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# BALLYNAHONE LONG DURATION ENERGY STORAGE

## Appropriate Assessment Screening Report

**Prepared for:**

**FuturEnergy Ireland Development DAC**

FuturEnergy Ireland

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# APPROPRIATE ASSESSMENT SCREENING REPORT

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**Abstract:** This document is to inform the Competent Authority in carrying out their statutory obligations relating to Article 6(3) of the Habitats Directive.

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# 1. INTRODUCTION

Fehily Timoney and Company (FT) was commissioned by FuturEnergy Ireland Development DAC to prepare an Appropriate Assessment Screening Report for the Ballynahone Long Duration Energy Storage, Co. Donegal.

## 1.1 Site Description

Ballynahone Long Duration Energy Storage is located within the townlands of Ballynahone, near the town of Buncrana Co. Donegal (approx. ITM 637385.0,929493.2), adjacent to the existing Trillick 110 kV Substation. 'The Drum' local road runs through the site, with the location of the proposed UTF Transformer Compound to the west and the proposed energy storage compound to the east. The Site is bounded by agricultural lands to the north and the Mill Donegal_020 River is located to the east. The Proposed Development is situated within an area dominated by privately owned forestry plantation (primarily comprised of Sitka Spruce, *Picea sitchensis*) and has an overall site area of c.5.8 hectares.

## 1.2 Brief Description of the Proposed Development

The proposed development, as shown on Site layout Plan (drawing P23-117-0100-0004), comprises the following:

- Long Duration Energy Storage (LDES) Compound with a total surface area of c.2.9 hectares with associated internal access roads;
- Installation of onsite transformer compound (c. 3,600 sq m) to facilitate an under-the fence connection to the adjacent Trillick substation. The transformer compound will include an Independent Power Producer Building of c. 27 sq m, a 110 kV transformer, an up to 18 m high lightning monopole mast, boundary fence and associated ancillary development;
- Battery Energy Storage Units comprising metal shipping containers housing batteries [approximately 12.2 m (L) x 2.6 m (W) and 2.9 m (H) each] and associated ancillary control and ventilation units within an area of c.1.9 hectares;
- A temporary construction compound hard standing with a total surface area of c.1,500 sq m and associated access from the L-7231 public road;
- c.515 m of new and upgraded access tracks;
- Upgrade of 1 no. existing entrance and creation of 1 no. new permanent access from the L-7231 public road for construction and operation of the facility;
- Underground electrical and communications cabling;
- Security lighting, CCTV and communications mast;
- A new mains fresh water connection, on-site freshwater storage tank and reverse osmosis water treatment unit;
- Storage container;
- Sound reflective barriers;
- Security fencing and gates;
- Drainage system including on-site surface water attenuation pond;
- Tree felling and site clearance works;
- Landscaping and planting.

## 1.3 Purpose of this Report

This report presents an examination of whether the proposed development is likely to have a significant effect on a European site (either alone or in combination with other plans or projects) and is based on best available scientific knowledge. This report has been prepared to inform the competent authority in completing their statutory obligations in relation to Appropriate Assessment, as required by Article 6(3) under Council Directive 92/43/EEC (Habitats Directive).

This report has been prepared in accordance with OPR Guidance[2], and follows a source-pathway-receptor methodology.

## 1.4 Objectives of Appropriate Assessment

The Habitats Directive promotes a hierarchy of avoidance, mitigation and compensatory measures to be addressed in the AA process[3] as follows:

- Firstly, a plan / project should aim to avoid any negative impacts on Natura 2000 sites by identifying possible impacts early and designing the project / plan to avoid such impacts.
- Secondly, mitigation measures should be applied during the AA process to the point where no adverse impacts on the site(s) remain.
- Thirdly a plan / project may have to undergo an assessment of alternative solutions. Under this stage of the assessment, compensatory measures are required for any remaining adverse effects, but they are permitted only if (a) there are no alternative solutions and (b) the plan / project is required for imperative reasons of overriding public interest (the 'IROPI test'). European case law highlights that consideration must be given to alternatives outside the plan / project boundary area in carrying out the IROPI test.

[2] OPR. (2021). Appropriate Assessment Screening for Development Management. Available at: 9729-Office-of-the-Planning-Regulator-Appropriate-Assessment-Screening-booklet-15.pdf. Accessed 09/09/2024.
[3] The objectives as outlined are based on those set out in Scott Wilson and Levett-Therivel, (2006).

## 1.5 Legislative Context

Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora (Habitats Directive) provides legal protection for habitats and species of European importance. The Directive requires that where a plan or project is likely to have a significant effect on a European Site, while not directly connected with or necessary to the nature conservation management of the site, it will be subject to 'Appropriate Assessment' to identify any implications for the European site in view of the site's Conservation Objectives. Specifically, Article 6(3) of the Habitats Directive states:

> *"6(3) Any plan or project not directly connected with or necessary to the management of the site (Natura 2000 sites) but likely to have significant effect thereon, either individually or in combination with other plans or projects, shall be subject to Appropriate Assessment of its implications for the site in view of the site's conservation objectives. In the light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public."*

The competent authority must carry out a screening for appropriate assessment to assess, in view of best scientific knowledge, if the Ballynahone Long Duration Energy Storage, individually or in combination with another plan or project is likely to have a significant effect on a European site. If it cannot be excluded, on the basis of objective information, that the proposed project, individually or in combination with other plans or projects, will have a significant effect on a European site, an appropriate assessment of its implications for the European Site(s) in view of the Site's conservation objectives is required to be carried out.

