Planning and Environmental Consultants

Article 6 (3) Appropriate Assessment Screening Report

Proposed Substation, Underground Cabling & Access Roads to Knocknamork Renewable Energy Development

DOCUMENT DETAILS

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Planning and Environmental Consultants

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1. INTRODUCTION

1.1 Background

MKO has been appointed to provide the information necessary to allow the competent authority to conduct an Article 6(3) Screening for Appropriate Assessment of works associated with the permitted Knocknamork Renewable Energy Development (Permitted Development), located near Ballyvourney, Co. Cork. The proposed works will consist of a 110kV Electricity Substation, underground cabling and access roads, and associated works.

Screening for Appropriate Assessment is required under Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (the Habitats Directive). Where it cannot be excluded that a project or plan, either alone or in combination with other projects or plans, would have a significant effect on a European Site then same shall be subject to an appropriate assessment of its implications for the site in view of the site's conservation objectives. The current project is not directly connected with, or necessary for, the management of any European Site consequently the project has been subject to the Appropriate Assessment Screening process.

The assessment in this report is based on field surveys undertaken on the 28th of September 2021, the 29th of September 2021, the 13th of January 2022, the 9th of February 2022, the 9th of May 2022 and the 10th of May 2022, and a desk study conducted in January 2022. It specifically assesses the potential for the proposed development to result in significant effects on European sites in the absence of any best practice, mitigation or preventative measures.

This Appropriate Assessment Screening Report has been prepared in accordance with the European Commission's Assessment of Plans and Projects Significantly affecting Natura 2000 Sites: Methodological Guidance on the provisions of Article 6(3) and 6(4) of the Habitats Directive 92/43/EEC (EC, 2021) and Managing Natura 2000 Sites: the provisions of Article 6 of the 'Habitats' Directive 92/43/EEC (EC, 2018) as well as the Department of the Environment's Appropriate Assessment of Plans and Projects in Ireland - Guidance for Planning Authorities (DoEHLG, 2010).

In addition to the guidelines referenced above, the following relevant documents were also considered in the preparation of this report:

1. *Council of the European Commission (1992) Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora. Official Journal of the European Communities. Series L 20, pp. 7-49.*
2. *EC (2000) Managing Natura 2000 Sites: the provisions of Article 6 of the 'Habitats' Directive 92/43/EEC, Office for Official Publications of the European Communities, Luxembourg.*
3. *EC (2007) Guidance document on Article 6(4) of the 'Habitats Directive' 92/43/EEC – Clarification of the concepts of: alternative solutions, imperative reasons of overriding public interest, compensatory measures, overall coherence. Opinion of the commission.*
4. *EC (2013) Interpretation Manual of European Union Habitats. Version EUR 28. European Commission.*
5. *EC (2020) Guidance document on wind energy developments and nature legislation.*

1.2 Appropriate Assessment

1.2.1 Screening for Appropriate Assessment

Screening is the process of determining whether an Appropriate Assessment is required for a plan or project. Under Part XAB of the Planning and Development Act, 2000, as amended, screening must be

carried out by the Competent Authority. As per Section 177U of the Planning and Development Act, 2000, as amended 'A screening for appropriate assessment shall be carried out by the competent authority to assess, in view of best scientific knowledge, if that Land use plan or proposed development, individually or in combination with another plan or project is likely to have a significant effect on the European site'. The Competent Authority's determination as to whether an Appropriate Assessment is required must be made on the basis of objective information and should be recorded. The Competent Authority may request information to be supplied to enable it to carry out screening.

Consultants or project proponents may provide for the competent authority, the information necessary for them to determine whether an Appropriate Assessment is required and provide advice to assist them in the Article 6(3) Appropriate Assessment Screening decision.

Where it cannot be excluded beyond reasonable scientific doubt at the Screening stage, that a proposed plan or project, individually or in combination with other plans and projects, would have a significant effect on the conservation objectives of a European site, an Appropriate Assessment is required.

Where an Appropriate Assessment is required, the Competent Authority may require the applicant to prepare a Natura Impact Statement.

The term Natura Impact Statement (NIS) is defined in legislation[1]. An NIS, where required, should present the data, information and analysis necessary to reach a definitive determination as to 1) the implications of the plan or project, alone or in combination with other plans and projects, for a European site in view of its conservation objectives, and 2) whether there will be adverse effects on the integrity of a European site. The NIS should be underpinned by best scientific knowledge, objective information and by the precautionary principle.

This Article 6(3) Appropriate Assessment Screening Report has been prepared in compliance with the provision of section 177U of the Planning & Development Act 2010 as amended.

1.2.2 Statement of Authority

Baseline ecological surveys were undertaken by Kevin McElduff (B.Sc. (Env.)) and Padraig Desmond (B.Sc. (Eco.)) of MKO. All surveyors had the necessary qualifications and experience to undertake the surveys that they were required to undertake. This report has been prepared by Kevin Mc Elduff who has the necessary qualifications and experience to undertake this assessment. This report has been reviewed by Pat Roberts (B.Sc., MCIEEM) who has over 15 years' experience in ecological assessment.

