



PROPOSED DEVELOPMENT AT CORNAMADDY, ATHLONE, CO.
WESTMEATH

Appropriate Assessment Screening Report

Ballymore Station Walk Limited

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1 INTRODUCTION

1.1 Background

DNV was commissioned by Ballymore Station Walk Limited (Developer) to prepare an Appropriate Assessment (AA) Screening Report for the proposed Large-scale Residential Development (LRD) development at Cornamaddy, Athlone, Co. Westmeath, hereafter referred to as 'Proposed Development' or 'Site', when referring to the application Site area. This report contains information to enable the Competent Authority to undertake Stage 1 AA screening in respect of the Proposed Development.

The Proposed Development details amendments to a previously permitted development under the LRD permission reference 318736-23. The previously permitted development also underwent an AA Screening and Natura Impact Statement (NIS) which concluded that the development would not adversely affect the integrity of any European Sites under the proposed mitigations. This report aims to update the findings of the previous AA Screening and determine if the amended application will have any significant adverse effects on European sites.

1.2 Quality Assurance and Competence

All surveying and reporting have been carried out by qualified and experienced ecologists and environmental consultants. KM carried out the ecological survey and also authored this report. KM is a Graduate Ecologist with DNV and has a B.Sc (Hons) in Environmental Biology from University College Dublin. She is also a Qualifying member of the Chartered Institute of Ecology and Environmental Management (CIEEM). KM has a range of fieldwork experience including plant, mammal, bird, and amphibian surveys in addition to freshwater ecology research. Her deskwork experience includes bat call sonogram analysis, habitat mapping, and report writing. KM has contributed to the preparation of several Stage 1 AA Screenings, Stage 2 NIS, Preliminary Ecological Appraisals (PEA), and Ecological Impact Assessment (EclA) reports.

1.3 Description of Proposed Development

1.3.1 Site Location

The Site of the Proposed Development, as seen in Figure 1, is located at Cornamaddy, Athlone, Co. Westmeath. The Site is bordered to the north and south by agricultural fields, to the west by active construction sites, and to the east by Blyry Court. The Site consists of a number of fields currently used for grazing horses with boundary treelines and hedgerows. Lough Coosan and Lough Killinure are both located less than 2km north of the Site. The Site has an approximate area of 5.45 hectares (Ha).

1.3.2 Proposed Development Description

The Proposed Development subject to this report is a proposed Phase 1A amendment to a permitted residential development (LRD Permission Reference 318736-23) located at Cornamaddy, Athlone, Co. Westmeath. This document forms part of the planning application and should be read in conjunction with all drawings, reports, specifications, and particulars associated with the planning application.

The development will comprise 175no. dwellings and 130 apartments, a creche, and associated site works. The proposed development incorporates the following amendments:

- Alteration to the permitted phasing with phase one incorporating a total of 130no. residential units of which there 102no. dwellings and 28no. duplex apartment units, in lieu of 129no. residential units as granted.
- Phase one incorporating 102no. 2storey dwellings with the dwelling mix comprising 57no. 3bed units and 45no. 4bed units.
- Phase one incorporating 2no. duplex apartment blocks which comprises 12no. 1bed triplex apartments, 8no. 2bed duplex apartments and 8no. 3bed duplex apartments. (overall units in phase one increasing from 129no. residential units as granted to 130no. residential units).
- The provision of a Creche.
- Alterations to the site layout in phase one comprising a reconfiguration of public open spaces, communal spaces, and overall site layout along with public lighting, planting, and boundary treatments to include boundary walls, railings & fencing.
- Provision of a revised road layout to serve phase one.

- All ancillary site development/construction works to facilitate foul, water, and service networks for connection to the existing foul, water and ESB networks.
- Provision of associated site infrastructure works to include for foul, water, and storm water infrastructure.
- Provision of 2no. ESB substations.

The Proposed Site layout is shown below in Figure 2.

1.3.2.1 Surface water

According to Civil Engineering Planning Report submitted for this amended application, water supply to the Proposed Development will be provided by adding a new 150mm connection to the existing 150mm diameter watermain running along the N55 (IORS, 2026). Confirmation of feasibility was received from Irish Water on the 13th of November 2020 (Reference: CDS200001202). Surface water on Site will be discharged into the existing drainage channel along the Site's western boundary. The layout of the proposed surface water drainage is visualised in Figure 3.

It is a policy of the Westmeath County Development Plan (2021 – 2027) Policy CPO 10.97: “to resist the discharge of additional surface water to combined sewers and promote Sustainable Urban Drainage Systems (SuDS) and solutions to maximise the capacity of towns with combined drainage systems.” It is noted that these design features are a requirement in all new developments, as per the above policy; to contribute to both the improvement of water quality in receiving waterbodies and the easing of pressures on existing drainage networks.

Attenuation tanks will be installed on Site which will provide the required storage volume for the catchment area of the Site. The stored surface water in the attenuation tanks will then discharge into a drainage ditch via a hydrobreak flow control device. Upstream of the attenuation tanks, there will be petrol interceptors installed which will offer treatment and oil separation in the case of accidental spillage or leaks from vehicles. Other SuDS measures included within the design of the Proposed Development consist of permeable paving and bioretention areas. These will aid in the mitigation of any potential adverse effects on downstream surface water systems caused by urban stormwater run-off by reducing the run-off rate, volume, and frequency. Green areas present on Site will also allow for the natural filtration of surface water.

The Garrynafela Stream currently flows through the centre of the Site. Sections of this stream will be culverted prior to the commencement of construction activity on Site. The Garrynafela Stream is hydrologically connected to Lough Ree Special Area of Conservation (SAC) and Special Protection Area (SPA) and the potential implications to the downstream European sites due to the proposed works to and near this waterbody will be assessed further in this report.

1.3.2.2 Foul Drainage

Foul water from the Proposed Development will be connected to the existing Irish Water manhole to the northwest of the Site, as shown in Figure 4. The remaining layout of the proposed foul water drainage is visualised in Figure 3. Foul water from the Site will be discharged to mains sewer and treated at the Athlone Wastewater Treatment Plant (WwTP) prior to discharging into the Shannon River. The wastewater discharge calculations for the Proposed Development are as follows; a flow rate per day of 0.33 l/s, a Dry Weather Flow of 1.97 l/s and a P.E. of 2.7.

A Pre-Connection application has been submitted to Irish Water and a Confirmation of Feasibility was received (Reference: CDS200001202).



FIGURE 1. SITE LOCATION.

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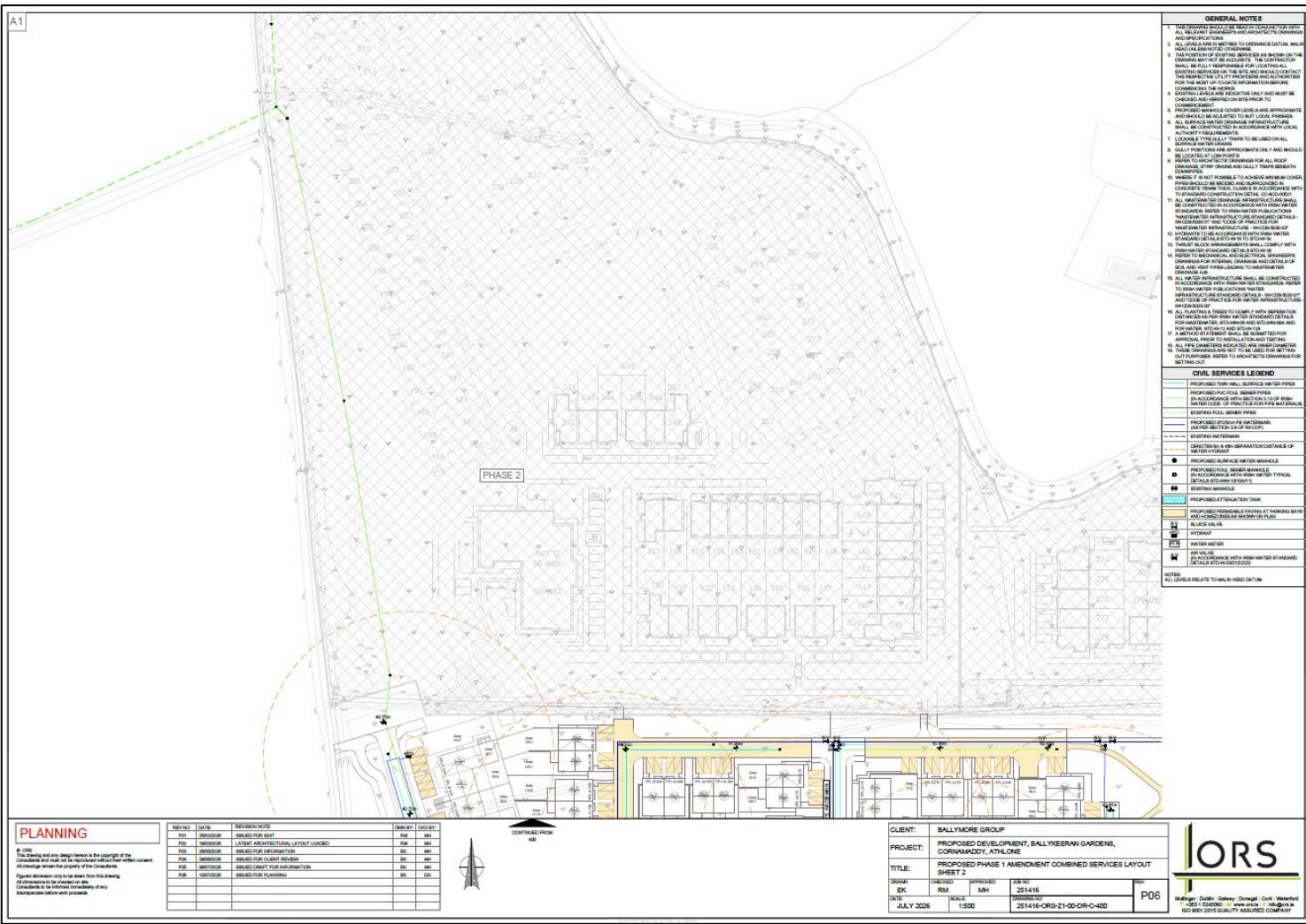


FIGURE 4. PROPOSED NORTHWESTERN CONNECTION FOR FOUL WATER DRAINAGE. (EXTRACTED FROM DRAWING NO: 251416-ORS-Z1-00-DR-C-401 (IORS, 2026)).

2 LEGISLATIVE AND POLICY CONTEXT

2.1 Legislative Background

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

It is the responsibility of each Member State to designate SPAs and SACs, both of which will form part of the Natura 2000 Network, a network of protected sites throughout the European Community. These designated sites are referred to as “Natura 2000 sites” or “European sites”. SACs are selected for the conservation of Annex I habitats (including priority types which are in danger of disappearance) and Annex II species (other than birds). SPAs are selected for the conservation of Annex I birds and other regularly occurring migratory birds and their habitats. The annexed habitats and species for which each site is selected correspond to the Qualifying Interests (QIs) and Special Conservation Interests (SCIs) of the sites; from these the conservation objectives of the site are derived.

