Fosterstown 110kV/20MW Distribution Substation

Screening for Appropriate Assessment Report

Submission to: An Coimisiún Pleanála

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Change History of Report

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Introduction

ESB Engineering and Major Projects (EMP) has been engaged by ESB Networks (ESBN) to prepare a Screening for Appropriate Assessment (AA) report in relation to the proposed construction of a new 110 kV substation at Fosterstown located south-west of Trim, Co Meath (hereafter referred to as the 'proposed development').

This report contains information to assist An Coimisiún Pleanála, as the Competent Authority, to undertake a Screening for Appropriate Assessment of the proposed development in accordance with the requirements of Article 6(3) of the EU Habitats Directive (Directive 92/43/EEC) and Section 42 of the European Communities (Birds and Natural Habitats) Regulations 2011-2021. The purpose of this report is to demonstrate whether the proposed works, either alone or in combination with other plans or projects, is likely to have a significant effect on a European site(s) in view of the site's conservation objectives.

1 Statement of competence

This report was prepared by David Daly, Senior Ecologist with ESB EMP.

David Daly has over five years' professional experience in ecological consultancy. He holds a B.Sc. in Ecology from University College Cork, and obtained a distinction in M.Sc. in Species Identification and Survey Skills from the University of Reading. His experience primarily includes the preparation of Ecological Impact Assessments, Biodiversity Chapters of Environmental impact Assessment (EIA) reports, Appropriate Assessment (AA) Screening reports and Natura Impact Statements (NIS) for a range of public and private projects across Ireland, largely renewable energy projects. David is a terrestrial ecologist with experience in habitat, botanical, ornithological, bat and mammal surveys and assessments in both Ireland and the UK.

2 Regulatory context

The EU Habitats Directive 92/43/EEC provides legal protection for habitats and species of European importance through the establishment of a network of designated conservation areas known as the Natura 2000 Network. The Natura 2000 network includes sites designated as Special Areas of Conservation (SAC) under the EU Habitats Directive and Special Protection Areas (SPA) designated under the EU Birds Directive 79/209/EEC. Collectively in this report these sites are referred to as '*European sites*'.

The Habitats Directive was initially transposed into Irish national law in 1997, with the European Communities (Natural Habitats) Regulations, SI 94/1997. These Regulations have since been amended by SI 233/1998, SI 378/2005 and SI 293/2021. The European Communities (Birds and Natural Habitats) Regulations 2011 - 2021 consolidate the European Communities (Natural Habitats) Regulations

1997 to 2005, the European Communities (Birds and Natural Habitats) (Control of Recreational Activities) Regulations 2010.

The requirements for an Appropriate Assessment are set out under Article 6(3) and 6(4) of the Habitats Directive 92/43/EEC which state:

6(3) Any plan or project not directly connected with or necessary to the management of the site [European 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 sites 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.*

6(4) If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of social or economic nature, the Member State shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted. Where the site concerned hosts a priority natural habitat type and/or a priority species the only considerations which may be raised are those relating to human health or public safety, to beneficial consequences of primary importance for the environment or, further to an opinion from the Commission, to other imperative reasons of overriding public interest.

This provision is transposed into Irish law by Part XAB of the Planning and Development Act, 2000 as amended. Section 177U(4) of the said Act provides for screening for Appropriate Assessment as follows:

The competent authority shall determine that an appropriate assessment of [...] *a proposed development* [...] *is required if it cannot be excluded, on the basis of objective information, that the* [...] *proposed development, individually or in combination with other plans or projects, will have a significant effect on a European site.*

Section 177U(5) provides as follows:

The competent authority shall determine that an appropriate assessment of a […] *proposed development,* […]*, is not required if it can be excluded, on the basis of objective information, that the* […] *proposed development, individually or in combination with other plans or projects, will have a significant effect on a European site.*

2.1 Appropriate Assessment process

This assessment has been undertaken in line with the following legislation and best practice methodologies:

- European Communities (Birds and Natural Habitats) Regulations 2011, as amended;
- Planning and Development Act 2000 (as amended)
- Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities (Department of the Environment Heritage and Local Government, Revision 1, 2010);
- 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, European Commission (European Commission, updated 2021);
- Managing Natura 2000 Sites The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC (European Commission, 2019);
- Office of the Planning Regulator (OPR) (2021) OPR Practice Note PN01 - Appropriate Assessment Screening for Development Management; and,
- Appropriate Assessment under Article 6 of the Habitats Directive: Guidance for Planning Authorities. Circular NPW 1/10 & PSSP 2/10.

Key stages in the Appropriate Assessment process are set out below, as per the respective aforementioned guidance documents. Stages 1 and 2 relate to Article 6(3) of the Habitats Directive and Stages 3 and 4 relate to Article 6(4). The outcome of each successive stage determines if a further stage in the process is required.

Stage 1. Screening for Appropriate Assessment

The first step in the screening process is to determine if the plan or project is directly connected to or necessary for the management of a European site. The process then identifies whether a plan or project, either alone or in combination with other plans or projects, is likely to have significant effects on a European site in view of its conservation objectives.

Stage 2. Appropriate Assessment

This stage considers whether the plan or project, alone or in combination with other projects or plans, will have adverse effects on the integrity of a European site, and includes any mitigation measures necessary to avoid, reduce or offset negative effects. A Natura Impact Statement (NIS) must be prepared as part of this stage of the process. The AA is carried out by the competent authority, and is informed by the NIS.

Stage 3. Alternative Solutions

If Stage 2 of the process concludes that there is likely to be adverse effects on the integrity of a European site, Stage 3 then examines any alternative solutions or options that could enable the plan or project to proceed without adverse effects on the integrity of a European site.

Stage 4. Imperative Reasons of Overriding Public Interest (IROPI)/Derogation

Stage 4 is the main derogation process of Article 6(4) which examines whether there are imperative reasons of overriding public interest (IROPI) for allowing a plan or project that will have adverse effects on the integrity of a European site to proceed in cases where it has been established that no less damaging alternative solution exists.

2.2 Conservation Status of habitats and species

Definitions of conservation status, integrity and significance used in this assessment are defined in accordance with '*Managing Natura 2000 sites: The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC*' (European Commission, 2019).

- The conservation status of a natural habitat is defined as the sum of the influences acting on a natural habitat and its typical species that may affect its long-term natural distribution, structure and functions as well as the long-term survival of its typical species.
- The conservation status of a species is defined as the sum of the influences acting on the species concerned that may affect the long-term distribution and abundance of its population.
- The integrity of a European site is defined as the coherence of the site's ecological structure and function, across its whole area, or the habitats, complex of habitats and/or populations of species for which the site is or will be classified.
- Significant effect should be determined in relation to the specific features and environmental conditions of the protected site concerned by the plan or project, taking particular account of the site's conservation objectives.

Favourable conservation status

The overall aim of the Habitats Directive is to maintain or restore the favourable conservation status of habitats and species of community interest.