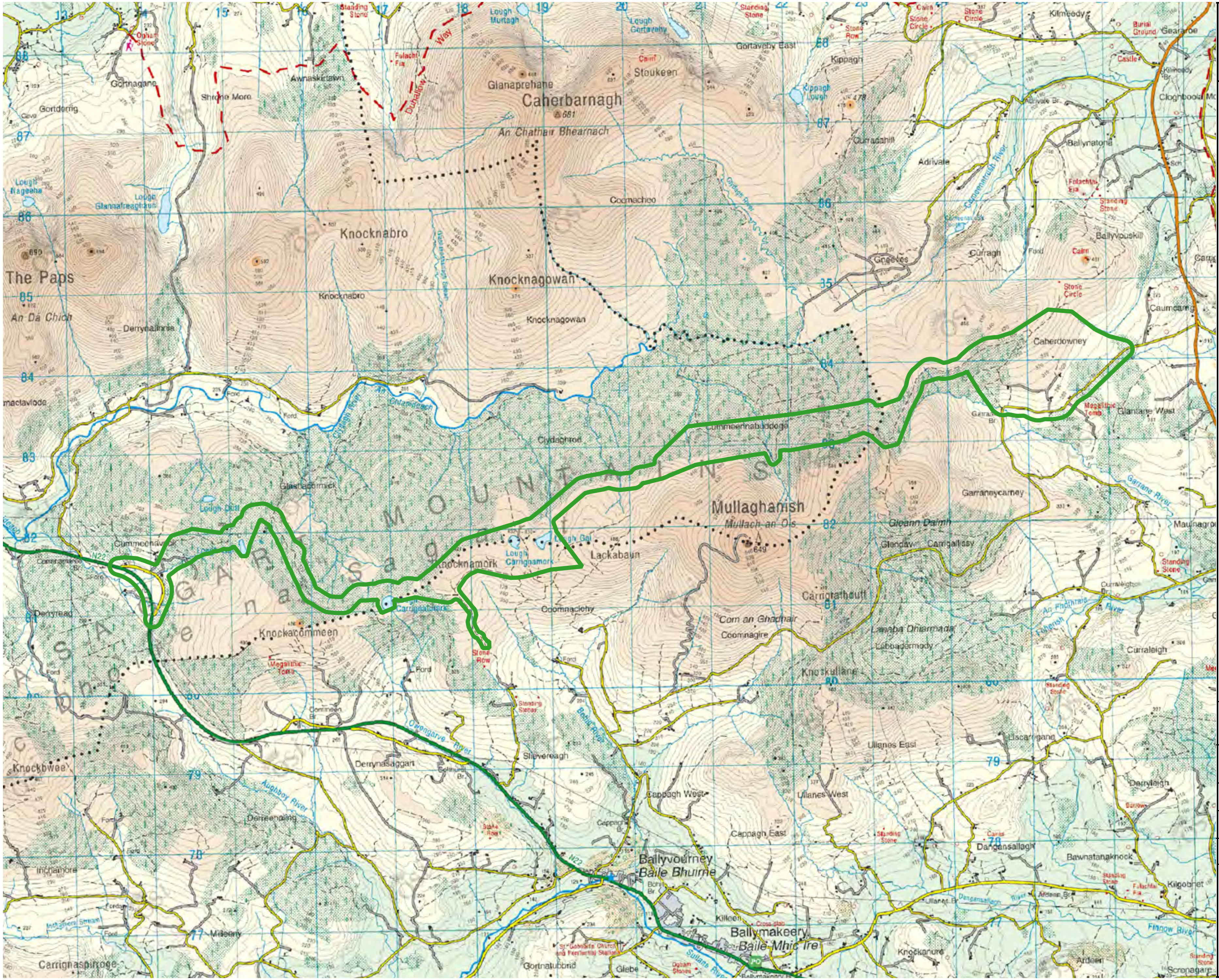
[1] As defined in Section 177T of the Planning and Development Act, 2000 as amended, an NIS means a statement, for the purposes of Article 6 of the Habitats Directive, of the implications of a proposed development, on its own and in combination with other plans and projects, for a European site in view of its conservation objectives. It is required to include a report of a scientific examination of evidence and data, carried out by competent persons to identify and classify any implications for the European site in view of its conservation objectives

2. DESCRIPTION OF THE PROPOSED DEVELOPMENT

2.1 Site Location

The site of the Proposed Development which straddles the county boundary between Co. Kerry and Co. Cork is located approximately 11 kilometres southwest of the town of Millstreet and 3 kilometres northwest of the village of Ballyvourney. The Grid Reference co-ordinates of the approximate start and end points for the Proposed Development site are E514036, N581567 and E525824, N584341 respectively.

The site location can be seen in Figure 2-1.



Map Legend

EIAR Study Boundary

Microsoft product screen shots reprinted with permission from Microsoft Corporation

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Drawing Title

Site Location

Project Title

Proposed Substation, Underground Cabling & Access Roads to Knocknamork Renewable Energy Development

Drawn By	Checked By
KME	PR
Project No.	Drawing No.
210732	Fig. 2-1
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2.2 Characteristics of the Proposed Development

2.2.1 Description of the project

The Proposed Development comprises the construction of a 110kV electrical substation and adjacent borrow pit located in the townlands of Cummeennabuddoge and Caherdowney. The proposed underground grid connection cabling consists of two elements, with 110kV underground electrical cabling connecting the proposed 110kV electrical substation to the existing 220kV substation at Ballyvouskill, and 33kV underground electrical cabling connecting the Permitted Development to the proposed 110kV electrical substation. The total length of underground electrical cabling routes will measure approximately 11.9 kilometres (the 110kV and 33kV cable routes are approximately 3.6km and 8.3km respectively), which will be located on existing forest/ agricultural roads (requiring upgrading), forestry land, peatland and agricultural land. Where roads do not exist along the proposed underground cabling routes, new access roads will be provided. No road will be provided across a short section (685m) of peatland habitat along the 110kV cabling route. The proposed 110kV electrical substation is intended to replace the 38kV substation (and associated 38kV underground cabling and battery storage compound) permitted under Pl. Ref. 19/4972. Upgrading of access junctions and existing roads will be required to facilitate the delivery of materials (in particular, turbine components) to the Permitted Development, a short section (209m) of new access road will connect the upgraded access road to the Permitted development, completing the Turbine Delivery Route (TDR). The borrow pit permitted under Pl. Ref. 19/4972 will be extended to facilitate the construction of the TDR. Site drainage measures, forestry felling and all associated site development works and apparatus are also included.