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

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

2.1.1 Legislative Context

The obligations in relation to AA have been implemented in Ireland under the Planning and Development Act 2000 (as amended), and the Planning and Development Act 2024. While the 2024 Act has been signed into law, the Planning and Development Act 2000 (as amended) will continue to apply until repealed and the new provisions commenced by way of Ministerial Order. The phased commencement of the new Planning and Development Act is expected to take place up to early 2026.

The obligations in relation to AA covered within both Acts are summarised below:

- The competent authority must carry out screening for AA for all relevant plans and projects, to determine whether the plan or project, in view of best scientific knowledge, is likely to have a significant effect on any European site;
- Where potential for likely significant effects cannot be ruled out, either as a result of the plan or project alone or in-combination with other plans or projects, or where uncertainty exists, the competent authority must determine that an AA is required. In this case, a more detailed examination of the relevant European sites shall be carried out, and a Natura Impact Statement must be prepared.

For further details on both the 2000 Act (as amended) and the 2024 Act, please refer to irishstatutebook.ie

2.1.2 Relevant Case Law

According to the ruling delivered in open court in Luxembourg on 15th June 2023 regarding the interpretation of Article 6(3) of Directive 92/43, the Article must be interpreted as meaning that:

“In order to determine whether it is necessary to carry out an appropriate assessment of the implications of a plan or project for a site, account may be taken of the features of that plan or project which involve the removal of contaminants and which therefore may have the effect of reducing the harmful effects of the plan or project on that site, where those features have been incorporated into that plan or project as standard features, inherent in such a plan or project, irrespective of any effect on the site”.

As such, standardised embedded mitigation (such as the use of SuDS) in large-scale residential developments), that are incorporated into the design of a proposal or project and which may result in a reduction of effects impacting

European sites, but where the primary reason of the embedded mitigation is not to protect a European site, are permitted for consideration during the undertaking of AA.

2.2 Policy Context

2.2.1 Westmeath County Development Plan 2021 – 2027

While the County Development Plan in its entirety is relevant to the Proposed Development and can be referred to separately, policies, principles and objectives of the Westmeath County Development Plan 2022 – 2027 that are of relevance to this Screening Report are outlined below:

- **Policy 12.4:** Protect and conserve Special Areas of Conservation, candidate Special Areas of Conservation, Special Protection Areas and candidate Special Protection Areas, designated under the EU Birds and Habitats Directives respectively.
- **Policy 12.5:** Ensure that no plans, programmes, etc. or projects giving rise to significant cumulative, direct, indirect or secondary impacts on European Sites arising from their size or scale, land take, proximity, resource requirements, emissions (disposal to land, water or air), transportation requirements, duration of construction, operation, decommissioning or from any other effects shall be permitted on the basis of this Plan (either individually or in combination with other plans, programmes, etc. or projects).
- **Policy 12.6:** Ensure that any plan or project that could have a significant adverse impact (either by themselves or in combination with other plans and projects) upon the conservation objectives of any Natura 2000 Site or would result in the deterioration of any habitat or any species reliant on that habitat will not be permitted.
- **Policy 12.7:** Assess any plan or project in accordance with Article 6 of the Habitats Directive to determine whether the plan or project is likely to have a significant effect on the site either individually or cumulatively upon the integrity, conservation objectives and qualifying interest of any Natura 2000 Site.
- **Policy 12.8:** Require an ecological appraisal for development not directly connected with or necessary to the management of Natura Sites, or a proposed Natura Site and which are likely to have significant effects on that site either individually or cumulatively.
- **Policy 12.9:** Identify and provide appropriate buffer zones between Designated Sites and local biodiversity features and areas zoned for development.
- **Policy 12.11:** Promote the maintenance and as appropriate, achievement of favourable conservation status of habitats and species and to improve the ecological coherence of the Natura 2000 network, by maintaining and where appropriate, developing features in the landscape which are of major importance for wild fauna and flora.

2.2.2 Westmeath Biodiversity Action Plan 2025 – 2031

The Westmeath Biodiversity Action Plan 2025 – 2031 is set out to protect and improve biodiversity through specific objectives:

- **Objective 1:** Support Biodiversity and Build Climate Resilience.
- **Objective 2:** Raise Biodiversity Awareness in Communities.
- **Objective 3:** Support Research & Monitoring of Biodiversity Practices.
- **Objective 4:** Incorporate Biodiversity into All Council Activity.
- **Objective 5:** Encourage Nature Conservation Projects

2.3 Stages of Appropriate Assessment

This AA Screening Report (the 'Screening Report') has been prepared by DNV. It considers whether the Proposed Development is likely to have a significant effect on a European site and whether a Stage 2 AA is required.

The AA process is a four-stage process. Each stage requires different considerations, assessments and tests to ultimately arrive at the relevant conclusion for 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.

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

- **Stage 1: Screening.** The Screening for AA considers whether a plan or project is directly connected to or necessary for the management of a European site, or whether a plan or project, alone or in combination

with other plans and projects, is likely to have significant effects on a European site in view of its conservation objectives.

- **Stage 2: NIS.** Where Stage 1 determines that significant effects are likely, uncertain or unknown, the preparation of a NIS is required. The NIS must include a scientific examination of evidence and data to classify potential impacts on any European site(s) in view of their conservation objectives in the absence of mitigation. The NIS will identify appropriate mitigation to remove the potential for likely significant adverse effects on any European site(s). If the competent authority determines that the plan or project would have an adverse effect on the integrity of any European site(s) despite mitigation, it can only grant consent after proceeding through stages 3 and 4.
- **Stage 3: Assessment of alternative solutions.** If the outcome of Stage 2 is negative i.e., adverse effects to the sites cannot be scientifically ruled out, despite mitigation, the plan or project should proceed to Stage 3 or be abandoned. This stage examines alternative solutions to the proposal.
- **Stage 4: Assessment where no alternative solutions exist and where adverse impacts remain.** The final stage is the main derogation process examining whether there are imperative reasons of overriding public interest (IROPI) for allowing a plan or project to adversely affect a European site, where no less damaging solution exists.

The Habitats Directive promotes a hierarchy of avoidance, mitigation, and compensatory measures. First the project should aim to avoid any negative effects on European sites by identifying possible effects early in the planning stage and designing the project to avoid such effects. Second, mitigation measures should be applied, if necessary, during the AA process to the point where no adverse effects on the site(s) remain. If the project is still likely to result in adverse effects, and no further practicable mitigation is possible, a refusal for planning permission may be recommended. In this case, the project will generally only be considered where no alternative solutions are identified and the project is required for IROPI, or, in the case of priority habitats, considerations of health or safety, or beneficial consequences of primary importance for the environment or to other IROPI. Then compensation measures are required for any remaining adverse effects.

3 AA Screening Methodology

3.1 Guidance

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

- *Appropriate Assessment of Plans and Projects in Ireland - Guidance for Planning Authorities*. (Department of Environment, Heritage and Local Government, 2010 revision);
- *Appropriate Assessment under Article 6 of the Habitats Directive: Guidance for Planning Authorities*. Circular NPW 1/10 & PSSP 2/10;
- *Communication from the Commission on the precautionary principle* (European Commission, 2000);
- *Managing Natura 2000 Sites: The Provisions of Article 6 of the Habitat's Directive 92/43/EEC* (European Commission, 2019);
- *Assessment of plans and projects in relation to Natura 2000 sites - Methodological guidance on Article 6(3) and (4) of the Habitats Directive 92/43/EEC* Brussels, 28.9.2021 C (European Commission, 2021); and
- *Appropriate Assessment Screening for Development Management, OPR Practice Note PN01, Office of the Planning Regulator March 2021*.

3.2 Screening Steps

Screening for AA involves the following steps:

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

It should be noted that any targeted ecological mitigation measures and/or measures intended or included for the purposes of avoiding adverse effects arising as a result of the Proposed Development on any European site have not been considered as part of this Screening Report.

3.3 Desk Study

A desktop study was carried out in June 2026 to collate and review available information, datasets and documentation sources relevant for the completion of this Screening Report. The desktop study relied on the following sources:

- Information on the network of European Sites, boundaries, QIs and conservation objectives, obtained from the National Parks and Wildlife Service (NPWS) at www.npws.ie;
- Text summaries of the relevant European sites taken from the respective Standard Data Forms (available at <https://natura2000.eea.europa.eu/>) and Site Synopses (available at www.npws.ie);
- Information on waterbodies, catchment areas and hydrological connections obtained from the Environmental Protection Agency (EPA) at www.gis.epa.ie;

- Information on bedrock, groundwater, aquifers and their statuses, obtained from Geological Survey Ireland (GSI) at www.gsi.ie;
- Satellite imagery and mapping obtained from various sources and dates including Google, Digital Globe, Bing and Ordnance Survey Ireland; and
- Information on the existence of permitted developments, or developments awaiting decision, in the vicinity of the Proposed Development from the National Planning Database (DHLGH, 2026).

For a complete list of the documents consulted as part of this assessment, see Section 6.

3.4 Field Surveys

Multiple ecological field surveys have been carried out at the Site for this amended application. Surveys undertaken are summarised in Table 1. Results relevant to this Screening Report have been summarised in Section 4.2.2.

TABLE 1. FIELD SURVEYS UNDERTAKEN AT THE PROPOSED DEVELOPMENT SITE.

Survey	Surveyor	Dates
Preliminary Habitat Survey	KM	11 th & 22 nd June 2026
Invasive Flora Survey	KM	11 th & 22 nd June 2026
Bird Scoping Survey	KM	11 th & 22 nd June 2026
Preliminary Bat Habitat Assessments	KM	11 th & 22 nd June 2026
Mammal Survey	KM	11 th & 22 nd June 2026
General Fauna Survey	KM	11 th & 22 nd June 2026

3.5 Identification of Relevant European sites

The Zone of Influence (ZOI) for a project is the area over which ecological features may be affected by changes as a result of a development and associated activities. This is likely to extend beyond the development site, for example where there are ecological or hydrological links beyond the site boundaries (CIEEM, 2018). Furthermore, ZOI in relation to European sites is described as follows in the 'OPR Practice Note PN01 - Appropriate Assessment Screening for Development Management' (OPR, 2021):

"The zone of influence 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. This should be established on a case-by-case basis using the Source-Pathway-Receptor framework and not by arbitrary distances (such as 15 km)."

Thus, to identify the European sites that potentially lie within the ZOI of the Proposed Development, a Source-Path-Receptor (S-P-R) method was adopted, as described in OPR PN01 (OPR 2021). This note was published to provide guidance on screening for AA during the planning process, and although it focuses on the approach a planning authority should take in screening for AA, the methodology is also readily applied in the preparation of Screening Reports such as this.

