



An  
Bord  
Pleanála

## Inspector's Report

### ABP-314431-22

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<b>Development</b>	The construction of a 110kV 'Single Bay Tail Fed' Substation, 110kV Underground Grid Connection and all associated works.
<b>Location</b>	Ballyhea, Charleville, County Cork.
<b>Planning Authority</b>	Cork County Council
<b>Applicant</b>	Soleire Renewables SPV Limited
<b>Type of Application</b>	Application for approval under Section 182A of the Planning and Development Act
<b>Prescribed Bodies</b>	Transport Infrastructure Ireland Department of Housing, Local Government and Heritage Cork County Council Limerick City and County Council's N/M20 Project Office
<b>Observers</b>	Jess and Maurice Foley

**Date of Site Inspection**

12<sup>th</sup> January 2023

**Inspector**

Alaine Clarke

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## 1.0 Introduction

- 1.1. An application under the provisions of Section 182A of the Planning and Development Act, 2000, as amended, was received by An Bord Pleanála from Soleire Renewables SPV Limited for the development of a 110kV substation and underground grid connection. The proposed development would serve a consented but not built solar farm at Ballyroe (Cork County Council planning reg. ref.: 20/04041) to the existing ESB Charleville 110kV Substation.
- 1.2. Following pre-application consultation, the Board determined (ABP 313001-22) that the proposed development falls within the scope of section 182A of the Planning and Development Act, 2000 (as amended) and that the application should be made directly to the Board.

## 2.0 Site Location and Description

- 2.1. The 5.8 hectare site is in a rural area in north County Cork in the townlands of Ballyroe, Ballynadrideen, Ardnageehy, Rathnacally and Clashganniv in Ballyhea, Charleville. The site is c. 1.7km southwest of Charleville, 7.5km east of Dromina and 5km southeast of Newtownshandrum. The L5529 local road is c.800m and the N20 is c. 1.6km to the east of the substation site.
- 2.2. The site of the proposed substation lies within lands to be developed as Ballyroe Solar Farm, permitted by Cork County Council under planning reg. ref. 20/04041. The proposed substation is adjacent to the previously consented 38kV substation location that formed part of the consented but not built Ballyroe Solar Farm. The substation site area is currently an agricultural field which is located directly north of a farmyard.
- 2.3. The proposed substation is approximately 1.2km to the west of the preferred option for the N/M20 route corridor, a minor section of the overall underground grid connection and the existing substation is within the N/M20 route corridor area for the selected preferred option.
- 2.4. The proposed underground cable connection, 4.4km in length, will largely follow the path of the L5529 northwards to the existing ESB Charleville 110kV Substation.

- 2.5. A small part of the site, at its most southern extremity, overlaps The Blackwater River (Cork/Waterford) SAC, site code 002170. The site is hydrologically linked to the Awbeg River, part of the River Blackwater (Cork/Waterford) candidate SAC, site code 002170. There is an existing industrial unit site at the location of the proposed private access and the public road junction. Part of the site overlaps the site of the industrial unit.
- 2.6. A former commercial quarry, within the Blackwater SAC, is located to the south of the site and is now waterfilled. A larger waterfilled quarry is located to the east. A former farmyard and associated metal shed and cattle pens, which are to be cleared for construction purposes, are located on the site of the proposed substation.

### **3.0 Proposed Development**

- 3.1. A ten year permission is sought for the following:
- A 110kV 'single bay tail bed' substation;
  - 1 no. Control building (182sqm), 1 no. switch gear building (154sqm), a busbar compound and a transformer compound;
  - 1 no. 110kV transformer HV and LV electrical equipment, cable chair, lightning protection masts, artificial lighting and a wooden telecommunications pole;
  - Electrical equipment for bays, gantries, lightning protection masts and structural steelwork along with wiring, cabling and earthing;
  - Drainage system around the compound area;
  - Internal access tracks;
  - Palisade fencing and concrete post and rail fencing around the compound.
  - 110kV underground grid connection, c. 4.4km in length, of which c. 885m will be underneath private land with Ballyroe Farm, with the remainder being underneath public roads. The underground cable will consist of a trench containing 3 no. 160mm diameter power cable ducts and 2 no 125mm diameter communications ducts. The underground cables works includes 5

joint bays which are installed c. every 550m to 750m along the underground grid connection route.

- Upgrading of an existing farm access track in part and a new access track in part from the proposed substation to the public road (L5529).
- Temporary construction compound to be located within an existing farmyard;
- Associated construction works and drainage infrastructure;
- Temporary removal and reinstatement of boundary wall and palisade fencing for the delivery of the single transformer, at the entrance to Ballyroe Farm from the public road (L5529).

3.2. The proposed track/grid connection requires one water crossing over the Dromin Stream between the site of the proposed substation and the local road, L5529.

3.3. The following documents are submitted with the application:

- Application Form
- Letters of consent
- Copies of Notification letters
- Drawings and technical plans
- Copies of public notices
- Cover letter
- Planning Statement
- EIA Screening Report
- Soils and Geology Report
- Landscape and Visual Impact Assessment
- Flood Risk Assessment
- Construction Environmental Management Plan & Construction Methodology
- Transport Management Plan
- Environmental Noise Assessment
- Air & Climate Report

- Archaeological and Cultural Heritage Assessment
- Ecological Impact Assessment including a bat survey and an Arboricultural Impact Assessment;
- Biodiversity Management Plan;
- Natura Impact Statement
- GIS Planning Designations Map
- Landscape Management Plan
- Population and Human Health Impact Assessment.

## 4.0 Planning History

4.1. The following renewable energy developments in the area are relevant:

### On site:

- CCC 22/6901 Notification of decision to refuse permission (order dated 19.06.23) to amend the design of the previously approved development (pl. ref. no 20/04041) including omission of development within the SAC and operational period is proposed to be extended from 25 to 40 years for the following reason:

*The proposed development will result in a direct loss of an area of core foraging habitat Whooper Swan, a Species of Conservation Interest (SCI) of the Kilcolman Bog Special Protection Area (Site code 004095). Furthermore, based on the recent information provided to the Planning Authority in respect of Whooper Swan usage of the site and area, the Planning Authority is unable to form a full, precise and definitive conclusion capable of removing all reasonable scientific doubt as to the effects of the proposal will have on Whooper Swan and SCI of Kilcolman Bog SPA....the granting of permission would materially contravene a development objective in the Development Plan, namely Objective BE 15-2, for the conservation and preservation of a European site , and contrary to the requirements of the Habitats Directive.*

- ABP 313001-22: The applicant made a request to enter into pre-application consultation under section 182E of the PDA (Ref. ABP-313001-22). The Board decided on 8th July 2022 that the proposed development falls within the scope of section 182A, and accordingly would comprise strategic infrastructure.
- CCC Ref. 20/04041: 10 year permission granted for a solar PV farm development, c.103ha and 3.435km underground grid connection. A NIS was submitted with the application. Condition no. 4 required the omission of all development within the Blackwater River SAC.

In vicinity:

- ABP 317577 / CCC ref. 225681: Decision to grant permission for 42.6ha solar farm appealed. This development seeks to connect to the grid via the proposed substation and transmission line the subject of the SID application. This site adjoins the subject development and can be considered an extension of the permitted development under 20/04041. Significant conditions include: no construction during winter months; omission of a significant portion of the site from solar panels; fatality monitoring of fauna, including Whooper Swans.
- CCC ref. 225933: Notification of decision to grant permission issued for two 33kV electricity grid interconnectors including underground cabling and overhead line and 4 transformer stations. The proposed development is to connect the permitted solar farm development at Fiddane (ABP ref, 308846-20) to the permitted Ballyroe solar farm (CCC ref. 20/04041) and the proposed solar farm at Coolcaum to the permitted Ballyroe solar farm.
- ABP 317592 / CCC ref. 226536: Decision to grant permission appealed to amend permitted solar farm ref. ABP 306915-20.
- ABP 315652 / CCC ref. 21/7246: permission appealed for 5 no. turbines. CC decision considered that insufficient information had been provided to enable a determination beyond reasonable scientific doubt that the proposed development will not have an adverse effect on the integrity of the Kilcoman Bog SPA the integrity of the Blackwater River (Cork/Waterford) SAC.

- ABP ref. 306915-20 / CCC ref. 17/5799: Permission granted for a 67.8ha solar PV farm.
- ABP ref. 301028-20 / CCC ref. 17/5799: decision quashed by order of the High Court and was remitted back to the Board to determine (under ABP ref. 306915-20).
- ABP 308846-20 / CCC ref. 19/6817: Permission granted to install 4,387m of underground electricity between solar farm at Fiddane, Bealyhea and the Charleville 110kV substation. A NIS accompanied the application.
- ABP 301000-18 / CCC ref. 17/5292: Permission granted for works to connect by underground cabling, Boolard Wind Farm to the Charleville 110kV substation.
- CCC ref. 154659. Permission granted for a sand and gravel quarry of c. 1.7ha.

## 5.0 Consultations

5.1. Details of the application were circulated to the following prescribed bodies:

- Minister for Housing, Local Government and Heritage
- Minister for the Environment, Climate and Communications
- Cork County Council
- Failte Ireland
- Inland Fisheries Ireland (IFI)
- Transport Infrastructure Ireland (TII)
- Commission for Regulation of Utilities
- The Heritage Council
- An Taisce
- An Chomhairle Ealaíon
- Health & Safety Authority

- 5.2. In response to the submissions received from TII and Cork County Council, the application was also referred to the Limerick City and County Council's N/M20 Project Office.
- 5.3. Responses were received from the Department of Housing, Local Government and Heritage (Development Applications Unit), Cork County Council, TII and Limerick City and County Council's N/M20 Project Office. The submissions are summarised below.

## 6.0 Submissions

### 6.1. Prescribed Bodies

- 6.1.1. Department of Housing, Local Government and Heritage (Development Applications Unit)
- 6.1.2. Regarding archaeology: the Department concurs with the Recommendations outlined in Section 8 of the Archaeological Impact Assessment and advise of conditions to be included in the planning permission, including the requirement to retain the services of a suitably qualified archaeologist.
- 6.1.3. Regarding nature conservation: noting the proximity of the site to the Awbeg River part of the River Blackwater, candidate SAC, site code 002170, which is particularly important as a refuge for uninfected white-clawed crayfish, which may suffer local extinctions in parts, if not all, of the River Suir system, and some other rivers, due to crayfish plague. Breeding otter also occur downstream of the solar-farm site. The submission notes that the substation and access road are 7.5km from Kilcolman Bog SPA, site code, 004095 designated for, amongst other bird species, Whooper Swan. The following additional species are listed as important in the area: bat, Kestrel, Barn Owl, Kingfisher.
- 6.1.4. A flock of Whooper Swans (up to 130 birds) have been regularly recorded during the winter period occupying and foraging on fields within the surrounding area. The usage of the area within and surrounding the proposed substation and access road site by Whooper Swans from Kilcolman Bog SPA remain to be clarified; a dawn and dusk survey is required to establish the use, for feeding and roosting, of the nearby fields to the west by wintering Whooper Swans. If the option of construction works

during the winter is retained, then the Whooper Swans using the field to the southwest of the proposed substation need to be considered as noise-sensitive receptors.

- 6.1.5. Mitigation measures are necessary to avoid silt, hydrocarbon and fresh cement contamination of the stream upstream of the Awbeg system.
- 6.1.6. Measures to avoid potential negative impacts on the otter should be employed through sensitive design. Sufficient survey effort is required to identify otter holts within the zone of impact of the proposed development.
- 6.1.7. Particular attention should be given to mitigating against potential negative impacts, such as light and noise, on nearby riparian and aquatic habitats.
- 6.1.8. Cork County Council
- 6.1.9. The relevant planning issues in relation to the proposed development and supporting development plan objectives are set out. The submission notes that the permission for the solar farm at Ballyroe included a 38kV substation and 3.425 km underground electricity grid connection under the public road from the solar farm at Ballyroe to the Charleville 110kV ESB substation. Reference is made to other renewable energy developments in the area.
- 6.1.10. The key points are:
  - In principle, the proposed development is supported by the objectives of the Cork County Development Plan 2022;
  - The proposed development is justified, having regard to European, National, Regional and local energy and infrastructural policy;
  - Any identified deficiencies within the NIS or items raised in the ecology report should be resolved prior to a grant of permission;
  - CCC has no objection subject to suitable conditions/resolution of elements of ecological concern.

The submission includes Appendix A – copies of internal technical reports and Appendix B - suggested conditions. Internal reports are from:

- Archaeology – no objection subject to conditions;

- Ecology – additional information is required to complete the Appropriate Assessment of the proposed project, to determine the importance of the site for Whooper Swan. Further work may be required to develop mitigation measures in light of in-combination effects. Additional information may be required in respect of the water crossing over the Dromin Stream. CEMP to be required by condition. Drain maintenance to be omitted.
- Area Engineer – approve subject to conditions;
- Environment – contents and details provided are satisfactory, conditions recommended.

#### 6.1.11. Transport Infrastructure Ireland

6.1.12. Notwithstanding that the application is accompanied by a Traffic Management Plan and that no direct impacts to the N20, national road are identified, the following matters should be considered in the assessment of the proposal:

- Noting that the site is within the vicinity of the N/M20 Cork to Limerick Scheme, consultation with the Limerick County Council National Roads Office (N/M20 Project Office) in the assessment of the subject proposal;
- Haul route and abnormal loads.

#### 6.1.13. Limerick City and County Council's N/M20 Project Office

6.1.14. Request that the 110kV underground grid connection are laid with a minimum cover of 1.2m along the local roads between the ESB Charleville 110kV Substation and the Dawn Meats facility at Ardnageehy.