The proposed 33kV underground electrical cabling will consolidate all of the on-site underground cabling, from the individual turbines and solar array, into 3 no. cable circuits connecting the Permitted Development to the proposed 110kV substation.

The Proposed Development also includes for access road works associated with the turbine delivery route, a new on-site borrow pit and extension of the borrow pit permitted under Planning Permission Ref. No. 19/4972.

Of the proposed infrastructure, the 110kV electrical substation,110kV cabling and associated works represents Strategic Infrastructure Development (SID) and therefore a planning application will be submitted directly to ABP, under the provisions of the Planning and Development (Strategic Infrastructure) Act 2006. The proposed on-site borrow pit will be included in the planning application to be submitted to ABP and in the application to KCC given that it will serve the 110kV and 33kV infrastructure.

Approximately 5.6km of the access road works and approximately 5.2km of the underground electrical cabling (33kV) with associated access road connecting the Permitted Development to the proposed 110kV substation are located within the functional area of KCC. The relevant portion of the proposed on-site borrow pit will also be included in the planning application to be submitted to KCC. Approximately 707m of the access road works, approximately 3.2km of the 33kV underground electrical cabling (including approximately 450m of road upgrade) and the proposed extension to the permitted borrow pit are located in the functional area of CCC and will be included in the planning application to be submitted to CCC. A planning application will be submitted to each relevant authority with respect to the works required in areas accordance with the requirements of the Act.

2.2.2 Description of the Baseline Ecological Environment

Assessing the impacts of any project and associated activities requires an understanding of the ecological baseline conditions prior to and at the time of the project proceeding. Ecological Baseline conditions are those existing in the absence of proposed activities (CIEEM, 2018).

Multi-disciplinary ecological walkover surveys were conducted on the 28th of September 2021, the 29th of September 2021, the 13th of January 2022 and the 9th of February 2022 by Kevin McElduff (B.Sc. (Env.)) and Padraig Desmond (B.Sc. (Eco.)) in accordance with NRA Guidelines on Ecological Surveying. The ecological survey was undertaken within the optimal time of year to undertake a habitat and flora survey (Smith *et al.* 2011) and habitats within and adjacent to the site were readily identifiable and a full habitat survey was achieved.

Habitats were identified in accordance with the Heritage Council's *'Guide to Habitats in Ireland'* (Fossitt, 2000). Habitat mapping was undertaken with regard to guidance set out in *'Best Practice Guidance for Habitat Survey and Mapping'* (Smith *et al.*, 2011). Plant nomenclature for vascular plants follows *'New Flora of the British Isles'* (Stace, 2019), while mosses and liverworts nomenclature follows *'Mosses and Liverworts of Britain and Ireland - a field guide'* (British Bryological Society, 2010).

The walkover survey was designed to detect the presence, or likely presence, of a range of protected species. Habitats considered to be of ecological significance and having the potential to correspond to those listed in Annex I of the EU Habitats Directive 92/43/EEC were not identified during the walkover survey. The multidisciplinary walkover survey comprehensively covered the entire study area of the Proposed Development site and surrounding habitats.

During the survey, the site was also searched for species listed on the Third Schedule of the European Communities (Birds and Natural Habitats) Regulations (S.I. 477 of 2011).

Table 2- 1 Habitats recorded in the EIAR Study Area

Habitat Name	Fossitt Code
Buildings and artificial surfaces	BL3
Upland/ eroding rivers	FW1
Wet grassland	GS4
Drainage ditches	FW4
Treelines	WL2
Improved agricultural grassland	GA1
Wet heath/ Upland Blanket Bog mosaic	HH3/ PB2
Recolonising bare ground	ED3
Conifer plantation/ Dry meadows and grassy verges	WD4/ GS2
Recently-felled conifer woodland	WS5
Conifer Woodland	WD4
Cutover bog	PB4
Upland blanket bog / Wet heath	PB2/ HH3
Dystrophic Lakes	FL1
Immature woodland	WS2
Treelines/ Hedgerows mosaic	WL2/ WL1

Habitats within each section of the Proposed Development are described below.

2.2.2.1 Habitats within and adjacent to Proposed 110kV Underground Electrical Cabling Route

Starting at the existing 220kV Ballyvouskill substation, the proposed 110kV underground electrical cabling route proceeds northwest through agricultural fields (Plate 2-1). The proposed 110kV underground cabling route passes west through degraded Upland blanket bog (PB2) and Wet heath (HH3) habitat (Plate 2-2) for a distance of 600m before continuing west through commercial forestry plantation (Plate 2-3), a single EPA mapped dried out stream habitat (Plate 2-4) and forestry roadways before arriving at the location of the proposed 110kV substation.