European and national legislation places a collective obligation on Ireland and its citizens to maintain or restore habitats and species in the Natura 2000 network at favourable conservation condition. The Government and its agencies are responsible for the implementation and enforcement of regulations that will ensure the ecological integrity of these sites.

The maintenance of habitats and species within European sites at favourable conservation condition will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level. Article (1) of the Habitats Directive (92/43/EEC) describes favourable conservation status for habitats and species as follows.

Favourable conservation status of a habitat is achieved when:

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

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

Favourable conservation status of a species is achieved when:

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

3 Methodology

3.1 Desktop study

A desktop study was undertaken to inform this assessment, including the identification of any European site(s) that may be present within the zone of influence (refer to Section 4.2) of the proposed development.

The following sources of information were referred to as part of this desktop study:

- Information on European site(s), Qualifying Interest (QI) Annex I habitat(s) and Annex II species, and Special Conservation Interest (SCI) species relevant to this assessment, including Geographical Information System (GIS) datasets and conservation objectives documentation, held by the National Parks and Wildlife Service (NPWS), viewed on the 31st July 2025 at www.npws.ie
- Information on records of QI Annex II species and SCI species relevant to this assessment, held by the National Biodiversity Data Centre (NBDC), viewed on the 31st July 2025 at https://maps/biodiversity.ie/Map
- Information on surface, ground and coastal waterbodies, including the nomenclature of waterbodies and Water Framework Directive status, held by Environmental Protection Agency (EPA), viewed on the 28th June 2024 at https://gis.epa.ie/EPAMaps/
- Aerial photography of the proposed development site and the surrounding area as relevant to this assessment, held by Ordnance Survey Ireland, viewed on 31st July 2025 at https://geohive.ie
- Information on planning applications within the environs of the proposed development site, viewed on the 31st July 2025, held by Meath County Council https://www.meath.ie/council/council-services/planning-and-building/planning-permission/view-or-search-planning-applications
- Information on the location and design of the proposed development provided by the design team

3.2 Field survey

The proposed development site was visited by ESB ecologist, David Daly on 03rd November 2023. The objective of the site visit was to establish the baseline ecological conditions at the site and to determine if there is potential for Qualifying Interests of European Sites to be present within the zone of influence on the development.

The approach to the field surveys is based on accepted standard practice and methods. Habitats within the study area were classified after 'A Guide to Habitats in Ireland' (Fossitt, 2000). The dominant plant species present in each habitat type were recorded during the field survey and this is considered sufficient to allow accurate classification of the habitats present and assess their correspondence to habitats listed as Qualifying Interests, with reference to the Interpretation Manual of European

Union Habitats (EC, 2013). The habitats present at the site were also assessed for their potential to support species listed as Qualifying Interests.

3.3 Zone of influence

The current national guidance on Appropriate Assessment in Ireland states that '*any Natura 2000 sites within the likely zone of impact of the plan or project… should be included* [in the assessment]' and that '*A distance of 15km is currently recommended in the case of plans and derives from UK guidance (Scott Wilson et al., 2006). For projects, the distance could be much less than 15km and in some cases less than 100m, but this must be evaluated on a case-by-case basis….'* (DoEHLG, 2010 revision).

The zone of influence for a project is '*the area over which ecological features may be affected by biophysical changes as a result of the proposed project and associated activities*' and it '*will vary for different ecological features depending on their sensitivity to an environmental change*' (CIEEM, 2018).

A potential impact pathway must exist between the proposed development and the ecological feature (*i.e.* the European site) as a prerequisite of a development being in its zone of influence. The Source-Pathway-Receptor approach is applied in the identification of the potential impact pathway(s) between the proposed development and a European site and the assessment of likelihood of potential impacts on a European site arising from the proposed development. If there is no ecological pathway or functional link between the proposed development and a European site, then there is no potential for likely significant effects to occur and as such the development may be screened out (OPR, 2021).

The zone of influence is identified based on an examination of potential impacts that may arise from the proposed project on the receiving environment, which in turn informs the assessment of potential likely significant effects on any European sites as a result of impacting on the conservation objectives supporting the favourable conservation condition of the European sites' QIs or SCIs. The potential zone of influence is defined as:

- Areas directly within the land take for the proposed development
- Areas which will be temporarily affected;
- Areas likely to be impacted by hydrological disruption; and
- Areas where there is a risk of pollution and disturbance (*e.g.* noise)

4 Screening for Appropriate Assessment

4.1 Introduction

Screening determines whether appropriate assessment is necessary by examining:

1. Whether a plan or project can be excluded from AA requirements because it is directly connected with or necessary to the management of the site, and

2. The potential effects of a project or plan, either alone or in-combination with other projects or plans, on a European site in view of its conservation objectives and considering whether these effects will be significant (DoEHLG, 2010 revision).

The proposed development is not directly connected with or necessary to the management of any European site.

Screening for AA involves the following:

1. Description of the proposed development and the existing environment

2. Identification of relevant European sites located within the Zone of Influence of the proposed development and compilation of information on their Qualifying Interest (QI) Annex I habitats and Annex II species and/or Special Conservation Interest (SCI) species (as relevant) and corresponding conservation objectives

3. Identification and analysis of potential direct, indirect and/or cumulative effects that may arise during the construction and/or operation of the proposed development and a determination as to their likely significance

4. Conclusions of the Screening Report

4.2 Description of development

The proposed development is on lands approximately 3km southwest of Trim, Co. Meath along a stretch of the R160 Trim - Longwood regional road. The proposed site is traversed by the Corduff-Mullingar 110 kV overhead transmission line. It is intended to loop the proposed substation into this line.

4.2.1 Development Rationale

The existing 38 kV substation at Trim is overloaded on normal feeding and experiencing numerous security of supply issues. There is no capacity for any demand load growth for new housing schemes in the area that will require connection over the next few years.

The driver for this development is to add capacity and improve Distribution Security of Supply for the Trim area. This will be achieved by taking power from the 110 kV transmission line that passes the site and transforming the voltage down to 20 kV so it can be used on the distribution network.

4.2.2 Construction Phase Activities

The commencement date for construction is subject to the date of grant of planning permission, pre-commencement obligations, and progression of the design to construction stage.

The construction work will take place in two broad phases:

- Civil Construction
- Electrical Installation

4.2.2.1 Civil Construction

The exact programme of works will be proposed by the Contractor prior to mobilisation to site. The following is a non-exhaustive list of the works to be carried out:

- Site entrance modifications and creation of access road – including replacing an existing farm track culvert in a drainage ditch.
- Demarcation of construction works area, including site levelling to prepare the works area.
- Site establishment including welfare facilities, site office, etc.
- Construction of site drainage works.
- Enabling works and the formation of a construction route.
- Construction of underground 110 kV cable ducts.
- Installation of substation earth-grid.
- Construction of GIS building, including foundations works, structural steelwork erection, cladding and building finishing works.

- Construction of civils bases for transformer bunds, lightning monopoles, compound lighting columns, LV control cable surface block ducts etc.
- Permanent foul and surface water drainage works.
- Electrical and Mechanical fit out of building
- Compound stoning and paving,
- Finishing and Completion works.
- All works will be carried out in accordance with the building regulations and up-to-date design codes at the time of mobilisation.