The relevant European sites were identified based on the following:

- Identification of potential sources of effects based on the Proposed Development description and details, including changes to potentially suitable *ex-situ* habitats at the Site (i.e., habitats utilised by SCI bird species outside of their designated SPAs);
- Use of up-to-date GIS spatial datasets for European designated sites and water catchments – downloaded from the NPWS website (www.npws.ie) and the EPA website (www.epa.ie) to identify European sites which could potentially be affected by the Proposed Development; and
- Identification of potential pathways between the Site of the Proposed Development and any European sites within the ZOI of any of the identified sources of effects.
 - The catchment data were used to establish or discount potential hydrological connectivity between the Proposed Development and any European sites.
 - Groundwater, soils, and bedrock information used to establish or discount potential hydrogeological connectivity between the Proposed Development and any European sites.

- Air and land connectivity assessed based on Proposed Development details and proximity to European sites.
- Consideration of potential indirect pathways, e.g., impacts to flight paths, *ex-situ* habitats, etc.
- Defining the likely ZOI based on the identified sources of effects and potential pathways between the Proposed Development and any European sites.

3.6 Assessment of Significant Effects

The conservation objectives of the European sites identified to lie within the ZOI were reviewed and assessed in order to establish whether the construction and operation of the Proposed Development has the potential to result in likely significant effects (LSEs) on any of the QIs and/or conservation objectives listed for the site.

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

The potential for LSEs that may arise from the Proposed Development was considered through the use of key indicators:

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

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

3.7 Limitations

No wintering bird surveys have been carried out on Site since 2023. The Chartered Institute of Ecology and Environmental Management (CIEEM) best practise for surveys involving mobile species (e.g. birds) is for surveys to be updated every eighteen months. However, it is noted that this application is for an amendment to an already granted LRD application at the Site. The previous grant of planning was informed by the findings of a suite of winter bird surveys conducted in 2022/23 and, as such, the Site is effectively to be developed.

Based on the winter bird surveys carried out to date, and the preliminary habitat and bird scoping surveys carried out in June 2026 to confirm no significant change had occurred to the habitat suitability the Site provides, it is confirmed that there will be no loss of important *ex-situ* habitat for wintering bird species associated with the nearby Lough Ree SPA or the Middle Shannon Callows SPA. The proposed amendments to the granted application do not change this conclusion, as is laid out in more detail in the below text.

In summary, the lack of recent wintering bird surveys carried out on this Site is not deemed to be a significant limitation due to the following factors.

1. Five wintering bird surveys were conducted in 2022 and 2023 for the original permitted application (Enviroguide, 2023). These surveys found no evidence of significant wintering bird usage of the Site. Three waterbird species were recorded during the surveys, specifically the black-headed gull (*Chroicocephalus ridibundus*), snipe (*Gallinago gallinago*), and grey heron (*Ardea cinerea*). Grey heron and black-headed gulls were recorded flying over the Site and were not associated with or utilizing the Site for foraging, roosting, or nesting purposes. On occasion snipe were observed utilising sections of the applicant's lands for foraging, however the maximum number of snipe recorded at any one time across the entire site was five individuals. A Site is considered to have a nationally significant population of snipe if 20 or more individuals are recorded at once (Burke, 2025). Therefore, in light of the very low snipe counts recorded, it can be concluded that this Site does not support a nationally significant snipe population.

2. The composition of the habitats present at the Proposed Development Site continue to be largely unsuitable as an *ex-situ* feeding/roosting resource for the SCI species for Lough Ree SPA and the Middle Shannon Callows SPA i.e., ducks, geese, waders and shorebirds, as was the case in 2022/23. The rough grasslands dominating much of the Site do not provide potential *ex-situ* feeding resources for the above groups, of which the majority favour waterbodies (i.e., diving/dabbling species), arable/cultivated land, or open green spaces with short grass swards such as those of playing pitches etc. Nor does it support nationally or internationally significant populations (as per Burke et al., 2025) for any waterbird species associated with Lough Ree SPA or the Middle Shannon Callows SPA. Therefore, based on the results of these surveys, no significant impacts on the SCI bird species of these European Sites are anticipated.

4 STAGE 1 SCREENING ASSESSMENT

4.1 Management of European Sites

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

4.2 Existing Environment

4.2.1 Desk Study Results

4.2.1.1 Hydrology, Geology and Hydrogeology

The Site of the Proposed Development is located within the Upper Shannon Water Framework Directive (WFD) catchment (ID: 26E) and the Shannon(Upper)_SC_090 WFD sub catchment (ID: 26E_6) (EPA, 2026). The closest mapped watercourse to the Site is the Garrynafela Stream, which flows east to west across the Site before flowing north. The Kippinstown Stream flows into the Garrynafela Stream just north of the Site, after which the Garrynafela stream continues flowing north for approximately 1.3km before discharging into Ballaghkeeran Bay, which flows north into Lough Killinure, which in turn discharges into the larger Lough Ree. This water eventually flows south from Lough Ree into the Shannon River.

The Site is situated on the Athlone Gravels groundwater body. The bedrock aquifer within the Site boundary is classified as a 'Locally Important Aquifer, or Bedrock which is Moderately Productive only in Local Zones' (GSI, 2026). Groundwater vulnerability to contamination across the Site varies from Moderate to High (GSI, 2026).

The subsoils beneath the Site are classified as 'Fen Peat' (FenPt), which covers large areas of the Site's western land, and 'Gravels derived from Limestones' (GLs) which cover the remainder of the Site (GSI, 2026). The Soil Information System (SIS) National Soils data has identified multiple different soil types on Site. These include BminSP or 'Shallow poorly drained mineral soil derived from mainly basic parent materials' in the eastern areas, BminSRPT or 'Peaty shallow reasonable drained mineral soil derived from mainly basic parent materials' along the southern boundary, and lastly BminSW or 'Shallow well drained mineral soil derived from mainly basic parent materials' in the Site's northern regions and central area (GSI, 2026).

The Waterbody Status for surface and ground water bodies relevant to the Site as recorded by the EPA in accordance with European Communities (Water Policy) Regulations 2003 (SI no. 722/2003) are provided Table 2 (EPA, 2026).

TABLE 2. WFD RISK AND WATER BODY STATUS

Waterbody Name	Water body; EU code	Location from Site	Distance from Site (m/km)	WFD water body status (2019-2024)	WFD 3 rd cycle Risk Status	Hydraulic Connection to the Site
Surface Water Bodies						
Garrynafela	IE_SH_26S021660	N/A	On Site	Poor	At Risk	Located within the Site boundary. Hydrological connection via surface water discharge to the local drainage network.
Kippinstown		NW	185m			Hydrological connection via upstream surface water discharge to

Waterbody Name	Water body; EU code	Location from Site	Distance from Site (m/km)	WFD water body status (2019-2024)	WFD 3 rd cycle Risk Status	Hydraulic Connection to the Site
						the local drainage network.
Shannon (Upper)	IE_SH_26S021800	SW	2.8km	Poor	At Risk	Downstream of Athlone WwTP emission point. Potential hydrological connection via upstream surface water discharge to the local drainage network.
Lake Water Bodies						
Ballaghkeeran Bay	IE_SH_26_750d	N	1km	Moderate	At Risk	Potential hydrological connection via upstream surface water discharge to the local drainage network.
Lough Killinure	IE_SH_26_750b	N	1.8km	Good	Not at Risk	
Lough Ree	IE_SH_26_750a	NW	2.8km	Moderate		
Groundwater Bodies						
Athlone Gravels	IE_SH_G_246	N/A	N/A	Good	Not At Risk	Underlying groundwater-body

4.2.2 Relevant Field Survey results

4.2.2.1 Habitats & Flora

The Site of the Proposed Development is composed of multiple habitats. Two types of grassland are present. The first and most dominant grassland was *Dry meadows and grassy verges* (Fossitt Code: GS2). *Wet grassland* (Fossitt Code: GS4) was present along the boundaries of drainage ditches, and particularly in the southwestern field where small patches of standing water were present. In these grassland habitats common spotted orchid (*Dactylorhiza fuchsii*) was found in low abundances. No other orchid species, or orchid species relevant to Annex habitats, were found.

The Garrynafela Stream traverses the Site from east to west and then turns north alongside the western most treeline. The stream is approximately 2m in width and had a gentle current during both surveys. Its depth ranged between 2 feet and 0.5 feet. Evidence of poaching from horses was present in certain spots along the riverbank. Two drainage ditches are present on Site. The first flows along the western boundary of the Site before discharging into the Garrynafela Stream. The second drainage ditch marked the southern boundary of the northern wet grassland area. This ditch was less than a foot deep and flowed east to west into the Garrynafela Stream. It is unlikely that this ditch is permanently wet due to the lack of aquatic plants present.

Two invasive species were observed during the ecological walkovers, the sycamore which is considered to be an invasive of *medium* impact, and the Norway maple an invasive of *low* impact. It is worth noting that neither species

is considered a significant invasive species threat at the Site or in agricultural settings and are common features of planted hedgerows and treelines in Ireland.

Sycamore is considered to be an invasive maple species in certain settings due to its ability to outcompete native tree species, and its supposedly low contribution to local biodiversity by supporting fewer insect species than native tree species. However sycamore's invasiveness is considered to be more of an issue in some sensitive native woodland settings, and this species has been found to support relatively high numbers of lichen species, including rarer species, when compared to native tree species (Leslie, 2005). Sycamore is not considered to pose any risk of impacts at the Site of the Proposed Development. This species is not included in the TII (2020) invasive management guidance and does not require a specific removal approach; it can be removed as per normal tree removal protocol if required to facilitate the development by the arborist tree impact plan. The same applies to the Norway Maple.

No protected plant species or Annex 1 habitats were recorded on Site.

4.2.2.2 Fauna

The only direct evidence of mammal presence found during the survey was common rabbit (*Oryctolagus cuniculus*) scat. Though water features are present on Site (e.g drainage ditches and the Garrynafela Stream) no signs of otter (*Lutra lutra*) were found. While it is possible that otters travel up the Garrynafela Stream and onto Site, it is unlikely that this Site supports a resident, or regularly occurring, population due to a lack of evidence at the Garrynafela Stream during the surveys. For example, no otter prints, fur, scat, or holts were found on Site. Furthermore, the anthropogenic disturbance caused by the active construction directly west of the Site further reduces the possibility of a resident otter population. While small minnows (*Phoxinus phoxinus*) were recorded by the surveyor in the Garrynafela Stream, no larger fish species were recorded, suggesting limited foraging opportunities for otters at the Site.

A total of 29 bird species were observed at the Site during the surveys, as detailed in Table 3. Of these two were red-listed and six were amber-listed according to Birds of Conservation Concern in Ireland 2020-2026 (Gilbert et al., 2021).

TABLE 3. LIST OF ALL BIRD SPECIES OBSERVED AT THE SITE.