The provisions of Article 6(3) do not apply where the proposed plan or project is 'connected with or necessary to the management of the site'. In this case, the proposed project is not directly connected with or necessary to the management of any European site(s).

The relevant sections of the legislation are summarised in Appendix 1 of this report.

# 2. METHODS

## 2.1 Scope

The scope and approach to preparing the AA screening report follows the Source-Pathway-Receptor model as prescribed in OPE guidelines[4]. In order for an effect to be established, all three elements of this mechanism must be in place. The absence of one of the elements of the mechanism is sufficient to conclude that a potential effect cannot occur.

- Source(s) – e.g., pollutant run-off, noise, removal of vegetation, etc.;
- Pathway(s) – functional link, or ecological pathway e.g., groundwater connecting to nearby qualifying wetland habitats; and,
- Receptor(s) – the qualifying habitats and species of European sites and ecological resources supporting those habitats/species.

In the context of this report, a source is any identifiable element of the proposed project that is known to interact with the receiving environment. A receptor is the Qualifying Interests (QI)[5] for an SAC or Special Conservation Interests (SCI)[6] for an SPA or an ecological feature that is known to be utilised by the QI/SCI. In practice, the term Qualifying Interests also applies to SCIs (and is used in this document for simplicity). A pathway is any connection or link between the source and the receptor.

### 2.1.1 Desk Study

A desk study was carried out to collate information available on Natura 2000 sites within the potential zone of influence of the proposed development. In this regard the following publications, data and datasets were referenced:

- Environmental Protection Agency (EPA) (on-line map-viewer including the Appropriate Assessment Tool)[7];
- Department of Housing, Planning, and Local Government- EIA Portal;
- National Parks and Wildlife Service – online European site network information, including site conservation objectives[8];
- National Parks and Wildlife Service – Information on the status of EU protected habitats and species in Ireland (including Article 17 and Article 12 Reports);
- National Biodiversity Data Centre[9]

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[4] OPR Practice Note PN01 Appropriate Assessment Screening for Development Management, (Office of the Planning Regulator, 2021)
[5] SACs are areas designated under the Habitats Directive to conserve habitats listed in Annex I of the Directive and plant and animal species listed in Annex II. Collectively these are referred to as the 'Qualifying Interests' or 'QIs' of the SAC.
[6] SPAs are sites classified under the Birds Directive to protect rare or vulnerable bird species listed in Annex I to the Directive as well as regularly occurring migratory species and wetlands. Wetland habitats that support internationally important populations of migratory birds may be coastal or inland. Collectively, these species and habitats are referred to as the 'Special Conservation Interests' of the SPA.
7 https://gis.epa.ie/EPAMaps/ *(last accessed 09/09/2024)*.
8 www.npws.ie *(last accessed 09/09/2024).*
9 www.biodiversityireland.ie *(last accessed 09/09/2024)*

The engineering drawings prepared by Fehily Timoney and Company for the Proposed Development were also reviewed during the desk study.

### 2.1.2 Study Area

As per CIEEM guidelines (2018)[10], the study area for the proposed development has been defined having regard to the spatial and temporal scale of potential biophysical changes in the environment which might occur as a result of the development and throughout its lifetime. As such the study area extends beyond the footprint of the works and considers potential direct and indirect links to sensitive receptors of European sites. In particular, the following was considered:

Impacts on habitats - the potential for biophysical change by disturbance/damage/ degradation is taken as the footprint of the works (including site clearance) plus 10m beyond (based on Ryan Hanley, 2014)[11].

For groundwater dependant terrestrial ecosystems additional consideration is given to potential for hydrological impacts and as such a potential for biophysical change is considered 250m beyond works areas as per SEPA guidelines[12].

In defining the potential zone of influence for the proposed development of species, the following guidelines were referred to:

- The potential disturbance zone for birds beyond the footprint of the proposed development was considered having regard to Cutts et al (2013)13 and was defined as 500m;
- The NRA (2008) Guidelines for the Treatment of Otters prior to the Construction of National Road Schemes notes a 150m potential disturbance zone for otter. As such the study area included the proposed development site plus a 150m buffer.

The habitats within the proposed development site (and species specific disturbance zones) were then assessed for their potential to support qualifying features of European Sites which had a foraging range which might overlap the site.

[10] CIEEM (2018) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine version 1.2. Chartered Institute of Ecology and Environmental Management, Winchester
[11] Ryan Hanley (2014b) Stage 1: Appropriate Assessment Screening Methodology for the Maintenance of Arterial Drainage Schemes. Prepared by Ryan Hanley Consulting Engineers on behalf of the Office of Public Works
[12] Scottish Environment Protection Agency (2014) Land Use Planning System SEPA Guidance Note 31. Guidance on Assessing the Impacts of Development Proposals on Groundwater Abstractions and groundwater Dependent Terrestrial Ecosystems.
[13] Cutts N, Hemingway K and Spencer J (2013). The Waterbird Disturbance Mitigation Toolkit Informing Estuarine Planning and Construction Projects. Produced by the Institute of Estuarine and Coastal Studies (IECS). Version 3.2.