4.2.2.2 Site Preparation & Enabling Works

A programme of ground clearance and levelling will be undertaken across the proposed development site. Minor vegetation, topsoil removal and scrub clearance will be undertaken where required.

Prior to the preparation of the programme of clearance, a site investigation will be carried out. During the detailed design and engineering studies, further surveys of the proposed site may be undertaken to confirm the underlying ground conditions. The results of these surveys will be used to inform the final design and layout of the main plant / equipment items.

Topsoil will be stripped using excavators and stockpiled within the construction compound. The subsoil will be graded to align with the final ground levels as provided in the design. Stone for compound surfacing and access road will be delivered in a tipper truck and graded into place using an excavator. Once the stone base is in place, temporary perimeter fencing and gates will be erected, all within the boundary of the application site. Appropriate hoarding will be erected as required in order to shield neighbours from potential noise during construction works. Once fencing and gates are in place, installation of the site offices and construction compound, will commence.

4.2.2.3 Temporary Construction Area

An area has been identified for use as a construction compound. The area is currently agricultural land. The construction compound will facilitate temporary accommodation for the construction phase, and as a contractor laydown area for material storage for deliveries. This area will also be used to accommodate temporary welfare facilities. Any discharges from the welfare facilities will be connected to a sealed holding tank to be emptied and disposed of off-site by a licenced contractor to an approved licensed facility. A temporary surface will be provided comprising granular stone material with passing bays provided. Storage of fuels and refuelling will be undertaken within a bunded hardstand area. Water will be tankered on to site as required. Foul waste will be disposed off-site using appropriate facilities. A suitably bunded generator may also be used for power.

4.2.2.4 Construction Plant & Machinery

It is estimated that traffic movements will peak at 20 HGV vehicles per day during the civil construction works.

The combined HGV vehicles importing site equipment, plant, materials, including stone and concrete during the civil works is expected to be approximately 700 - 800 HGV vehicle movements with the majority of HGV deliveries front loaded in the early stage of the works. Therefore, it is envisaged that there will be on average approximately 10 HGV vehicle movements entering the construction site per day and 10 exiting out per day. The above vehicle assumptions are for the estimated volume of imported materials only. Exporting of waste material offsite is not expected to be significant.

The estimated number of construction personal on site during peak times is expected to be 45. Assumed vehicle occupancy of 1.25 persons per vehicle. Therefore, up to 36 vehicles is expected per day during the civil construction works.

4.2.2.5 Electrical Installation

Electrical installation includes the following:

- Electrical and Mechanical fit out of buildings.
- Delivery and installation of two 110 kV/MV transformers and associated equipment. These are large pieces of electrical plant and the deliveries will be managed in accordance with regulations governing the movement of large loads.
- Delivery and installation of all other outdoor HV equipment.
- Delivery and installation of all 110 kV GIS switchgear
- Pulling and termination of cables.
- LV cabling and wiring of 110 kV equipment and protection and control equipment.
- Installation of compound lighting and security systems.
- Commissioning of all newly installed equipment.

4.2.2.6 Construction Programme

The construction works will include site preparation, construction of the main building, structures, and site finishing works. It is envisaged that these works will take approximately 12 months to complete. Following this, electrical erection and commissioning will take place and it is envisaged that these works shall also take a further 18 months, subject to availability of required outages of the existing 110 kV overhead line from the electrical transmission system operator, Eirgrid and the time of year, weather conditions and the availability of specialised equipment.

4.2.2.7 Working Hours

The proposed working hours for the construction phase of the development are tabulated below (Table 5-1). No construction works will take place outside these hours, unless such work:

- Is required under exceptional circumstances; or
- Is carried out with the prior written approval of the local authority.

Table 4-1 Normal Construction Working Hours

• **Day**	• **Working Hours**
• Monday to Friday	• 07:00 – 19:00
• Saturday	• 08:00 – 16:00
• Sunday or Bank Holiday	• N/A

4.2.2.8 Construction Personnel

A maximum daily workforce of approximately 30 people is expected during the peak period for construction works on site. However, typical daily workforce requirements will be less than this. Car parking for workers and visitors will generally be provided in the contractor's compound.

4.2.3 Operation Phase Activities

Once commissioned, the substation will be operating 24-hours per day, seven days per week. The plant will not have permanent staff but there will be periodic engineering checks and maintenance visits. Lighting of the compound area will only occur during these periods.

During this lifespan there will be on-going routine maintenance on the different primary plant units within the substation compound.

4.2.3.1 Surface Water

Existing Surface Water Drainage

A site visit was undertaken by a hydrologist in June 2023. No drainage features were observed within the site boundary of the proposed development. There is no existing surface water infrastructure located along the R160 fronting the site.

There are two established drainage ditches located to the north and east of the site. These drainage ditches converge from the west and east before continuing south as a single drainage ditch. This drainage ditch flows into the Moynasboy stream before then discharging to the Knightsbrook river.

Proposed Surface Water Drainage

The surface water drainage proposals for the proposed electrical substation have been developed to mimic the natural drainage patterns of the site and in accordance with Sustainable Drainage Systems (SuDS). The surface water proposals replicate greenfield drainage conditions where possible.

Preliminary investigations suggest the soil present is a silt loam or silty clay loam. A site investigation is to be undertaken prior to detailed design, which will include soakaway tests in accordance with BRE Digest 365. The soakaway design will be confirmed during detailed design.

Drainage from the proposed substation development will be collected on site in a dedicated drainage network and will discharge to a proposed soakaway. A soakaway tank with a storage to be confirmed during detailed design will be located in the northeast corner of the proposed development site. The soakaway system will manage flows during storm events and will incorporate an isolator row to enhance the removal of total suspended solids.

The two bunded transformers will be drained by new surface water sewers which will convey the runoff to the soakaway. The transformers will incorporate an Entexol SCS001 (or equivalent) oil sensitive bund dewatering system in addition to an Entexol SCS002 (or equivalent) integrated full retention oil separator.

The new access road within the site will be drained to the adjacent ground, before saturating the soil. This will then either infiltrate to ground or will evaporate as it would on a greenfield site.

All runoff will pass through a catchpit before flowing through the proposed soakaway system to catch any fines.

The remainder of the compound area of the substation will comprise a permeable surface consisting of 50 mm single sized clean compound stone. The permeable compound stone will provide a means of attenuating runoff in these areas and will allow rainwater to saturate the soil. This will then either infiltrate to ground or will evaporate as it would on a greenfield site.

4.2.3.2 Foul Water

Existing Foul Water Drainage

There are currently no foul water services within the boundary of the proposed site.

Proposed Foul Water Drainage

It is proposed to discharge foul water generated by the welfare facilities in the substation building to an underground foul water holding tank. A new foul sewer is proposed to convey wastewater to the underground holding tank which is proposed to be located to the north-east of the site.