2.2.2.2 Habitats within and adjacent to Proposed 110kV Electrical Substation and Borrow Pit

Habitats recorded within and adjacent to the footprint of the proposed 110kV substation and borrow pit comprise solely of commercial forestry plantation of varying ages (Plate 2-5).

2.2.2.3 Habitats within and Adjacent to Proposed 33kV Underground Electrical Cabling Route

Starting at the proposed 110kV substation, the proposed 33kV underground electrical cabling route proceeds west through commercial forestry plantation (Plate 2-6), crossing three EPA mapped watercourses (Plate 2-7, 2-8 & 2-9). The proposed 33kV underground then continues west within a forestry firebreak (Plate 2-10) located adjacent to commercial forestry plantation and peatland habitat. The footprint of the proposed 33kV underground electrical cabling crosses a further two EPA mapped watercourses (Plate 2-11 & 2-12) while within this firebreak. After following the path of this firebreak for approximately 2.2km the footprint of the proposed 33kV underground electrical cabling redirects in a southerly direction and runs along an existing roadway (Plate 2-13) until it reaches the Permitted Development infrastructure.

2.2.2.4 Habitats within and Adjacent to Proposed Extension of Permitted Borrow Pit

Habitats within and adjacent to proposed extension works at the borrow pit as permitted under Planning Permission Ref. No. 19/4972 include recolonising bare ground and cutover peatland habitat (Plate 2-14).

2.2.2.5 Habitats within and Adjacent to Proposed TDR

Throughout the western section of the proposed TDR works associated with the turbine delivery route, the proposed works follow existing forestry roads that are located within the existing forestry plantation (Plate 2-15), with occasional deviations requiring felling of conifer plantation. Also present within the footprint of the proposed TDR works are agricultural fields (Plate 2-16), treelines (Plate 2-17), hedgerows (Plate 2-18), immature woodland (Plate 2-19) and a single EPA mapped watercourse (Plate 2-20). The eastern end of the footprint of the proposed TDR works is located within a forestry firebreak (Plate 2-21) located between a conifer plantation and peatland habitats. The footprint of the proposed TDR works crosses one EPA mapped watercourse.

Plate 2- 1 View of Improved agricultural grassland (GA1) within the footprint of the proposed 110kV underground electrical cabling.

Plate 2- 2 View of degraded Wet heath (HH3)/ Upland Blanket Bog (PB2) mosaic habitat within the footprint of the proposed 110kV underground electrical cabling.

Plate 2- 3 View of recently-felled Conifer plantation (WD4) located within the footprint of the proposed 110kV underground electrical cabling.

Plate 2- 4 View of dry temporary watercourse, classified as Upland/ eroding rivers (FW1).

Plate 2- 5 View of Conifer plantation (WD4).

Plate 2- 6 View of mature Conifer plantation within which the proposed 33kV cabling will be located.

Plate 2- 7 View of EPA mapped watercourse located within the footprint of proposed 33kV underground electrical cabling.

Plate 2- 8 View of EPA mapped watercourse located within the footprint of proposed 33kV underground electrical cabling.

Plate 2- 9 View of EPA mapped watercourse located within the footprint of proposed 33kV underground electrical cabling.

Plate 2- 10 View of forestry firebreak within the footprint of proposed 33kV underground electrical cabling.

Plate 2- 11 View of EPA mapped watercourse located within the footprint of proposed 33kV underground electrical cabling.

Plate 2- 12 View of EPA mapped watercourse located within the footprint of proposed 33kV underground electrical cabling.

Plate 2- 13 View of existing track located within the footprint of the proposed 33kV underground electrical cabling.

Plate 2- 14 View of recolonising bare ground and cutover bog within the footprint of the proposed extension works at permitted borrow pit.

Plate 2- 15 Typical view of forest roadway classified as Buildings and artificial surfaces (BL3) located within the footprint of the proposed TDR works.

Plate 2- 16 View of Improved agricultural grassland (GA1) within the footprint of the proposed TDR works.

Plate 2- 17 Treeline (WL1) located in the west of the EIAR Study Area.

Plate 2- 18 View of Hedgerow (WL1) located in the west of the EIAR Study Area.

Plate 2- 19 View of Immature woodland (WS2) located within the footprint of the proposed TDR works.

Plate 2- 20 View of stream, classified as Upland/ eroding rivers (FW1) located within Conifer plantation (WD4). The watercourse shown in the plate above is culverted beneath the forest roadway proposed for TDR works.

Plate 2- 21 View of firebreak located within the footprint of the proposed TDR works.