Species Name	BoCCI	Observations
Swift (<i>Apus apus</i>)	Red	Two individuals foraging high above the Site.
Meadow Pipit (<i>Anthus pratensis</i>)	Red	Five individuals foraging on Site.
Common Starling (<i>Sturnus vulgaris</i>)	Amber	Approximately 10 individuals were recorded flying over Site.
Barn Swallow (<i>Hirundo rustica</i>)	Amber	Approximately 15 individuals were recorded foraging on Site. Foraging took place throughout the survey period in multiple areas.
House Martin (<i>Delichon urbicum</i>)	Amber	One individual foraging just southeast of the Site.
House Sparrow (<i>Passer domesticus</i>)	Amber	Approximately three individuals recorded on Site.
Lesser Black-backed Gull (<i>Larus fuscus</i>)	Amber	Multiple flyovers. At least 3 individuals.
Willow warbler (<i>Phylloscopus trochilus</i>)	Amber	Recorded foraging on Site.
Common Buzzard (<i>Buteo buteo</i>)	Green	Observed perched on tree within Site boundary and stayed within the general area. No evidence of nesting was found within the surveyed area.
Wren (<i>Troglodytes troglodytes</i>)	Green	Recorded foraging on Site. Likely nesting on Site as one individual was observed carrying food in its beak. Alarm calls sounded when surveyor approached.
Stonechat (<i>Saxicola rubicola</i>)	Green	Recorded foraging on Site.
Goldfinch (<i>Carduelis carduelis</i>)	Green	Recorded foraging on Site.
Jackdaw (<i>Corvus monedula</i>)	Green	Recorded commuting through the Site.
Rook (<i>Corvus frugilegus</i>)	Green	Recorded commuting through the Site.

Species Name	BoCCI	Observations
Raven (<i>Corvus corax</i>)	Green	Four individuals commuted across the Site.
Woodpigeon (<i>Columba palumbus</i>)	Green	Recorded commuting through the Site.
Blackbird (<i>Turdus merula</i>)	Green	Recorded foraging on Site.
European Robin (<i>Erithacus rubecula</i>)	Green	Recorded foraging on Site. Fledglings present on Site. One adult spotted with food in beak.
Blackcap (<i>Sylvia atricapilla</i>)	Green	Recorded foraging on Site.
Bullfinch (<i>Pyrrhula pyrrhula</i>)	Green	Recorded foraging on Site.
Chaffinch (<i>Fringilla coelebs</i>)	Green	Recorded commuting through the Site.
Song Thrush (<i>Turdus philomelos</i>)	Green	Recorded foraging on Site.
Grey Heron (<i>Ardea cinerea</i>)	Green	Recorded commuting through the Site.
Pied Wagtail (<i>Motacilla alba</i>)	Green	Recorded commuting through the Site.
Hooded Crow (<i>Corvus cornix</i>)	Green	Recorded on Site.
Magpie (<i>Pica pica</i>)	Green	Call heard on Site.
Blue tit (<i>Cyanistes caeruleus</i>)	Green	Recorded foraging on Site. Fledglings present.
Greater whitethroat (<i>Sylvia communis</i>)	Green	Recorded on Site.
Reed Bunting (<i>Emberiza schoeniclus</i>)	Green	Recorded on Site.

4.3 Identification of Relevant European Sites

4.3.1 Potential Sources of Impacts

The Proposed Development is not directly connected with or necessary to the management of European sites. However, the following elements of the Proposed Development were identified and assessed for their potential to cause likely significant effects on European sites.

Construction Phase (Estimated duration: 16 months)

- Uncontrolled releases of dust, sediments and/or other pollutants to air due to earthworks;
- Surface water run-off containing silt, sediments and/or other pollutants into nearby waterbodies or surface water network;
- Surface water run-off containing silt, sediments and/or other pollutants into the local groundwater;
- Waste generation during the Construction Phase comprising soils and construction wastes;
- Increased noise, dust and/or vibrations as a result of construction activity;
- Loss of potential *ex-situ* habitat for SCI bird species;
- Increased dust and air emissions from construction traffic;
- Increased lighting in the vicinity as a result of construction activity; and
- Increased human presence and activity as a result of construction activity.

Operational Phase (Estimated duration: Indefinite)

- Surface water drainage from the Site of the Proposed Development;
- Foul water from the Proposed Development;
- Increased SCI bird collision risk and flightline disruption risk due to the Proposed Development;
- Increased lighting at the Site and in the vicinity emitted from the Proposed Development; and
- Increased human presence and activity at the Site and in the vicinity as a result of the Proposed Development.

4.3.2 Potential Pathways to European Sites

For the above listed potential sources of effects to have the potential to cause likely significant effects on any European site, a pathway between the source of potential effects (i.e., the Site of the Proposed Development) and the receptor is required. Potential impact pathways are discussed in the following sections in the context of the identified impact sources as identified in Section 4.3.1.

4.3.2.1 Direct Pathways

Hydrological pathways

The Garrynafela Stream is mapped by the EPA as flowing east to west along the Site's northern boundary, then flowing north for approximately 1.4 river km before reaching the Lough Ree SAC and then discharging into the Lough Ree SPA.

As such, there is a hydrological pathway via surface water run-off into the Garrynafela Stream to the aforementioned European sites should surface water run-off containing silt/sediments or other pollutants inadvertently flow into the local surface water system during the Construction Phase of the Proposed Development.

Hydrogeological pathways

Potential discharges to ground could migrate vertically downward to the underlying bedrock aquifer and laterally within the aquifer to the downgradient receiving surface waterbodies (i.e., the Garrynafela Stream), contributing to the hydrological pathway to the European sites downstream of the Site. Furthermore, contaminated groundwater could travel a distance of approximately 860m north and directly into the Lough Ree SAC and Lough Ree SPA.

Air and Land pathways

Dust

According to Institute of Air Quality Management (IAQM) *Guidance on the Assessment of Mineral Dust Impacts for Planning* (IAQM, 2016), experience of the Working Group together with published studies and anecdotal evidence on the change in both airborne concentrations and the rate of deposition with distance, suggests that dust impacts will occur mainly within 400m of the operation, even at the dustiest of mineral sites. Adverse dust impacts from sand and gravel sites were found to be uncommon beyond 250m and beyond 400m from hard rock quarries measured from the nearest dust generating activities. IAQM (2016) note that it is commonly accepted that the greatest impacts will be within 100m of a source, and this can include both large (>30 µm) and small dust particles. The greatest potential for high rates of dust deposition and elevated particulate matter (PM10) concentrations occurs within this 100m distance.

In light of the above, which was evidenced for the dustiest of construction activities, and considering the Proposed Development will not likely produce this much dust (accounting for scale and nature of the works), and that the nearest European site is beyond 400m from the Site, no direct pathway for dust exists to any European site.

Noise

Noise disturbance to species is difficult to quantify based on different species sensitivities and the level of noise they are accustomed to. For example, birds that frequent urban areas are much more tolerant of noise disturbance than those of rural landscapes.

BioSphere (2020) conducted a review of buffer distances for Irish species during forestry works, while NatureScot (2022) conducted a comprehensive literature review on noise disturbance and its effects on various bird species of the United Kingdom. Buffer zones vary for different species, with more rural species such as the hen harrier (*Circus cyaneus*) being recommended larger buffer zones of up to 10km. This is a combination of the bird's commuting and foraging range, sensitivity to disturbance, endangered status, and rural habitat in which noise levels tend to be much lower and therefore increased noise is more noticeable. For urban dwelling species that tend to be more tolerant of background noise, a buffer of 500 meters is generally sufficient to minimize disturbance in most cases.

In light of the above, and that the nearest European site is beyond 500m from the Site, no direct pathway for noise exists to any European site.

Light

Light pollution is similarly difficult to quantify and depends on the context of the Site's composition, its environs, and different species sensitivities. NatureScot (2022) have stated that particularly sensitive species can be affected up to 750m away. Considering that most sites are buffered by vegetation and that the most common light sources would be small in the context of the Construction and Operational Phase (security lighting and residential lighting respectively), then a buffer of 500m is likely to be sufficient to minimize light disturbance in most cases.

In light of the above, and that the nearest European site is beyond 500m from the Site, no direct pathway for light exists to any European site.

4.3.2.2 Indirect Pathways

Hydrological pathways

The Site will also be connected to the public foul water sewer network. Foul water generated at the Site during the Operational Phase will be discharged to the Athlone WwTP prior to discharging into the Shannon River. Thus, there is a weak hydrological link between the Site and River Shannon Callows SAC (000216) and Middle Shannon Callows SPA (004096) via discharges from Athlone WwTP during the Operational Phase.

Air and land pathways

No significant indirect pathways via land or air (e.g., disruptions to migratory paths) were identified. It is possible that the Site is used as *ex-situ* habitat by a number of SCI bird species (e.g. snipe were recorded on Site in 2022 and 2023 during wintering bird surveys carried out for the previously permitted application). However, it is unlikely that any of the potential wintering birds present on Site are significant to Lough Ree SPA or Middle Shannon Callows SPA for reasons discussed in Section 3.7.

Likelihood of Collision Impacts

From a review of available literature on the subject, bird collisions with man-made structures are common and well documented¹ with migratory passerine species the most prevalent collision victims². Bird collision with buildings is generally associated with reflective material such as windows or large surfaces of glass which create a mirror and appear to show the continuation of the sky or surrounding landscape, an effect that can be exacerbated by lighting.

In addition, the physical location of buildings and structures can influence the likelihood of bird collisions, with structures placed on or near areas regularly used by large numbers of feeding, breeding, or roosting birds, or on local flight path; such as those located between important foraging and roosting areas, can present a higher risk of collision.

Building Appearance

Whilst the design of the facades of the dwellings do include windows, no large surfaces of glass are proposed. Rather the overall façades of the proposed buildings are well broken up, with a varied material composition interspersing any reflective areas. These architectural design features provide important visible cues as to the presence and extent of the proposed structures to any commuting/foraging bird species should they be in the vicinity of the Site. This overall visual heterogeneity of the building façades will be sufficient to further ensure that the risk of bird collisions as a result of the Proposed Development is negligible. These architectural design features are part of the overall design of the Proposed Development and are not considered to represent specific mitigation measures to prevent collisions,

¹ Banks, R.C (1979). Human related mortality of birds in the United States. U.S. Fish Wildl. Serv. Spec. Sci. Rep. Wildl. 215. 16 pp.

Jenkins, A., Smallie, J.J. and Diamond, M. (2010). Avian collisions with power lines: A global review of causes and mitigation with a South African perspective. Bird Conservation International, 20(03), 263 – 278.

Klem, D. (1990). Collisions between birds and windows: mortality and prevention. Journal of Field Ornithology, 61, 120–128.

Erickson, W.P., Johnson, G.D. and Young, P.D. (2005). A Summary and Comparison of Bird Mortality from Anthropogenic Causes with an Emphasis on Collisions. USDA Forest Service Gen. Tech. Rep. PSW-GTR-191. 2005.

Erickson, W. P., G. D. Johnson, M. D. Strickland, D. P. Young, Jr., K. J. Sernka, and R. E. Good. (2001). Avian collisions with wind turbines: A summary of existing studies and comparisons to other sources of avian collision mortality in the United States. National Wind Coordinating Committee, c/o RESOLVE, Inc., Washington, D.C.