The foul drainage proposals must cater for the wastewater generated in the welfare facilities of the proposed development. These welfare facilities include for one toilet (WC) and one wash hand basin (WHB) in the north eastern side of the GIS substation building, In addition there are to be two eye wash stations, one in the control room and one in the entrance lobby in the west of the building.

The proposed development will generate small quantities of foul waste. The facility will typically be unmanned. As such, the quantities of foul waste generated will therefore be low. A 2,500 gallon (11.36m3) round Carlow Concrete foul water holding tank (or equal approved) is proposed for the development. This will be emptied at 6-month intervals by a licensed waste contractor.

The calculated Population Equivalent (PE) for foul loading is estimated at 48 litres per day. This is consistent with the recommended wastewater loading for industrial sites without a canteen as per the EPA Wastewater Treatment Manual for Small Communities, Businesses, Leisure Centres and Hotels. This equates to 14,976 litres per annum. While such a consistently high visitation rate is unlikely, there is the possibility of increased numbers of staff being present on site for short durations of one to two weeks for the commissioning of electrical elements of the site from time to time. It is considered that these irregular occurrences would balance with the ordinary operation of the unmanned site to produce a maximum of 14,976 litres of foul waste per annum.

It is common for much lower usage of the facilities on unmanned facilities and therefore a much lower foul loading. A common problem on such unmanned stations is odours in the toilet areas due to the water trap in the WC drying out through evaporation from the lack of use. For this reason, it is proposed to use self-flushing toilets in the station, which would flush automatically twice per week. The station will include one 6 litre flush WC so a minimum weekly foul flow of 12 litres can be expected from this. The self-flushing WC together will therefore contribute 624 litres per annum.

Combining the automatic flush and maximum user demand figures would result in a maximum annual generation of 15,600 litres of foul water. A 2,500 gallon (11.36m^3) round Carlow Concrete foul water holding tank (or equal approved) is proposed for the development. This will be emptied at 6-month intervals by a licensed waste contractor.

4.2.3.3 Water Supply

Existing Water Supply

There is currently no water supply within the site of the proposed development.

Proposed Water Supply Proposals

It is proposed to sink a well at the east section of the site which will provide the water supply for the development. This will provide water for toilet flushing, hand washing and for the eye wash stations in the east of the building.

Given the anticipated low use of the substation facilities following completion it is not considered that the water demand will be greater than the estimated foul water volumes.

4.2.3.4 Offload to MV Distribution Network

Once operational, the Fosterstown substation will offload to the Medium Voltage (MV) Distribution Network to provide capacity for demand growth and alleviate

security of supply issues in the Trim region, Co. Meath whilst also reducing any overloading concerns of the nearby 38kV substation at Trim, Co. Meath.

4.2.4 Decommissioning Phase Activities

The expected lifespan of the proposed development is in the region of 50 to 60 years. In the event that part or all of the proposed infrastructure is to be decommissioned, all structures, equipment and material will be removed.

It is expected that the proximity of sensitive receptors may change over the operational lifetime of the development. However, impacts during decommissioning are expected to be of a similar magnitude to those during construction but generally of shorter duration.

4.3 Existing environment

4.3.1 Overview of proposed development site

The proposed development site (approximately 2.75 ha in total area) is a greenfield site located north-east of the Meath Golf Club and south-west of South Meath Golf Club, west of the regional road (R160) and south-west of Trim, Co. Meath (refer to Figure 5.1). The proposed development site is largely improved agricultural grassland (GA1) fields, bordered by mature treelines (WL2) to the north, west and south, and a hedgerow (WL1) to the east. There are drainage ditches along the northern and eastern site boundary. These drainage ditches are largely associated with the boundary treelines, and are well shaded with minimal aquatic vegetation and largely stagnant water, with some areas having a slow flow, flowing north-easterly. The drainage ditch along the northern boundary is more open and is dominated by dense water-cress.

The wider environs of the proposed development site are dominated by: improved agricultural grassland (GA1) and arable crops (BC1) fields bordered by hedgerows and treelines; and, residential buildings with associated landscaped gardens. Meath Golf Club and South Meath Gold Club are located south-west and north east of the proposed development respectively.

The proposed development site is located entirely in the Knightsbrook_020 WFD River Sub Basin, which is in the Boyne_SC_060 WFD Sub Catchment. The closest mapped watercourse is the Moynasboy stream, located to the approximately 597 m to the south-east of the site. There is a connection between the drainage ditches along the boundary of the site and the Moynasboy stream, via intervening field ditches. There is approximately 1 km of field drainage ditches between the site and the Moynasboy stream. From where the ditches enter the Moynasboy stream, the stream flows for approximately 835 m until it reaches the Knightsbrook River, which in turn flows for another 4.5 km until it reaches the River Boyne where it overlaps– with the River Boyne and River Blackwater SAC and SPA site boundaries. According to the EPA GIS Map Viewer, the Water Framework Directive (WFD) status of the Boyne River upstream of the Knightsbrook River confluence is '*Moderate*' (i.e. Q3-4).

The proposed development site is located within the Trim ground waterbody, which has a '*Moderate*' vulnerability. The proposed development site is located within a '*Locally Important Aquifer – Bedrock which is Generally Moderately Productive*'.

4.3.2 Zone of Influence

The zone of influence of the proposed development comprises the direct footprint of the development, as shown in Figure 5.1, and the downstream waterbodies: field drainage ditches, Moynasboy stream, Knightsbrook River, and River Boyne. This is based on:

- The relatively small-scale nature of the proposed works .
- The proposed development site comprising predominantly improved agricultural grassland therefore generally of low ecological value.
- The potential hydrological impact pathway that exists between the proposed development site and the downstream waterbodies (Moynasboy stream, Knightsbrook River, and River Boyne) via the surrounding field ditches.

Therefore, the only European sites located within the zone of influence of the proposed development are the River Boyne and River Blackwater SAC and River Boyne and River Blackwater SPA.

4.3.3 Description of European Sites

The proposed development site is not located within or immediately adjacent to any European Site(s).

The only potential impact pathway that exists is the tenuous connection between the proposed development site and the downstream European sites (River Boyne and River Blackwater SAC and River Boyne and River Blackwater SPA) via the field ditches, Moynasboy stream, and Knightsbrook River. The zone of influence of the proposed development could therefore potentially extend to these downstream European sites.

The River Boyne and River Blackwater SAC is located approximately 1.25 km west of the proposed development, or approximately 6.3 km downstream of the proposed development via field drainage ditches, Moynasboy stream, and Knightsbrook River.

The River Boyne and River Blackwater SPA is located approximately 1.3 km west of the proposed development, or approximately 6.3 km downstream of the proposed development via field drainage ditches, Moynasboy stream, and Knightsbrook River.

The QIs and SCIs of the aforementioned SACs and SPAs are listed below in Table 5.1. The site synopses for these European sites are provided in Appendix B and Appendix C, respectively. European sites within the wider environment of the proposed development site are shown below in Figure 5.2.