#### 6.1.15. Public Submissions

6.1.16. One submission was received from Jess and Maurice Foley; the following issues were raised:

- Application documentation states that this proposed is to support the transmission of electricity of up to three solar farms. This is misleading. The development of the three solar farms is a large-scale solar farm of 218ha and queries whether such a large-scale development meet the criteria of the Cork County Renewable Energy Plan;

- The impact reports do not reflect the cumulative impact of the 218ha development;
- This area of Cork has contributed enormously to the delivery of a diverse energy supply, citing wind and solar farms within 5km;
- Proposed development is unnecessary and creates a negative impact on the community;
- The proposed substation is located in the Ballyhoura SAC region, a natural tourist attraction; the proposal and associated solar farm will have a cumulative visual impact on the area;
- Two-way traffic movement is not possible on the L5529 and on sections of the L5530; Increased traffic arising will create a risk on resident road users;
- The proposed development will impact on the biodiversity of the area, including a negative effect on crayfish. There are several watercourses running into the Schaneballiv Stream and Awbeg River, which could give rise to direct effects on the Blackwater River (Cork Waterford) SAC;
- Referencing case-law, the possibility of there being a significant effect on the site will generate the need for appropriate assessment;
- Citing Birdwatch Ireland, references amber and red list bird species as being present on the proposed substation site;
- Lands in the vicinity of the proposed substation is an area grazed by Whooper Swan – the proposed development will disrupt and impact hugely on the migratory pattern of the Whooper Swan;
- Exposure to electromagnetic radiation can cause health impacts relating to the nervous system and is a significant pollution source and could be carcinogenic. In the absence of studies to assess risks, urges the Board to take a cautious stance;
- The proposed development will create a negative effect on nature, habitats, biodiversity, waterways, residents, property, tourism, road infrastructure and local daily life.

#### 6.1.17. Applicant's Response to Submissions

6.1.18. The applicant prepared a response to the submissions received by the Board on 9<sup>th</sup> March 2023 and included the following:

- Response to Submissions Cover Letter
- Detailed responses to submissions made, including a 'Planning Report Response'
- A revised NIS
- A revised EclA
- A revised Biodiversity Management Plan (BMP)
- Copies of the NIS, EclA and BMP submitted to CCC with application reg. ref. 20/0441

6.1.19. The main points of the Response are summarised as follows:

- Regarding the Dromin Stream: a proposal to maintain a 15m wide buffer from all drainage ditches in the vicinity of site. Additionally, placing straw bales and silt fencing within each of the drainage ditches. Silt fencing and straw bales shall be used at specific locations along the underground cable route.
- Maintenance of drains (clearing out) shall be omitted;
- The Cork County Council submission is summarised, reference is made the updated NIS, EclA and BMP.
- The updated NIS, EclA and BMP make reference to the Whooper Swan surveys ongoing since October 2022. No sightings to date of the Whooper Swan in/across the site but have been sightings to the west and south of the site. Discissions are ongoing between the NPWS, the applicant and Cork County Council.
- BMP includes provision for Areas of Biodiversity Enhancement.
- The archaeology requirements of the Department of Housing, Local Government and Heritage are acceptable.
- To address the concerns of the M20 Office, the cable will be laid with a minimum cover of 1.2m.

- Regarding J&M Foley’s submission, clarifying sequence of applications made. Cumulative impacts are discussed in the Landscape and Visual Impact Assessment, NIS and Glint and Glare Assessment. Regarding visual impact, that there is a negligible impact on the Ballyhoura Way. The proposed transport route is suitable. Ecological considerations are addressed in the accompanying documentation which supports the application. Regarding health, the proposed development must adhere to EU and national requirements.
- The proposed development will provide a net biodiversity for the site. The proposal will displace fossil fuel carbon emissions and cessation of fertilisation.

## 7.0 Oral Hearing

The Board directed on the 3<sup>rd</sup> April 2023 that an Oral Hearing in respect of the application should not be held.

## 8.0 Clarification Requested by the Board

8.1. On 12<sup>th</sup> April 2023, additional information was sought from the applicant in respect of the following:

- Impact on Whooper Swan, including surveys and updated noise assessment (depending on construction period);
- Impact on Otter; and
- In-combination effects.

Addendums to the AA Screening Report, NIS, BMP, EclA and CEMP were requested.

8.2. A response from the applicant was received on 26<sup>th</sup> April 2023 and included a revised NIS and EclA. The response is also accompanied by a Whooper Swan survey and an aquatic survey. I note the aquatic survey was prepared in respect of an adjoining solar farm development (see Figure 1 of the survey, with site of CCC reg. ref. 225681 outlined in red).

8.3. The Board considered that the additional information was significant and the applicant was requested to publish a revised public notice inviting submissions in relation to the additional information.

## 9.0 Further Submissions

Additional responses were received following the receipt of further information and are summarised below:

- TII - no objection subject to conditions;
- Jess Foley, and on behalf of 17 others: summary of points below:
  - Profound imbalance of renewable energy projects across their community;
  - Site notices were updated (only) following correspondence from ABP which was forwarded to the applicant's agent (copy of correspondence and photos of site notices attached to submission);
  - Had the site notices been updated on 09.06.23 it would have allowed more time to prepare a submission;
  - Questions best practice re engagement with community;
  - Mitigation measures by condition cannot guarantee to prevent impact on the Blackwater SAC. It is impossible to predict potential in-combination effects from increasing rainfall. The proposed development in combination with the solar farm developments in the vicinity pose a potential negative impact on the Blackwater SAC.
  - The Whooper Swan, an inherent avifauna to the area and listed under Annex 1 of the EU Birds Directive. Questions the authenticity of the Whooper Swan survey. The natural habitats of this species should be conserved. The site is fundamentally unsuitable for the proposed development.
  - Flooding of watercourses at Dawn Meats factory has not been sufficiently addressed; potential for negative impact on the Blackwater River SAC.

- Collective solar farm development will negatively impact on the visual element of Ballyhoura Mountain SAC.

## 10.0 Policy Context

### 10.1. National Level

#### 10.1.1. The Climate Action and Low Carbon Development (Amendment) Act 2021

10.1.2. The Climate Action and Low Carbon Development (Amendment) Act 2021 (Climate Act, 2021), commits Ireland to a legally binding 51% reduction in overall greenhouse gas emissions by 2030 and to achieving net zero emissions by 2050. As part of its functions the Board must, in so far as practicable, perform its functions in a manner that is consistent with the most recent approved climate action plan, most recent approved national long term climate action strategy, national adaptation framework, sectoral plans, furtherance of the national climate objective and the objective of mitigating greenhouse gas emissions and adapting to the effects of climate change in the State.

#### 10.1.3. Climate Action Plan 2023 (CAP23)

10.2. The Climate Action Plan 2023 (CAP 23) follows the commitment in the Climate Act, 2021 and sets out the range of emissions reductions required for each sector to achieve the committed to targets. CAP 23 supports the acceleration of the delivery of renewable energy onto the national grid with a target of achieving 80% of electricity demand being met from renewable energy by 2030. To this end CAP 23 sets a target of providing 5GW of solar energy by 2025, and a longer-term target of 8GW by 2030.

#### 10.2.1. National Planning Framework (NPF)

10.2.2. The NPF is a high-level strategic plan to shape the future growth and development of the country to 2040. It is focused on delivering 10 National Strategic Outcomes (NSOs). NSO 8 focuses on the 'Transition to a Low Carbon and Climate Resilient Society' and recognises the need to harness both on-shore and off-shore potential from energy sources including solar and deliver 40% of our electricity needs from renewable sources.

10.2.3. It is stated in the NPF that “new energy systems and transmission grids will be necessary for a more distributed, renewables-focused energy generation system, harnessing both the considerable on-shore and off-shore potential from energy sources such as wind, wave and solar and connecting the richest sources of that energy to the major sources of demand. It is a National Policy Objective (NPO 55) to ‘promote renewable energy use and generation at appropriate locations within the built and natural environment to meet national objectives towards achieving a low carbon economy by 2050’.

### 10.3. Regional Policy Context

10.3.1. Regional Spatial and Economic Strategy (RSES) for the Southern Region

10.3.2. The RSES for the Southern Region provides a regional policy position for the consideration of renewable energy in land-use planning.

10.3.3. The following Regional Policy Objectives are noted:

- RPO 96 – to support the sustainable development, maintenance and upgrading of electricity and gas network grid infrastructure ...to meet increased demand as the regional economy grows.
- RPO 100 – to support the integration of indigenous renewable energy production and grid injection.
- RPO 219 - to support the sustainable reinforcement and provision of new energy infrastructure by infrastructure providers....
- RPO 222 - to support the development of a safe, secure and reliable supply of electricity and to support and facilitate the development of enhanced electricity networks and facilitate new transmission infrastructure projects ...

### 10.4. Local Policy Context

10.4.1. Development Plan

10.4.2. The Cork County Development Plan 2022-2028 is the operative plan, and it came into effect on 6<sup>th</sup> June 2022.

10.4.3. The development plan supports renewable energy development:

- Objective ET 13-1 Energy
  - (a) *Ensure that County Cork fulfils its potential in contributing to the sustainable delivery of a diverse and secure energy supply and to harness the potential of the county to assist in meeting renewable energy targets and managing overall energy demand.*
- Objective ET 13-2 Renewable Energy
  - (a) *Support Ireland’s renewable energy commitments as outlined in Government Energy and Climate Change policies by facilitating the development of renewable energy sources such as wind, solar, geothermal, hydro and bio-energy and energy storage at suitable locations within the county where such development has satisfactorily demonstrated that it will not have adverse impacts on the surrounding environment (including water quality), landscape, biodiversity or amenities.*
- Objective ET 13-14: Solar Farm Development
  - (a) *...support will be given to solar farm projects at appropriate locations, where such development does not have a negative impact on the surrounding environment, landscape, historic buildings, or local amenities.*
  - (b) *Promote the development of solar energy infrastructure in the county... subject to environmental safeguards and the protection of natural or built heritage features, biodiversity views and prospects...*
  - (g) *proposals for development of new solar developments and associated infrastructure including grid connections will be subject to ecological impact assessment and, where necessary Appropriate Assessment...*
- Objective ET 13-21: Electricity Network
  - a) *Support and facilitate the sustainable development, upgrade and expansion of the electricity transmission grid, storage, and distribution network infrastructure.*
  - b) *Support the sustainable development of the grid ....*
  - c) *Facilitate... infrastructure connections to wind farms, solar farms, and other renewable energy sources subject to normal proper planning considerations.*

*d) Proposals for development which would be likely to have a significant effect on nature conservation-sites and/or habitats or species of high conservation value will only be approved if it can be ascertained, by means of an Appropriate Assessment or other ecological assessment, that the integrity of these sites will not be adversely affected.*

- Objective ET 13-22: Transmission Network

*c) Proposals for development which would be likely to have a significant effect on nature conservation-sites and/or habitats or species of high conservation value will only be approved if it can be ascertained... that the integrity of these sites will not be adversely affected.*

- Objective BE 15-2: Protect sites, habitats and species

*b) Provide protection to species listed in the Flora Protection Order 2015, to Annexes of the Habitats and Birds Directives, and to animal species protected under the Wildlife Acts in accordance with relevant legal requirements. These species are listed in Volume 2 of the Plan. [Whooper Swan is listed in Volume 2].*

10.4.4. The site is located within Landscape Character Type 5 'Fertile Plain with Moorland Ridge' which is given a Very High Landscape Value, Very High Landscape Sensitivity and County Level in terms of landscape importance in the Landscape Character Assessment of the development plan.

## 10.5. Natural Heritage Designations

10.5.1. The application site is partially located within The Blackwater River SAC. In addition to the Blackwater River SAC, the nearest designated sites are:

- Kilcolman Bog SPA; 004095, and proposed NHA, 7.5km to the southeast
- Ballyhoura Mountains pNHA; 002036, 4.1km to the southeast
- Ballinvonear Pond, pNHA, 000012, 5.1km to the southeast
- Eagle Lough PNHA, 001049, 6.9km to the southeast
- Ballyhoura Mountains SAC, 002036, 5.9km to the east
- Mountrussell Wood, pNHA, 002088, c. 8km to the east

- Ballintlea Wood, pNHA, 002086, c. 10.4km to the southeast

## 11.0 EIA Screening

- 11.1. The EIA Screening Report submitted with the application contends that the proposed development is not a project defined by Part 1 and Part 2 of Schedule 5 of the Planning and Development Regulations 2001, as amended, requiring a mandatory Environmental Impact Assessment Report (EIAR).
- 11.2. Notwithstanding that the applicant prepared and submitted a screening assessment based on the criteria of Schedule 7 of the Planning and Development Regulations, 2001 as amended, I note that an electrical substation and/or underground cabling is not a class of development contained in Parts 1 or 2 of Schedule 5 of the Regulations which sets out the prescribed classes of development and thresholds that trigger a mandatory EIAR. and neither a mandatory EIA, nor screening for EIA, is required for the substation and/or the underground cable.
- 11.3. Class 10 *Infrastructure Projects* of Part 2 of Schedule 5 of the Planning and Development Regulations 2001, as amended includes *(dd) all private roads which would exceed 2000 metres in length*. An access track of 800m is required to facilitate the development, of which 300m is existing. The access track works will consist of excavation works and the laying of coarse granular fill. I am satisfied that the proposed access track is not a 'private road' by virtue of the nature of it being used for the purposes of laying the underground cable. In addition, the surface layer will be filled with coarse material to be used occasionally once the farm is operational. It is my opinion therefore that the access track is not a 'private road' for the purposes of EIA Screening.

## 12.0 Assessment

### 12.1. Introduction

- 12.1.1. Having examined the application details and all other documentation on file, including all of the submissions received in relation to the application, and inspected the site, and having regard to relevant local/regional/national policies and guidance, I consider that the main issues in the planning assessment are as follows:

- Principle of development and planning policy
- Ecology
- Landscape and visual impact
- Flooding
- Roads and traffic
- Archaeology and cultural heritage
- Noise
- Air Quality and Climate
- Human Health
- Procedural – Site Notice
- Appropriate Assessment.

The following assessment is dealt with under these headings.

## **12.2. Principle of Development and Planning Policy**

12.2.1. As set out above, the proposed development comprises a 110kV substation and associated electrical and other infrastructure, which is required to connect a permitted solar farm to the national grid. Renewable energy projects are supported 'in principle' at national, regional and local policy levels, with the imperative at all policy levels being the need to reduce greenhouse gas emissions, reduce reliance on fossil fuels and combat climate change.

12.2.2. In line with EU ambition, the Programme for Government, Our Shared Future commits to achieving a 51% reduction in Ireland's overall GHG emissions from 2021 to 2030, and to achieving net-zero emissions no later than 2050. The National Planning Framework National Strategic Outcome (NSO) 8 focuses on the 'Transition to a Low Carbon and Climate Resilient Society' and includes National Policy Objective (NPO 55) to 'promote renewable energy use and generation at appropriate locations within the built and natural environment to meet national objectives towards achieving a low carbon economy by 2050', while the need for new energy systems and transmission grids are recognised.