² Bing G.-C., Choi C.-Y., Nam H.-Y., Park J.-G., Hong G.-P., Sung J.-K., Chae H.-Y & Choi Y.-B. (2012). Causes of mortality in birds at stopover islands. Korean J. Ornithol., 19, 23–31.

Longcore, T. Rich, C., Mineau, P., MacDonald, B., Bert, D.G., Sullivan, L.M., Mutrie, E., et al. (2013). Avian mortality at communication towers in the United States and Canada: which species, how many, and where? Biological Conservation, 158, 410–419.

however, they will contribute to the overall effect in this regard. It is noted that birds are not deemed to be at any particular risk of collisions with the proposed buildings at the Site.

As such, based on the physical appearance of the proposed structures and the nature of their location, it is deemed that birds including any 'at-risk' species, do not have the potential to be impacted by the Proposed Development in terms of collisions and the risk is therefore deemed to be **imperceptible** in the absence of any mitigation.

Building Height

The Proposed Development entails the construction of residential buildings ranging in height of up to 2 storeys, and as such, the risk of migrating birds colliding with the structure due to its height is deemed to be negligible (Migrating species tend to commute far above this with Swans and Geese flying up to 2500ft (ca.750m) during migration along Irish Coasts (Irish Aviation Authority, 2020).

It is considered that birds that fly over the Site to commute between feeding grounds at various locations would fly lower than this, however, once the proposed structures are made of visible materials i.e., not entirely comprised of reflective materials such as glass, the birds would simply fly around or over them.

4.3.3 Relevant European sites

A European site will only be at risk from likely significant effects where a S-P- R link exists between the Proposed Development Site and the European site. All of the European sites considered under the S-P-R method are listed in Table 4, however only four European sites were identified to have a S-P-R link of note to the Proposed Development Site, namely:

- **Lough Ree SAC (000440)**
- **Lough Ree SPA (004064)**
- **River Shannon Callows SAC (000216)**
- **Middle Shannon Callows SPA (004096)**

These sites are highlighted in green in the below.

TABLE 4. EUROPEAN SITES CONSIDERED WITH THE SOURCE-PATHWAY-RECEPTOR (S-P-R) METHOD TO ESTABLISH NOTABLE LINKS BETWEEN THE SOURCES OF EFFECTS ARISING FROM THE PROPOSED DEVELOPMENT, AND ANY RELEVANT EUROPEAN SITES. THOSE SITES WITH NOTABLE S-P-R LINKS ARE HIGHLIGHTED IN GREEN (IF ANY). QUALIFYING INTERESTS (QIs) TAKEN FROM THE RELEVANT CONSERVATION OBJECTIVES DOCUMENTS (AS REFERENCED) AND/OR THE STANDARD DATA FORMS (EEA, 2026)³.

Site Name & Site Code	Qualifying Interests (*= priority habitats)	Potential Pathways
SAC		
Lough Ree SAC (000440) (NPWS, 2026) Linear Distance from Proposed Development: approx. 1.1km N	Habitats [3150] Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation [6210] Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites) [7110] Active raised bogs [7120] Degraded raised bogs still capable of natural regeneration [7230] Alkaline fens [8240] Limestone pavements [91D0] Bog woodland [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>)	Hydrological via the Garrynafela Stream. Hydrogeological via the Garrynafela Stream or direct contamination by groundwater flow to downgradient SAC.

³ Where applicable, the full species list included in this table is as per the latest updated information as indicated, so either the Conservation Objectives (CO) document for the site, or the latest Standard Data Form (SDF) (EEA, 2026). For SDF updates, CO are not yet available for the newly added species but are assumed, for the purposes of assessment, to follow the same format as for other feature species.

Site Name & Site Code	Qualifying Interests (*= priority habitats)	Potential Pathways
	Species [1355] Otter (<i>Lutra lutra</i>)	
River Shannon Callows SAC (000216) (NPWS, 2022a) Linear Distance from Proposed Development: approx. 2.9km SW	Habitats [6410] Molinia meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinia caerulea</i>) [6510] Lowland hay meadows (<i>Alopecurus pratensis</i> , <i>Sanguisorba officinalis</i>) [7230] Alkaline fens [8240] Limestone pavements [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>) Species [1355] Otter (<i>Lutra lutra</i>)	Directly downstream of Athlone WwTP emission point.
SPAs		
Lough Ree SPA (004064) (NPWS, 2025) Linear Distance from Proposed Development: approx. 1.1km N	SCI Birds [A004] Little grebe (<i>Tachybaptus ruficollis</i>) [A038] Whooper swan (<i>Cygnus cygnus</i>) [A050] Wigeon (<i>Anas penelope</i>) [A052] Teal (<i>Anas crecca</i>) [A053] Mallard (<i>Anas platyrhynchos</i>) [A056] Shoveler (<i>Anas clypeata</i>) [A061] Tufted duck (<i>Aythya fuligula</i>) [A065] Common scoter (<i>Melanitta nigra</i>) [A067] Goldeneye (<i>Bucephala clangula</i>) [A125] Coot (<i>Fulica atra</i>) [A140] Golden plover (<i>Pluvialis apricaria</i>) [A142] Lapwing (<i>Vanellus vanellus</i>) [A193] Common tern (<i>Sterna hirundo</i>) [A999] Wetland and waterbirds.	Hydrological via the Garrnafela Stream. Hydrogeological via the Garrnafela Stream or direct contamination by groundwater flow to downgradient SAC.
Middle Shannon Callows SPA (004096) (NPWS, 2022b) Linear Distance from Proposed Development: approx. 2.9km SW	SCI Birds [A038] Whooper Swan (<i>Cygnus cygnus</i>) [A122] Corncrake (<i>Crex crex</i>) [A140] Golden Plover (<i>Pluvialis apricaria</i>) [A142] Lapwing (<i>Vanellus vanellus</i>) [A156] Black-tailed Godwit (<i>Limosa limosa</i>) [A179] Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A855] Wigeon (<i>Mareca penelope</i>) [A999] Wetland and Waterbirds	Directly downstream of Athlone WwTP emission point.



FIGURE 5. RELEVANT EUROPEAN SITES RELATIVE TO THE SITE OF THE PROPOSED DEVELOPMENT

4.3.3.1 Lough Ree SAC (000440)

The following description of the Site is extracted from the Site Synopsis (NPWS, 2019) for the site:

'Lough Ree is the third largest lake in Ireland and is situated in an ice-deepened depression in Carboniferous limestone on the River Shannon system between Lanesborough and Athlone. The site spans Counties Longford, Roscommon and Westmeath. Some of its features (including the islands) are based on glacial drift. It has a very long, indented shoreline and hence has many sheltered bays. Although the main habitat, by area, is the lake itself, interesting shoreline, terrestrial and semi aquatic habitats also occur.

Reedbeds of Common Reed (Phragmites australis) are an extensive habitat in a number of more sheltered places around the lake, but single-species 'swamps' consisting of such species as Common Club-rush (Scirpus lacustris), Slender Sedge (Carex lasiocarpa), Great Fen-sedge (Cladium mariscus) and two scarce species of sedge (Carex appropinquata and C. elata) also occur in suitable places. Some of these grade up into species-rich alkaline fen with Black Bog-rush (Schoenus nigricans) and Whorl grass (Catabrosa aquatica), or freshwater marsh with abundant Water Dock (Rumex hydrolapathum) and Hemp-agrimony (Eupatorium cannabinum). Lowland wet grassland is found in abundance around the shore and occurs in two types. One is 'callowland', grassland which floods in winter. This provides feeding for winter waterfowl and breeding waders. The other is an unusual community on stony wet lake shore which is found in many places around the lake, and is characterized by Water Germander (Teucrium scordium), a scarce plant species almost confined to this lake and Lough Derg.

Dry calcareous grassland occurs scattered around the lake shore. This supports typical species such as Yellow-wort (Blackstonia perfoliata), Carline Thistle (Carlina vulgaris) and Quaking-grass (Briza media). Orchids also feature in this habitat e.g. Bee Orchid (Ophrys apifera) and Common Spotted orchid (Dactylorhiza fuchsii). Limestone pavement occurs occasionally around the lake shore. The most substantial area is at Rathcline in the extreme north-east. While this has been planted with commercial forestry since the 1950s, it still displays a diverse representation of pavement types, from the typical clint-gryke system to large blocky pavements and scattered boulders. In all cases the pavement is covered by a bryophyte-rich flora, with abundant Ivy (Hedera helix), and a scrub layer dominated by Ash (Fraxinus excelsior), Hazel (Corylus avellana) and some Spindle (Euonymus europaeus). The ground flora is variable, though in places it is species-rich.

Dry broadleaved semi-natural woodland occurs in several places around the lake, most notably at St John's Wood and on Hare Island. St John's Wood is recognised as the largest and most natural woodland in the Midlands. Its canopy is dominated by Hazel, Pedunculate Oak (Quercus robur), Holly (Ilex aquifolium) and Ash, but a range of other trees and shrubs occur, including Wych Elm (Ulmus glabra), Yew (Taxus baccata), Wild Cherry (Prunus avium) and Irish Whitebeam (Sorbus hibernica). The ground flora of St John's Wood is species-rich, and is remarkable for the presence of two species, Toothwort (Lathraea squamaria) and Bird's-nest Orchid (Neottia nidus avis), which tend to occur in sites with a long history of uninterrupted woodland cover. The tree species composition on Hare Island is similar to that in St John's Wood, with additional non-native species such as Sycamore (Acer pseudoplatanus) and Beech (Fagus sylvatica). This wood also has an exceptionally rich ground flora. Some of the smaller areas of woodland around Lough Ree are mixed woodland with a high percentage of exotics such as Beech. Some areas of well-developed Hazel scrub also occur.

Associated with the extensive raised bog system at Clooncruff/Clonlough are areas of bog woodland. At least two small areas of woodland occur on the raised bog domes. However, it would appear that this habitat is in the early stages of development. The largest area is dominated by low trees of Downy Birch and Lodgepole Pine (Pinus contorta). Occasional trees of Scots Pine (Pinus sylvestris) also occur. The ground layer is wet and quaking with a lush carpet of mosses present, including various species of Sphagnum, Pleurozium schreberi and Aulacomium palustre. The main vascular plant species in the ground flora are Bog-rosemary (Andromeda polifolia), Cranberry (Vaccinium oxycoccos), Bog-myrtle (Vaccinium myrtillus), Hare's-tail Cottongrass and Deergrass. Bog Woodland is of particular conservation importance and is listed with priority status on the E.U. Habitats Directive. At St John's Wood, there is an interesting area of woodland that grows on cut-away peat. This is dominated by Downy Birch and Alder Buckthorn (Frangula alnus). The occurrence of the latter species in such abundance is unusual in Ireland.

The lake itself contains one of only two populations in Ireland of the endangered fish species, Pollan (Coregonus autumnalis), which is genetically different from Continental European stock. The shrimp Mysis relicta (Class Crustacea) occurs in this lake and is a relict of the glacial period in Ireland.

There is a population of Otter around the lake. This species is listed in the Red Data Book as being threatened in Europe and is protected under Annex II of the E.U. Habitats Directive.