Table 5.1 Qualifying Interest/ Special Conservation Interest of the River Boyne and River Blackwater SAC and River Boyne and River Blackwater SPA

European site / Distance from proposed development	Qualifying Interest / Special Conservation Interest
River Boyne and River Blackwater SAC [002299] **Approximately 1.25 km directly west / 6.3 km downstream** **NPWS (2021)**	**Annex I habitats:** • Alkaline fens [7230] • Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion*, *Alnion incanae*, *Salicion albae*) [91E0] **Annex II species:** • River Lamprey (*Lampetra fluviatilis*) [1099] • Salmon (*Salmo salar*) [1106] • Otter (*Lutra lutra*) [1355]
River Barrow And River Nore SPA [004232] **Approximately 1.3 km west / 6.3 km downstream** **NPWS (2011)**	**SCIs:** • Kingfisher (*Alcedo atthis*) [1130]

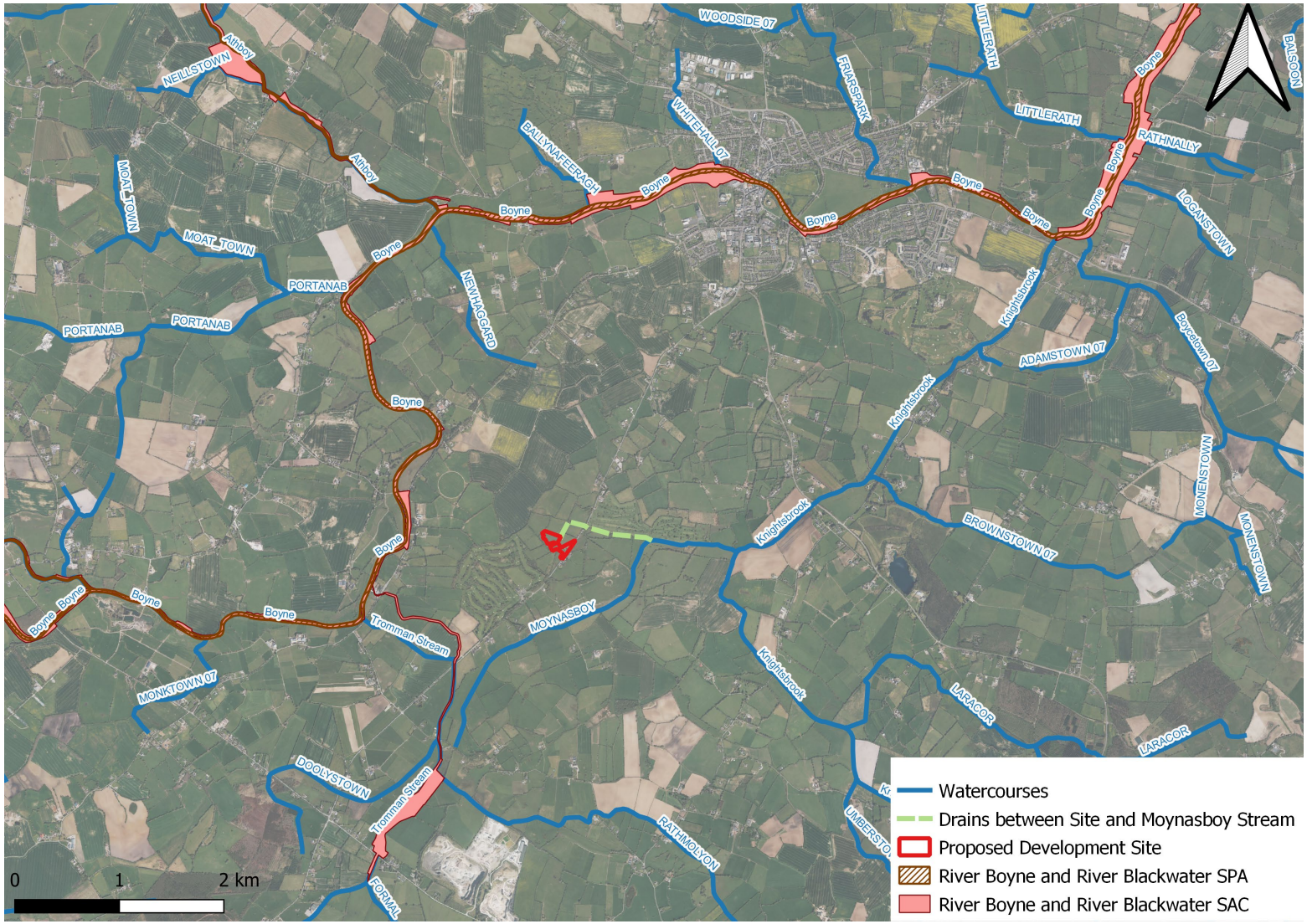

Figure 5.1 European sites located within the wider environment of the proposed development

4.4 Assessment of potential effects

The proposed development is not connected with or necessary to the management of any European Site.

4.4.1 Direct Habitat Loss and/or Fragmentation

The proposed development site is not located within or adjacent to any European site(s). Therefore, there is no potential for direct habitat loss and/or habitat fragmentation of any QI Annex I habitat and/or supporting habitat of any QI Annex II species and/or SCI species within any European site to occur as a result of the proposed development.

The proposed development site comprises a greenfield site that is dominated by improved agricultural grassland fields bordered by mature treelines. The construction stage will require the removal of the existing hedgerow located along the eastern boundary of the site (c. 75 m total length), 1.04 ha of improved grassland, 0.08 ha of wet grassland, 0.02 ha of scrub, and the removal of a hayshed. It does not contain any suitable *ex-situ* supporting habitat of any QI Annex II species and/or SCI species of any European site.

4.4.2 Habitat Degradation as a result of Hydrological Impacts

The only potential impact pathway that exists is the tenuous hydrological connection between the proposed development site and the downstream European sites: River Boyne and River Blackwater SAC and River Boyne and River Blackwater SPA (approximately 6.3 km downstream of the proposed development via field drainage ditches, Moynasboy stream, and Knightsbrook River). During construction, increased levels of sedimentation, suspended solids and/or pollutants in surface water runoff arising from the proposed development could potentially enter the River Boyne and River Blackwater SAC and the River Boyne and River Blackwater SPA via the field drains, Moynasboy stream, and Knightsbrook River. A reduction in water quality of a significant magnitude at these European sites could potentially result in an indirect impact on their QIs/ SCIs due to habitat degradation of QI Annex I habitat and/or supporting habitat of Annex II or SCI species, and/or a reduction in prey abundance/quality for Annex II or SCI species. However, the proposed development will not result in any the possibility of likely significant effects on the QIs of these European sites due to the following considerations:

- The small scale, short term nature of the proposed development which is entirely confined to improved agricultural grassland field and will be constructed in 12 months, with an additional 18 months of electrical installation.
- The substantial instream distance that exists between the proposed development site and the nearby European sites via the connecting ditches (*i.e.* approximately 6.3 km in the case of River Boyne and River Blackwater SAC / SPA).

