A single storey Central Utilities Plant (CUP) building including 5no. Boiler stacks. A 2-storey freezer building. A single storey maintenance building. Single storey pedestrian link with roof-mounted pipe rack. Provision of car parking spaces approx. 199, accessible car parking/motorcycle spaces, EV vehicle charging, dedicated car-pooling spaces/cycle parking. Visitor car park comprising 12no. car parking spaces. Single-	The listed development has been granted permission in compliance with the Local Authority requirement with regard to the Habitats Directive considering a determination of no potential for in-combination effects. No potential for in-combination effects given the Proposed Development will have no effect on any European site.

Planning Ref.	Description of development	Comments
	storey Security building. Single storey Visitor Centre building. Single storey bicycle/shower facility building. A 38kv Substation compound consisting of single storey substation building. Step-down transformers and single storey Electrical Switchroom building enclosed by security fencing and a new vehicular entrance from Roches Avenue. Firewater and Supply Water pumphouse. Minor off-site underground works include extension of foul sewer to connect to the foul water system. Single storey Waste building. Site infrastructure includes bunded tank farm, pipe-bridges, sprinkler/water tanks, surface water harvest tanks, docks/yard areas, items of plant and equipment, electrical generators, gas-reducing station, underground pumping facilities and internal roads/paths, fencing and site lighting. The development includes use of existing permanent vehicular entrance to the site off existing roundabout on Ballycummin Avenue. Proposed Landscaping, replacement of perimeter security fencing/gates. An extensive ground mounted solar array sized 27,000 sqm located to the rear and east of the site. Signage at ground level and on the building façade. The works include Temporary Contractor Compounds and carparking during construction. All Associated Site Works. Surface water management for the site consists of attenuation swales/ponds, rainwater harvest cisterns to achieve 100% recharging within the site. This application consists of a development for an activity for which a licence under Part IV of the EPA Act 1992 (as amended by the Protection of the Environment Act, 2003) is required. A Natura Impact Statement and an Environmental Impact Assessment Report accompanies this planning application	
2238	construction of a new liquid hydrogen storage tank and associated equipment, alterations as required to existing equipment, and removal of existing liquid hydrogen storage tank being made redundant, and all associated site works. This is an existing Lower Tier Seveso site, and the development consists of modifications to an establishment within the meaning of the European Communities Chemicals Act(Control of Major Accident Hazards Involving Dangerous Substances) Regulations	The listed development has been granted permission in compliance with the Local Authority requirement with regard to the Habitats Directive considering a determination of no potential for in-combination effects. No potential for in-combination effects given the Proposed Development will have no effect on any European site.
22418	Analog Devices International have applied for elevational changes to their premises	The listed development has been granted permission in compliance with the Local Authority requirement with regard to the Habitats Directive considering a determination of no potential for in-combination effects. No potential for in-combination effects given the Proposed Development will have no effect on any European site.
22803	Extension to our C1 R&D Pilot Line building to provide R&D and 1st Industrial deployment/Manufacturing use in the proposed C2 Fanfare building at Raheen Industrial Business Park, Raheen, Co. Limerick; the construction of a two-storey over basement extension to the existing C1 R&D Pilot Line building; The construction of a two-storey extension to the existing Energy Centre; The construction of a scrubber deck extension, with 4 new proposed scrubbers and flues, associated mechanical discharge flues and associated generator/electrical/support rooms; Re-organisation of the site layout, with associated works; Relocate 2 existing groundwater control wells;	The listed development has been granted permission in compliance with the Local Authority requirement with regard to the Habitats Directive considering a determination of no potential for in-combination effects. No potential for in-combination effects given the Proposed Development will have no effect on any European site.