Land uses within the site include recreation in the form of cruiser hire, angling, camping, picnicking and shooting. Chalet accommodation occurs at a few locations around the lake. Low-intensity grazing occurs on dry and wet grassland around the shore, and some hay is made within the site. Some of these activities are damaging, but in a very localised way, and require careful planning. The main threat to the aquatic life in the lake comes from artificial enrichment of the waters by agricultural and domestic waste, and also by peat silt in suspension which is increasingly limiting the light penetration and thus restricting aquatic flora to shallower waters. At present Lough Ree is less affected by eutrophication than Lough Derg. Lough Ree and its adjacent habitats are of major ecological significance. Some of the woodlands around the lake are of excellent. St John's Wood is particularly important; it is one of the very few remaining ancient woodlands in Ireland. The lake itself is an excellent example of a mesotrophic to moderate-eutrophic system, supporting a rare fish species and a good diversity of breeding and wintering birds.'

4.3.3.2 River Shannon Callows (00216)

The following description of the Site is extracted from the Site Synopsis (NPWS, 2020) for the site:

"The River Shannon Callows is a long and diverse site which consists of seasonally flooded, semi-natural, lowland wet grassland, along and beside the river between the towns of Athlone and Portumna. It is approximately 50 km long and averages about 0.75 km wide (reaching 1.5 km wide in places). Along much of its length the site is bordered by raised bogs (many, but not all, of which are subject to large-scale harvesting), esker ridges and limestone-bedrock hills. The soils grade from silty alluvial to peat. This site has a common boundary, and is closely associated, with two other sites with similar habitats, River Suck Callows and Little Brosna Callows.

*The River Shannon Callows is mainly composed of lowland wet grassland. Different plant communities occur, depending on elevation, and therefore flooding patterns. Two habitats listed on Annex I of the E.U. Habitats Directive are well-represented within the site – Molinia meadows and lowland hay meadows. The former is characterised by the presence of the Meadow Thistle (*Cirsium dissectum*) and Purple Moor-grass (*Molinia caerulea*), while typical species in the latter include Meadow Fescue (*Festuca pratensis*), Rough Meadow-grass (*Poa trivialis*), Downy Oat-grass (*Avenula pubescens*), Common Knapweed (*Centaurea nigra*), Ribwort Plantain (*Plantago lanceolata*) and Common Sorrel (*Rumex acetosa*). In places these two habitats grade into one another.*

*Low-lying areas of the callows with more prolonged flooding are characterised by Floating Sweet-grass (*Glyceria fluitans*), Marsh Foxtail (*Alopecurus geniculatus*) and wetland herbs such as Yellow-cress (*Rorippa* spp.), Water Forget-me-not (*Myosotis scorpioides*) and Common Spike-rush (*Eleocharis palustris*). Most of the callows consist of a plant community characterised by Creeping Bent (*Agrostis stolonifera*), Brown Sedge (*Carex disticha*), Common Sedge (*Carex nigra*), and herbs such as Marsh marigold (*Caltha palustris*) and Marsh Bedstraw (*Galium palustre*), while the more elevated and peaty areas are characterised by low-growing sedges, particularly Yellow Sedge (*Carex flava* agg.) and Star Sedge (*Carex echinata*). All these communities are very diverse in their total number of plant species, and include the scarce species Meadow-rue (*Thalictrum flavum*), Summer Snowflake (*Leucojum aestivum*) and Marsh Stitchwort (*Stellaria palustris*).*

*Immediately south of Portumna Bridge and south east of the town of Portumna the area of low-lying terrestrial land west of the river comprises a large area of the Annex I habitat alkaline fen. The fen comprises a complex of rich-fen plant communities. Sedges (*Carex lasiocarpa*, *Carex acutiformis*) and Bogbean (*Menyanthes trifoliata*) dominate parts of the fens while other small sedges are common throughout. The orchids Early Marsh Orchid (*Dactylorhiza incarnata*), Western Marsh Orchid (*D. majalis*) and Marsh Helleborine (*Epipactis palustris*) and the red-listed plant species Marsh Pea (*Lathyrus palustris*) have been recorded within the fen.*

*Two species which are legally protected under the Flora (Protection) Order, 2015, occur in the site - Opposite-leaved Pondweed (*Groenlandia densa*) in drainage ditches, and Meadow Barley (*Hordeum secalinum*) on dry alluvial grassland. This is one of only two known inland sites for Meadow Barley in Ireland. The Red Data Book plant Green-winged Orchid is known from dry calcareous grasslands within the site.*

The Shannon Callows has by far the largest area of lowland semi-natural grassland and associated aquatic habitats in Ireland, and one in which there is least disturbance of natural wetland processes. Botanically, it is extremely diverse with two legally protected species of plants and many scarce species. Excellent examples of two habitats listed on Annex I of the E.U. Habitats Directive occur within the site – Molinia meadows and lowland hay meadows with good examples of a further three Annex habitats (two with priority status). In winter the site is internationally important for numbers and species of waterfowl. In spring it feeds large numbers of birds on migration, and in summer it holds very large numbers of breeding waders, rare breeding birds and the endangered Corncrake, as

well as a very wide variety of more common grassland and wetland birds. The presence of Otter, an Annex II species, adds further importance to the site.”

4.3.3.3 Lough Ree SPA (004064)

The following description of the Site is extracted from the Site Synopsis (NPWS, 2015) for the site:

‘Situated on the River Shannon between Lanesborough and Athlone, Lough Ree is the third largest lake in the Republic of Ireland. It lies in an ice-deepened depression in Carboniferous Limestone. Some of its features (including the islands) are based on glacial drift. The main inflowing rivers are the Shannon, Inny and Hind, and the main outflowing river is the Shannon. The greater part of Lough Ree is less than 10 m in depth, but there are six deep troughs running from north to south, reaching a maximum depth of about 36 m just west of Inchmore. The lake has a very long, indented shoreline and hence has many sheltered bays. It also has a good scattering of islands, most of which are included in the site.

Beds of Common Reed (Phragmites australis) are an extensive habitat in a number of the more sheltered places around the lake; monodominant stands of Common Club rush (Scirpus lacustris), Slender Sedge (Carex lasiocarpa) and Saw Sedge (Cladium mariscus) also occur as swamps in suitable places. Some of these grade into species rich calcareous fen or freshwater marsh. Lowland wet grassland, some of which floods in winter, occurs frequently around the shore.

The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the following species: Whooper Swan, Wigeon, Teal, Mallard, Shoveler, Tufted Duck, Common Scoter, Goldeneye, Little Grebe, Coot, Golden Plover, Lapwing and Common Tern. The E.U. Birds Directive pays particular attention to wetlands and, as these form part of this SPA, the site and its associated waterbirds are of special conservation interest for Wetland & Waterbirds.

Lough Ree is one of the most important Midland sites for wintering waterfowl, with nationally important populations of Little Grebe (52), Whooper Swan (139), Wigeon (2,070), Teal (1,474), Mallard (1,087), Shoveler (54), Tufted Duck (1,012), Goldeneye (205), Coot (338), Golden Plover (3,058) and Lapwing (5,793) – all figures are three year mean peaks for the period 1997/98 to 1999/2000. Other species which occur in winter include Great Crested Grebe (29), Cormorant (99), Curlew (254) and Black-headed Gull (307) as well as the resident Mute Swan (85). Greenland White-fronted Goose has been recorded on occasion on the flooded margins of the site.

The site supports a nationally important population of Common Tern (90 pairs in 1995). It is a traditional breeding site for Black-headed Gull and whilst a full survey has not been carried out in recent years, substantial numbers of nesting birds were present on at least one island in 2003. Lesser Black-backed Gull and Common Gull have bred in the past and may still breed. Lough Ree is a noted site for breeding duck and grebes: Tufted Duck (202 pairs) and Great Crested Grebe (32 pairs) – records from 1995. Of particular note is that Lough Ree is one of the two main sites in the country for breeding Common Scoter, a Red Data Book species. Surveys have recorded 39 pairs and 32 pairs in 1995 and 1999 respectively. Cormorant also breeds on some of the islands within the site – 86 nests were recorded in 2010. The woodland around the lake is a stronghold for Garden Warbler and this scarce species probably occurs on some of the islands within the site.

Lough Ree SPA is of high ornithological importance for both wintering and breeding birds. It supports nationally important populations of eleven wintering waterfowl species. The site has a range of breeding waterfowl species, notably nationally important populations of Common Scoter and Common Tern. Of particular note is the regular presence of three species, Whooper Swan, Golden Plover and Common Tern, which are listed on Annex I of the E.U. Birds Directive. Parts of Lough Ree SPA are Wildfowl Sanctuaries.’

4.3.3.4 Middle Shannon Callows SPA (004096)

The following description of the Site is extracted from the Site Synopsis (NPWS, 2012) for the site:

“The Middle Shannon Callows SPA is a long and diverse site which extends for approximately 50 km from the town of Athlone to the town of Portumna; it lies within Counties Galway, Roscommon, Westmeath, Offaly and Tipperary. The site averages about 0.75 km in width though in places is up to 1.5 km wide. Water levels on the site are greatly influenced by the very small fall between Athlone and Portumna and by the weir at Meelick. The site has extensive areas of callow, or seasonally flooded, semi-natural, lowland wet grassland, along both sides of the river. The callows are mainly too soft for intensive farming but are used for hay or silage or for summer grazing. Other habitats of smaller area which occur alongside the river include lowland dry grassland, freshwater marshes, reedbeds and

wet woodland. The diversity of semi-natural habitats present and the sheer size of the site attract an excellent diversity of bird species, including significant populations of several.

The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the following species: Whooper Swan, Wigeon, Corncrake, Golden Plover, Lapwing, Black-tailed Godwit and Black-headed Gull. It is also of special conservation interest for holding an assemblage of over 20,000 wintering waterbirds. The E.U. Birds Directive pays particular attention to wetlands and, as these form part of this SPA, the site and its associated waterbirds are of special conservation interest for Wetland & Waterbirds.

The Middle Shannon Callows qualifies as a site of international importance as it regularly supports in excess of 20,000 wintering waterbirds (23,656 – four year mean peak for four of the winters between 1995/96 and 1999/2000). The site also supports internationally important populations of Whooper Swan (305 – five year mean peak for the period 1995/96 to 1999/2000) and Black-tailed Godwit (485 – four year mean peak for four of the winters between 1995/96 and 1999/2000). Four further species of wintering waterbird occur in numbers of national importance, i.e. Wigeon (3,059), Golden Plover (4,133), Lapwing (13,240) and Black-headed Gull (1,209) – all figures are four year mean peaks for four of the winters between 1995/96 and 1999/2000.

The Middle Shannon Callows SPA supports a breeding population of Corncrake (19 pairs - five year mean peak between 2003 and 2007, based on records of calling males). Corncrake winter in southern and eastern Africa, migrating northwards to arrive on their breeding grounds from early April onwards, departing again in August and September. They require the cover of tall vegetation throughout their breeding cycle and are strongly associated with meadows which are harvested annually, where they nest and feed. Annual cutting of these meadows creates a sward which is easy for the birds to move through. Other habitats, which can provide cover for Corncrake in the early and late stages of the breeding season, are also important for this species. Corncrake is listed on the 2010 International Union for Conservation of Nature (IUCN) Red List of Threatened Species. This is due to population and range declines of more than 50% in the last 25 years across significant parts of its range.