- The terrestrial buffer between the proposed development and the surrounding ditches, i.e. all proposed works are set back at least 10 m from the ditches, with the bankside hedgerows and vegetation to be retained, which would allow the interception of surface water runoff prior to discharge into the ditches, and in turn the downstream watercourses/ European sites. Works within the ditches are limited to the replacement of a single culvert at an existing farm track crossing, for a larger culvert to accommodate the proposed access road.

- During operation, surface water runoff will discharge to ground through the soakaways. The 2 no. bunded transformers will include Entexol oil sensitive bund dewatering systems with Entexol integrated class 1 full retention oil separator, ensuring that there will be no potential for a reduction in water quality in surrounding waterbodies during the operation.

Therefore, in consideration of the above, there is no potential for the degradation of any QI Annex I habitat and/or supporting habitat of any QI Annex II/SCI species to occur as a result of silt-laden and/or contaminated surface water runoff arising from the proposed development.

4.4.3 Potential for Disturbance and Displacement Impacts on Annex II or SCI species

The construction of the proposed development may result in temporary increased levels of disturbance along and adjacent to the proposed development site boundary as a result of increased levels of noise, vibration, lighting and/or human activity. Increased levels of disturbance could potentially impact on fauna species using lands within the zone of influence of the proposed development, potentially resulting in their temporary displacement from these lands to suitable habitat in the wider environment.

Given that the distance between the proposed development and the nearest SPA (River Boyne and River Blackwater SPA) is approximately 1.3 km, no potential impacts as a result of disturbance and/or displacement on Kingfisher utilising suitable habitat within or adjacent to the SPA is predicted. There is no suitable *ex-situ* habitat for Kingfisher within/ adjacent to the proposed development, and therefore no potential impacts are predicted.

There is a connection between the drainage ditches along the boundary of the site and the Moynasboy stream, via intervening field ditches. There is approximately 1 km of field drainage ditches between the site and the Moynasboy stream. From where the ditches enter the Moynasboy stream, the stream flows for approximately 835 m until it reaches the Knightsbrook River, which in turn flows for another 4.5 km until it reaches the River Boyne where it overlaps– with the River Boyne and River Blackwater SAC and SPA site boundaries.

The Moynasboy stream, located approximately 1 km downstream of the proposed development via ditches, is likely to be suitable for commuting and/or foraging, and is 5.3 km upstream of the River Boyne and River Blackwater SAC. The normal

territorial ranges for otter in riverine habitats in Ireland is approximately 7.5 km ±1.5 km for female otter and approximately 13.2 km ±5.3 km for male otter (Ó'Néill *et al.*, 2008). However, there is no suitable habitat onsite for otter, with no signs of activity recorded during the field study. In addition, all proposed works will be completed during normal daytime working hours, when otter (a predominantly nocturnal species) is not typically active.

The operational stage activities will be limited to routine maintenance and irregular access to areas of infrastructure, and therefore, there is no potential for likely significant effects to occur during the operational stage of the proposed development.

Therefore, in consideration of the information presented above, it is concluded that there is no potential for the proposed development alone to result in likely significant effects on any European site, with particular regard to their conservation objectives. The potential for the proposed development to act in-combination with other plans and/or projects and result in likely significant effects on any European site is assessed in Section 5.6 below.

4.5 Assessment of potential in-combination effects

In order to take account of in-combination or cumulative effects, plans and projects that are completed, approved but uncompleted, or proposed (but not yet approved) should be considered in this context (European Commission, updated 2021).

As assessed in Section 5.4, the only potential impact pathway that exists is the tenuous connection between the proposed development site and the nearby River Boyne and River Blackwater SAC and SPA (approximately 6.3 km downstream of the proposed development via ditches, Moynasboy stream, and Knightsbrook River). The zone of influence of the proposed development could potentially extend to these downstream European sites; however, no potential for significant effects on the QIs/ SCIs of these European sites will arise from the proposed development alone due to: its small scale and short duration; lack of suitable habitat within the proposed development site (i.e. the conditions of the surrounding drains); and, the tenuous hydrological connectivity between the proposed development site and these downstream European sites.

According to the Meath County Council planning application map viewer, there are a number of granted and undecided planning permissions proposed for lands located in the wider environs of the proposed development site (within the same river catchment), in particular towards the outskirts of Athboy town. These developments in the immediate environs are generally small scale in nature and involve:

- Demolition of existing structures and construction of new structures on existing built land (including associated site drainage).
- Construction of new single residential dwellings and/or extensions on existing residential sites.
- Various agricultural related activities, including the construction of slurry tanks, slabs and public entrances to farms and constructing cattle sheds.
- Retention for an existing 7 bay driving range building.

The construction of these developments and the proposed development during the same period of time could potentially act in-combination, resulting in increased levels of contaminated surface water runoff entering the River Boyne, where the River Boyne and River Blackwater SPA and River Boyne And River Blackwater SAC are located. However, following the assessment of these developments it has been concluded that there is no potential for likely significant effects on any European site. This is in consideration that the majority of these other proposed developments are small scale in nature and also considering that it has been concluded that these developments will not result in likely significant effects on any European sites identified in the available planning documents. In addition, the proposed development itself will not result in any significant increases in contaminated surface water runoff discharging to these Europeans sites.

Therefore, in consideration of the information presented above, it is concluded that there is no potential for the proposed development, alone or in-combination with any other plans and/or projects, to result in likely significant effects on any European site, with particular regard to their conservation objectives.

4.6 Conclusion of the Screening Report

This AA Screening Report has established that the proposed development (as detailed in Section 5.2) has no potential for likely significant effects on any European site, with particular regard to their conservation objectives, either alone or in combination with other projects or plans. Therefore, it is the professional opinion of the author of this report that Stage 2 Appropriate Assessment is not required for the proposed development.

5 References

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National Parks and Wildlife Service (2014) *Site Synopsis River Boyne and River Blackwater SAC [002299].*

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Ó'Néill, L. (2008) *Population dynamics of the Eurasian otter in Ireland. Integrating density and demography into conservation planning.* PhD thesis. Trinity College Dublin.

Appendix A - Site photographs (taken on the 03/11/2023)

Plate 1. Improved agricultural grassland (GA1) and treelines (WL2) under the existing overhead line – proposed location for new substation. Photograph taken facing a northerly direction.

Plate 2. Area of wet grassland (GS4) and drainage ditch (FW4) along the northern site boundary of the proposed development. Photograph taken facing a northerly direction.

Plate 3. Culverted drainage ditch (FW4) along existing farm track. Proposed access tracks to cross the drain at this location. Photograph taken facing a southerly direction.

Plate 4. Derelict cottage (BL3) along south-easterly boundary of the proposed development site. The cottage is to be retained. Photograph taken facing a westerly direction.

Plate 5. Hayshed (BL3) to be removed proposed for access roads. Scrub (WS1) and treelines (WL2) also present in background. Photograph taken facing a northerly direction.

