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6. POPULATION AND HUMAN HEALTH

6.1 INTRODUCTION

This chapter examines and assesses the likely significant effects of the receiving environment on population and human health resulting from Bord na Móna's activities during the Peat Extraction Phase, Current Phase and Remedial phases at the Application Site.

Population and human health are addressed under separate headings throughout this Chapter.

The assessment on population (Section 6.4 of this chapter) will focus on the current land use of the Application Site, the demographic and population trends, sensitive receptors (i.e. human dwellings) and property values, employment, and the economy.

The assessment on human health (section 6.4 of this chapter) will assess measures that were historically implemented and/or are currently in place to mitigate any effects arising from the historic peat extraction and ancillary activities.

A baseline condition of the population, socio-economic and local community health in 1988 (the baseline year for this remedial EIAR) was established from a desktop study which reviewed national guidance documents, publicly available datasets, and resources.

EPA guidelines state that:

'In an EIAR, the assessment of impacts on population and human health should refer to the assessments of those factors under which human health effects might occur, as addressed elsewhere in this EIAR e.g., under the environmental factors of air, water, soil etc.'

The assessment of human health evaluates the significant effects associated with relevant environmental disciplines. These are also addressed in the following chapters of this remedial EIAR:

- Chapter 8 (Land, Soils and Geology);
- Chapter 9 (Hydrology, Hydrogeology and Water Quality);
- Chapter 10 (Air Quality);
- Chapter 11 (Noise and Vibration);
- Chapter 12 (Landscape and Visual);
- Chapter 14 (Material Assets (incl. Traffic and Transportation)); and
- Chapter 15 (Climate).

The assessment of the Project in accordance with the EIA Directive is based on a timeline from 1988 (when the EIA Directive was required to be transposed into Irish Law) as set out in Section 2.2 of Chapter 2 of this remedial EIAR.

The impact assessment presented in Section 6.4 of this chapter describes any likely significant effects which are likely to have occurred or may occur during the Project and Section 6.5 addresses the mitigation and control measures which were and will be put in place, where relevant. Furthermore, Section 6.4.6 addresses cumulative and indirect effects and Section 6.6 present any residual effects.

6.1.1 Statement of Authority

This chapter of the remedial EIAR has been prepared by Fergus De Faoite and Bertha Kasonde and reviewed by Orla Fitzpatrick of TOBIN.

Fergus De Faoite has 5 years of professional multidisciplinary experience in environmental consulting and assessment. Fergus has extensive experience preparing a diverse range of environmental reporting, including in the delivery of EIARs for a range of projects.

Bertha Kasonde is a Project Manager with over 8 years of multidisciplinary experience in environmental consulting both in the Public and Private Sectors. She holds a Bachelor of Engineering in Environmental Engineering and M.Sc. in Climate Change, Agriculture and Food Security. She has contributed to EIAR chapters and conducted feasibility studies for various projects including Wind, Solar and BESS.

Orla Fitzpatrick is a Technical Director with over 20 years' experience working in the delivery of EIA projects in environmental consultancy. She is a Chartered Environmentalist and has considerable experience as technical approver of environmental deliverables for major infrastructure projects, including substitute consent applications.

6.2 METHODOLOGY

6.2.1 Desk Review

6.2.1.1 Guidance and Legislative Review

Key publications, information sources, and guidance documents that have guided the preparation of this Population and Human Health Chapter are outlined below:

- An Coimisiún Pleanála, *Guidance for Substitute Consent and Section 37L Applications* (2026)¹;
- EIA Directive 2011/92/EU on the assessment of the effect of certain public and private projects on the environment (codification), as amended by EIA Directive 2014/52/EU (the EIA Directive);
- EPA Guidelines on the information to be contained in Environmental Impact Assessment Reports, (2022);
- EPA Advice Notes for Preparing Environmental Impact Statements, (2015);
- Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment (2018);
- The Bord na Móna, Industrial Cutaway Bog Land-Use Studies (Clonsast, 1978)²;
- Publicly available County Development Plans, including:
 - Offaly County Development Plan (CDP)
 - Offaly County Development Plan 1967;
 - Offaly County Development Plan 1987;
 - Offaly County Development Plan (Draft) 1995;
 - Offaly County Development Plan 2003–2009;