A good variety of other bird species are attracted to the site. Birds of prey, including scarce species such as Merlin and wintering Hen Harrier have been recorded hunting over the callows. A range of passerine species associated with grassland and swamp vegetation breed, including Sedge Warbler, Grasshopper Warbler, Skylark and Reed Bunting. Kingfisher is also known to occur within the site. Whinchat, an uncommon breeding species, occurs in small numbers.

The Middle Shannon Callows SPA is an internationally important site that supports an assemblage of over 20,000 wintering waterbirds. It holds internationally important populations of two species - Whooper Swan and Black-tailed Godwit. In addition, there are four species that have wintering populations of national importance. The site also supports a nationally important breeding population of Corncrake. Of particular note is that several of the species which occur regularly are listed on Annex I of the E.U. Birds Directive, i.e. Whooper Swan, Corncrake and Golden Plover.”

4.3.3.5 Qualifying Interests and Conservation Objectives

Site specific conservation objectives (SSCO) have been compiled for the Lough Ree SAC (000440) and Lough Ree SPA (004064). These are outlined in

Table 5.

TABLE 5. QUALIFYING INTERESTS (QIs) / SPECIAL CONSERVATION INTERESTS (SCIs) AND THEIR CONSERVATION OBJECTIVES FOR THE RELEVANT EUROPEAN SITE(S). THE CONSERVATION STATUS OF EACH QI / SCI WAS SOURCED FROM THE RELEVANT STANDARD DATA FORMS, AVAILABLE FROM THE NATURA 2000 NETWORK VIEWER (EEA, 2026).

QI / SCI (* = priority habitat)	Conservation Status	Conservation Objective
Lough Ree SAC (000440)		
[3150] Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation	Excellent	To restore the favourable conservation condition of this habitat within the Lough Ree SAC.

QI / SCI (* = priority habitat)	Conservation Status	Conservation Objective
[6210] Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites)	Good	
[7110] Active raised bogs	Good	This habitat is not listed in the most recent conservation objectives document for this SAC. The conservation objectives supporting document for raised bog habitats within this SAC states that surveys of Lough Ree SAC show that active raised bog habitat is present and there is considerable potential for the degraded raised bog habitat to develop into active raised bogs following restoration measures and as such the document has included this habitat as a priority I habitat for Lough Ree SAC.
[7120] Degraded raised bogs still capable of natural regeneration	Reduced	To restore the favourable conservation condition of this habitat within the Lough Ree SAC.
[7230] Alkaline fens	Excellent	To maintain the favourable conservation condition of this habitat within the Lough Ree SAC.
[8240] Limestone pavements	Reduced	
[91D0] Bog woodland	Good	To restore the favourable conservation condition of this habitat within the Lough Ree SAC.
[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>)	Excellent	This habitat is not listed in the most recent conservation objectives document for Lough Ree SAC.
[1355] Otter (<i>Lutra lutra</i>)	Excellent	To maintain the favourable conservation condition of this species within the Lough Ree SAC.
River Shannon Callows SAC (000216)		
[6410] Molinia Meadows	Excellent	To restore the favourable conservation condition of these habitats in the River Shannon Callows SAC.
[6510] Lowland Hay Meadows	Excellent	
[7230] Alkaline Fens	Good	To maintain the favourable conservation condition of these habitats in the River Shannon Callows SAC.
[8240] Limestone Pavements*	Good	
[91E0] Alluvial Forests*	Good	
[1355] Otter (<i>Lutra lutra</i>)	Good	To maintain the favourable conservation condition of this species in the River Shannon Callows SAC.

QI / SCI (* = priority habitat)	Conservation Status	Conservation Objective
Lough Ree SPA (004064)		
[A004] Little grebe (<i>Tachybaptus ruficollis</i>)	N/A	To maintain the favourable conservation condition of this species within the Lough Ree SPA.
[A038] Whooper swan (<i>Cygnus cygnus</i>)	Good	To restore the favourable conservation condition of this species within the Lough Ree SPA.
[A050] Wigeon (<i>Anas penelope</i>)	N/A	
[A052] Teal (<i>Anas crecca</i>)	Good	
[A053] Mallard (<i>Anas platyrhynchos</i>)	Excellent	
[A056] Shoveler (<i>Anas clypeata</i>)	N/A	To maintain the favourable conservation condition of this species within the Lough Ree SPA.
[A061] Tufted duck (<i>Aythya fuligula</i>)	Excellent	
[A065] Common scoter (<i>Melanitta nigra</i>)	Good	To restore the favourable conservation condition of this species within the Lough Ree SPA.
[A067] Goldeneye (<i>Bucephala clangula</i>)	Excellent	
[A125] Coot (<i>Fulica atra</i>)	Excellent	To maintain the favourable conservation condition of this species within the Lough Ree SPA.
[A140] Golden plover (<i>Pluvialis apricaria</i>)	Reduced	To restore the favourable conservation condition of this species within the Lough Ree SPA.
[A142] Lapwing (<i>Vanellus vanellus</i>)	Good	
[A193] Common tern (<i>Sterna hirundo</i>)	Good	
[A999] Wetland and waterbirds.	N/A	To maintain the favourable conservation condition of Wetland habitats in Lough Ree SPA as a resource for the regularly-occurring migratory waterbirds that utilise these areas.
Middle Shannon Callows SPA (004096)		
[A038] Whooper Swan (<i>Cygnus cygnus</i>)	Excellent	To maintain the favourable conservation condition of this species within the Middle Shannon Callows SPA.
[A122] Corncrake (<i>Crex crex</i>)	Excellent	The status of corncrake as a Species of Conservation Interest for the Middle Shannon Callows SPA is currently under review.

QI / SCI (* = priority habitat)	Conservation Status	Conservation Objective
		The outcome of this review will determine whether a site-specific conservation objective is set for this species.
[A140] Golden Plover (<i>Pluvialis apricaria</i>)	Excellent	To maintain the favourable conservation condition of this species within the Middle Shannon Callows SPA.
[A142] Lapwing (<i>Vanellus vanellus</i>)	Good	To restore the favourable conservation condition of these species within the Middle Shannon Callows SPA.
[A156] Black-tailed Godwit (<i>Limosa limosa</i>)	Excellent	
[A179] Black-headed Gull (<i>Chroicocephalus ridibundus</i>)	Good	
[A855] Wigeon (<i>Mareca penelope</i>)	Excellent	To restore the favourable conservation condition of this species within the Middle Shannon Callows SPA.
[A999] Wetland and Waterbirds	N/A	To maintain the favourable conservation condition of Wetland habitats in Middle Shannon Callows SPA.

4.4 Assessment of Likely Significant Effects

The following sections discuss the potential for likely significant effects on the relevant European site(s), taking into consideration the Qis and SCIs, and assesses whether the Proposed Development has the capacity to adversely affect the integrity of these European sites. Furthermore, due consideration shall be given to species not formally identified but which may be present within the relevant European site(s) and adversely effected by the Proposed Development, provided that those potential impacts are likely to affect the conservation objectives of the designated site. The potential for significant effects that may arise from the Proposed Development was considered through the use of key indicators as detailed in Section 3.6.

4.4.1 Habitat Loss or Alteration

The Proposed Development is not within or directly adjacent to any European site boundary and is thus not expected to lead to the direct alteration or removal of designated habitats.

The set of winter bird surveys undertaken at the Site comprised of 5 survey days across October, November and December 2022, and January and March 2023. These surveys recorded small numbers of foraging wintering birds in the grassland on Site. The initial assessment of the quality and composition of the habitats present at the Proposed Development Site confirmed that it is largely unsuitable as an *ex-situ* feeding/roosting resource for the SCI species for Lough Ree SPA and the Middle Shannon Callows SPA i.e., ducks, geese, waders and shorebirds. The grasslands dominating much of the Site do not provide potential *ex-situ* feeding resources for the above groups, of which the majority favour waterbodies (i.e., diving / dabbling species), arable/cultivated land, or open green spaces with short grass swards such as those of playing pitches etc. Although on occasion snipe were observed utilising sections of the applicant's lands for foraging, the Site does not provide significant habitat for this species, or any other waterbird species associated with Lough Ree SPA or the Middle Shannon Callows SPA.

The Site does not currently represent an important flyway for SCI species, with lone occurrences of black-headed gull and grey heron the only waterbird species recorded in flight over the Site. Furthermore, the Proposed Development entails building heights ranging from 1-2 storey in height and as such, the risk of migrating birds colliding with the structures due to its height is deemed to be negligible. It is therefore concluded that there will be

no significant loss of any *ex-situ* foraging/roosting habitat or flight-line obstruction, to any SCI species listed for the relevant SPAs, as a result of the Proposed Development.

4.4.2 Habitat/Species Fragmentation

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

4.4.3 Changes in Water Quality and Resource

4.4.3.1 Construction Phase

During the Construction Phase, surface water run-off containing silt / sediments or other pollutants could inadvertently flow into the Garrynafera Stream overland or during culvert placement. Additionally, discharges into ground could be transported by groundwater flows into the Garrynafera Stream. The Garrynafera Stream downstream of the Proposed Development Site was noted to have a flow during the Site survey, and any potential discharges associated with the Proposed Development reaching this waterbody during the Construction Phase would be carried downstream, and continuous siltation or pollution may cause damage to aquatic habitats.

In the absence of mitigation measures, there is potential for surface water run-off containing pollutants such as hydrocarbons and silt to enter the Garrynafera Stream and downstream European sites within Lough Ree. Therefore, although unlikely, the potential for significant effects on Lough Ree SAC and Lough Ree SPA arising as a result of water quality deterioration **cannot be excluded**.

Discharges that infiltrate into the ground at the Proposed Development Site could migrate downwards into the groundwater body and are assumed to flow into the Garrynafera Stream based on topography at the Site. It is considered that the relative volume of any potential discharges into ground from the Proposed Development (both during the Construction and Operational Phases) is small in relation to the dilution and dispersion potential of the receiving groundwater body and would be further diluted in the receiving waterbodies to negligible levels prior to reaching Lough Ree. However, the Annex I habitat 'Alkaline Fens' [7230] is noted to be located around Ballaghkeeran Bay and within the Lough Ree SAC. Alkaline Fens are highly sensitive to changes in groundwater chemistry and therefore the deterioration of this habitat and thus impact of Lough Ree SAC cannot be screened out at this stage.

Therefore, although unlikely, the potential for significant effects on Lough Ree SAC arising as a result of groundwater quality deterioration **cannot be excluded**.