Appendix B - Site synopsis of River Boyne and River Blackwater SAC

Site Name: River Boyne and River Blackwater SAC Site Code: 002299

This site comprises the freshwater element of the River Boyne as far as the Boyne Aqueduct, the Blackwater as far as Lough Ramor and the Boyne tributaries including the Deel, Stoneyford and Tremblestown Rivers. These riverine stretches drain a considerable area of Meath and Westmeath, and smaller areas of Cavan and Louth. The underlying geology is Carboniferous Limestone for the most part, with areas of Upper, Lower and Middle well represented. In the vicinity of Kells Silurian Quartzite is present while close to Trim are Carboniferous Shales and Sandstones. There are many large towns adjacent to but not within the site, including Slane, Navan, Kells, Trim, Athboy and Ballivor. The site is a Special Area of Conservation (SAC) selected for the following habitats and/or species listed on Annex I / II of the E.U. Habitats Directive (* = priority; numbers in brackets are Natura 2000 codes):.

The site is a Special Area of Conservation (SAC) selected for the following habitats and/or species listed on Annex I / II of the E.U. Habitats Directive (* = priority; numbers in brackets are Natura 2000 codes):

- [[7230] Alkaline Fens
- [91E0] Alluvial Forests*
- [1099] River Lamprey (*Lampetra fluviatilis*)
- [1106] Atlantic Salmon (*Salmo salar*)
- [1355] Otter (*Lutra lutra*)

The main areas of alkaline fen in this site are concentrated in the vicinity of Lough Shesk, Freehan Lough and Newtown Lough. The hummocky nature of the local terrain produces frequent springs and seepages which are rich in lime. A series of base-rich marshes have developed in the poorly-drained hollows, generally linked with these three lakes. Open water is usually fringed by Bulrush (*Typha latifolia*), Common Club-rush (*Scirpus lacustris*) or Common Reed (*Phragmites australis*), and this last species also extends shorewards where a dense stand of Great Fen-sedge (*Cladium mariscus*) frequently occurs. This in turn grades into a sedge and grass community (*Carex* spp. and Purple Moor-grass, *Molinia caerulea*), or one dominated by Black Bog-rush (*Schoenus nigricans*). An alternative aquatic/terrestrial transition is a floating layer of vegetation. This is normally based on Bogbean *(Menyanthes trifoliata*) and Marsh Cinquefoil (*Potentilla palustris*). Other species gradually become established on this cover, especially plants tolerant of low nutrient status e.g. bog mosses (*Sphagnum* spp.). Diversity of plant and animal life is high in the fen and the flora includes many rarities. Plants of interest include Narrow-leaved Marsh-orchid (*Dactylorhiza traunsteineri*), Fen Bedstraw (*Galium uliginosum*), Cowbane (*Cicuta virosa*), Frogbit (*Hydrocharis morsus-ranae*) and Least Bur-reed (*Sparganium minimum*). These species tend to be restricted in their distribution in Ireland. Also notable is the abundance of aquatic stoneworts (*Chara* spp.) which are characteristic of calcareous wetlands. The rare plant Round-leaved Wintergreen (*Pyrola rotundifolia*) occurs around Newtown Lough. This species is listed in the Red Data Book and this site represents its only occurrence in Co. Meath. Wet woodland fringes many stretches of the Boyne. The Boyne River Islands are a small chain of three islands situated 2.5 km west of Drogheda. The islands were formed by the build-up of alluvial sediment in this part of the river where water movement is sluggish. All of the islands are covered by dense thickets of wet, willow (*Salix* spp.) woodland, with the following species occurring: Osier (*S. viminalis*), Crack Willow (*S. fragilis*), White Willow (*S. alba*), Purple Willow (*Salix purpurea*) and Rusty Willow (*S. cinerea subsp.*

oleifolia). A small area of Alder (*Alnus glutinosa*) woodland is found on soft ground at the edge of the canal in the north-western section of the islands. Along other stretches of the rivers of the site Rusty Willow scrub and pockets of wet woodland dominated by Alder have become established, particularly at the river edge of mature deciduous woodland. Ash (*Fraxinus excelsior*) and Downy Birch (*Betula pubescens*) are common in the latter, and the ground flora is typical of wet woodland with Meadowsweet (*Filipendula ulmaria*), Wild Angelica (*Angelica sylvestris*), Yellow Iris (*Iris pseudacorus*), horsetails (*Equisetum* spp.) and occasional tussocks of Greater Tussock-sedge (*Carex paniculata*). The dominant habitat along the edges of the river is freshwater marsh, and the following plant species occur commonly in these areas: Yellow Iris, Creeping Bent (*Agrostis stolonifera*), Canary Reed-grass (*Phalaris arundinac*ea), Marsh Bedstraw (*Galium palustre*), Water Mint (Mentha aquatica) and Water Forget-me-not (*Myosotis scorpioides*). In the wetter areas Common Meadow-rue (*Thalictrum flavum*) is found. In the vicinity of Dowth, Fen Bedstraw (*Galium uliginosum*), a scarce species mainly confined to marshy areas in the midlands, is common in this vegetation. Swamp Meadow-grass (*Poa palustris*) is an introduced plant which has spread into the wild (naturalised) along the Boyne approximately 5 km south-west of Slane. It is a rare species which is listed in the Red Data Book and has been recorded among freshwater marsh vegetation on the banks of the Boyne in this site. The only other record for this species in the Republic of Ireland is from a site in Co. Monaghan. The secondary habitat associated with the marsh is wet grassland and species such as Tall Fescue (*Festuca arundinacea*), Silverweed (*Potentilla anserina*), Creeping Buttercup (*Ranunculus repens*), Meadowsweet and Meadow Vetchling (*Lathyrus pratensis*) are well represented. Strawberry Clover (*Trifolium fragiferum*), a plant generally restricted to coastal locations in Ireland, has been recorded from wet grassland vegetation at Trim. At Rossnaree river bank on the River Boyne, Round-Fruited Rush (*Juncus compressus*) is found in alluvial pasture, which is generally periodically flooded during the winter months. This rare plant is only found in three counties in Ireland.

Along much of the Boyne and along tributary stretches are found areas of mature deciduous woodland on the steeper slopes above the floodplain marsh or wet woodland vegetation. Many of these are planted in origin. However the steeper areas of King Williams Glen and Townley Hall wood have been left unmanaged and now have a more natural character. East of Curley Hole the woodland has a natural appearance with few conifers. Broadleaved species include oaks (*Quercus* spp.), Ash, willows, Hazel (*Corylus avellana*), Sycamore (*Acer pseudoplatanus*), Holly *(Ilex aquifolium*), Horse-chestnut (*Aesculus hipposcastanum*) and the shrubs Hawthorn (*Crataegus monogyna*), Blackthorn (*Prunus spinosa*) and Elder (*Sambucus nigra*). South-west of Slane and in Dowth, some more exotic tree species such as Beech (*Fagus sylvatica*), and occasionally Lime (*Tilia cordata*), are seen. The coniferous trees Larch (*Larix* sp.) and Scots Pine (*Pinus sylvestris*) also occur. The woodland ground flora includes Barren Strawberry (*Potentilla sterilis*), Enchanter's-nightshade (*Circaea lutetiana*) and Ground-ivy (*Glechoma hederacea*), along with a range of ferns. Variation occurs in the composition of the canopy - for example, in wet patches alongside the river, White Willow and Alder form the canopy.