- 12.2.3. At a regional level, the Regional Spatial and Economic Strategy (RSES) for the Southern Region, Regional Policy Objectives (RPOs) 96, 100, 219 and 222 support the upgrading and provision of new energy infrastructure to integrate renewable energy sources and meet future energy needs. At a local level, the proposal accords, inter alia, with Development Plan Objectives ET 13-1 Energy, ET 13-2 Renewable Energy, ET 13-14 Solar Farm Development, ET 13-21 Electricity Network which support the development of energy infrastructure, including the integration of transmission network requirements facilitating linkages of renewable energy proposals.
- 12.2.4. Cork County Council's Chief Executive Report considers that, in principle, the proposed development would be supported by the objectives of the Cork County Development Plan 2022 including Objectives ET 13-1 Energy and ET 13-2 Renewable Energy, ET 13-21 Electricity Network and ET 13-22 Transmission Network.
- 12.2.5. It should be noted that the principle of the solar farm is not under determination as part of this planning application. The principle of a solar farm has already been accepted, under CCC planning reg. ref. 20/04041 and it follows that the principle of any development required to enable the permitted development should also be acceptable in principle subject to an assessment under any other relevant criteria, as covered below.
- 12.2.6. The Board should also note, however, as detailed above in section 4.0, that Cork County Council recently refused permission (CCC reg. ref. 22/06091) for an application for amendments to 20/04041 because the development would result in the direct loss of an area of core foraging habitat for Whooper Swan, a species of Conservation Interest of the Kilcolman Bog SPA, which is located c. 7.5km from the site. Furthermore, CCC considered that it could not remove reasonable scientific doubt as to the effects on the Whooper Swan.
- 12.2.7. The permitted solar farm development (CCC reg. ref. 20/04041) included a substation and underground grid connection, generally, on the same site as that proposed, albeit for 38kV capacity and a much-reduced scale, though the off-road section of the proposed UGC is proposed to be moved further north, away from the SAC. The permitted substation measures 98sq with an overall height of 5.9m. The

proposed substation compound measures 3,608sqm, to be enclosed by a 2.6m high green palisade fence followed by an outer concrete post and rail fence, comprising the following:

- a single storey control building (182 m<sup>2</sup>),
- a single storey switch gear building (154 m<sup>2</sup>),
- 1 no. 110kV transformer and compound,
- busbar compound,
- lightning protection masts (18m) with artificial lighting attached for emergency visits,
- telecommunications wooden pole (21.5m),
- internal access tracks, wiring and cabling of HV/LV equipment,
- protection and control cabinets, associated outdoor electrical equipment and ancillary development thereto.

The proposed and permitted substation developments are inherently different from each other although the proposed 110kV underground transmission line to Charleville substation largely follows that permitted, albeit it a 38kV line.

12.2.8. Relevant CDP objectives are set out in section 10.3 of this Inspector's Report. I am satisfied that the proposal generally complies with the renewable energy objective ET 13-1, ET 13-2 and electricity network objective ET 13-21 to support Ireland's renewable energy commitments. I note, however, that these objectives are subject to a number of caveats including: appropriate location; no adverse impact on the environment, landscape, biodiversity or amenities; the protection of natural and built heritage, and the protection of nature conservation sites, habitats or species of high conservation value. These matters are addressed in the following sections.

### 12.3. **Ecology**

12.3.1. A small portion of the proposed development site is located partly within the River Blackwater (Cork/Waterford) SAC at a point where it is proposed to widen an existing access point. This portion of the site forms part of an existing industrial site. The development site is 200m upstream of the Awbeg River part of the River

Blackwater SAC. The Awbeg River is important as a refuge of uninfected white-clawed crayfish, which may suffer local extinction due to crayfish plague. According to the submission from the Department of Housing, Local Government and Heritage, the area is also important for otter, bat species, kestrel, barn owl, kingfisher and Whooper Swan. The proposed development site is c. 7.5km from Kilcolman SPA designated for, amongst other bird species, Whooper Swan.

- 12.3.2. An Ecological Impact Assessment (EclA) dated July 2022, prepared by Veon Ecology accompanies the application. Dawn and dusk bat surveys were undertaken in May 2022. Biological water quality assessments were undertaken of the Awbeg River and the Rathnacally Stream. Reference is also made to previous ecological surveys carried out within and adjacent to the site of the proposed development, also by a qualified ecologist. A Natura Impact Statement (NIS) was also submitted with the application. Impact on Natura 2000 sites is considered in section 13 of this Inspector's Report. Revised versions of the EclA and NIS were submitted during the course of the application, the most recent is dated April 2023.
- 12.3.3. The EclA states most of the site is along public road, farmyard and pastureland. The vegetation is dominated by common grass species with common agricultural weeds. The Awbeg River is located approx. 450m beyond the southern boundary of the site and the Rathnacally Stream, located 885m beyond the western boundary of the site. Tributaries of the Awbeg river run to the east and west of the proposed substation site and both are referred to as Dromin watercourse for the purpose of this Inspector's Report
- 12.3.4. The third-party observation from Jess and Maurice Foley raises environmental impact concerns, stating that the proposed development will impact on the biodiversity of the area. The applicant submitted a response to the concerns raised and referred to the NIS, EclA, Biodiversity Management Plan (BMP) and Landscape Management Plan which accompanied the application. The applicant contends that the proposed development will provide a net biodiversity gain for the site where it will be transformed into a wildlife sanctuary in tandem with the solar farm project. The subsequent submission from Jess Foley & others raise concerns that mitigation measures by condition cannot guarantee to prevent a negative impact on the Blackwater SAC, in-combination effects need to be considered and the area is unsuitable for the proposed development given the presence of the Whooper Swan.

12.3.5. The Cork County Council's Chief Executive Report notes that the primary ecological issues of concern relate to potential for pollution risk on watercourses arising from construction on the Awbeg River and the Blackwater River SAC; disturbance to Whooper Swan and removal of feeding habitat for the Whooper Swan.

12.3.6. The submission from the Department of Housing, Local Government and Heritage concentrates on the importance of the area for Whooper Swan and the need for additional surveys; water quality impact mitigation measures, requirement for an otter survey and the importance of an adequate buffer from lighting and noise impacts.

12.3.7. In terms of impact, the following issues and species are worthy of further consideration:

- watercourse crossing,
- bats,
- birds,
- otter
- crayfish.

Having regard to the qualifying interests of the River Blackwater (Cork/Waterford) SAC and Kilcolman Bog SPA, the proposed watercourse crossing, the Whooper Swan, otter and crayfish are dealt with in section 13 of this Inspector's Report.

12.3.8. Bats

12.3.9. According to the EclA, the linear treelines and hedgerows on the periphery of the proposed substation site provide suitable foraging habitat for bats. It is not proposed to remove these habitats and therefore there will be no significant impacts to bats using these habitats as foraging habitat, direct or indirect.

12.3.10. A dawn and dusk bat emergence/re-entry were subsequently undertaken of the 6 no. cypress trees which are required to be removed at the entrance to the site (see appendix 5, Bat Survey Report of the EclA). No bats were seen emerging from or returning to any of the surveyed trees. Bat activity was however high in the vicinity of the proposed substation during the dusk survey hours.

12.3.11. The NIS states there will be no lighting of the proposed development site during the project construction or operation phases. I note that the Planning Statement notes that adequate lighting will be installed around the compound on the lighting mast for emergency visits to the substation. In my opinion, impact from artificial lighting is therefore limited.

12.3.12. Birds

12.3.13. Section 3 of the EclA sets out the baseline environment in respect of birds. A number of birds listed in Annex I and Annex II of the Birds Directive were recorded along the field boundaries or in close proximity to the proposed development site including Chaffinch, Wren Little Egret and Whooper Swan. Curlew, snipe and heron were amongst other bird species recorded in close proximity. No Red-listed bird species were recorded on-site. The Whooper Swan is a Feature of Interest of the Blackwater Callows and Kilcolman Bog Special Protection Areas and for this reason, this species is dealt with under section 13 of this Inspector's Report. I am satisfied that the birds listed above, save for the Whooper Swan, occur in relatively low numbers and can be expected to be found in this rural area of Ireland.

12.3.14. Potential impact on birds (other than Whooper Swan) is set out on section 5.6.2 of the EclA and include:

- Temporary disturbance during construction works;
- Temporary decrease in the amount of foraging habitat;
- Birds associated with aquatic habitats could be negatively affected by water quality impacts.
- Risk of collision, although stated to be small, for collision with associated infrastructure.
- Potential displacement of bird species due to cumulative impact of renewable energy projects in the area.

12.3.15. Mitigation Measures

12.3.16. Mitigation measures are set out in Section 6 of the EclA. An Environmental Clerk of Works will be employed to ensure environmental compliance. Surface water quality assessments will be carried out during construction. Ecological measures

incorporated into the design include: 5m buffer from hedgerows, 2m drainage ditch buffer, 15m buffers from watercourses, gaps in fencing to ensure mammal connectivity. The Biodiversity Management Plan proposes that at least 8 no. bat boxes are to be installed on trees throughout the site, and occupancy would be monitored. In the event that bats are found during site clearance, works will cease and the National Parks and Wildlife Service (NPWS) will be contacted. The EclA provides for Areas for Biodiversity Enhancement (ABEs), their function is to conserve and encourage the development of diverse habitats, native flora and fauna, and biodiversity, an area of up to 15% of the site considered for biodiversity enhancement.

12.3.17. Conclusion on Ecology Matters

12.3.18. No impacts on nationally designated sites i.e. proposed NHAs or NHAs, have been identified. Impacts on Kilcolman Bog, which is also a pNHA, is assessed in Section 13 of this Inspector's Report. I note that the construction works are temporary in nature and the immediate local area is one where there is a working farm and until recently an active quarry. I am satisfied that disturbance of species listed is temporary in nature and is acceptable in the short-term, having regard, in particular to the existing working farmyard on site. Furthermore, I am satisfied that there is minimal risk of collision having regard to the static and generally low height of the proposed development. . Finally, I am satisfied that that range of measures set out in section 6 of the EclA are acceptable to mitigate any significant impact on the ecological parameters discussed under this section of the Inspector's report.

**12.4. Landscape and Visual Assessment**

12.4.1. The submission from Jess & Maurice Foley raises concerns regarding visual impact, particularly the cumulative impact of the proposed development with planned solar farms in the area.

12.4.2. The application is accompanied by a Landscape and Visual Assessment (LVIA) carried out by Entrust, Planning and Environmental Consultants, which assessed the impact of the proposal within a 5km radius. The main objective of the LVIA is to predict the landscape and visual amenity effects of the proposed development. The LVIA is stated to have been undertaken by a qualified landscape architect and is

based on best practice guidance and considers the effects of the development during construction and operation. The LVIA is supported by 10 photomontages and Zone of Theoretical Vision (ZTV) maps. The photomontages are at locations which I consider to be representative of the various receptor types within the study area.

- 12.4.3. The site is designated as Landscape Character Type 5 (LCT 5), 'Fertile Plain with Moorland Ridge' in the Landscape Character Assessment of the Cork County Development Plan 2022-2028. This area is given a 'Very High Landscape Value', 'Very High Landscape Sensitivity' and 'County Level' in terms of landscape importance in the Cork County Council Landscape Character Assessment. LCT 5 is described (in the LVIA) as a low-lying landscape which comprises an extensive area of predominately flat or gently undulating topography along the River Blackwater and which is contained at its periphery by low ridges. Noting the proximity of the adjoining SAC to the south, the LVIA notes that there is a slight difference in landscape quality between the agricultural fields and the adjacent SAC. I note that there are no scenic views or routes or any protected structures within the vicinity of the proposed substation.
- 12.4.4. The LVIA considers that the proposed development is located in an appropriate location within existing agricultural fields, that there is capacity to absorb the development and any adverse landscape are long-term but reversible. The additional renewable energy infrastructure, it is stated, would be viewed as an extension to the consented but not constructed solar farm operations and existing tracks, resulting in a neutral through to negligible change to the landscape depending on viewpoint location.
- 12.4.5. In respect of visual effects, the LVIA states that middle and long-distance views of the proposed development are not available from any of the viewpoints. The development is stated to be screened in all directions by existing green infrastructure. Views from residential receptors at viewpoints 3,4, 6, 8 and 9 are considered to be blocked by existing commercial forestry and mature hedgerows. The LVIA considered that there will be no or very restricted visibility of the proposed development from any residential dwellings, due to topography, and natural vegetation screening. Views from surrounding roads are not considered available due to local topography. The visual effects are considered to be neutral to negligible depending on the viewpoint location.

- 12.4.6. With regard to landscape impacts, I note that while the permitted solar farm development on the surrounding lands is extensive in scale, the proposed substation development has a site area of c.3,608sqm (within fenced compound). The LVIA considers the receiving environment of moderate sensitivity and has the capacity to accommodate the proposed development, with 'gapped-up' hedgerow planting considered to be sufficient to screen the development. Overall, the landscape effect is considered to be minor to negligible. I note the proposed landscaping plan (prepared by Cathal Meara, Landscape Architect) proposes augmentation of the site boundaries around the proposed substation site.
- 12.4.7. The LVIA assesses the cumulative effects of permitted solar farms in the vicinity and considers that the substation infrastructure is limited in area and will read as an extension to the permitted solar farm, there would be a neutral to negligible cumulative landscape effects as a result of the development as the landscape character of the area will not change considerably.
- 12.4.8. The Cork County Council Chief Executive Report states that while access to the site was restricted at the time of site inspection, the site is well screened by existing hedgerows, scrub and woodland and considered that the landscape has the capacity to accommodate the proposed development. In addition, the submission considered that the assessment of visual effects on residential receptors in the local area and from public roads is reasonable.
- 12.4.9. Having inspected the application site and surrounding area, I am of the opinion that views to and from the substation site are generally limited because of topography, vegetation and the site's separation distances from the nearest public roads and residential dwellings. The surrounding lands are comprised of a series of medium size fields defined by boundaries of dense hedgerows and trees. The proposed cable route will be underground along the edge of existing roads or through agricultural fields and will have no visual impact once reinstated. Having regard to the site context and having reviewed the viewpoint photographs and photomontages, I consider that the potential for the proposed development to result in any adverse visual impact on sensitive receptors is limited. In conclusion, I do not consider that the proposed development would result in any significant adverse impact on the landscape or visual amenities of the area.