Planning Ref.	Description of development	Comments
	Associated alterations to the existing Manufacturing building and siteworks. This is an existing Lower Tier Seveso site, and the development consists of modifications to an establishment within the meaning of the European Communities Chemicals Act (Control of Major Accident Hazards Involving Dangerous Substances) Regulations. The site operates under an Integrated Pollution Control (IPC) licence. A Natura Impact Statement (NIS) is included in the application.	
22808	alterations to the Planning Permission previously granted 21/1637 (for the construction of a 550 Sq.m. extension to the North West of the existing production facility, to relocate the existing canteen facility, kitchen and storage areas and all associated external works. The works will also include a small 72 sq.m extension to an existing corridor within the facility to improve circulation.) The alterations involve the relocation of the canteen facility nine metres to the North East, an additional area of 93 sq.m to the canteen and link areas and alterations to the entrance of the building adjoining and all associated works to the North West of the existing production facility	The listed development has been granted permission in compliance with the Local Authority requirement with regard to the Habitats Directive considering a determination of no potential for in-combination effects. No potential for in-combination effects given the Proposed Development will have no effect on any European site.
23152	The relocation of the previously permitted single storey Maintenance Building, to the position on site of the footprint of the previously permitted Freezer Building; The relocation of the previously permitted Tank Farm; The relocation of 4no. of the previously permitted Boiler Stacks and the omission of 1 no. previously permitted Boiler Stack; The installation of 1no. additional Cooling Tower to the roof of the previously permitted Central Utilities Plant (CUP) Building; The construction of 1 no. new recessed Loading Dock to the north elevation of the previously permitted warehouse; The relocation of 2no. previously permitted Bulk Gas Tanks; The proposed development also consists of minor modifications to previously permitted internal roads and footpaths, site lighting, landscaping, underground drainage system infrastructure including a reduction of roofed areas and all associated site works. This application consists of a development for an activity for which a licence under Part IV of the Environmental Protection Agency Act 1992 (as amended by the Protection of the Environment Act, 2003) is required	The listed development has been granted permission in compliance with the Local Authority requirement with regard to the Habitats Directive considering a determination of no potential for in-combination effects. No potential for in-combination effects given the Proposed Development will have no effect on any European site.
236	the construction of a 3,600 sq.m solar panel array with an output capacity of approximately 580 kWp to be mounted on the roof of the existing main building and to include all associated site works	The listed development has been granted permission in compliance with the Local Authority requirement with regard to the Habitats Directive considering a determination of no potential for in-combination effects. No potential for in-combination effects given the Proposed Development will have no effect on any European site.
2360281	Two Standalone Laundrette Kiosks and All Associated Site Works	The listed development has been granted permission in compliance with the Local Authority requirement with regard to the Habitats Directive considering a determination of no potential for in-combination effects. No potential for in-combination effects given the Proposed Development will have no effect on any European site.

Planning Ref.	Description of development	Comments
2360609	The development partial demolition of sections of the existing industrial building, intended as enabling works; the change of use of the remaining, existing building from industrial (factory) and ancillary office use to office use; provision of new mezzanine level within the existing building; façade improvements; the construction of a new two / three storey extension to the rear and side of the building comprising (a) offices, (b) high tech laboratory / research space, (c) meeting rooms, (d) reception area, (e) canteen, (f) employees gym area, (g) social spaces, (h) external terrace and (i) associated roof plant; closure of the northern part of the Ballynoe Road. A Natura Impact Statement (NIS) is included in the application	The listed development has been granted permission in compliance with the Local Authority requirement with regard to the Habitats Directive considering a determination of no potential for in-combination effects. No potential for in-combination effects given the Proposed Development will have no effect on any European site.
2360703	development that will consist of: (1) The partial demolition of 1895sq.m of a building currently in use as the South Court Hotel and the construction of mixed use development (a) 84 no. residential apartments comprised of: (i) 42 no. 1 bed apartments; (ii) 39 no. 2 bed apartments; (iii) 3 no. 3 bed apartments. (b) 1 no. Childcare facility; (c) residential amenity areas; (d) 2 no. retail units; The provision of 149 no. car parking spaces, bike parking for 170 no. residential and customer bicycles; site landscaping; Road upgrades to the existing site entrance and upgrades to the footpath along the R510, R526; Erection of signage; All ancillary site development works. A Natura Impact Statement (NIS) has been prepared in respect of the proposed development.	The listed development has been granted permission in compliance with the Local Authority requirement with regard to the Habitats Directive considering a determination of no potential for in-combination effects. No potential for in-combination effects given the Proposed Development will have no effect on any European site.
24159	the development that will comprise of erection of a single storey pitched roof marquee with a foot print of approximately 313sq.m (25 metres x 12.5 meters) and a pitch height of approximately 5.020m on an annual part-time basis. The marquee is intended to be used as a meeting room	The listed development has been granted permission in compliance with the Local Authority requirement with regard to the Habitats Directive considering a determination of no potential for in-combination effects. No potential for in-combination effects given the Proposed Development will have no effect on any European site.
24384	a change of use within the current administration area from an open plan office space to a production area	The listed development has been granted permission in compliance with the Local Authority requirement with regard to the Habitats Directive considering a determination of no potential for in-combination effects. No potential for in-combination effects given the Proposed Development will have no effect on any European site.
24401	an illuminated "Regeneron" external sign, size 13M (L) x 1.5M (H), located at high level on the southwest side of Building 19	The listed development has been granted permission in compliance with the Local Authority requirement with regard to the Habitats Directive considering a determination of no potential for in-combination effects. No potential for in-combination effects given the Proposed Development will have no effect on any European site.
2460010	development including a two storey nursing home, single storey service building and a biodiversity area on a site at Baunacloka, Mungret, Co. Limerick The proposed nursing home comprises provision of 130 no. bedspaces in 128 no. bedrooms with dining	The listed development has been granted permission in compliance with the Local Authority requirement with regard to the Habitats Directive