The approach used when preparing this AA Screening Report is summarised as follows:

- Identify Natura 2000 sites within the potential zone of influence of the project.
- Identify the Qualifying Interests of the Natura 2000 sites and review their conservation objectives.
- Review whether there is potential for the Qualifying Interest to be affected by the project based on information such as the vulnerabilities of the Natura 2000 site, proximity to the Site and the nature and scale of the works associated with the project.
- Consider the likelihood of the identified potential impacts occurring based on the information collated and professional judgement.
- Consider the likelihood of cumulative impacts arising from the project in-combination with other plans and projects.
- Identify the likelihood of significant effects on Natura 2000 sites occurring because of the project.

The approach taken in preparing this AA screening report is based on standard methods and best practice guidance, as listed in the references section of this report.

The Appropriate Assessment Screening Report was prepared by FT Project Ecologist Éimear Stephenson and reviewed by FT Principal Ecologist and Associate Director Rita Mansfield. Field surveys were conducted by Flynn Furney Environmental Consultants (FFEC) ecologists. Table 2-1 details the biographies for those involved in this report.

## 2.4 Limitations

No limitations were encountered for the purpose of this screening report. All field work were carried out during the appropriate season, and the field surveys had access to the full site.

# 3. DESCRIPTION OF THE PROJECT

## 3.1 Project Description

### 3.1.1 Project Location

The Proposed Development is situated within a privately owned forestry plantation. The Site is bounded by agricultural lands to the north, coniferous forestry and the Mill Donegal_020 River to the east, public roads to the south, and coniferous forestry plantations to the south-west. Directly adjacent to the north-western portion of the Site is the Trilick 110kV Substation. A small number of rural residential dwellings and buildings can also be found within surrounding area.

There are no European sites within or directly adjacent to the Ballynahone Long Duration Energy Storage Proposed Development. However, the Mill River located to the east of the Site flows in a northerly direction, and enters the Lough Swilly SAC 5.2km, and the Lough Swilly SPA 7.3km downstream of the Proposed Development.

### 3.1.2 Construction Phase

#### *3.1.2.1 Site Access*

Prior to the commencement of on-site construction works, the proposed site entrances, as shown on the site layout plan including in the planning application pack, will be constructed or upgraded and widened. Visibility Splays will be provided in accordance with TII Design Standard DN-GEO-03060 Geometric Design of Junctions:

- The project includes the use and upgrade of an existing forestry entrance to access the LDES Compound for construction and operational purposes.
- A new construction and operational access shall be created across the road from the above location to serve the UTF Transformer compound.
- A temporary access shall be created directly to the south of the UTF Transformer Compound access to provide construction stage access only to the proposed temporary construction compound and laydown area as shown on the site layout plan. This access shall be permanently closed off and fully reinstated at the end of the construction stage.

Site entrances will be secured and locked when not in use.

#### *3.1.2.2 Temporary Site Compound*

During the construction phase, it will be necessary to provide temporary facilities for construction personnel. The location of the temporary site compound is shown on 0100 series planning application drawings.

Facilities to be provided in the temporary site compounds will typically include the following:

- Site office, of portacabin type construction
- Toilets
- Potable water supply
- Water tanker
- First aid facilities
- Employee parking
- Bunded fuel storage area
- Contractor lock-up facility
- Diesel generator

The temporary facilities will be removed on completion of the construction phase.

#### *3.1.2.3 Felling*

Permanent felling of coniferous forestry is required within and around the infrastructure to accommodate the construction of hardstands and access tracks. In advance of other construction works, clearance felling will commence on site.

#### *3.1.2.4 New Site Access Tracks and Hard Standings*

Access tracks will be of standard traditional aggregate road construction and the general method of construction will be as follows:

- Establish alignment of the new site tracks from the construction drawings and mark out centrelines.
- Topsoil/subsoil will be stripped back to required levels. All material will be bunded and stored separately.
- The soil will be excavated down to a suitable formation layer of either firm subsoil or rock.
- The formation will be prepared to receive the geotextile membrane.
- Well-graded granular fill will be spread and compacted in layers to provide a homogeneous running surface.

The access tracks will be constructed in accordance with site layout plans and associated construction details. Refer to planning 0300 series planning application drawings for design details.

#### *3.1.2.5 Drainage*

A site-specific drainage system has been designed taking account of ground and hydrological conditions at the site. The proposed construction and operational stage drainage system is shown on 0100 series site layout plan drawings. Existing small forestry drains are present on the site draining towards the river (MILL (DONEGAL)_020). Where these drains interact with infrastructure (e.g. alongside compound hard standings and internal access tracks), they will be removed as part of the construction works and replaced by the proposed SuDS drainage system.