## 12.5. Flooding

- 12.5.1. A site-specific flood risk assessment (FRA), dated April 2022 and prepared by IE Consulting, accompanies the application, the purpose of which is to assess the impact that the development as proposed may or may not have on the hydrological regime of the area. The FRA has been undertaken having regard to The Planning System and Flood Risk Management – Guidelines for Planning Authorities. Local surveys, undertaken in September 2019 and April 2022, inform the FRA.
- 12.5.2. The most significant hydrological features in the vicinity of the proposed substation development is the Awbeg River, located c. 450m south of the site. A tributary of the Awbeg (Dromin Stream) is located east of the proposed location of the substation and the proposed underground cable intersects this tributary c.200m east of the proposed substation site. The Dromin Stream is also located c. 520m to the southwest of the site and the Rathnacally Stream, also referred to as the Sruthaneballiv Stream, is located c.855m to the west of the site.
- 12.5.3. The Awbeg River to the south of the site, and the Rathnacally Stream and Dromin Stream to the west of the site, are associated with flood risk. I have consulted the OPW Floodmaps database which includes the National Indicative Fluvial Maps which indicates that the area south of the site and generally following the river channels as ‘medium probability’ of flood risk. The Strategic Flood Risk Assessment prepared as part of the Cork County Development Plan 2022-2028 indicates that the Awbeg River and the Rathnacally and Dromin Streams, south and west of the site respectively, are in Flood Zone A. Lands to the south of the proposed substation site are located in ‘benefitting lands’ i.e. lands that were drained as part of the arterial drainage scheme. I have consulted the GSI Groundwater Flooding Data Viewer and I am satisfied that the site is not located in an area subject to groundwater flooding, however historic groundwater flooding is located to the south of the proposed substation, at the location of the flooded quarry site.
- 12.5.4. Flood risk from a particular watercourse is normally assessed for a 1% AEP (1 in 100 year) and a 0.1% AEP (1 in 1000) flood event. The FRA presents an analysis of the estimated 1% AEP and 0.1% AEP fluvial flood event in the Awbeg River, Rathnacally Stream and Dromin Stream using hydraulic modelling. The analysis determined that the Awbeg River, Rathnacally Stream and Dromin Stream indicates out of bank

flooding is predicated to a number of locations however out of bank flooding is not predicted to occur at the specific location of the proposed substation site. Hydraulic capacity check of the drainage channels and culverts in the vicinity of the site have determined that all drainage channels have sufficient capacity to convey the 1 in 100 year and 1 in 1000 year flow rates, though several culverts are predicted to surcharge and overtop. However, overland analysis indicates these overtopping waters are expected to re-enter the drainage channels on the downstream side of the culverts. The FRA concludes that direct fluvial flood risk to the proposed substation site is low and recommends that a maintenance programme is put in place to ensure existing drainage channels are free from debris to prevent blockages. It should be noted that in response to the concerns raised in the Ecology Report which was appended to Cork County Council's Chief Executive's Report, the applicant has now omitted to maintain the drainage channels.

- 12.5.5. Having regard to OPW flood mapping data, the Cork Development Plan Strategic Flood Risk Assessment and the detailed site-specific FRA which include hydraulic modelling of the Awbeg River, the Rathnacally Stream and the Dromin Stream I am satisfied that the proposed substation site falls within Flood Zone C, as defined in the Flood Risk Management Guidelines, that is to say, a low to negligible probability of flooding. The proposed substation development is therefore appropriate from a flood risk perspective. I also note the Cork County Council Chief Executive's Report that makes reference to the FRA and state that the Area Engineer is satisfied with the content.
- 12.5.6. The third-party Submission from Jess Foley (and others) states that flooding of watercourses at Dawn Meats factory has not been sufficiently addressed – part of the proposed UGC route. I have reviewed the OPW flood mapping data and the Strategic Flood Risk Assessment data for the Cork County Development Plan 2022-2028 and am satisfied that this area at Dawn Meats factory is not in a flood risk zone. I further note that the Area Engineer, in the appended report to the Cork County Council Chief Executive Report's, does not raise any flooding concerns at Ardnageehy Cross/Dawn Meats factory.
- 12.5.7. I am satisfied that sufficient detail has been provided to support the conclusion that the proposed development would not be subject to flooding nor will it give rise to the risk of flooding elsewhere.

## 12.6. Roads and Traffic

- 12.6.1. The submission from Jess & Maurice Foley raises concerns regarding traffic impact and considers that two-way traffic movement is not possible on the L5529 and on sections of the L5530 and that increased traffic arising from the proposed development will create a risk on resident road users and cyclists.
- 12.6.2. The application is accompanied by a Traffic Management Plan (TMP), dated July 2022 and prepared by consultancy Local Transport Projects. The TMP includes site access consideration, traffic impact assessment and traffic management measures. The TMP advises that construction will take place over 18 months; temporary on-site car parking and unloading of deliveries will be contained within the site, and that during the lifetime of the development, the substation would be visited only a small number of times a year. Construction traffic associated with deliveries are expected to access the site via the N20, L5530, L5529 to Ballyroe Farm.
- 12.6.3. I note the submission from Transport Infrastructure Ireland (TII) which acknowledges the Traffic Management Plan which accompanies the application and notwithstanding that no direct impacts to the N20 are identified, recommends consultation with the Limerick County Council National Roads Office (N/M20 Project Office) given that the site is within the vicinity of the N/M20 Cork to Limerick Scheme. The TII further request that haul roads be checked by the developer to confirm their capacity to accommodate any abnormal load. A subsequent submission from TII expresses satisfaction with the response provided by the applicant to the concern's raised by TII in its initial submission.
- 12.6.4. I note the Cork County Council Chief Executive's Report, and the accompanying Area Engineer's report contained within. The Report states that a minor section of the "overall underground grid connection and existing substation" is within the N/M20 preferred route corridor. CCC has no objection to the proposed development subject to conditions.
- 12.6.5. Limerick County Council National Roads Office (N/M20 Project Office) request in its submission that the 110kV underground grid connection are laid with a minimum cover of 1.2m along the local roads between the ESB Charleville 110kV Substation and the Dawn Meats facility at Ardnageehy.

- 12.6.6. With respect to the delivery route of substation components, the applicant has advised that abnormal loads would be delivered to the Port of Cork and travel via the national road network, the N28-N40-N27-N8 and N20.
- 12.6.7. I note that the majority of the proposed traffic route (other than the section of proposed upgraded access track) was previously approved as part of the consented Ballyroe Solar Farm application (CCC reg. ref: 20/04041) to accommodate vehicle movements associated with the construction of the solar farm (the largest vehicle assessed was a Heavy Commercial Vehicle (HCV). The TMP indicates that the larger substation proposed as part of the subject application will generate larger vehicle movements, i.e. by Abnormal Indivisible Load Vehicles (AILVs). AILVs can be accommodated subject to minor works at the entrance to Ballyrow including the removal of fencing to the south of the Ballyroe Farm access which forms the boundary of an industrial site and at the point where the development site encroaches into the SAC.
- 12.6.8. The TMP acknowledges that the L5529 and L5530 is not wide enough in sections to facilitate the passing of two vehicles and considered that sufficient informal passing places exist to enable passage of two-way traffic. The TMP further notes that should the proposed substation development and the permitted solar farm occur simultaneously a significant number of vehicle movements would be generated. The TMP therefore calls for co-ordination of large vehicles to ensure public safety and states that a banksman will be present to help guide construction in/out of site, with temporary signal control utilised, if necessary.
- 12.6.9. The Cork County Council Area Engineer's Report expresses concern over the width of L5529 as far as Aglish Cross to the north of the site access (junction of L5529 and L5530). Concern is also raised about restricted sightlines from the site access point at Ballyroe Farm, particularly to the south. I note however, that the Area Engineer is agreeable to the applicant's proposal to a controlled and monitored traffic management system negating the need to upgrade the L5529 as far as Aglish Cross. To be clear, the Area Engineer considers that the widening of the L5529 as far as Aglish Cross can be omitted if the planned traffic control is in operation during works. While I accept that there may be limited traffic on the L5529, there are nonetheless several houses that access the L5529, farms and other business, including at the location of the entrance to Ballyroe Farm. I am also cognisant that

the terms of the permission of the solar farm (CCC reg. ref. 20/04041), which is related to the proposed development requires upgrading of Aglish Cross and the site entrance; the engagement of a Banksman and the requirement of a significant bond for reinstatement of public roads and the installation of passing bays on the L5529 as far as Aglish Cross. It is my opinion that the width of the L5529 is substandard to accommodate the passing of large vehicles, including AILVs, and cars and I consider it appropriate to attach conditions requiring these upgrades to the local road infrastructure in the event that permission is granted.

- 12.6.10. With respect to sightlines at the Ballyroe Farm access, while I note that construction traffic will travel north and not south from the proposed access, it is necessary to undertake sightline improvements at the location of the Ballyroe Farm with the L5529. A condition to this effect is considered appropriate, in the event of a grant of permission.
- 12.6.11. With respect to the laying of cables along public road for c. 4.4km, I note that CCC have not raised any particular concerns. Indeed, permission was previously granted under CCC reg. ref. 20/04041 for the laying of UGC along the public road as part of the solar farm development, albeit for a 38kV line. I note however, that CCC require a significant bond to ensure that the satisfactory restoration of public roads post construction.
- 12.6.12. Having reviewed the submissions, including the concerns raised by the third party in relation to traffic concerns, the application documentation and following site inspection and given the nature and duration of the proposed works I am satisfied that traffic impacts can be appropriately mitigated by requiring upgrade works to the site entrance, the L5529, and at the junction of the L5529 and the L5530, and the provision of passing bays along the L5529. Subject to the implementation of traffic safety measures I am satisfied that the proposed development will not give rise to obstruction of road users or endanger public safety by reason of traffic hazard.

## 12.7. **Archaeology and Cultural Heritage**

- 12.7.1. The application is accompanied by an Archaeology, Architecture and Cultural Heritage Report and an Archaeological Testing Report (July 2022) prepared by

Courtney Deery Consultants and a Geophysical Survey Report prepared by Terradat (March 2022).

- 12.7.2. There are no recorded monuments sites within the site of the proposed substation. There is one recorded monument (RMP CO007-078) located to the south of the proposed substation development, at the site of the quarry works/body of water. The associated description of the monument notes that the site is not scheduled for inclusion in the next revision of the RMP.
- 12.7.3. A geophysical survey was undertaken in 2019 for the permitted solar PV farm at Ballyroe (CCC reg. ref. 20/04041). The survey area included fields to the east of the substation through which the 110kV cable route is to pass. A number of features of archaeological potential were identified in these fields including a large circular enclosure – a potential ringfort site. Further geophysical surveying was undertaken in 2022 for additional lands that formed part of the cable route/access route which identified probable field boundaries. I note that the AACH Report states that recorded features have been avoided in the development design.
- 12.7.4. Archaeological test excavation took place in 2022 along the cable and access route to assess the archaeological potential. In one of the trenches four shallow pits were revealed. The AACH Report recommends that these features are fully excavated under licence in advance of development.
- 12.7.5. Along the road, the cable passes within 50m of two recorded monuments, both of which are located in fields that adjoin the road. These monuments are a moated site (CO007-050) and the site of redeposited material which may pertain to a fulacht fia (CO007-130). Both monuments are avoided by the cable route and only the zone of notification associated with the moated site is traversed by the cable route. Archaeological monitoring of greenfield topsoil removal is recommended in the AACH, and along the public road where the cable route will traverse the zone of notification of the moated site (CO007-050).
- 12.7.6. I note the submission by the Department of Housing, Local Government and Heritage, Development Applications Unit (DAU) which acknowledges the Archaeological & Cultural Heritage Report and associated survey reports and recommends conditions are attached in the event of a grant of permission. The DAU require, inter-alia, a buffer to the potential ringfort site and archaeological excavation

at the locations of the identified archaeological features and deposits. The Cork County Council Chief Executive's Report advises that it has no objection from an archaeological perspective to the proposed development.

12.7.7. The development will avoid all recorded archaeological monuments (RMP and SMR) and structures of architectural heritage interest (RPS/ NIAH). It will also avoid definite archaeological subsurface features identified as a result of the geophysical survey. I am satisfied that subject to appropriate conditions, to include archaeological monitoring and excavation, the proposed development is satisfactory from an archaeological and cultural heritage perspective.

## 12.8. **Noise**

12.8.1. A Noise Assessment (July 2022), prepared by Philip Dunbavin Acoustics Ltd accompanies the application. Noise modelling was created using noise modelling software and plant noise data. The closest dwellings are located approximately 480m from the nearest point on the boundary of the proposed substation though the closest residential noise sensitive receivers may only be 10m from the cable laying construction works at times. The Noise Assessment concludes that good practice recommendations will reduce any likely impact of the construction works. Installation is likely to be of short duration and the noise levels may be considered acceptable.

12.8.2. No mitigation is required for the substation build; mitigation is however recommended for cable installation in the form of movable screens or hoarding. The Construction Methodology states the excavation, installation and reinstatement process will take on average of 1 no. day to complete a 100m section. Therefore, given that the installation is likely to be for a short duration at each receiver, the associated noise levels may be considered acceptable.

12.8.3. The Cork County Council Chief Executive's Report notes the content of the Noise Assessment and states that the Board should note that the previous consented Solar Farm (CCC reg. ref. 20/04041) 33kV underground cable was largely along the same route, and that noise impact from the proposed development is not significant.

12.8.4. The Department, in its submission, stated that the Whooper Swan using the field to the southwest of the proposed substation should be considered as a noise-sensitive

receptor if the option of construction works during winter is being retained. This matter is discussed further in section 13 of this Inspector's Report.

12.8.5. Having regard to the separation distances and the limited duration of the construction period, I do not consider that any significant impacts on residential amenity are likely to occur during the construction phase of the proposed substation subject to mitigation and implementation of the Construction Environmental Management Plan.