¹ <https://www.pleanala.ie/en-IE/Substitute-Consents> (Accessed August 2026)

² <https://bit.ly/4eXdAzM> (Accessed July 2026)



- Offaly County Development Plan 2009–2015;
- Offaly County Development Plan 2014–2020³;
- Offaly County Development Plan 2021–2027;
- Westmeath County Development Plan (CDP):
 - Westmeath County Development Plan 1986,
 - Westmeath County Development Plan 1994,
 - Westmeath County Development Plan 2002–2008,
 - Westmeath County Development Plan 2008–2014⁴),
 - Westmeath County Development Plan 2014–2020⁵
 - Westmeath County Development Plan 2021–2027⁶;
- Meath County Development Plan (CDP):
 - Meath County Development Plan 1994,
 - Meath County Development Plan 2000 (Draft),
 - Meath County Development Plan 2007–2013⁷
 - Meath County Development Plan 2013–2019⁸
 - Meath County Development Plan 2021–2027⁹;

The following key information sources and guidance documents were reviewed specifically to inform the population and human health assessment:

- Fáilte Ireland information in relation to tourism amenity in conjunction with websites of relevant tourism sites and amenities within the study area;
- Fáilte Ireland (2011) *Guidelines on the treatment of tourism in an Environmental Impact Statement*;
- Fáilte Ireland (2023) *EIAR Guidelines for the Consideration of Tourism and Tourism Related Projects*;
- Central Statistics Office (CSO)¹⁰, *Labour Force Survey data* (2025);
- Central Statistics Office (CSO)¹¹, *Census data for 2011, 2016 and 2022*;
- Central Statistics Office (CSO)¹², *historical Census data for 1946–2022*;
- Central Statistics Office (CSO)¹³, *Live Register data*;

³ <https://docslib.org/doc/8784760/offaly-county-development-plan-2014-2020> (Accessed July 2026)

⁴ <https://www.westmeathcoco.ie/en/ourservices/planning/developmentplans/countydevelopmentplan2008-2014/> (Accessed July 2026)

⁵ <https://www.westmeathcoco.ie/en/ourservices/planning/developmentplans/countydevelopmentplan2014-2020/> (Accessed July 2026)

⁶ <https://www.westmeathcoco.ie/en/ourservices/planning/developmentplans/countydevelopmentplan2021-2027/> (Accessed July 2026)

⁷ <https://www.meath.ie/council/council-services/planning-and-building/development-plans/meath-county-development-plan/previous-development-plans/meath-county-development-plan-2007-2013/meath-county-development-plan-2007-2013-volume-1> (Accessed July 2026)

⁸ <https://countydevelopmentplan.meath.ie/adoptedplan/> (Accessed July 2026)

⁹ <https://consult.meath.ie/en/consultation/consolidated-meath-county-development-plan-2021-2027-as-varied> (accessed July 2026)

¹⁰ <https://www.cso.ie/en/releasesandpublications/ep/p-lfs/labourforcesurveyquarter32025/data/>

¹¹ <https://www.cso.ie/en/census/> (Accessed June 2026)

¹² <https://www.cso.ie/en/census/censusvolumes1926to1991/historicalreports/> (Accessed June 2026)

¹³ <https://www.cso.ie/en/statistics/labourmarket/liveregister/> (Accessed June 2026)



- Bord na Móna, *The Socio-Economic Impact of Bord na Móna on the East Midlands* (1987)¹⁴ (Appendix 6-1);
- Ordnance Survey Ireland (OSI) mapping and aerial photography (Google/Bing), to identify land use and amenity sites.