4.4.3.2 Operational Phase

It is a policy of the Westmeath County Development Plan (2021 - 2027) Policy CPO 10.97: "To resist the discharge of additional surface water to combined sewers and promote Sustainable Urban Drainage Systems (SuDS) and solutions to maximise the capacity of towns with combined drainage systems." It is noted that these design features are a requirement in all new developments, as per the above policy; to contribute to both the improvement of water quality in receiving waterbodies and the easing of pressures on existing drainage networks. As such, the Proposed Development design will entail a suite of SuDS measures to ensure that any surface waters discharged from the Site during its operational lifetime will have been sufficiently treated and attenuated prior to entering the boundary drainage ditches, and thus be of acceptable quality to ensure no significant adverse effects downstream.

Operational Phase surface water discharges will be clean roof water as well as run-off from the footpaths and car parking areas, which could contain hydrocarbons from a car leak or suspended sediment. However, a car leak is unlikely to be a regular occurrence and, given the low volume of any surface water run-off relative to the volume of the receiving environment, the potential for mixing, dilution and dispersion of any surface water run-off/discharges in the receiving environment, impacts on the water quality indicator within Lough Ree due to Operational Phase surface water discharges, even in the absence of SuDS measures, would not be significant.

Foul water from the Operational Phase will be treated at Athlone WwTP. Athlone WwTP discharges treated effluent to the River Shannon. Therefore an indirect pathway exists between the Site and the River Shannon Callows SAC (000216) and Middle Shannon Callows SPA (004096). The Athlone WwTP was identified by the EPA as being compliant with the Emission Limit Values (ELVs) as set out in the Wastewater Discharge Licence for 2024, according to the 2024 Annual Environmental Report (AER) for the facility, which is the most recently published AER for the Athlone WwTP (Irish Water, 2024). Based on the ELV compliance, it is not considered that the

discharges from the WwTP are having an observable impact on water quality and the discharge from the plant does not have an observable negative impact on the WFD.

Athlone WwTP has a Population Equivalent (P.E.) load of 36,000, and according to the 2024 AER the plant had a collected load (peak week) of 22,834 and capacity is not expected to be exceeded in the next three years (Irish Water, 2024). The plant has ample capacity to treat the additional loading from the Proposed Development, see Section 1.3.2.2 for more details on wastewater calculations for the Proposed Development).

When taking the above information into consideration, it can be concluded that the indirect pathway to the River Shannon Callows SAC (000216) and Middle Shannon Callows SPA (004096) is insignificant. Therefore there is no potential for the Proposed Development to impact these European sites.

4.4.4 Disturbance and/or Displacement of Species

The Site is not deemed to provide any significant *ex-situ* habitat for the waterbird species associated with the nearby SPAs (see Section 4.4.1 for more details).

As outlined in Section 4.4.3.1, there is a degree of uncertainty as to the potential for the Proposed Development to result in significant effects on the water quality and resource indicator during the Construction Phase. As such, there is uncertainty around the potential for QI/SCI species within Lough Ree to be impacted by water quality impacts.

4.4.5 Changes in Population Density

Changes in population densities are possible due to the potential changes in water quality and resource discussed in Section 4.4.3.

4.4.6 Potential for In-combination Effects

4.4.6.1 Existing Planning Permissions

A search of planning applications located within a 500m radius of the Site of the Proposed Development was conducted using online planning resources such as the National Planning Application Database (NPAD) (MyPlan.ie). Any planning applications listed as granted or decision pending from within the last five years were assessed for their potential to act in-combination with the Proposed Development and cause likely significant effects on the relevant European sites. Long-term developments granted outside of this time period were also considered where applicable.

It is noted that the majority of the developments within the vicinity of the Site of the Proposed Development are applications granted for small scale extensions and alterations to existing permitted developments as well as larger applications for transport infrastructure. The larger developments in the vicinity of the Proposed Development are outlined in Table 6:

TABLE 6. GRANTED AND PENDING LARGE DEVELOPMENT APPLICATIONS WITHIN 500M OF THE PROPOSED DEVELOPMENT. LOCATION GIVEN IS RELATIVE TO THE PROPOSED DEVELOPMENT.

Planning Reference	Planning Authority	Status	Location
22577	Westmeath County Council	Granted. Conditional.	Directly SW of Site.
Development Description 5-year permission for development at a site of total c.10.87 ha on lands located at Cornamaddy, Athlone, Co. Westmeath. The site is generally bounded to the west by greenfield lands and Cornamagh Cemetery, to the north by greenfield lands, to the south by greenfield lands and the Ballymahon Road (N55) and to the east by the existing Drumaconn housing estate. The development will comprise of a residential development and public open space comprising the following: • Amendments to permitted application WMCC Reg Ref. 14/7103 ABP Ref. PL25.244826 for the removal of 38 no. permitted units (not constructed) to be replaced by: Construction of 70 no. residential			

Planning Reference	Planning Authority	Status	Location
units comprising: 4 no. 2 bed terraced houses (c.78 sq.m each), 60 no. 3 bed semidetached (c. 96-116 sq.m each) and 6 no. 4 bed semidetached houses (c. 147 sq.m each) with associated private gardens. • The creche facility, public open spaces, landscaping, roads layouts, car parking, boundary treatment works, public lighting and all associated site works associated with the 87 no. remaining units retained as permitted under WMCC Reg Ref. 14/7103 ABP Ref. PL25.244826 will remain unchanged. • All pedestrian and vehicular access roads and footpaths including a section of the planned east/west distributor road connecting to a sections of the distributor road permitted under WMCC Reg. Refs 14/7103 ABP Ref. PL25.244826 and 22/253 to the east of the site. • All associated site development works, services provision, drainage works, public open space (c.1.03ha), landscaping, boundary treatment works, public lighting, associated esb substation cabinets, bin stores, car and bicycle parking provision. • This development will form part of a larger/future phase of the development. Potential for In-combination effects This planning application is accompanied by an Environmental Impact Assessment Report and Natura Impact Statement. The NIS Report for this project includes a suite of mitigation measures to ensure it will not adversely affect the integrity of any European sites. As such, it is determined there is no potential for in-combination effects between the Proposed Development and this development <u>in the event that all listed mitigation measures are followed.</u>			
22253	Westmeath County Council	Granted. Conditional.	Directly W of the Site.
Development Description The development will consist of the following: • Construction of 75 no. residential units comprising: 51 no. 2 storey semi-detached and terraced houses (consisting 4 no. 2 bed houses and 47 no. 3 bed houses, ranging in size from c.78 sq.m – 120 sq.m each), and 24 no. 3 storey apartment/duplex units (consisting 12 no. 2 bed apartments and 12 no. 3 bed duplexes, ranging in size from 84sq.m to 121 sq.m each), with associated private gardens and east/west facing terraces; • All pedestrian and vehicular access roads and footpaths including a section of the planned east/west distributor road connecting to a section of the distributor road permitted under WMCC Reg. Ref. 14/7103/ ABP Ref. PL25.244826 to the south east of the site. • All associated site development works, services provision, drainage works, residential open space (c.0.28ha) and public open space (c.0.82ha), landscaping, boundary treatment works, public lighting, 1 no. esb substation cabinets, bin stores, car and bicycle parking provision; • Provision of a new detention basin on the eastern portion of the site designed to cater for the proposed development, in lieu of the drainage works permitted under WMCC Reg. Ref. 14/7103 / ABP Ref. PL 25.244826; • This development will form part of a larger/future phase of the development; • No changes to the existing pumping station located outside the northern site boundary; Potential for In-combination effects A Natura Impact Statement has been prepared in respect of this application. The NIS Report for this project includes a suite of mitigation measures to ensure it will not adversely affect the integrity of any European sites. As such, it is determined there is no potential for in-combination effects between the Proposed Development and this development <u>in the event that all listed mitigation measures are followed.</u>			
2360374	Westmeath County Council	Granted.	215m W of Site.

Planning Reference	Planning Authority	Status	Location
		Conditional.	
Development Description Large Scale Residential Development on a site of total c. 7.31 ha comprising of a residential development and public open space comprising the following: • Construction of 177 no. residential units on a gross site area of 7.31 ha, ranging in height from 2-3 storeys comprising detached, semi-detached, and terraced houses, maisonettes and 3 storey duplex apartments. • 65 no. 2 bed houses, 71 no. 3 bed houses and 9 no. 4 bed houses will be provided. • 24 no. 1 bed maisonette apartment units and 8 no. 3 storey duplex apartment units will be provided • All associated development works. • This development will form part of a larger phase of permitted and proposed development. Potential for In-combination effects This planning application is accompanied by an Environmental Impact Assessment Report and Natura Impact Statement. The NIS Report for this project includes a suite of mitigation measures to ensure it will not adversely affect the integrity of any European sites. As such, it is determined there is no potential for in-combination effects between the Proposed Development and this development <u>in the event that all listed mitigation measures are followed.</u>			

4.4.6.2 Relevant Policies and Plans

The local policies and plans detailed in Section 2.2 above were reviewed and considered for possible in-combination effects with the Proposed Development. Each of these plans has undergone AA, and where potential for likely significant effects has been identified an NIS has been prepared which identifies appropriate mitigation. As such, it is considered that the plans and policies listed will not result in in-combination effects with the Proposed Development. The Westmeath County Development Plan 2021 – 2027 has directly addressed the protection of European sites and biodiversity through specific objectives. The above-listed plans are not being relied upon to rule out potential significant effects on European sites.

It is therefore concluded that there is no possibility for any significant in-combination effects to European sites involving the Proposed Development.

TABLE 7. SUMMARY OF IMPACT ASSESSMENT ON EUROPEAN SITES AS A RESULT OF THE PROPOSED DEVELOPMENT.

Site	Habitat Loss / Alteration	Habitat or Species Fragmentation	Disturbance and/or Displacement of Species	Changes in Population Density	Changes in Water Quality and/or Resource	In-combination effects	Stage 2 AA Required
SAC							
Lough Ree (000440)	No	No	Yes	Yes	Yes	None	YES
River Shannon Callows (000216)	No	No	No	No	No	None	NO
SPA							
Lough Ree (004064)	No	No	Yes	Yes	Yes	None	YES
Middle Shannon Callows (004096)	No	No	No	No	No	None	NO

5 APPROPRIATE ASSESSMENT SCREENING CONCLUSION

The Proposed Development at Cornamaddy, Athlone, Co. Westmeath has been assessed taking into account:

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

Upon the examination, analysis and evaluation of the relevant information and applying the precautionary principle, it is concluded by the authors of this report that the possibility may not be excluded that the Proposed Development will have a significant effect on any of the European sites listed below:

- Lough Ree SAC (000440).
- Lough Ree SPA (004064).

In carrying out this AA screening, any targeted ecological mitigation measures and/or measures intended or included for the purposes of avoiding adverse effects arising as a result of the Proposed Development on any European site have not been taken into account.

On the basis of the screening exercise carried out above, the likelihood of significant effects on European sites cannot be excluded. Therefore, a NIS will be prepared for the Proposed Development and is included under a separate cover. The NIS will assess the impact of the project on the integrity of the European sites, having regard to the conservation objectives of the sites. The NIS will describe proposed mitigation measures to avoid and reduce significant effects and will provide objective scientific information to enable the competent authority to carry out an AA of the Proposed Development.

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