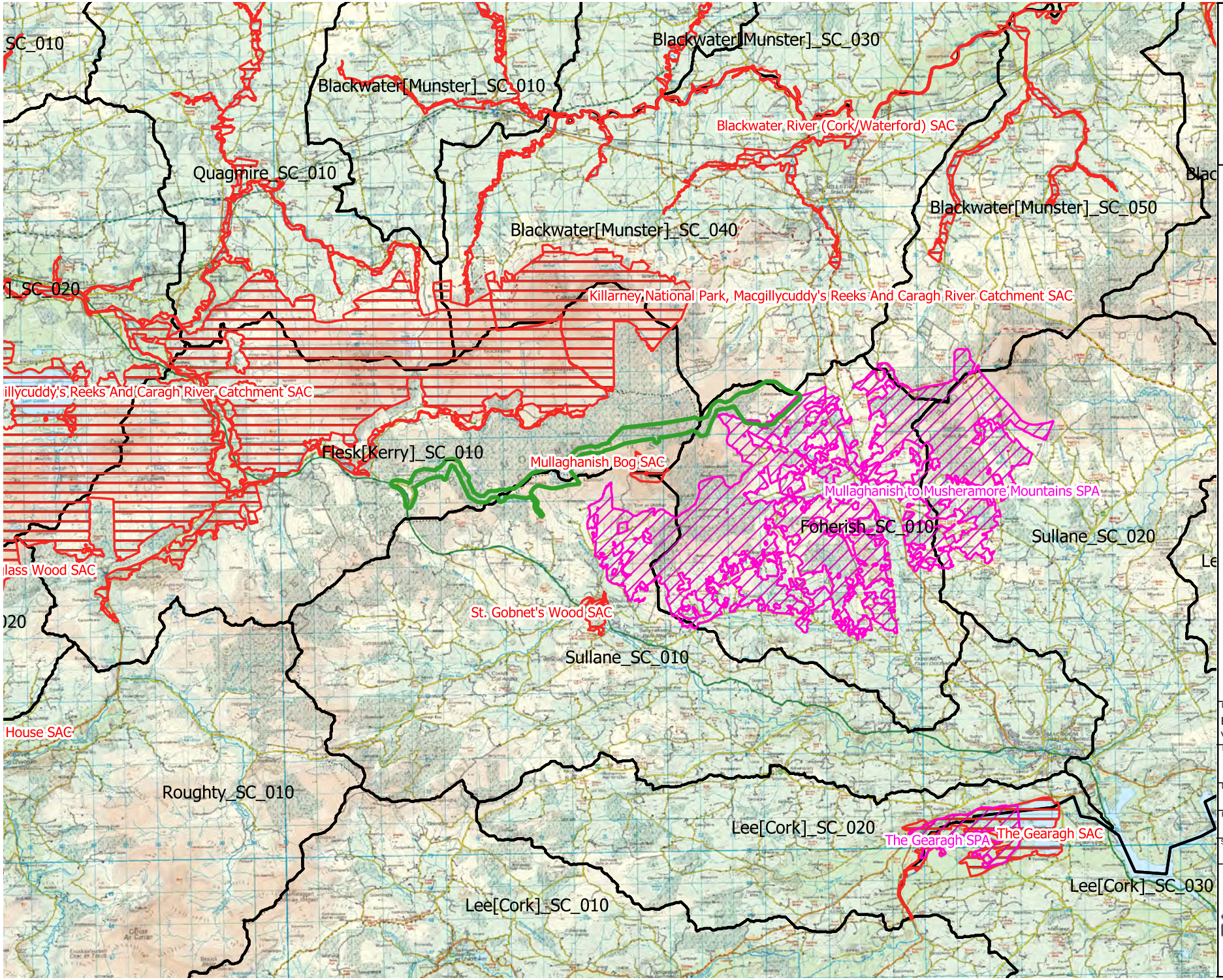
3. IDENTIFICATION OF RELEVANT EUROPEAN SITES

3.1 Identification of the European Sites within the Likely Zone of Impact

The following methodology was used to establish which European Sites are within the Likely Zone of Impact of the proposed development:

- Initially the most up to date GIS spatial datasets for European designated sites and water catchments were downloaded from the NPWS website (www.npws.ie) and the EPA website (www.epa.ie) on the 04/07/022. The datasets were utilized to identify European Sites which could feasibly be affected by the proposed development.
- All European Sites that could potentially be affected were identified using a source-pathway - receptor model. To provide context for the assessment, European Sites within a distance of 15km surrounding the development site are shown on Figure 3-1. Information on these sites according to the site-specific conservation objectives is provided in Table 3-1[2]. Sites that were further away from the proposed development were also considered and in this case connectivity with sites that were further than 15km downstream in the catchment were identified but given the nature, scale and location of the proposed development and the attenuating properties of the intervening waterbodies, no potential pathway for significant effects was identified.
- The catchment mapping was used to establish or discount potential hydrological connectivity between the site of the proposed development and any European Sites. The hydrological catchments are also shown in Figure 3-1.
- In relation to Special Protection Areas, in the absence of any specific European or Irish guidance in relation to such sites, the Scottish Natural Heritage (SNH) Guidance, '*Assessing Connectivity with Special Protection Areas* (SPA)' (2016) was consulted. This document provides guidance in relation to the identification of connectivity between proposed development and Special Protection Areas. The guidance takes into consideration the distances species may travel beyond the boundary of their SPAs and provides information on dispersal and foraging ranges of bird species which are frequently encountered when considering plans and projects.
- Table 3-1, provides details of all relevant European Sites as identified in the preceding steps and assesses which are within the likely Zone of Impact. The assessment considers any likely direct or indirect impacts of the proposed development, both alone and in combination with other plans and projects, on European Sites by virtue of the following criteria: size and scale, land-take, distance from the European Site or key features of the site, resource requirements, emissions, excavation requirements, transportation requirements and duration of construction, operation and decommissioning were considered in this screening assessment.
- The site synopses and conservation objectives of these sites, as per the NPWS website (www.npws.ie), were consulted and reviewed at the time of preparing this report 04/07/2022.
- Where potential pathways for Significant Effect are identified, the site is included within the Likely Zone of Impact and further assessment is required.