## 12.9. **Air Quality and Climate**

12.9.1. An Air Quality and Climate report prepared by AWN Consulting accompanies the application and is dated 12<sup>th</sup> July 2022. The report notes that the greatest potential impact on air quality during the construction phase of the proposed development is from construction dust emissions and the potential for nuisance dust. The report found that there is a high risk of dust soiling and ecology impacts associated with the proposed works and a low risk of human health impacts. Best practice dust mitigation measures will be implemented to ensure there are no impacts at nearby sensitive receptors. In the absence of mitigation, dust impacts are predicted to be short-term, negative and imperceptible. No mitigation is proposed for the operational phase of the proposed development as impacts to air quality or climate will be imperceptible.

12.9.2. Having regard to the nature and scale of the proposed development, significant negative impacts on climate is unlikely. I am satisfied, subject to best practice guidance and mitigation measures set out in section 6.0 of the Air Quality and Climate report submitted with the application that the proposed development is acceptable from an air quality and climate perspective.

## 12.10. **Human Health**

12.10.1. The third-party submission by Jess and Maurice Foley raises concern regarding the impact of electromagnetic radiation on human health and requests the Board to take a cautious approach having regard to the concentration of solar farm development in the area.

12.10.2. The application is accompanied by a Human Health and Population Impact Assessment prepared by AWN Consulting and dated 22<sup>nd</sup> July 2022. The report notes there are no significant risks in relation to major accident hazards or disasters. The applicant responded to the concerns raised in respect of health and state that solar farms and electrical substations within the EU are subject to stringent national and EU regulations, including in relation to raw materials.

12.10.3. I note that the nearest dwelling to the proposed substation is c.500m. Having regard to this separation distance and in the absence of scientific information as to the veracity of health claims /ill effects of the proposed development, I am satisfied that the proposed development is acceptable from a health perspective.

### **12.11. Procedural – Public Notices**

The third-party submission states that site notices relating to the significant further information were updated (only) following correspondence from ABP which was forwarded to the applicant's agent and that had the site notices been updated on 09.06.23 it would have allowed more time to prepare a submission. While, such procedural matters are the preserve of the courts, I note that newspaper notices in respect of the significant further information were published on 09/06/23 and that a submission from third parties was made in respect of the additional information.

## **13.0 Appropriate Assessment**

### **13.1. Introduction**

13.1.1. The requirements of Article 6(3) as related to appropriate assessment of a project under part XAB, sections 177U and 177V of the Planning and Development Act 2000, as amended), are considered fully in this section. The areas addressed in this section are as follows:

- Compliance with Article 6(3) of the EU Habitats Directive
- Screening the need for appropriate assessment
- The Natura Impact Statement and associated documents

- Appropriate assessment of implications of the proposed development on the integrity each European site

### **13.2. Compliance with Article 6(3) of the EU Habitats Directive**

13.2.1. The Habitats Directive deals with the Conservation of Natural Habitats and of Wild Fauna and Flora throughout the European Union. Article 6(3) of this Directive requires that any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives. The competent authority must be satisfied that the proposal will not adversely affect the integrity of the European site before consent can be given.

### **13.3. Screening for Appropriate Assessment - Test of likely significant effects**

13.3.1. The proposed development is not directly connected with or necessary to the management of any European site and therefore it needs to be determined if the development is likely to have significant effects on a European site(s).

13.3.2. The proposed development is examined in relation to any possible interaction with European sites designated Special Conservation Areas (SAC) and Special Protection Areas (SPA) to assess whether it may give rise to significant effects on any European Site.

### **13.4. Brief Description of Development**

13.4.1. The proposed development is described in Section 3 above, in 2.1 of the NIS and in other accompanying documents such as the Planning Statement. In summary, the development comprises the construction of a proposed 110kV single Bay Tail Fed Substation, circa. 4.4km of Underground Cabling and associated works that will facilitate connection of a permitted Solar Farm at Ballyroe (Cork County Council Ref: 20/04041) to the existing ESB Charleville 110kv substation.

- 13.4.2. The substation compound comprises 2 single storey buildings; a control building and a switch gear building. Other plant and equipment include 1 no. 110kV transformer and compound, busbar compound, lightning protection mast (18m) with artificial lighting, telecommunications wooden pole (21.5m), internal access tracks, wiring and cabling equipment and ancillary development. The 4.4km underground grid connection (UGC) consists of 5 no. ducts to be installed in an excavated trench with adaptations for bridge crossings, service crossings and a watercourse crossing. The UGC includes 5 joint bays along the underground grid route, which are pre-cast concrete structures installed below finished ground level. Works also include the removal of six non-native mature trees, works to the entrance to Ballyroe Farm from the public road (L5529) and a Temporary Construction Compound.
- 13.4.3. A screening report for Appropriate Assessment is included as part of the NIS, prepared by Veon Ecology, dated 9<sup>th</sup> August 2022. The NIS was subsequently updated in iterations submitted to the Board in February 2023 and April 2023. For the purposes of this appropriate assessment, the NIS and accompanying AA screening report, dated April 2023, is relied upon unless otherwise stated.
- 13.4.4. The applicant's Stage 1 AA Screening Report was prepared in line with current best practice guidance and provides a description of the proposed development and identifies European Sites within a possible zone of influence of the development. The screening report can be read in conjunction with the Ecological Impact Assessment (EclA), the Biodiversity Management Plan (BMP), the Outline Construction Methodology report and the Construction Environmental Management Plan (CEMP) which accompany the application.
- 13.4.5. The development site is described in Section 3 'Existing Environment' of the NIS. The majority of the site is described as being along public road, farmyard, arable crops and pastureland. The vegetation is dominated by common grass species and common agricultural weeds. The Awbeg River and the Rathnacally Stream are described as the most important habitats located in the vicinity of the proposed substation development site being within the Blackwater (Cork/Waterford) SAC. The Dromin Stream flows through the site, a tributary of the Awbeg. A small portion of the site traverses the Blackwater River (Cork/Waterford) SAC at the location of the permitted access to the solar farm at Ballyroe Farm. There is an existing industrial unit at this location and this site is developed with buildings and hard-standing areas.

- 13.4.6. Many of the field boundaries and sections of the public road within the proposed development site are fringed by drainage channels which are stated to be narrow and shallow. Many of the drainage channels on site convey water towards the Rathnacally Stream and Awbeg River. Hedgerows and treelines are located throughout and adjacent to the proposed development site. Buildings and artificial surfaces include the farm buildings and hardstanding areas at the proposed substation site and along with the public road wherein the proposed grid connection route is located.
- 13.4.7. According to the NIS, Whooper Swans are regularly seen during the winter season on grassland around the Ballyhea/Churchtown area and at section 4.5, the NIS states that the environs in close proximity to the proposed development site may support ex-situ connectivity to Whooper Swan associated with Kilcolman Bog SPA.
- 13.4.8. Taking account of the characteristics of the proposed development in terms of its location and the scale of works, the following issues are considered for examination in terms of implications for likely significant effects on European sites:
- uncontrolled surface water/silt runoff and construction related pollution during construction;
  - Habitat disturbance /species disturbance during construction from noise, light pollution and human presence;
  - Introduction of invasive species;
  - Accidental mortality from construction machinery.
- 13.4.9. The applicant's AA Screening Report concluded, in view of best scientific knowledge and in the absence of mitigation measures, potential likely significant effects from the proposed development cannot be ruled out for the Blackwater River (Cork/Waterford) SAC (002170) and Kilcolman Bog SPA (004095), in view of the conservation objectives of these European sites. A Stage 2 (Appropriate Assessment) was therefore considered necessary to assist the competent authority in undertaking an Appropriate Assessment of the potential for adverse effects from the proposed development, alone or in-combination with other plans and projects, on the integrity of these European Sites

13.4.10. Having reviewed the documents and submissions I am satisfied that the information allows for a complete examination and identification of any potential significant effects of the development, alone, or in combination with other plans and projects on European sites.

### 13.5. Submissions and Observations

13.5.1. The NIS indicates that consultation with prescribed bodies was undertaken between the applicant, ecological consultant and the NPWS particularly in relation to the Whooper Swan flock associated with the Blackwater Callows SPA and Kilcolman bog SPA. For clarity, the Whooper Swan flock is not considered to be associated with the Blackwater Callows SPA which is located c. 34km from the proposed development site and for this reason the Blackwater Callows SPA is not considered further in this Inspector's report.

13.5.2. Jess and Maurice Foley in their initial submission, raised inter-alia the following with respect to European sites:

- The proposed development will negatively effect/give direct effects on the Blackwater River (Cork/Waterford SAC);
- The possibility of there being a significant effect generates the need for AA;
- Lands in the vicinity are used by Whooper Swan for grazing; proposal will disrupt the migratory pattern of the Whooper Swan.

13.5.3. Jess Foley (and others) raised the following European Site issues in their second submission:

- Mitigation measures by condition cannot prevent a negative impact on the Blackwater SAC. It is impossible to predict potential in-combination effects from increasing rainfall. The proposed development in combination with the solar farm developments in the vicinity pose a potential negative impact on the Blackwater SAC.
- The Whooper Swan, an inherent avifauna to the area is listed under Annex 1 of the EU Birds Directive. Questions the authenticity of the Whooper Swan survey. Have to conserve the natural habitats of this species. The site is fundamentally unsuitable for the proposed development.

- Flooding of watercourses at Dawn Meats factory has not been sufficiently addressed; potential for negative impact on the Blackwater River SAC.
- Collective solar farm development will negatively impact on the visual element of Ballyhoura Mountain SAC.

13.5.4. Of the submissions received from prescribed bodies only those from the Department of Housing, Local Government and Heritage and Cork County Council are relevant to European sites. A more detailed summary of the submissions is set out in section 6.1 of this Inspector's report.

13.5.5. In summary, with respect to European sites, the Department sought clarification of:

- the usage of the area by Whooper Swans from Kilcolman Bog SPA;
- the Whooper Swans need to be considered as noise-sensitive receptors if construction works during the winter is retained.
- Additional mitigation measures were considered necessary to avoid polluting the Awbeg Stream.
- Additional survey to identify otter and measures to avoid potential negative impacts on the otter.
- Mitigate against impacts such as light and noise on riparian and aquatic habitats.

13.5.6. In summary, with respect to European sites, Cork County Council state that:

- Any identified deficiencies within the NIS or items raised in the ecology report should be resolved prior to a grant of permission;
- It has no objection subject to suitable conditions/resolution of elements of ecological concern.
- Appendix B included an Ecology Report: the primary ecological issues of concern relate to potential for pollution risk on watercourses including the Awbeg River which forms part of the Blackwater River SAC arising from construction; disturbance to Whooper Swan and removal of feeding habitat from the proposed development and in combination with related renewable energy projects in the area. In addition, it was noted no details were submitted in respect of the Dromin Stream underground cable crossing.

## 13.6. European Sites

- 13.6.1. As stated, a small part of the site, at its most southern extremity, overlaps the Blackwater River (Cork/Waterford) SAC, site code 002170, at the location of the proposed private access and public road junction on the site of an established industrial unit. The proposed development site is also hydrologically linked to the Awbeg River, part of the SAC.
- 13.6.2. A summary of European Sites that occur within a possible zone of influence of the proposed development is presented in the table below. Where a possible connection between the development and a European site has been identified, these sites are examined in more detail.
- 13.6.3. Having regard to the information presented in the NIS, submissions, the nature, size and location of the proposed development and its likely direct, indirect and cumulative effects, the source-pathway-receptor principle and sensitivities of the ecological receptors, I concur with the applicant's screening determination that no other European Sites could be affected by the proposed development. No reliance on avoidance measures or any form of mitigation is required in reaching this conclusion.
- 13.6.4. The Conservation Objective Series sheet (NPWS) notes that the Blackwater SAC overlaps with Blackwater Estuary SPA (004028), Blackwater Callows SPA (004094) and Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA (004161). It is also adjacent to Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC (000365). I have considered the conservation objectives with those for the overlapping and adjacent sites and am satisfied due to the scale of the proposed development, implications arising and the distance from the proposed development that there are no significant effects on overlapping or adjacent European Sites listed above.

**Table 13.1: AA Screening Summary Matrix: European Sites for which there is a possibility of significant effects (or where the possibility of significant effects cannot be excluded without further assessment)**

European Site name [Site Code]  Qualifying Interest/Special Conservation Interest	Conservation Objective(s)	Distance (km)	Is there a possibility of significant effects in view of the conservation objectives of the site?		
			Habitat Loss/Deterioration	Water quality/pollution	Disturbance/ Displacement
<b>Blackwater River (Cork/Waterford) SAC [002170]</b> <ul style="list-style-type: none"> <li>• Estuaries [1130]</li> <li>• Mudflats and sandflats not covered by seawater at low tide [1140]</li> <li>• Perennial vegetation of stony banks [1220]</li> <li>• Salicornia and other annuals colonising mud and sand [1310]</li> <li>• Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>) [1330]</li> <li>• Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410]</li> <li>• Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitriche-Batrachion</i> vegetation [3260]</li> <li>• Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles [91A0]</li> <li>• Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i>, <i>Alnion incanae</i>, <i>Salicion albae</i>) [91E0]</li> <li>• <i>Margaritifera margaritifera</i> (Freshwater Pearl Mussel) [1029]</li> <li>• <i>Austropotamobius pallipes</i> (White-clawed Crayfish) [1092]</li> <li>• <i>Petromyzon marinus</i> (Sea Lamprey) [1095]</li> </ul>	To maintain or restore the favourable conservation condition of the qualifying interests	0km	Yes  Due to proximity to habitat features and hydrological connections to the habitat for which this site is designated.	Yes  Due to proximity to habitat features and hydrological connections to the habitat for which this site is designated.	Yes  Due to proximity to habitat features and hydrological connections to the habitat for which this site is designated.