The drainage design includes the construction of a permanent wetland in the form of a vegetated pond with a surface area of c. 1,100 m2 and c. 250 m of filter trench drain which also act as tree planter boxes which will provide additional surface water attenuation throughout the operational life of the proposed development while also providing landscape vegetative screening.

#### *3.1.2.6 Building and Equipment Installations*

Equipment associated with both the LDES and UTF compound shall be of pre-fabricated or steel container construction. Units will be lifted into place using a suitable crane onto concrete plinths. Lifting operations will follow a lifting plan agreed between the crane operator and contractor. A suitable hard standing area will be provided by the contractor adjacent to each proposed lifting position to the requirements of the crane operator.

Inverters, transformers and switchgear units will be lifted into place using a suitably sized crane, telehandler or HIAB. Any lifting operations will adhere to a specific lift plan, issued by the contractor responsible for the installation. Switchgear, electrical cabinets and control equipment will be lifted directly onto support plinths and bolted down if necessary. The installation of major electrical equipment such as inverters, transformers, switchgear etc. will typically be followed by small control equipment, LV fit out for light, DC and communications cabling, earth installations, CCTV network cabling.

Following installation of electrical equipment, cable jointing and terminations will be carried out followed by testing and commissioning works. Following the construction of the equipment plinths, an earth mat will typically be installed in the compound. This will be connected to earth rings around each plinth and foundation and connected to the earth protection system as per the electrical protection design. Earth electrodes will be typically buried at a depth of approximately 0.6 m - 1 m below finished ground level and will be offsite from structures by approximately 1 m.

#### *3.1.2.7 Cable Trenching*

The specification for cable trenches will vary slightly depending on cable voltage, location and existing land use. The maximum depth of cable trenches is typically 1.2 m. Buried cables shall follow internal road and access track corridors.

The typical method of construction involves the following:

- The contractor initially excavates the trench to the specified depth using a mechanical excavator.
- A bedding of sand or approved CBM (cement bound material) is placed in the bottom of the trench.
- The cable is laid in the trench from a ground or vehicle mounted cable drum reel.
- If specified, the contractor will lay ducting in the trench. If so, a rope will be inserted into the ducts to facilitate cable-pulling later.
- Communication cables and respective ducts will also be laid where required.
- Cable marker strips will be placed at a specified distance above the cables/ducts.
- The trench is back-filled using as-dug material and topsoil reinstated with vegetated side up where possible.
- Back-filling and reinstatement in public roads will be to a specification to be agreed with the relevant road authority.

#### *3.1.2.8 Fencing and Boundary Treatments*

Each compound will be surrounded by a 2.6m galvanized steel fence in accordance with the details shown on planning application drawings.

In addition to security fences, sound reflective barriers shall be constructed in accordance with the design as shown on site layout plans and associated details.

All boundary treatments and landscape planting shall be carried out in accordance with the Landscape Plan.

### 3.1.3 Operational Phase

The Operational Phase of the Proposed Development will be remotely operated.

As the Proposed Development will be remotely operated, no sanitary facilities are proposed and therefore no wastewater treatment or storage is required for the operation of the facility.

The onsite reverse osmosis water treatment system in operation will utilise a new mains fresh water connection. A small amount of discharge water shall be produced by the onsite reverse osmosis water treatment system which will filter mains water before being circulated through the battery storage units. This water will be directed to the onsite surface water drainage system. Based on the expected volume of fresh water required to operate the system identified by the Client, the estimated volume of discharge water from the reverse osmosis treatment system is 0.8 litres per minute. This discharge water is considered to be free of contaminants and can be accommodated within the designed surface water drainage system.

# 4. APPROPRIATE ASSESSMENT SCREENING

This section of the report identifies the potential zone of influence of the proposed development, provides information on the Natura 2000 sites within the potential zone of influence and sets out the potential impacts and effects and the likelihood of significant effects.

## 4.1 Identification of Zone of Influence

The first step in identification of Natura 2000 sites is to determine the potential zone of influence of the Proposed Development. When the potential zone of influence of the Proposed Development has been determined Natura 2000 sites within this area can be identified and the information on each collated.

The Proposed Development is located wholly outside of any European site. The closest Natura 2000 sites to the development are the Lough Swilly Special Area of Conservation (SAC) 002287 (2.78 km away) and Lough Swilly Special Protection Area (SPA) 004075 (3.49 km away).

The Proposed Development will result in the permanent loss of approximately 4.84 ha of habitat (4.7 ha from coniferous plantations, and 0.14 ha from cutover bog). The habitats within and adjacent to the proposed development are not Annex I type habitats.

Consideration is therefore given to the potential for these habitats to support the qualifying interests / special conservation interests of these nearby European sites. Having regard to 'Section 2.1.2 - Study Area' of this report, a potential disturbance zone from the development for birds is determined as 500m while for otter a 150m disturbance zone is determined. An assessment is therefore made as to whether there could be landscape[24] or ecological connectivity[25] to any Natura 2000 sites. Consideration was given to existing records for qualifying features in the locality of the proposed development and an assessment of the potential for mobile qualifying features of European sites to use the proposed development lands. In this regard 'Scottish Natural Heritage (2016) Guidance on Assessing Connectivity with Special Protection Areas (SPAs)' was referred to for the core foraging ranges of SPA birds and a 10km range was adopted for consideration. Additionally, for otter, ecological connectivity (e.g. linear habitats / ecological corridors) and potential pathways for impact on water quality of the Mill River were also taken into consideration.