[2] *Office of the Planning Regulator (2021) guidance; 'OPR Practice Note PN01 Appropriate Assessment Screening for Development Management', utilises the Source-Pathway-Receptor model. This Appropriate Assessment Screening Report follows this guidance as well as providing information on European sites located within 15km of the proposed development as recommended in guidance provided by DEHLG (2010).*



Map Legend

- EIAR Study Boundary
- SAC
- SPA
- Groundwater subcatchments

Drawing Title

European Designated Sites within the vicinity of the Proposed Development

Project Title

Proposed Substation, Underground Cabling & Access Roads to Knocknamork Renewable Energy Development

Drawn By	Checked By
KME	PR
Project No.	Drawing No.
210732	Fig. 3-1
Scale	Date
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Table 3- 1 Identification of Designated sites within the Likely Zone of Impact

European Sites and distance from proposed development	Qualify Interests/Special Conservation Interests for which the European site has been designated (Sourced from NPWS online Conservation Objectives, www.npws.ie on the 22/04/2022	Conservation Objectives	Likely Zone of Impact Determination
Special Area of Conservation (SAC)			
Mullaghanish Bog SAC [001890] **Distance:** 0.3km	› [7130] Blanket bogs (* if active bog)	Detailed conservation objectives for this site, (Version 1, May 2017), were reviewed as part of the assessment and are available at www.npws.ie	The Proposed Development is located outside of this Designated Site and there is no potential for direct effect. There is no complete source-pathway-receptor chain due to the nature, scale and location of the Proposed Development. There is no potential for any significant effects on the terrestrial habitat for which this SAC is designated. **This European Site is not within the likely Zone of Impact and no further assessment is required.**
Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC [000365] **Distance:** 0.7 km	› [1024] Kerry Slug (*Geomalacus maculosus*) › [1029] Freshwater Pearl Mussel (*Margaritifera margaritifera)* › [1065] Marsh Fritillary (*Euphydryas aurinia)* › [1095] Sea Lamprey (*Petromyzon marinus)* › [1096] Brook Lamprey (*Lampetra planeri)* › [1099] River Lamprey (*Lampetra fluviatilis)* › [1106] Salmon (*Salmo salar)* › [1303] Lesser Horseshoe Bat (*Rhinolophus hipposideros)* › [1355] Otter (*Lutra lutra)* › [1421] Killarney Fern (*Trichomanes speciosum)* › [1833] Slender Naiad (*Najas flexilis)*	Detailed conservation objectives for this site, (Version 1, October 2017), were reviewed as part of the assessment and are available at www.npws.ie	The Proposed Development is located outside of this Designated Site and there is no potential for direct effect. This SAC is located downstream of the Proposed Development with direct hydrological connection via the Clydagh River and its tributaries. Taking a precautionary approach, a potential pathway for indirect effect was identified in the form of deterioration of water quality resulting from pollution associated with the construction and operation phases of the Proposed Development. There is also potential for the disturbance of *ex situ* otter during the construction phase of the works. Consequently, the potential for significant effects on this European Site in the absence of mitigation cannot be excluded at this stage of the Appropriate Assessment process. **This European Site is therefore considered to be within the Likely Zone of Impact and further assessment is required**

European Sites and distance from proposed development	Qualify Interests/Special Conservation Interests for which the European site has been designated (Sourced from NPWS online Conservation Objectives, www.npws.ie on the 22/04/2022	Conservation Objectives	Likely Zone of Impact Determination
Special Area of Conservation (SAC)			
	› [3110] Oligotrophic waters containing very few minerals of sandy plains *(Littorelletalia uniflorae)* › [3130] Oligotrophic to mesotrophic standing waters with vegetation of the *Littorelletea uniflorae* and/or *Isoeto-Nanojuncetea* › [3260] Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation › [4010] Northern Atlantic wet heaths with *Erica tetralix* › [4030] European dry heaths › [4060] Alpine and Boreal heaths › [5046] Killarney Shad (*Alosa fallax killarnensis*) › [5130] *Juniperus communis* formations on heaths or calcareous grasslands › [6130] Calaminarian grasslands of the *Violetalia calaminariae* › [6410] Molinia meadows on calcareous, peaty or clayey-silt-laden soils *(Molinion caeruleae)* › [7130] Blanket bogs (* if active bog) › [7150] Depressions on peat substrates of the *Rhynchosporion* › [91A0] Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles › [91E0] Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion*, *Alnion incanae, Salicion albae*)*		