<ul style="list-style-type: none"> <li>• Lampetra planeri (Brook Lamprey) [1096]</li> <li>• Lampetra fluviatilis (River Lamprey) [1099]</li> <li>• Alosa fallax fallax (Twaiite Shad) [1103]</li> <li>• Salmo salar (Salmon) [1106]</li> <li>• Lutra lutra (Otter) [1355]</li> <li>• Trichomanes speciosum (Killarney Fern) [1421]</li> </ul>					
<p><b>Ballyhoura Mountains SAC [002036]</b></p> <ul style="list-style-type: none"> <li>• Northern Atlantic wet heaths with Erica tetralix [4010]</li> <li>• European dry heaths [4030]</li> <li>• Blanket bogs (* if active bog) [7130]</li> </ul>	To restore the favourable conservation condition of the qualifying interests	c. 5.8km	No  Due to distance and lack of hydrological connections or pathways to the habitat for which this site is designated.	No  Due to distance and lack of hydrological connections or pathways to the habitat for which this site is designated	No  Due to distance and lack of hydrological connections or pathways to the habitat for which this site is designated.
<p><b>Kilcolman Bog SPA [004095]</b></p> <ul style="list-style-type: none"> <li>• Whooper Swan (Cygnus cygnus) [A038]</li> <li>• Teal (Anas crecca) [A052]</li> <li>• Shoveler (Anas clypeata) [A056]</li> <li>• Wetland and Waterbirds [A999]</li> </ul>	To maintain or restore the favourable conservation condition of the qualifying interests	c.7.5km	No  Due to distance and lack of hydrological connections or pathways to the habitat for which this site is designated.	No  Due to distance and lack of hydrological connections or pathways to the habitat for which this site is designated	Yes  Whooper Swan (Cygnus cygnus) listed as Special Conservation Interests for this SPA winters not only within the SPA site, but also within surrounding farmlands. Given the uncertainty concerning the possible movements of wintering Whooper

					<p>Swans to and from Kilcolman Bog SPA, potential impacts of the proposed development must be considered. Therefore, Whooper Swan may be affected by the proposed development.</p>
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### 13.7. **Appropriate Assessment Screening Determination**

The proposed development was considered in light of the requirements of Section 177U of the Planning and Development Act 2000 as amended. Having carried out Screening for Appropriate Assessment of the project, it has been concluded that the project individually (or in combination with other plans or projects) could have a significant effect on European Sites Blackwater River (Cork/Waterford) SAC (002170) and Kilcolman Bog SPA (004095) in view of the sites Conservation Objectives, and Appropriate Assessment (and submission of a NIS) is therefore required.

13.7.1. The possibility of significant effects on other European sites has been excluded on the basis of objective information. The Ballyhoura Mountains SAC (002036) has been screened out for the need for appropriate assessment. Measures intended to reduce or avoid significant effects have not been considered in the screening process.

### 13.8. **The Natura Impact Statement**

13.8.1. Following the screening process, it has been determined that Appropriate Assessment is required as it cannot be excluded on the basis of objective information that the proposed development individually or in-combination with other plans or projects will not have a significant effect on the following European sites:

- Blackwater River (Cork/Waterford) SAC, site code 002170
- Kilcolman Bog SPA, site code 004095

13.8.2. A description of these sites, their Conservation Objectives and Qualifying Interests are set out in Section 5.6 of the NIS and summarised in Table 13.2 of this Inspector's report. I have examined the Natura 2000 data forms and other supporting documents for these sites available through the NPWS website and taken these into account in my assessment.

13.8.3. The application included a NIS (Veon Ecology, August 2022, as amended February and April 2023) which examines and assesses potential adverse effects of the proposed development on the Blackwater River (Cork/Waterford) SAC and

Kilcolman Bog SPA. The NIS was informed by best practice guidance for such assessments, desktop and site surveys, including an Ecological Impact Assessment (EclA) completed for the proposed development, OPW data, NPWS databases, site synopses, Natura 2000 Data Forms and conservation objectives, EPA mapping, National Biodiversity data, aerial and Ordnance Survey of Ireland mapping.

13.8.4. As detailed above, three iterations of the NIS were submitted during the course of the application. The second iteration (February 2023) was submitted in response to the observations received, in particular the concerns raised in relation to Kilcolman Bog SPA and the Whooper Swan, and in relation to the River Blackwater (Cork/Waterford) SAC, the white-clawed crayfish and otter. This second iteration contained an incomplete Whooper Swan survey. Following a request for additional information, a third iteration of the NIS was submitted (April 2023). This most recent version included a completed Whooper Swan survey (Appendix 5) and an aquatic survey (Appendix 6).

13.8.5. Section 5.5 of the NIS contains an assessment of the potential impacts of the proposed development on the identified European Sites and section 6 sets out a series of mitigation measures. Section 5.5.10 of the NIS considers the potential for in-combination effects with permitted and proposed renewable energy projects in the area and states that there is no potential for these plans and projects to have a significant cumulative impact to features of biodiversity interests, in combination with the proposed development. The NIS concludes the proposed development will not adversely affect, either directly or indirectly, the integrity of the Blackwater River (Cork/Waterford) SAC or Kilcolman Bog SPA, either alone or in combination with other plans or projects.

13.8.6. Having reviewed the NIS, all supporting documentation and submissions, I am satisfied that the information allows for a complete assessment of any adverse effects of the proposed development on the conservation objectives of the abovementioned European sites alone, or in combination with other plans and projects.

### 13.9. **Appropriate Assessment of implications of the proposed development**

13.9.1. The following is an objective scientific assessment of the implications of the project on the qualifying interest features of the European sites using the best scientific knowledge in the field. All aspects of the project which could result in significant effects are assessed and mitigation measures designed to avoid or reduce any adverse effects are considered and assessed.

13.9.2. The following Guidance has been adhered to in my assessment:

- DoEHLG (2009). Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities. Department of the Environment, Heritage and Local Government, National Parks and Wildlife Service, Dublin
- EC (2021) Assessment of plans and projects significantly affecting Natura 2000 sites. Revised Methodological guidance on the provisions of Article 6(3) and 6(4) of the Habitats Directive 92/43/EC
- EC (2018) Managing Natura 2000 sites. The provisions of Article 6 of the Habitats Directive 92/43/EEC

13.9.3. Table 13.2 summarises the Appropriate Assessment and site integrity test. The conservation objectives for Kilcolman Bog SPA and for the Blackwater River (Cork/Waterford) SAC have been examined and assessed with regard to the identified potential significant effects and all aspects of the project (alone and in combination with other plans and projects). Mitigation measures proposed to avoid and reduce impacts to a non-significant level have been assessed, and clear, precise and definitive conclusions reached in terms of adverse effects on the integrity of European sites.

#### 13.9.4. **Blackwater River (Cork/Waterford) SAC, site code 002170**

#### 13.9.5. Blackwater River (Cork/Waterford) SAC

13.9.6. The River Blackwater is one of the largest rivers in Ireland, draining a major part of Co. Cork and five ranges of mountains. The portions of the Blackwater and its tributaries that fall within this SAC flow through the counties of Kerry, Cork, Limerick, Tipperary and Waterford. Land use at the site is mainly centred on agricultural activities. The main threats to the site and current damaging activities include high

inputs of nutrients into the river system from agricultural run-off and several sewage plants, dredging of the upper reaches of the Awbeg, over-grazing within the woodland areas, and invasion by non-native species. Overall, the River Blackwater is of considerable conservation significance for the occurrence of good examples of habitats and populations of plant and animal species that are listed on Annexes I and II of the E.U Habitats Directive respectively. It is also of high conservation value for the populations of bird species that use it.

#### 13.9.7. Blackwater River (Cork/Waterford) SAC – Conservation Objectives

13.9.8. The Conservation Objectives for the Blackwater River (Cork/Waterford) SAC notes that the overall aim of the Habitats Directive is to maintain or restore the favourable conservation status of habitats and species of community interest. The NPWS has prepared site specific conservation objectives, attributes and targets (version 1.0, dated 31<sup>st</sup> July 2012) for the special conservation interests (SCI) associated with the Blackwater River (Cork/Waterford) SAC, which can be found online at the NPWS website. The conservation objectives for the specific SCI are set out in Table 13.12 below. I consider these qualifying interests are at risk of potential impact from the proposed development:

- *Water courses of plain to montane levels with the Ranunculion fluitantis and Callitriche-Batrachion vegetation*
- Otter
- Salmon
- River Lamprey
- Brook Lamprey
- Sea Lamprey
- Freshwater Pearl Mussel
- White-clawed Crayfish

#### 13.9.9. Blackwater River (Cork/Waterford) SAC – Potential Impacts

13.9.10. In my opinion, having reviewed the development proposals, the main aspect of the proposed development that could affect the conservation objectives of the European site arises from:

- Impacts to water quality /surface water pollution/ siltation during the construction phase through release of suspended solids and/or hydrocarbons,
- potential disturbance and/or displacement of QI species due to potential water quality impacts, noise, lighting and human activity during construction and operation.
- Introduction of non-native invasive species.

13.9.11. There will be no direct loss of habitat for these species, as the construction work does not fall within the SAC other than a minor portion on the site of an existing industrial unit where it is proposed to widen the entrance to the site in an area where there is an existing hard-standing area. I am satisfied there are no hydrological impacts from the proposed boundary rearrangement at the site of the existing industrial unit.

13.9.12. It is considered that there may be potential for the receiving waters within the SAC to be altered as a result of the indirect ingress of pollutants such as hydrocarbons, chemicals or sediments during the construction phase, reducing water quality and potentially having a negative effect on water quality, which could potentially affect habitats and/or the distribution or abundance of species. It is accepted therefore that mitigation would be required to control pollutant emissions to the water environment. There is also potential to introduce and spread invasive species via imported fill material or by way of machinery transmission at the construction phase by their introduction into the streams which ultimately discharge to the Blackwater River.

13.9.13. Tributaries of the Awbeg river run to the east and west of the proposed substation site and both are referred to as Dromin watercourse for the purpose of this Inspector's Report. The UGC is proposed to cross the Dromin watercourse c. 200m east of the proposed substation site on Ballyroe Farm. There is an existing field crossing over this stream to the east of the substation site, substantial enough to allow farm machinery to pass. The Ecologist's Report in Appendix A of the Cork County Council Chief Executive Report raises a concern that details were not submitted in respect of the Dromin Stream crossing. The applicant prepared a response to this query at Section 2.3 'Dromin Stream', of the Planning Report

Response (February 2023) although the crossing method is not stated surface water protection measures are described in detail.

- 13.9.14. Appendix 6 of the NIS contained an Aquatics Report prepared by Veon Ecology and includes an otter survey and an aquatic habitats assessment. The sections of the river that were surveyed for suitable habitats for fisheries were classified as suboptimal suitability. I note that macroinvertebrates characteristic of slightly polluted waterbodies was recorded. No White-clawed crayfish or Freshwater Pearl Mussel were observed on-site during surveys. Although the proposed development site is within a FWP mussel catchment area, it is located c.35km upstream of known distribution on the River Blackwater. There is no record of FWP mussel distribution in the Awbeg. The white-clawed crayfish however has been recorded within the Awbeg River, c.200m downstream of known distribution from the development site.
- 13.9.15. Regarding otters, I note and accept the findings in the Aquatics Report that no evidence of breeding or feeding and resting sites for otter were recorded at the watercourse crossing nor across the study area. Historic records for Otter are all outside the footprint of the project area and although activity was noted in this area, it is more likely from passage of Otter through to more productive habitats and feeding grounds.
- 13.9.16. Blackwater River (Cork/Waterford) SAC - Potential in-combination effects
- 13.9.17. In the absence of suitable controls and measures there is the possibility that the construction and/or operation phases of the above developments could give rise to in-combination effects related to water quality pollution, including sedimentation and siltation and potential for species displacement.
- 13.9.18. The NIS (April 2023), submitted as additional information, consider relevant plans and development proposals in the area that could result in cumulative effects. There are a number of related and permitted solar farm developments in the general region of the proposed project, including the permitted but not built Ballyroe solar farm as amended (CCC reg. ref. 20/04041), and the proposed amendment scheme (CCC reg. ref. 22/06901). The NIS states that provided adherence to the overarching policies and objectives of the plans and programmes and best practice and mitigation measures are implemented for individual projects, there is no potential

for the mentioned plans and projects to have a cumulative impact to features of biodiversity interest, in combination with the proposed development. I do not consider there are any specific in-combination effect on the Blackwater River (Cork/Waterford) SAC that arises from other plans or projects and agree with findings of the NIS in this regard.

13.9.19. Blackwater River (Cork/Waterford) SAC - Mitigation measures

13.9.20. Section 6 of the NIS details mitigation measures to be employed during construction, including environmental management, duties, and responsibilities of personnel. The mitigation measures include:

- Employment of an Ecological Clerk of Works (ECoW) to ensure environmental and ecological compliance;
- Avoidance of in-stream works;
- Potential pollution mitigation measures implemented in accordance with best practice guidelines.
- Drainage ditch pollution control measures i.e., straw bales and silt fencing will be placed just upstream and just downstream of any location where existing access tracks cross drainage ditches to form a silt trap. A 15m wide buffer zone will also be maintained from all drainage ditches. At least 4 more silt traps are proposed downstream of the UGC water crossing point before the Dromin connects with the Awbeg River.
- Implementation of the Construction Environmental Management Plan, including preparation of an Invasive Species Management Plan.
- The construction works compound;
  - will utilise existing hardstanding areas. Additional hardstanding area will be temporarily re-surfaced using a geotextile membrane and hardcore surface. An earthen bund shall be formed along the boundary of the works compound.
  - All hardcore surface areas will be drained to an outfall point to an existing drainage ditch via a Hydrocarbon Bypass Interceptor and silt trap.

- Wastewaters will be discharged to self-contained storage tanks and removed to a suitable wastewater disposal facility.
- Installation of a wheel wash system.
- Concrete and cements required shall be brought to site by an external supplier. 50m buffer zone of concrete works from watercourses.
- Dust minimisation measures relating to stockpiling of soil.
- Noise control measures including reduced speed limits, switching off vehicles.
- Implementation of a Site-Specific Surface Water Management Plan (SWMP) for the construction phase of the proposed development.
- Provision of spill kits and training for site personnel.
- Implementation of the Biodiversity Management Plan to control invasive species, protect species and enhance biodiversity.
- Construction restriction measures during periods of heavy rain.
- Surface water quality assessment for the duration of construction.
- The operation of the substation will be monitored remotely, and a caretaker will oversee the day-to-day running of the infrastructure. Proper maintenance of plant to minimise noise produced by on-site operations. For the duration of the operational lifetime of the substation site a Drain and Watercourse Management Plan shall be implemented.

13.9.21. Blackwater River (Cork/Waterford) SAC - Residual effects

13.9.22. In consideration of the outlined mitigation measures which shall be implemented to prevent any potential impact on the qualifying interests of the Blackwater River (Cork/Waterford) SAC, I am satisfied that no residual impact is anticipated as part of this proposal.