Planning Ref.	Description of development	Comments
	areas, communal areas, production kitchen, staff facilities and first floor terrace, internal secure landscaped courtyard, external roof plant and PV Panels. The proposed Service Building comprises staff facilities, ESB substation & switchroom, laundry facilities, goods store and waste management areas. The development will also consist of a new site entrance, on-site car and bicycle parking, foul pumping station, totem sign, boundary fencing and all associated site works. A Natura Impact Statement has been prepared in respect of the proposed development and accompanies the planning application.?	considering a determination of no potential for in-combination effects. No potential for in-combination effects given the Proposed Development will have no effect on any European site.
2461160	a 10-year permission for development at our existing Biopharmaceutical Manufacturing Campus, located at Ballycummin, The IDA Business and Technology Park, Raheen, County Limerick. The proposed development consists of extensions, modifications, alterations and new structures to previously permitted and partly built Biopharmaceutical Manufacturing Campus (Limerick City and County Council Reg. Ref. 22190 and as amended by planning permission Reg. Ref.23152), with a proposed total additional floor area of approximately 67,997 square metres, located on the existing Eli Lilly site, north of Ballycummin Avenue and bounded by Patrickswell Road (R526). The development consists of all site buildings and infrastructure required to support the new campus extension, including the following; (a) A 4-storey Biopharmaceutical Manufacturing Facility sized approximately 52,400 square metres and approximately 34 metres high, with roof-mounted plant and equipment, including solar panels. (b) An extension to the previously permitted single storey Central Utilities Plant (CUP) Building sized approximately 1,050 square metres and approximately 10.6 metres high, with roof-mounted plant and equipment and additional acoustic screening at roof level. (c) An extension to previously permitted single storey pedestrian link with a roof-mounted pipe rack, sized approximately 3,440 square metres and approximately 10.6 metres high. (d) An extension to the north-west side of the previously permitted 2-storey canteen, laboratory and administration building with roof-mounted plant and equipment, acoustic screens and solar panels at roof level, sized approximately 2,200 square metres and approximately 13.5 metres high. (e) An extension to the south-east side of the previously permitted 2-storey canteen, laboratory and administration building with roof-mounted plant and equipment, acoustic screens and solar panels at roof level, sized approximately 2,200 square metres and approximately 13.5 metres high. (f) An additional 2-storey Central Utilities Plant (CUP) Building sized approximately 5,400 square metres and approximately 10.6 metres high, with 4no. Boiler Stacks approximately 17 metres high and roof-mounted plant and equipment and additional acoustic screening at roof level. (g) A single storey Storage Building sized approximately 520 square metres and approximately 6 metres high located to the north of the site. (h) A single storey Firewater pumphouse sized approximately 90 square metres a	The listed development has been granted permission in compliance with the Local Authority requirement with regard to the Habitats Directive considering a determination of no potential for in-combination effects. No potential for in-combination effects given the Proposed Development will have no effect on any European site.
2560174	replacing a section of existing cladding with glazing on the north-west and part of the south-west elevation of the Catalyst Building	The listed development has been granted permission in compliance with the Local Authority requirement with regard to the Habitats Directive considering a determination of no potential for in-combination effects.

Planning Ref.	Description of development	Comments
		No potential for in-combination effects given the Proposed Development will have no effect on any European site.

The Limerick 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.

There are no predicted in-combination effects given that it is predicted that the Proposed Development will have no effect on any European site.

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.

6. Conclusion

There is no connectivity to any European sites within or outside the potential Zone of Influence.

There are no predicted effects on any European sites given:

- The distance between the Proposed Development and any European Sites, approximately 2.4km;
- The lack of connectivity between the Proposed Development site and any watercourses that lead to the River Shannon;
- There are no predicted emissions to air, water or the environment during the construction or operational phases that would result in significant effects.

It has been objectively concluded by Moore Group Environmental Services that:

1. The Proposed Development is not directly connected with, or necessary to the conservation management of the European sites considered in this assessment.
2. The Proposed Development is not likely to either directly or indirectly significantly affect the Qualifying interests or Conservation Objectives of the European sites considered in this assessment.
3. The Proposed Development, either alone or in combination with other plans or projects, is not likely to have significant effects on a European site.
4. It is possible to conclude that significant effects can be excluded at the screening stage.

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 any European site, in the absence of any mitigation.

An appropriate assessment is not, therefore, required.

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

7. References

Department of the Environment, Heritage and Local Government (2010) Guidance on Appropriate Assessment of Plans and Projects in Ireland (as amended February 2010).

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 (2025) 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