As such the European sites identified for further consideration in terms of potential landscape or ecological connectivity are:

- Lough Swilly Special Area of Conservation (SAC) 002287
- Lough Swilly Special Protection Area
- Lough Foyle SPA

[24] Landscape connectivity is a combined product of structural and functional connectivity, i.e. the effect of physical landscape structure and the actual species use of the landscape (Kettunen *et al*. 2007)
[25] Connectivity is defined as a measure of the functional availability of the habitats needed for a particular species to move through a given area. Examples include the flight lines used by bats to travel between roosts and foraging areas or the corridors of appropriate habitat needed by some slow colonising species if they are to spread (CIEEM, 2018).

These European sites are further examined for potential S-P-R connectivity in Table 4.1 having regard to the potential for potential landscape or ecological connectivity. Where a pathway for effect is identified, further consideration is then needed in relation to the sensitivity of a qualifying feature to the particular biophysical change that could arise from the potential impact.

There are no other Natura 2000 sites that have the potential to be impacted by the proposed development. Natura 2000 sites beyond these are not likely to be affected given the scale and nature of the proposed development, the distance between them and the Site and the lack of connectivity either through ecological or landscape connectivity.

**Table 4-1: S-P-R Assessment**

| Site Code | European Site Name | List of Qualifying Features | Distance from the proposed development (km) | Pathway for potential effects | Considered further in screening (Y/N) |
|---|---|---|---|---|---|
| 002287 | Lough Swilly SAC | Otter (Lutra lutra) [1355], Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae) [6410], Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0], Coastal lagoons [1150], Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330], Estuaries [1130] | 2.78 | The Annex I habitats for which the SAC is designated do not occur within the potential zone of influence of the Proposed Development. | N |

| Site Code | European Site Name | List of Qualifying Features | Distance from the proposed development (km) | Pathway for potential effects | Considered further in screening (Y/N) |
|---|---|---|---|---|---|
| | | | | Otter is a mobile species with a potential territory of 20 km (Marnell et al, 2011)[26]. However, in coastal areas, such as Lough Swilly SAC, otters will generally stay within 80m of the shore given the abundance of food and other resources (Kruuk & Moorhouse 1991)[27]. While otter signs have been identified along the Mill River, it is likely that this is not associated with the population of the SAC given an in-stream distance of 5.3km between the SAC and Mill River. Notwithstanding, the Mill River and its associated riparian zone, which are habitats that can support otter, are located beyond the 150m disturbance zone of influence for otter. The habitats that will be lost as part of the proposed development are not suitable to support otter. As such there is no potential impact pathway for otter associated with the SAC. | |

[26] Marnell, F., Ó Néill, L., Lynn, D. (2011) How to calculate range and population size for the otter? The Irish approach as a case study. IUCN Otter Spec. Group Bull. 28(8): 15-22.
[27] Kruuk, H., & Conroy, J. W. H. (1991). Mortality of Otters (Lutra lutra) in Shetland. Journal of Applied Ecology, 28(1), 83–94. https://doi.org/10.2307/2404115

| Site Code | European Site Name | List of Qualifying Features | Distance from the proposed development (km) | Pathway for potential effects | Considered further in screening (Y/N) |
|---|---|---|---|---|---|
| | | | | There is no potential pathway for the deterioration of water quality in the Mill River as a result of the proposed development given that the development is located remote of the river and vegetation along and beyond the riparian zone of the river will remain intact as it is outside of the red line boundary.<br><br>The proposed new on-site surface water drainage will employ SuDS principles. The discharge of water from the reverse osmosis process will be to the new surface water drainage system and is likely to contain mineral concentrations similar to that of drinking water. According to S.I. NO. 99/2023 - European Union (Drinking Water) Regulations 2023, the concentration of fluoride must be at a maximum of 1.5mg/l. | |

| Site Code | European Site Name | List of Qualifying Features | Distance from the proposed development (km) | Pathway for potential effects | Considered further in screening (Y/N) |
|---|---|---|---|---|---|
| | | | | S.I. NO. 77/2019 - European Union Environmental Objectives (Surface Waters) (Amendment) Regulations 2019 do not list thresholds for fluoride within freshwater systems. However, research conducted by the EU indicates that 51mg/l of fluoride will lead to acute effects in freshwater systems[28]. As such, the water used and discharged during the operational phase of the Proposed Development will not have an effect on the local freshwater water quality. | |