European Sites and distance from proposed development	Qualify Interests/Special Conservation Interests for which the European site has been designated (Sourced from NPWS online Conservation Objectives, www.npws.ie on the 22/04/2022	Conservation Objectives	Likely Zone of Impact Determination
Special Area of Conservation (SAC)			
	› [91J0] *Taxus baccata* woods of the British Isles*		
St. Gobnet's Wood SAC [000108] **Distance:** 2.9km	› [91A0] Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles	Detailed conservation objectives for this site, (Version 1, January 2021), were reviewed as part of the assessment and are available at www.npws.ie	The Proposed Development is located outside of this Designated Site and there is no potential for direct effect. This SAC is located downstream of the Proposed Development with direct hydrological connection via the Sullane River. However, the QI habitat for which this SAC is designated is entirely terrestrial and no complete source-pathway-receptor chain was identified. **This European Site is not within the likely Zone of Impact and no further assessment is required.**
Blackwater River (Cork/Waterford) SAC [002170] **Distance:** 4km	› [1029] Freshwater Pearl Mussel (*Margaritifera margaritifera)* › [1092] White-clawed Crayfish (*Austropotamobius pallipes)* › [1095] Sea Lamprey (*Petromyzon marinus)* › [1096] Brook Lamprey (*Lampetra planeri)* › [1099] River Lamprey (*Lampetra fluviatilis)* › [1103] Twaite Shad (*Alosa fallax)* › [1106] Atlantic Salmon (*Salmo salar)* (only in fresh water) › [1130] Estuaries › [1140] Mudflats and sandflats not covered by seawater at low tide › [1220] Perennial vegetation of stony banks	Detailed conservation objectives for this site, (Version 1, July 2012), were reviewed as part of the assessment and are available at www.npws.ie	The Proposed Development is located outside of this Designated Site and there is no potential for direct effect. There is no hydrological connection between this SAC and the Proposed Development. As there is no hydrological connection between the proposed development and this SAC, no source-pathway-receptor chain was identified and there is no pathway for indirect effects on QI habitats and species associated with this SAC. There is no potential for likely significant effect on otter associated with this SAC due to the intervening distance (4km) between the proposed development and this SAC, and an absence of connecting watercourses.

European Sites and distance from proposed development	Qualify Interests/Special Conservation Interests for which the European site has been designated (Sourced from NPWS online Conservation Objectives, www.npws.ie on the 22/04/2022	Conservation Objectives	Likely Zone of Impact Determination
Special Area of Conservation (SAC)			
	› [1310] *Salicornia* and other annuals colonizing mud and sand › [1330] Atlantic salt meadows (Glauco-Puccinellietalia maritimae) › [1355] Otter (*Lutra lutra)* › [1410] Mediterranean salt meadows (*Juncetalia maritimi)* › [1421] Killarney Fern (*Trichomanes speciosum)* › [3260] Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation › [91A0] Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles › [91E0] *Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) › [91J0] **Taxus baccata* woods of the British Isles		**This European Site is not within the likely Zone of Impact and no further assessment is required.**
Old Domestic Building, Curraglass Wood SAC [002041] **Distance:** 9.7km	› [1303] Lesser Horseshoe Bat (*Rhinolophus hipposideros*)	Detailed conservation objectives for this site, (Version 1, August 2018), were reviewed as part of the assessment and are available at www.npws.ie	The Proposed Development is located outside of this Designated Site and there is no potential for direct effect. The proposed development is located outside the foraging range (2.5km) of Lesser Horseshoe Bat (NPWS, 2013). Therefore, there is no potential for significant effect on Lesser Horseshoe Bat associated with this SAC. No potential source-pathway-receptor chain was identified and no potential for significant effects on this European Site was identified.

European Sites and distance from proposed development	Qualify Interests/Special Conservation Interests for which the European site has been designated (Sourced from NPWS online Conservation Objectives, www.npws.ie on the 22/04/2022	Conservation Objectives	Likely Zone of Impact Determination
Special Area of Conservation (SAC)			
			This European Site is not within the likely Zone of Impact and no further assessment is required.
Kilgarvan Ice House SAC [000364] **Distance:** 12.6km	› [1303] Lesser Horseshoe Bat (*Rhinolophus hipposideros*)	Detailed conservation objectives for this site, (Version 1, November 2018), were reviewed as part of the assessment and are available at www.npws.ie	The Proposed Development is located outside of this Designated Site and there is no potential for direct effect. The proposed development is located outside the foraging range (2.5km) of Lesser Horseshoe Bat (NPWS, 2013). Therefore, there is no potential for significant effect on Lesser Horseshoe Bat associated with this SAC. No potential source-pathway-receptor chain was identified and no potential for significant effects on this European Site was identified. **This European Site is not within the likely Zone of Impact and no further assessment is required.**
The Gearagh SAC [000108] **Distance:** 13.2km	› [1355] Otter (*Lutra lutra)* › [3260] Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation › [3270] Rivers with muddy banks with *Chenopodion rubri p.p.* and *Bidention p.p.* vegetation › [91A0] Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles › [91E0] *Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion*, *Alnion incanae*, *Salicion albae*)	Detailed conservation objectives for this site, (Version 1, September 2016), were reviewed as part of the assessment and are available at www.npws.ie	The Proposed Development is located outside of this Designated Site and there is no potential for direct effect. There is no hydrological connection between this SAC and the Proposed Development. As there is no hydrological connection between the proposed development and this SAC, no source-pathway-receptor chain was identified and there is no pathway for indirect effects on QI habitats associated with this SAC. There is no potential for likely significant effect on otter associated with this SAC due to the intervening distance (13.2km) between the

European Sites and distance from proposed development	Qualify Interests/Special Conservation Interests for which the European site has been designated (Sourced from NPWS online Conservation Objectives, www.npws.ie on the 22/04/2022	Conservation Objectives	Likely Zone of Impact Determination
Special Area of Conservation (SAC)			
			proposed development and this SAC, and an absence of connecting watercourses. **This European Site is not within the likely Zone of Impact and no further assessment is required.**
Special Protection Area (SPA)			
Mullaghanish to Musheramore Mountains SPA [004162] **Distance:** 0km	> [A082] Hen Harrier (*Circus cyaneus)*	This site has the generic conservation objective: *"To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA:"* (Generic Version, 8.0, 2021)	This European Site overlaps slightly with the south-east section of the EIAR Study Area for the Proposed Development site. However, no works will be undertaken in this area and there is no potential for direct effects on the supporting habitats within this SPA. There is a hydrological connection between the proposed development and this SPA via the Foherish River. However, hen harrier is not dependent on aquatic habitats and therefore there is no potential for indirect effect on this species as a result of water pollution. Taking a precautionary approach, due to the proximity of the proposed development and the presence of suitable hen harrier hunting and roosting habitat within the development site, there is potential for significant effect on Special Conservation Interest (SCI) species associated with this SPA in the form of disturbance during the construction phase of the proposal.