Other habitats present along the Boyne and Blackwater include lowland dry grassland, improved grassland, reedswamp, weedy waste ground, scrub, hedge, drainage ditch and canal. In the vicinity of Lough Shesk, the dry slopes of the morainic hummocks support grassland vegetation which, in some places, is partially colonised by Gorse (*Ulex europaeus*) scrub. Those grasslands which remain unimproved for

pasture are species-rich, with Common Knapweed (*Centaurea nigra*), Creeping Thistle (*Cirsium arvense*) and Ribwort Plantain (*Plantago lanceolata*) commonly present. Fringing the canal alongside the Boyne south-west of Slane are areas with Reed Sweet-grass (*Glyceria maxima*), Great Willowherb (*Epilobium hirsutum*) and Meadowsweet.

The Boyne and its tributaries form one of Ireland's premier game fisheries and the area offers a wide range of angling, from fishing for spring salmon and grilse to seatrout fishing and extensive brown trout fishing. Atlantic Salmon (*Salmo salar*) use the tributaries and headwaters as spawning grounds. Although this species is still fished commercially in Ireland, it is considered to be endangered or locally threatened elsewhere in Europe and is listed on Annex II of the Habitats Directive. Atlantic Salmon run the Boyne almost every month of the year. The Boyne is most important as it represents an eastern river which holds large three-sea-winter fish from 20-30 lb. These fish generally arrive in February, with smaller spring fish (10 lb) arriving in April/May. The grilse come in July, water permitting. The river gets a further run of fish in late August and this run would appear to last well after the fishing season. The salmon fishing season lasts from 1st March to 30th September.

The Blackwater is a medium sized limestone river which is still recovering from the effects of the arterial drainage scheme of the 1970s. Salmon stocks have not recovered to the numbers that existed pre-drainage. The Deel, Riverstown, Stoneyford and Tremblestown Rivers are all spring-fed, with a continuous high volume of water. They are difficult to fish because some areas are overgrown, while others have been affected by drainage with resultant high banks

This site is also important for the populations of two other species listed on Annex II of the E.U. Habitats Directive which it supports, namely River Lamprey *(Lampetra fluviatilis*), which is present in the lower reaches of the Boyne River, and Otter (*Lutra lutra*), which can be found throughout the site. In addition, the site also supports many more of the mammal species occurring in Ireland. Those which are listed in the Irish Red Data Book include Pine Marten, Badger and Irish Hare. Common Frog, another Red Data Book species, also occurs within the site. All of these animals, with the addition of the Stoat and Red Squirrel, which also occur within the site, are protected under the Wildlife Act, 1976.

Whooper Swans winter regularly at several locations along the Boyne and Blackwater Rivers. Known sites are at Newgrange (approx. 20 in recent winters), near Slane (20+ in recent winters), Wilkinstown (several records of 100+) and River Blackwater from Kells to Navan (104 at Kells in winter 1996/97, 182 at Headfort in winter 1997/98, 200-300 in winter 1999/00). The available information indicates that there is a regular wintering population of Whooper Swans based along the Boyne and Blackwater River valleys. The birds use a range of feeding sites but roosting sites are not well known. The population is substantial, certainly of national, and at times international, importance. Numbers are probably in the low hundreds.

Intensive agriculture is the main land use along the site. Much of the grassland is in very large fields and is improved. Silage harvesting is carried out. The spreading of slurry and fertiliser poses a threat to the water quality of this salmonid river and to the lakes. In the more extensive agricultural areas sheep grazing is carried out.

Fishing is a main tourist attraction on the Boyne and Blackwater and there are a number of Angler Associations, some with a number of beats. Fishing stands and

styles have been erected in places. The Eastern Regional Fishery Board have erected fencing along selected stretches of the river as part of their salmonid enhancement programme. Parts of the river system have been arterially dredged. In 1969 an arterial dredging scheme commenced and disrupted angling for 18 years. The dredging altered the character of the river completely and resulted in many areas in very high banks. The main channel from Drogheda upstream to Navan was left untouched, as were a few stretches on the Blackwater. Ongoing maintenance dredging is carried out along stretches of the river system where the gradient is low. This is extremely destructive to salmonid habitat in the area. Drainage of the adjacent river systems also impacts on the many small wetland areas throughout the site. The River Boyne is a designated Salmonid Water under the E.U. Freshwater Fish Directive.

The site supports populations of several species listed on Annex II of the E.U. Habitats Directive, and habitats listed on Annex I of this Directive, as well as examples of other important habitat types. Although the wet woodland areas appear small there are few similar examples of this type of alluvial wet woodland remaining in the country, particularly in the north-east. The semi-natural habitats, particularly the strips of woodland which extend along the river banks, and the marsh and wet grasslands, increase the overall habitat diversity and add to the ecological value of the site, as does the presence of a range of Red Data Book plant and animal species and the presence of nationally rare plant species.

Appendix C - Site synopsis of River Boyne and River Blackwater SPA

Site Name: River Boyne and River Blackwater SPA Site Code: 004232

The River Boyne and River Blackwater SPA is a long, linear site that comprises stretches of the River Boyne and several of its tributaries; most of the site is in Co. Meath, but it extends also into Cos Cavan, Louth and Westmeath. It includes the following river sections: the River Boyne from the M1 motorway bridge, west of Drogheda, to the junction with the Royal Canal, west of Longwood, Co Meath; the River Blackwater from its junction with the River Boyne in Navan to the junction with Lough Ramor in Co. Cavan; the Tremblestown River/Athboy River from the junction with the River Boyne at Kilnagross Bridge west of Trim to the bridge in Athboy, Co. Meath; the Stoneyford River from its junction with the River Boyne to Stonestown Bridge in Co. Westmeath; the River Deel from its junction with the River Boyne to Cummer Bridge, Co. Westmeath. The site includes the river channel and marginal vegetation.

Most of the site is underlain by Carboniferous limestone but Silurian quartzite also occurs in the vicinity of Kells and Carboniferous shales and sandstones close to Trim.

The site is a Special Protection Area (SPA) under the E.U. Birds Directive of special conservation interest for the following species: Kingfisher.

A survey in 2010 recorded 19 pairs of Kingfisher (based on 15 probable and 4 possible territories) in the River Boyne and River Blackwater SPA. A survey conducted in 2008 recorded 20-22 Kingfisher territories within the SPA. Other species which occur within the site include Mute Swan (90), Teal (166), Mallard (219), Cormorant (36), Grey Heron (44), Moorhen (84), Snipe (32) and Sand Martin (553) – all figures are peak counts recorded during the 2010 survey.

The River Boyne and River Blackwater Special Protection Area is of high ornithological importance as it supports a nationally important population of Kingfisher, a species that is listed on Annex I of the E.U. Birds Directive.