[28]European Union. 2010. Does the fluoridation of drinking water specifically lead to adverse ecological impacts? https://ec.europa.eu/health/scientific_committees/opinions_layman/fluoridation/en/l-3/7.htm#:~:text=Fluorides%20are%20not%20essential%20for,200%20mg%20F%2D%2FL

| Site Code | European Site Name | List of Qualifying Features | Distance from the proposed development (km) | Pathway for potential effects | Considered further in screening (Y/N) |
|---|---|---|---|---|---|
| 004075 | Lough Swilly SPA | Sandwich Tern (Sterna sandvicensis) [A191], Mallard (Anas platyrhynchos) [A053], Great Crested Grebe (Podiceps cristatus) [A005], Greenshank (Tringa nebularia) [A164], Wigeon (Anas penelope) [A050], Black-headed Gull (Chroicocephalus ridibundus) [A179], Knot (Calidris canutus) [A143], Redshank (Tringa totanus) [A162], Shelduck (Tadorna tadorna) [A048], Red-breasted Merganser (Mergus serrator) [A069], Common tern (Sterna hirundo) [A193], Greenland White-fronted Goose (Anser albifrons flavirostris) [A395], Wetland and Waterbirds [A999], Shoveler (Anas clypeata) [A056], Goldeneye (Bucephala clangula) [A067], Common Gull (Larus canus) [A182], Oystercatcher (Haematopus ostralegus) [A130], Dunlin (Calidris alpina) [A149], Grey Heron (Ardea cinerea) [A028], Teal (Anas crecca) [A052], Coot (Fulica atra) [A125], Greylag Goose (Anser anser) [A043], Whooper Swan (Cygnus cygnus) [A038], Scaup (Aythya marila) [A062], Curlew (Numenius arquata) [A160] | 3.49 | SUDS design principles will be implemented in the drainage design, and there will be no direct discharge to nearby watercourses. Operational discharge to water will not have an effect on the local freshwater water quality, and therefore no potential pathway to the downstream SPA.<br><br>As the SCIs of this SPA are mobile in nature, there is potential for habitats outside of this European site to be used by these bird species. However, the habitats within the proposed development comprise Sitka Spruce-dominated conifer plantation. This habitat is not used by the SCIs of this SPA which are reliant on wetland or grassland habitats. As such, no pathway for effect from loss of habitat to these SCIs exists. | N |

| Site Code | European Site Name | List of Qualifying Features | Distance from the proposed development (km) | Pathway for potential effects | Considered further in screening (Y/N) |
|---|---|---|---|---|---|
| | | | | A 5oom disturbance zone for birds has been determined for the proposed development. The habitats within this 500m area comprise road infrastructure, conifer forestry and agricultural grassland. The SCI species of the SPA are predominantly associated with wetland habitats and as such the habitats that might with a disturbance zone of the proposed development are sub-optimal/unsuitable for these species. Geese species and swan tend to forage diurnally and roost at night and will feed on agricultural plants such as grain, vegetables, tubers and stubble. The 'Lough Swilly SPA (004075) Conservation objectives supporting document [Version 1]' notes the ex situ foraging habitats for these species as associated with the SPA. All associated habitats are more than 500m from the proposed development and are not in the ZoI for disturbance. - No pathway for effects. | |

| Site Code | European Site Name | List of Qualifying Features | Distance from the proposed development (km) | Pathway for potential effects | Considered further in screening (Y/N) |
|---|---|---|---|---|---|
| 004087 | Lough Foyle SPA | Red-throated Diver (Gavia stellata) [A001], Lapwing (Vanellus vanellus) [A142], Light-bellied Brent Goose (Branta bernicla hrota) [A046], Curlew (Numenius arquata) [A160], Teal (Anas crecca) [A052], Oystercatcher (Haematopus ostralegus) [A130], Black-headed Gull (Chroicocephalus ridibundus) [A179], Red-breasted Merganser (Mergus serrator) [A069], Shelduck (Tadorna tadorna) [A048], Golden Plover (Pluvialis apricaria) [A140], Redshank (Tringa totanus) [A162], Common Gull (Larus canus) [A182], Wetland and Waterbirds [A999], Herring Gull (Larus argentatus) [A184], Bar-tailed Godwit (Limosa lapponica) [A157], Whooper Swan (Cygnus cygnus) [A038], Mallard (Anas platyrhynchos) [A053], Bewick's Swan (Cygnus columbianus bewickii) [A037], Great Crested Grebe (Podiceps cristatus) [A005], Dunlin (Calidris alpina) [A149], Wigeon (Anas penelope) [A050], Greylag Goose (Anser anser) [A043], Eider (Somateria mollissima) [A063], Knot (Calidris canutus) [A143] | 10.95 | No hydrological pathways exist between the Lough Foyle SPA and the proposed development, as the nearby Mill River does not flow into or near this European site.<br><br>Additionally, there are no habitats within the Site that are suitable for birds designated as SCIs for this SPA. There is also a separation distance of 10.95km between the proposed development and this European site.<br><br>As a result, there is no potential pathway for noise or lighting associated with construction machinery and vehicles to impact the SCIs of this SPA.<br><br>No pathways for potential effects exist. | N |

## 4.2 Potential Impacts and Significant Effects

DoEHLG (2010) guidance for planning authorities states

> *"*If the effects are deemed to be significant, potentially significant, or uncertain, or it the screening process becomes overly complicated, then the process must proceed to Stage 2 (AA). Screening should be undertaken without the inclusion of mitigation, unless potential impacts clearly can be avoided through the modification or redesign of the plan or project, in which case the screening process is repeated on the altered plan. The greatest level of evidence and justification will be needed in circumstances when the process ends at screening stage on grounds of no impact.*"*

This approach is adopted in this report to appraising likely significant effects of the Proposed Development.