European Sites and distance from proposed development	Qualify Interests/Special Conservation Interests for which the European site has been designated (Sourced from NPWS online Conservation Objectives, www.npws.ie on the 22/04/2022	Conservation Objectives	Likely Zone of Impact Determination
Special Area of Conservation (SAC)			
			Consequently, the potential for significant effects on this European Site in the absence of mitigation cannot be excluded at this stage of the Appropriate Assessment process. **This European Site is therefore considered to be within the Likely Zone of Impact and further assessment is required**
The Gearagh SPA [004109] **Distance:** 13.4km	› [A050] Wigeon (*Anas penelope)* › [A052] Teal (*Anas crecca)* › [A053] Mallard (Anas platyrhynchos) › [A125] Coot (*Fulica atra)* › [A999] Wetland and Waterbirds	This site has the generic conservation objectives: *"To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA:"* and *"To maintain or restore the favourable conservation condition of the wetland habitat at The Gearagh SPA as a resource for the regularly-occurring migratory waterbirds that utilise it."* (Generic Version, 8.0, 2021)	The Proposed Development is located outside of this Designated Site and there is no potential for direct effect. There is no hydrological connection between this SPA and the proposed development. As there is no hydrological connection between the proposed development and this SPA, there is no pathway for indirect effects on the SCI supporting habitat associated with this SPA. There is no potential for likely significant effect on the SCI species associated with this SPA due to the intervening distance (13.4km) and a lack of hydrological connection with the proposed development. **The SPA is not in the Likely Zone of Impact and no further assessment is required.**

3.2 European Sites with the Potential to be Significantly Affected by the Proposed Development

The European Sites within the likely zone of impact are:

- Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC [000365]
- Mullaghanish to Musheramore Mountains SPA [004162]

3.3 Likely Cumulative Impact of the Proposed Works on European Sites, in-combination with other plans and projects

Where potential pathways for effect have been identified in Table 3-1, the potential for cumulative effects resulting from the proposed development when considered in combination with other plans and projects, cannot be discounted at this stage and further assessment is required. Cumulative effects are assessed in the NIS.

3.4 Conclusion of in-combination/cumulative assessment

The potential for the proposed development to result in cumulative effects on European Sites, when considered in-combination with other plans and projects, was assessed. Where pathways for effect are identified as a result of the proposed development, the potential for cumulative effect cannot be excluded and further assessment is required.

4. ARTICLE 6(3) APPROPRIATE ASSESSMENT SCREENING STATEMENT AND CONCLUSIONS

The findings of this Screening Assessment are presented following the European Commission's Assessment of Plans and Projects Significantly affecting Natura 2000 Sites: Methodological Guidance on the provisions of Article 6(3) and 6(4) of the Habitats Directive 92/43/EEC (EC, 2001) and Managing Natura 2000 Sites: the provisions of Article 6 of the 'Habitats' Directive 92/43/EEC (EC, 2018) as well as the Department of the Environment's Appropriate Assessment of Plans and Projects in Ireland - Guidance for Planning Authorities (DoEHLG, 2010).

4.1 Data Collected to Carry Out Assessment

In preparation of the report, the following sources were used to gather information:

- *Review of online web-mappers: National Parks and Wildlife Service (NPWS), Environmental Protection Agency (EPA), Water Framework Directive (WFD), Office of Public Works (OPW) flood Mapping and Irish Wetland Bird Survey I-WeBS.*
- *Review of 2019, 2013 and 2007 EU Habitats Directive (Article 17) Reports.*
- *Review of Bird Atlases: (Sharrock, 1976; Lack, 1986; Gibbons et al., 1993; Balmer et al., 2013).*
- *Review of OS maps and aerial photographs of the site of the* works *area.*
- *Review of the publicly available National Biodiversity Data Centre web-mapper and available literature of previous surveys conducted in the area.*
- *Records from the NPWS web-mapper and review of specially requested records from the NPWS Rare and Protected Species Database for the hectads which overlap with the study area.*
- *EIAR Application associated with planning permission reference 19/4972*
- *Cork County Development Plan 2022 - 2028*
- *Kerry County Development Plan 2022 - 2028*
- *National Biodiversity Action Plan 2017-2021*
- *Review of other plans and projects within the area.*
- *Site surveys carried out on the 28th of September 2021, the 29th of September 2021, the 13th of January 2022, the 9th of February 2022, the 9th of May 2022 and the 10th of May 2022 by Kevin Mc Elduff and Padraig Desmond.*

4.2 Concluding Statement

It cannot be excluded beyond reasonable scientific doubt, in view of best scientific knowledge, on the basis of objective information and in light of the conservation objectives of the relevant European sites, that the subject development, individually or in combination with other plans and projects, would be likely to have a significant effect on the following sites:

- Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC [000365]
- Mullaghanish to Musheramore Mountains SPA [004162]

As a result, an Appropriate Assessment is required, and a Natura Impact Statement has been prepared in respect of the subject development in order to assess whether the subject development will adversely impact the integrity of these European Sites.

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