13.9.23. Blackwater River (Cork/Waterford) SAC -NIS Omissions

13.9.24. None noted.

13.9.25. Blackwater River (Cork/Waterford) SAC - Suggested related conditions

13.9.26. A number of measures are proposed which can be implemented by way of condition, should the Board decide to grant permission, and are set out in full in

section 6 of the NIS, some of which are set out in section 13.9.20 above and principally relate to pollution control. I consider it appropriate, in the event of a grant of permission, and having regard to the nature of the works hydrologically connected to the SAC to require the appointment of a project ecologist to oversee the construction works.

13.9.27. The Blackwater River (Cork/Waterford) SAC - Conclusion:

13.9.28. Following an examination and evaluation of the material submitted with the application, my findings are that the information before the Board comprehensively addresses all issues and concerns regarding potential adverse effects on the Blackwater River (Cork/Waterford). I am satisfied that the applicant has examined all the features that could be affected in view of the individual conservation objectives attributable to the Blackwater River (Cork/Waterford) SAC. I consider that the information provided in the NIS (April 2023) allows for a detailed assessment of the implications of the proposal on the conservation objectives of this European Site and complete, precise, and definitive findings for the purpose of Appropriate Assessment.

13.9.29. In my view, the mitigation measures are appropriate to the risks identified and would, if implemented correctly, be sufficient to avoid any significant impacts and exclude adverse effects on site integrity.

13.9.30. Following Appropriate Assessment, my recommendation is that it can be ascertained beyond reasonable scientific doubt that the proposed development, individually or in combination with other plans or projects would not adversely affect the integrity of the Blackwater River (Cork/Waterford) SAC, in view of the sites Conservation Objectives, subject to the implementation of mitigation measures outlined above. In my view, the mitigation measures are appropriate to the risks identified and would, if implemented correctly, be sufficient to avoid any adverse effect on site integrity.

13.9.31. **Kilcolman Bog SPA, site code 004095**

13.9.32. Kilcolman Bog is situated on the southern foothills of the Ballyhoura Mountains in Co. Cork. It occupies a glacially eroded hollow in Carboniferous limestone and comprises a quaking fen fed by calcareous groundwater, with areas of reed swamp, freshwater marsh and wet grassland. This site is a Special Protection

Area (SPA) under the E.U. Birds Directive, of special conservation for the following species: Whooper Swan, Teal and Shoveler.

13.9.33. Kilcolman Bog SPA – Conservation Objectives

13.9.34. The Conservation Objectives for Kilcolman Bog SPA (NPWS, dated 12<sup>th</sup> October 2022) notes that the overall aim of the Birds Directive is to maintain or restore the favourable conservation condition of the wetland habitat and bird species of community interest. I consider the Whooper Swan, a qualifying interest of the SPA, is at risk of potential impact from the proposed development. Other qualifying interests of the SPA are not (potentially) impacted by the proposed development.

13.9.35. Kilcolman Bog SPA – Potential Impacts

13.9.36. In my opinion, having reviewed the development proposals, the main aspect of the proposed development that could affect the conservation objectives of the European site arises from:

- potential disturbance and or displacement of the Whooper Swan due to potential water quality impacts, noise, lighting and human activity during construction and operation.
- Potential collision risk associated with infrastructure during construction.
- Potential displacement of bird species due to cumulative impact of renewable energy projects in the area.

13.9.37. There will be no direct impacts on Kilcolman Bog SPA as a result of the proposed development. Ongoing trends of Whooper Swan occurrence and foraging in the Ballyroe area indicate Whooper Swan flocks and subflocks utilise the floodplain areas of the Awbeg River between the N20 and wetlands in the vicinity of the proposed development site. Significant negative impacts on Whooper Swan are possible if care is not taken to avoid disturbance.

13.9.38. A flock of Whooper Swans (ref. DAU submission) have been regularly recorded during the winter period occupying and foraging on fields within the surrounding area. Whooper Swans usually feed during the daylight hours and leave the feeding sites as dusk to congregate at evening roots. At the request of the DAU a dawn and dusk survey was undertaken by the applicant and submitted as additional information.

13.9.39. The bird surveys were undertaken by Barry O'Mahony, ornithologist, and were undertaken from October 2022 – April 2023, at multiple locations in the vicinity of the proposed development site and at Kilcolman Bog. Evidence of surveys undertaken indicate that the areas within and surrounding the Ballyroe farm (centred around Ballyroe, Caherconner and Blackwater flats on the Awbeg River floodplain) were routinely used by Whooper Swan for grazing and roosting purposes. The additional information states in the written text that flock numbers ranged from 30 to 125 birds, however the Whooper Swan survey table (Appendix 5 of the NIS) contradicts this with a flock of 177 recorded. Birds grazing at Caherconnor (west of development site, refer to Whooper Swan Survey Map, Appendix 5 of the NIS) were identified roosting at Ballyroe Quarry pond or Blackwater flats. The additional information states that no conclusive evidence was obtained in terms of Whooper Swan grazing and foraging along the Awbeg River floodplain, regularly migrating south / south-east to Kilcolman Bog to roost or leaving the Kilcolman Bog to graze or roost within the Awbeg River floodplain. However, correspondence from the DAU on CCC reg. ref. 22/06901, dated 15th June 2023, states that the Whooper Swans foraging in the townlands of Dromin, Ballyroe, Mountbridget and Annagh South and roosting in the Ballyroe Quarry in February 2023 coincided with the abandonment by Whooper Swans of the Kilcolman Bog SPA which indicated that the Kilcolman herd of Whooper Swans had moved to the Awbeg floodplain for the remainder of the winter of 2023.

13.9.40. The findings of the applicant's survey indicate that sustained Whooper Swan activity occurred within c. 800m of the proposed development site included both grazing/ foraging and roosting regimes. The survey findings suggest that the proposed substation site and off-road UGC route does not support regularly used Whooper Swan roosting and grazing sites. The NIS at section 8.3 concludes that based on the historical and recent Whooper Swan surveys the proposal does not have any impact on Whooper Swans, their foraging areas or flight paths.

13.9.41. The Department, in its submission on this substation and UGC SID application, queried if the option of construction works during winter is being retained, then Whooper Swans using the field to the southwest of the proposed substation should be considered as noise-sensitive receptors. Following a request for additional information, the applicant clarified that the option of construction work

during winter is to be retained as part of the proposed development. The additional information indicates that an updated Noise Assessment was prepared to consider Whooper Swans using the field to the southwest of the proposed substation as noise-sensitive receptors. No updated noise assessment/addendum was submitted. It was advised that works will only occur during the day, and that the proposed works during the construction phase are anticipated to generate relatively low levels of noise. The additional information contends that construction noise will not be significantly different from current agricultural activities and so is unlikely to cause undue disturbance.

13.9.42. Kilcolman Bog SPA - Potential in-combination effects

13.9.43. There are a number of related and permitted solar farm developments in the general region of the proposed project, including the permitted but not built Ballyroe solar farm as amended (CCC reg. ref. 20/04041), and the proposed amendment scheme (CCC reg. ref. 22/06901). I note the proposed solar farm (CCC reg. ref. 22/5681), an extension to that permitted under CCC reg. ref. 20/04041, and CCC reg. ref. 226536 comprising amendments to permitted solar farm ABP 306915 have been appealed (ABP ref. 317577 and 317592 refer). I note that permission has been granted for an interconnector (CCC reg. ref. 22/5933) which will connect Fiddane solar farm as amended (reg. ref. 17/05799 & ABP-308846-20), to the consented but not built Ballyroe solar farm (CCC reg. ref. 20/04041).

13.9.44. In the absence of suitable controls and measures there is the possibility that the construction and/or operation phases of the above developments could give rise to in-combination effects related to water quality – sedimentation and siltation, release of nutrients; potential for displacement of bird species and loss of suitable feeding habitat. Save for CCC reg. ref. 20/04041, these projects have been subject to an assessment of potential impacts to relevant European sites. On that basis and given adherence to the relevant consents and implementation of best practice construction no significant in-combination effects are anticipated on the qualifying interests of the Kilcolman Bog SPA.

13.9.45. From a review of CCC reg. ref. 20/04041 I note that Kilcolman Bog SPA was not considered in the AA screening report, as it was initially thought that the Whooper Swans in the area were linked to the Blackwater Callows SPA (c. 35km

from the site) and once this possibility was removed, impact on the Whooper Swan was not considered further and any link of an of ex-situ relationship with Kilcolman Bog SPA was not considered.

13.9.46. As noted in Section 4.0 of this Inspector's report, a notification of decision to refuse permission issued in respect of CCC reg. ref. 22/06901 to amend the design of the previously approved development (pl. ref. no 20/04041) as it was considered that the proposed solar farm development "*would result in a direct loss of an area of core foraging habitat Whooper Swan, a Species of Conservation Interest (SCI) of the Kilcolman Bog Special Protection Area (Site code 004095). Furthermore, based on the recent information provided to the Planning Authority in respect of Whooper Swan usage of the site and area, the Planning Authority is unable to form a full, precise and definitive conclusion capable of removing all reasonable scientific doubt as to the effects of the proposal will have on Whooper Swan and SCI of Kilcolman Bog SPA....*"

13.9.47. A submission from the Department of Housing, Local Government and Heritage (15<sup>th</sup> June 2023) on CCC Reg. Ref. 22/06901 is worth noting, wherein it is stated that proposed or permitted inter-connected solar farm developments in the area cover an area of c.213ha. The Department carried out survey work over the winter of 2022/23 of fields within and directly adjacent to the Ballyroe development site where Whooper Swans up to 177 individuals are known to be supported which exceeds the threshold for a site of national importance. Also, a significant night roost at the Ballyroe Quarry pond with a peak count of 173 Whooper Swans was counted in March 2023. The results of surveys show the fields and quarry within the proposed Ballyroe solar farm amendment application are important foraging and night roost sites for the Whooper Swan with numbers of national importance roosting in Ballyroe quarry. The proposed development therefore based on survey results in 2022/23 will result in the direct loss of foraging habitat for the Whooper Swan and potential for disturbance/displacement from the roost site at Ballyroe Quarry.

13.9.48. The Department's submission continues that the main commuting corridor was recorded, traversing over the amendment application site, CCC. reg. ref. 22/06901. This flight path coincides with the flight path recorded in the Whooper Swan survey provided as additional information and forming part of the NIS, dated

April 2023, for the subject substation and UCG application. It should be noted that the proposed substation site is located c.200m north of this flight path.

13.9.49. I note that neither the proposed substation site nor the temporary construction compound is identified as a foraging habitat in either the Department's survey results or the Whooper Swan survey carried out on behalf of the applicant. I note, however, that fields within and directly adjacent to the solar farm site which the proposed substation and UCG will serve, are known to support numbers of Whooper Swans up to 177 individuals which exceeds the threshold for a site of national importance. I note too that a significant roost site occurs within the solar farm development site at Ballyroe Quarry pond with a peak count of 173 Whooper Swans roosting at the pond in early March 2023. The survey findings by both the NPWS and that prepared by the ornithologist on behalf of the applicant on CCC reg. ref. 22/06091 led the Department to state that the proposed amendments to the solar farm development permitted under CCC reg. ref. 20/04041 "*will result in the direct loss of foraging habitat for the Whooper Swan and potential for disturbance/displacement from the roost site at Ballyroe Quarry*". In my opinion, the NIS does not give adequate consideration of the effect of displacement that may arise from the cumulative impact of permitted and proposed developments in the area, particularly as the permitted and proposed solar farms developments may force the Whooper Swan to the proposed substation site for foraging.

13.9.50. The Whooper Swan survey (Appendix 5, NIS, April 2023) undertaken for CCC reg. ref. 22/06091 is the same survey as that submitted in respect of the subject application before the Board and I note the misgivings raised by the Department with respect to the NIS and EclA on CCC reg. ref. 22/06901 referring to "gaps and missing information" making it "*impossible to rule out beyond reasonable scientific doubt adverse significant impact on the Whooper Swan*", a SCI of Kilcoman Bog SPA. In respect of the application before the Board, it should be noted that there are anomalies between the written text of the NIS in particular section 5.1, Summary of Findings and Appendix 5 – Whooper Swan survey table. It is stated, for example, that "none of the flocks identified during the bird surveys met or exceeded National threshold numbers for Whooper Swan; i.e. 150 birds" when up to 177 were recorded in March 2023.

13.9.51. Having regard to the foregoing and to the fact that effect of the solar farm development permitted under CCC reg. ref. 20/04041 on Kilcolman Bog SPA was not subject to an appropriate assessment means that it is not possible for me to conclude that the proposed development, in combination with permitted development in particular CCC reg. ref. 20/04041, would not have an adverse significant impact on the Whooper Swan, a SCI of Kilcolman Bog SPA. Having regard to the scientific information which has come to light since CCC reg. ref. 20/04041 was granted I consider that the proposed development would potentially exacerbate the effect of permitted development in the area.

13.9.52. Kilcolman Bog SPA - Conclusion

13.9.53. The proposed development has been considered in light of the assessment requirements of Sections 177U and 177V of the Planning and Development Act 2000 as amended. Having carried out a Stage 1 Appropriate Assessment Screening of the proposed development, it was concluded that adverse effects on Kilcolman Bog SPA could not be ruled out due to the potential for significant adverse impact on foraging Whooper Swans based on ex situ connectivity between Kilcolman Bog SPA and the area of the proposed development site which is a significant foraging and roosting site for Whooper Swans. Consequently, an Appropriate Assessment was required of the implications of the project on the qualifying features of the site in light of its conservation objectives.

13.9.54. Following a Stage 2 Appropriate Assessment, deficiencies have been identified in the information provided within the submitted Natura Impact Statement as follows:

- The lack of consideration of potential in-combination effects resulting from related renewable energy projects in the area.

In my view, the submitted NIS lacks comprehensive consideration of potential cumulative effects on Kilcolman Bog SPA. As such, there is a lack of certainty that the proposed development, in-combination with other plans or projects, would not adversely affect the integrity of the Kilcolman Bog SPA, in view of the site's conservation objectives.