A significant effect is defined in paragraph 49 of the Waddenzee Case C-127/02[29] as follows

> *"….. pursuant to the first sentence of Article 6(3) of the Habitats Directive, where a plan or project not directly connected with or necessary to the management of a site is likely to undermine the site's conservation objectives, it must be considered likely to have a significant effect on that site. The assessment of that risk must be made in the light inter alia of the characteristics and specific environmental conditions of the site concerned by such a plan or project."*

The results of the s-p-r assessment identified that there are no likely significant effects identified to any European sites. By assessing the pathways for effects and the sources for impacts, as well as considering the processes involved and the distance of separation from the Natura 2000 sites, there are no likely significant effects on the qualifying interests, special conservation interest or the conservation objectives of any designated European site.

## 4.3 Consideration of in-combination Effects with other plans or projects

Article 6(3) of the Habitats Directive requires that:

> *"Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives".*

It is therefore required that the likely significant effects of the proposed project are considered in-combination with any other plans or projects within the zone of influence.

The consideration of in-combination effects with other plans or projects, focused on the sources of impacts identified for the proposed project in section 2.3 and ecological pathways identified in section 3.2.

As there are no meaningful pathways for effects identified with respect to European sites - given the nature of the habitats on the site and the distance from relevant SPA locations for SCI species. There are no further considerations required as the S-P-R model has been completed with no potential effects that could arise from the proposed project.

[29] https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A62002CJ0127

# 5. CONCLUSION

The Appropriate Assessment Screening Report concludes that, given the scale and nature of the potential sources, there are no likely significant effects identified to any European sites. This process has considered potential effects which may arise during all phases of the proposed project. Through an assessment of the pathways for effects and an evaluation of the sources for impacts, taking account of the processes involved and the distance of separation from European sites, it has been evaluated that there are no likely significant effects on the qualifying interests, special conservation interest or the conservation objectives of any designated European site.

# 6. REFERENCES

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# APPENDIX 1

## Relevant Legislation

European Nature Directives (Habitats and Birds)

The Habitats Directive (Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora) forms the basis for the designation of Special Areas of Conservation. Similarly, Special Protection Areas are classified under the Birds Directive (Council Directive 2009/147/EEC on the Conservation of Wild Birds). Collectively, Special Areas of Conservation (SAC) and Special Protection Areas (SPA) are referred to as the Natura 2000 network. In general terms, they are considered to be of exceptional importance for rare, endangered or vulnerable habitats and species within the European Community.

Under Article 6(3) of the Habitats Directive an appropriate assessment must be undertaken for any plan or project that is likely to have a significant effect on the conservation objectives of a Natura 2000 site. An appropriate assessment is an evaluation of the potential impacts of a plan or project on the conservation objectives of a Natura 2000 site[30], and the development, where necessary, of mitigation or avoidance measures to preclude negative effects.

Article 6, paragraph 3 of the EC Habitats Directive 92/43/EEC ("the Habitats Directive") states that:

"Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives. In the light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public"

The Habitats Directive is transposed into Irish law by the EC (Birds and Natural Habitats) Regulations 2011 – 2015. Part XAB of the Planning and Development Acts 2000 to 2020 transposes Article 6(3) and 6(4) of the Habitats Directive in respect of land use plans and proposed projects requiring development consent.

EC (Birds and Natural Habitats) Regulations 2011 to 2021 – Part 5

Part 5 of the EC (Birds and Natural Habitats) Regulations 2011 – 2015 sets out the circumstances under which an 'appropriate assessment' is required. Section 42(1) requires that 'a screening for Appropriate Assessment of a plan or project for which an application for consent is received, or which a public authority wishes to undertake or adopt, and which is not directly connected with or necessary to the management of the site as a European Site, shall be carried out by the public authority to assess, in view of best scientific knowledge and in view of the conservation objectives of the site, if that plan or project, individually or in combination with other plans or projects is likely to have a significant effect on the European site.'

Section 42(2) expands on this, stipulating that a public authority must carry out a screening for Appropriate Assessment before consent for a plan or project is given, or a decision to undertake or adopt a plan or project is taken. To assist a public authority to discharge its duty in this respect, Section 42(3)(a) gives them the authority to direct a third party to provide a Natura Impact Statement and Section 42(3)(b) allows them to request any additional information that is considered necessary for the purposes of undertaking a screening assessment.

[30] Also referred to as European Sites in the Planning and Development Acts 2000 – 2022.

Section 42(6) requires that 'the public authority shall determine that an Appropriate Assessment of a plan or project is required where the plan or project is not directly connected with or necessary to the management of the site as a European Site and if it cannot be excluded, on the basis of objective scientific information following screening under this Regulation, that the plan or project, individually or in combination with other plans or projects, will have a significant effect on a European site'.

Planning and Development Acts 2000 to 2022[31] - PART XAB

The relevant sections of Part XAB of the Planning and Development Acts 2000 – 2022 are set out below.

Screening for appropriate assessment

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

(2) A competent authority shall carry out a screening for appropriate assessment under subsection (1) before—

(a) a Land use plan is made including, where appropriate, before a decision on appeal in relation to a draft strategic development zone is made, or

(b) consent for a proposed project is given.

(3) In carrying out screening for appropriate assessment of a proposed project a competent authority may request such information from the applicant as it may consider necessary to enable it to carry out that screening, and may consult with such persons as it considers appropriate and where the applicant does not provide the information within the period specified, or any further period as may be specified by the authority, the application for consent for the proposed project shall be deemed to be withdrawn.

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

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

(6) (a) Where, in relation to a proposed project, a competent authority makes a determination that an appropriate assessment is required, the competent authority shall give notice of the determination, including reasons for the determination of the competent authority, to the following—

(i) the applicant,

(ii) if appropriate, any person who made submissions or observations in relation to the application to the competent authority, or

[31] http://revisedacts.lawreform.ie/eli/2000/act/30/revised/en/html (Updated to 10 March 2023)

(iii) if appropriate, any party to an appeal or referral.

(b) Where a competent authority has determined that an appropriate assessment is required in respect of a proposed project it may direct in the notice issued under paragraph (a) that a Natura impact statement is required.

(c) Paragraph (a) shall not apply in a case where the application for consent for the proposed project was accompanied by a Natura impact statement.

(7) A competent authority shall, as soon as may be after making the Land use plan or making a decision in relation to the application for consent for proposed project, make available for inspection by members of the public during office hours at the offices of the authority, and may also publish on the internet —

(a) any determination that it makes in relation to a draft Land use plan under subsection (4) or (5) as the case may be, and reasons for that determination, and

(b) any notice that it issues under subsection (6) in relation to a proposed project.

(8) In this section 'consent for proposed project' means, as appropriate —

(a) a grant of permission,

(b) a decision of the Board to grant permission on a planning application or an appeal,

(c) consent for development under Part IX,

(d) approval for development that may be carried out by a local authority under Part X or Part XAB or development that may be carried out under Part XI,

(e) approval for development on the foreshore under Part XV,

(f) approval for development under section 43 of the Act of 2001,

(g) approval for development under section 51 of the Roads Act 1993, or

(h) a substitute consent under Part XA.

(9) In deciding upon a declaration or a referral under section 5 of this Act a planning authority or the Board, as the case may be, shall where appropriate, conduct a screening for appropriate assessment in accordance with the provisions of this section.

(10) In deciding upon an application under section 176A or a determination review or an application referral under section 176C, a planning authority or the Board, as the case may be, shall, where appropriate, conduct a screening for appropriate assessment in accordance with the provisions of this section.

Natura impact report and natura impact statement

Section 177T states that— (1) ( a ) A Natura impact report means a statement for the purposes of Article 6 of the Habitats Directive, of the implications of a Land use plan, on its own or in combination with other plans or projects, for one or more than oneEuropean site, in view of the conservation objectives of the site or sites.

( b ) A Natura impact statement means a statement, for the purposes of Article 6 of the Habitats Directive, of the implications of a proposed development, on its own or in combination with other plans or projects, for one or more than on European site, in view of the conservation objectives of the site or sites.

(2) Without prejudice to the generality of subsection (1) , a Natura impact report or a Natura impact statement, as the case may be, shall include a report of a scientific examination of evidence and data, carried out by competent persons to identify and classify any implications for one or more than one European site in view of the conservation objectives of the site or sites.

(3) As respects a draft National Planning Framework, the Government shall prepare a Natura impact report in relation to a draft Land use plan and the following bodies shall also prepare a Natura impact report in relation to a draft Land use plan—

(a) as respects a draft regional spatial and economic strategy, the regional assembly for whose area the draft strategy is made,

( aa ) as respects a draft National Planning Framework, the Minister

( b ) as respects a draft planning scheme in respect of all or any part of a strategic development zone, the planning authority (which term shall be construed in accordance with section 168(5) ) for whose area the draft scheme is made,

( c ) as respects a draft development plan or draft variation of a development plan, the planning authority for whose area the draft plan or draft variation is made, and

( d ) as respects a draft local area plan, the planning authority in whose area the local area concerned is situate.

(4) The applicant for consent for proposed development may, or if directed in accordance with subsection (5) by a competent authority, shall furnish a Natura impact statement to the competent authority in relation to the proposed development.

(5) At any time following an application for consent for proposed development a competent authority may give a notice in writing to the applicant concerned, directing him or her to furnish a Natura impact statement

(6) Where an applicant for consent for proposed development who, having been directed in accordance with subsection (5) , fails to furnish a Natura impact statement within the period specified in the notice, or any further period as may be specified by the competent authority, the application for consent for the proposed development shall be deemed to be withdrawn.

(7) ( a ) Without prejudice to subsection (1) a Natura impact report or a Natura impact statement shall include all information prescribed by regulations under section 177AD .

( b ) Where appropriate, a Natura impact report or a Natura impact statement shall include such other information or data as the competent authority considers necessary to enable it to ascertain if the draft Land use plan or proposed development will not affect the integrity of the site.

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