13.9.55. In undertaking the appropriate assessment, I have had regard to the submissions made by the Department of Housing, Local Government and Heritage

in respect of adjoining developments, in particular, CCC reg. ref. 22/0691, as it provides more up-to-date scientific data in relation to Kilcolman Bog SPA/Whooper Swan associated with the SPA. The Board will note that despite the Department seeking additional information from the applicant in respect of the proposed SID before the Board, the Department did not proffer a subsequent submission on the additional information. Having regard to the foregoing, the Board may decide to seek the applicant's opinion in respect of the Department's submission and its implications for the proposed SID prior to making a decision on the application.

**Table 13.2 Summary of Appropriate Assessment of implications of the proposed development on the integrity of European Sites alone and in combination with other plans and projects in view of the sites' Conservation Objectives.**

Appropriate Assessment					
Blackwater River (Cork/Waterford) SAC (002170) - Summary of Key issues that could give rise to adverse effects:					
<ul style="list-style-type: none"> <li>• Water quality impacts due to pollutants or soil/silt run-off during construction phase</li> <li>• Disturbance of QI species</li> </ul>					
Qualifying Interest feature	Conservation Objectives Targets and attributes	Potential adverse effects	Mitigation measures	In-combination effects	Can adverse effects on integrity be excluded?
Estuaries [1130]	To <b>maintain</b> the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected	No - Located > 50km downstream, considered to be outside the zone of influence of this project	None required	None	Yes
Mudflats and sandflats not	<b>Maintain</b>	No - Located > 50km downstream, considered to be	None required	None	Yes

covered by seawater at low tide [1140]		outside zone of influence of this project			
Perennial vegetation of stony banks [1220]	Maintain	No – outside zone of influence.	None required	None	Yes
Salicornia and other annuals colonising mud and sand [1310]	Maintain	No – outside zone of influence.	None required	None	Yes
Atlantic salt meadows (Glaucopuccinellietalia maritimae) [1330]	To <b>restore</b> the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected	No - outside zone of influence	None required	None	Yes

Mediterranean salt meadows (Juncetalia maritimi) [1410]	Maintain	No – outside zone of influence.	None required	None	Yes
Water courses of plain to montane levels with the Ranunculion fluitantis and Callitriche-Batrachion vegetation [3260]	Maintain	Yes, according to NIS, this habitat has been recorded within 5km of the application site.  Potential for hydrocarbon, sediment, and chemical buildup in the habitat.  Introduction of invasive species.	Water quality measures including silt and sediment control and control of use of fertilisers, chemicals.  Any works near watercourses to be carried out in dry weather to prevent siltation and run off.		
Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0]	Restore	No, according to the NIS, this habitat has not been recorded within 5km of the application site. No mapped occurrences within the zone of influence per Conservation Objective series	None required	None	Yes

Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (Alno-Padion, <i>Alnion incanae</i> , <i>Salicion albae</i> ) [91E0]	Restore	No, according to the NIS, this habitat has not been recorded within 5km of the application site. No mapped occurrences within the zone of influence per Conservation Objective series	None required	None	Yes
<i>Margaritifera margaritifera</i> (Freshwater Pearl Mussel) [1029]	Restore	Yes, though the app site is c.35km upstream of known distribution on the River Blackwater. Although the app site is within a FWP mussel catchment area, there is no record of FWP mussel distribution in the Awbeg. In addition, the Aquatics Report submitted with the NIS (April 2023) indicates that no FWP mussel was recorded.	Water quality measures including silt and sediment control and control of use of fertilisers, chemicals.  Any works near watercourses to be carried out in dry weather to prevent siltation and run off.	None	Yes
<i>Austropotamobius pallipes</i> (White-	Maintain	Yes – the app site is c.200m upstream of known distribution	Water quality measures including silt		

<p>clawed Crayfish) [1092]</p>		<p>in the Awbeg River. The Aquatics Report submitted with the NIS (April 2023) indicates that no white-clawed crayfish was observed during the aquatics survey.</p> <p>Possible water quality impact arising from accidental surface water pollution or siltation arising from construction. This may have an adverse impact on spawning and/or food availability</p>	<p>and sediment control and control of use of fertilisers, chemicals.</p> <p>Any works near watercourses to be carried out in dry weather to prevent siltation and run off.</p>		
<p>Petromyzon marinus (Sea Lamprey) [1095]</p>	<p>Restore</p>	<p>Yes - according to the NIS, Sea Lamprey have been recorded in the Awbeg River. The Aquatics Report submitted with the NIS (April 2023) indicates that no Sea Lamprey was observed during the aquatics survey.</p> <p>Lamprey are sensitive to indirect effects from pollution of</p>	<p>Water quality measures including silt and sediment control and control of use of fertilisers, chemicals.</p> <p>Any works near watercourses to be carried out in dry</p>		

		watercourses with chemicals, silt, contaminants etc. during construction phase. This may have an adverse impact on spawning and/or food availability.	weather to prevent siltation and run off.		
Lampetra planeri (Brook Lamprey) [1096]	Maintain	<p>Yes - according to the Conservation Objectives Series, Brook Lamprey have been recorded proximate to the app site in the Awbeg River. The Aquatics Report submitted with the NIS (April 2023) indicates that no Brook Lamprey was observed during the aquatics survey.</p> <p>Lamprey are sensitive to indirect effects from pollution of watercourses with chemicals, silt, contaminants etc. during construction phase. This may have an adverse impact on</p>	<p>Water quality measures including silt and sediment control and control of use of fertilisers, chemicals.</p> <p>Any works near watercourses to be carried out in dry weather to prevent siltation and run off.</p>		

		spawning and/or food availability.			
Lampetra fluviatilis (River Lamprey) [1099]	Maintain	<p>Yes - according to the NIS, River Lamprey have been recorded downstream of the app site in the Awbeg River. The Aquatics Report submitted with the NIS (April 2023) indicates that no Brook Lamprey was observed during the aquatics survey.</p> <p>Lamprey are sensitive to indirect effects from pollution of watercourses with chemicals, silt, contaminants etc. during construction phase. This may have an adverse impact on spawning and/or food availability.</p>	<p>Water quality measures including silt and sediment control and control of use of fertilisers, chemicals.</p> <p>Any works near watercourses to be carried out in dry weather to prevent siltation and run off.</p>		
Alosa fallax fallax (Twaite Shad) [1103]	Restore	No – according to the NIS, Twaite Shad had not been recorded in the vicinity of the	None required	None	Yes

		app. site. The NIS (April 2023) Aquatics Report - indicates that no Twaite Shad was observed during the aquatics survey.			
Salmo salar (Salmon) [1106]	Maintain	<p>Yes – though no indication that evidence of salmon was present during the aquatics survey which accompanied the NIS (April 2023).</p> <p>Salmon may be sensitive to indirect effects from pollution of watercourses with chemicals, silt, contaminants etc. during construction phase.</p>	<p>Water quality measures including silt and sediment control and control of use of fertilisers, chemicals.</p> <p>Any works near watercourses to be carried out in dry weather to prevent siltation and run off.</p>		
Lutra lutra (Otter) [1355]	To restore...	<p>Yes – Otter has been recorded within 2km of the app site. Evidence of prints and tracks noted during the habitat survey.</p> <p>Otter may be sensitive to indirect effects from pollution of watercourses with chemicals, silt, contaminants etc. during</p>	<p>Water quality measures including silt and sediment control and control of use of fertilisers, chemicals.</p> <p>Any works near watercourses to be carried out in dry</p>	No likely significant in-combination effects	Yes, no doubt as to the effectiveness or implementation of mitigation measures proposed to

		construction phase. Potential disturbance due to noise and lighting during construction; mortality through collision with construction traffic.	weather to prevent siltation and run off. Adequate buffer between riparian and aquatic habitats. Sensitive lighting regimes. Noise control measures, construction time measures.		prevent indirect effects
Trichomanes speciosum (Killarney Fern) [1421]	To maintain...	No – not recorded near site and no evidence of same during habitat surveys.	None Required	None	Yes
<b>Kilcolman Bog SPA, site code 004095 - Summary of Key issues that could give rise to adverse effects:</b> <ul style="list-style-type: none"> <li>• Water quality impacts due to pollutants or soil/silt run-off during construction phase</li> <li>• Disturbance of QI species</li> </ul>					
<b>Qualifying Interest feature</b>	<b>Conservation Objectives Targets and attributes</b>	<b>Potential adverse effects</b>	<b>Mitigation measures</b>	<b>In-combination effects</b>	<b>Can adverse effects on</b>

					integrity be excluded?
Whooper Swan (Cygnus cygnus) [A038]	To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA  To maintain or restore the favourable conservation condition of the wetland habitat at Kilcolman Bog SPA as a resource for the regularly-occurring migratory waterbirds that utilise it.	Yes – Whooper Swans have been recorded within vicinity of site. Potential exists for disturbance from noise during construction. Both feeding and roosting sites located in close proximity to the proposed development site could be impacted due to land alterations and disturbance.	Per the NIS: Water quality measures including silt and sediment control and control of use of fertilisers, chemicals.  Any works near watercourses to be carried out in dry weather to prevent siltation and run off.	Yes, in particular with CCC reg. ref. 20/04041, and potentially with other energy developments in the area.	No
Teal (Anas crecca) [A052]		No – not recorded near site and no evidence of same during surveys	None required	None	Yes
Shoveler (Anas clypeata) [A056]		No – not recorded near site and no evidence of same during surveys	None required	None	Yes

Wetland and Waterbirds [A999]		No – no records of this habitat within 5km downstream of the app site.	None required	None	Yes
<p><b>Overall conclusion: Integrity test: Blackwater River (Cork/Waterford) SAC</b></p> <p>Following the implementation of mitigation, the construction, operation and decommissioning of this proposed development will not adversely affect the integrity of Blackwater River (Cork/Waterford) SAC in view of the site’s conservation objectives.</p> <p>No reasonable scientific doubt remains as to the absence of such effects.</p> <p><b>Overall conclusion: Integrity test: Kilcolman Bog SPA</b></p> <p>I am not satisfied based on the information provided with the application, that the proposed development in combination with other plans or projects would not adversely affect the integrity of European site Kilcolman Bog SPA, site code 004095, in view of the site’s Conservation Objectives.</p>					

## 14.0 Recommendation

Having regard to the documentation on file, the observations and submissions received, the site inspection and the assessment above, I recommend that permission for the above-described development be refused for the following reasons and considerations.

1. The Board is not satisfied, based on the information provided with the application, that the proposed development in combination with other plans or projects would not adversely affect the integrity of European site Kilcolman Bog SPA, site code 004095, in view of the site's Conservation Objectives. In such circumstances the Board is precluded from granting permission.

## 15.0 Reasons and Considerations (Draft Order)

In coming to its decision, the Board had regard to the following:

- Directive 92/43/EEC (Habitats Directive) and Directive 79/409/EEC as amended by 2009/147/EC (Birds Directives) which set the requirements for Conservation of Natural Habitats and of Wild Fauna and Flora throughout the European Union.
- EU Renewable Energy Directives 2009/28/EC and 2018/2001/EU which aims to promote the use of renewable energy.
- National Planning Framework - Ireland 2040
- The Government of Ireland Climate Action Plan, 2023
- Regional Spatial Economic Strategy for the Southern Region
- Cork County Development Plan 2022-2028
- the nature, scale and design of the proposed development as set out in the planning application and the pattern of development in the vicinity of the site, including:
  - permitted Solar Farm developments and proposed amendments to same, and;

- proposed solar farm developments,
- including scientific data available on and pertaining to those applications in the vicinity of the site
- the likely consequences for the environment and the proper planning and sustainable development of the area in which it is proposed to carry out the proposed development and the likely significant effects of the proposed development on European Sites,
- the submissions made to An Bord Pleanála in connection with the planning application, and
- the report and recommendation of the Inspector, including the examination, analysis and evaluation undertaken in relation to the appropriate assessment and environmental impact assessment screening.

### **Appropriate Assessment – Stage 1**

The Board agreed with and adopted the screening assessment and conclusion carried out in the inspector's report that the Kilcolman Bog SPA, site code 004095 and Blackwater River (Cork/Waterford) SAC, site code 002170, are the European sites for which there is a likelihood of significant effects.

### **Appropriate Assessment – Stage 2**

The Board considered the Natura Impact Statement and all other relevant submissions and carried out an appropriate assessment of the implications of the proposal for the Kilcolman Bog SPA, site code 004095 and Blackwater River (Cork/Waterford) SAC, site code 002170, in view of the Sites Conservation Objectives. The Board considered that the information before it was adequate to allow the carrying out of an appropriate assessment.

In completing the Appropriate Assessment, the Board considered, in particular, the following:

- (a) inadequate information regarding the potential in-combination impact of proposed and permitted developments in the area and their potential impact on the Whooper Swan who use the immediate environs of the proposed development site for foraging and roosting, and which are identified as an ex-situ Special Conservation Interest for Kilcolman Bog SPA,
- (b) inadequate consideration of the effect of displacement that may arise from the cumulative impact of permitted and proposed developments in the area and how this may impact the proposed development site,
- (c) the conservation objectives for the Kilcolman Bog SPA to maintain or restore the favourable conservation condition of the Whooper Swan for this SPA.

In completing the appropriate assessment, the Board accepted and adopted the appropriate assessment carried out in the Inspector's report in respect of the potential effects of the proposed on the aforementioned European sites, having regard to the sites' conservation status.

In overall conclusion, the Board:

- (a) was not satisfied that the proposed development in combination with other plans or projects, would not adversely affect the integrity of the Kilcolman Bog SPA, in view of the site's conservation objectives;
- (b) was satisfied that the proposed development would not adversely affect the integrity of the Blackwater River (Cork/Waterford) SAC, in view of the site's conservation objectives and there is no reasonable scientific doubt as to the absence of such effects.

### **Reason for Refusal**

The Board is not satisfied, based on the information provided with the application, that the proposed development in combination with other plans or projects would not adversely affect the integrity of European site Kilcolman Bog SPA, site code 004095,

in view of the site's Conservation Objectives. In such circumstances the Board is precluded from granting permission.

I confirm that this report represents my professional planning assessment, judgement and opinion on the matter assigned to me and that no person has influenced or sought to influence, directly or indirectly, the exercise of my professional judgement in an improper or inappropriate way.

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Alaine Clarke  
Senior Planning Inspector

4<sup>th</sup> August 2023