The following key information sources and guidance documents used in the completion of the human health impact aspect of this chapter:

- The World Health Organisation (WHO) *Night Noise Guidelines for Europe* (2009)¹⁵;
- The World Health Organisation (WHO), *Guidelines for Community Noise* (1999)¹⁶;
- The World Health Organisation (WHO), *Global Air Quality Guidelines* (2021)¹⁷;
- United States Environmental Protection Agency, Health Impact Assessment Resource and Tool Compilation (US EPA, 2016);
- Institute of Environmental Science and Policy (ISEP), 'Determining Significance for Human Health in Environmental Impact Assessment' Guidance (2022)¹⁸; and
- Institute of Public Health Ireland, *Health Impact Assessment Guidance* (2009)¹⁹.

6.2.1.2 Population

A desktop review was carried out to assess relevant information relating to socio-economic activity and population in the study area. The study area for the assessment of the population includes a review of relevant information on a county and national scale but is mainly concentrated on the Electoral Districts (ED) within which the Project is located.

This chapter has been prepared in accordance with the Environmental Impact Assessment (EIA) guidance outlined in Chapter 2 (remedial EIA Methodology) of this remedial EIAR. The guidance specific to population and human health has been outlined in Section 6.2.1. OSI Mapping and aerial imagery were used to identify current and historical land use in the area as well as relevant amenity facilities and the main settlement areas surrounding the Application Site.

Geo Directory data was utilised to identify sensitive receptors within a 1.5 km buffer from the Application Site, (Figure 6.2). Information on population statistics, employment and social data for the areas surrounding the Application Site have been obtained from the CSO.

There are no Census data from the baseline year of 1988. Accordingly, data from the 1986 and 1991 Census have been used to determine conditions at the 1988 baseline. Electoral Division (ED) data is the most appropriate scale for collated Census data. The EDs within which the Project is located and which comprise the study area for this assessment are further discussed in Section 6.3.1 of this chapter.

Fáilte Ireland tourist literature for Counties Offaly, Meath and Westmeath was examined in relation to tourism amenity in conjunction with the websites of relevant tourism assets, locations, and amenities in the area. Fáilte Ireland's (2023) EIAR Guidelines for the

¹⁴ [The Socio-Economic Impact of Bord na Mona on the East Midlands - 1987.pdf](#)

¹⁵ <https://www.who.int/europe/publications/i/item/9789289041737> (Accessed August 2026)

¹⁶ <https://www.who.int/publications/i/item/a68672> (Accessed August 2026)

¹⁷ <https://www.who.int/publications/i/item/9789240034228/> (Accessed August 2026)

¹⁸ https://www.researchgate.net/publication/376488663_IEMA_Guide_Determining_Significance_for_Human_Health_in_Environmental_Impact_Assessment (Accessed August 2026)

¹⁹ https://www.healthedpartners.org/ceu/hia/hia04/04_02_ireland_hia_guide_2009.pdf (Accessed August 2026)



Consideration of Tourism and Tourism Related Projects have been consulted in the completion of this assessment.

The Fáilte Ireland Guidelines state that “*the character of an area from a tourism perspective should be described and the principal types of tourism in the area. Where relevant, the specific environmental resources or attributes in the existing environment which each group uses or values should be stated and where relevant, indicate the time, duration, or seasonality of any of those activities*”.

6.2.1.3 Human Health

The aspects examined in this section primarily relate to the likely significant effects of peat extraction activities on socio-economic factors and on the health of the local community. Other relevant chapters that consider human health are identified in Section 6.4. However, these aspects are addressed in detail in this chapter. The study area for the assessment of the potential human effects of the Project includes a review of relevant information on a county and national scale but is mainly concentrated on the Electoral Districts (ED) within which the Application Site is located.

EIA Directive

The 2014 amendment to the 2011 EIA Directive (2014/52/EU) directs that population and human health factors be assessed in an EIAR. The EIA Directive does not define the term ‘human health’, however the 2017 EC Guidance on the preparation of the EIAR states:

“human health is a very broad factor that would be highly project dependent. The notion of human health should be considered in the context of the other factors in Article 3(1) of the EIA Directive and thus environmentally related health issues (such as health effects caused by the release of toxic substances to the environment, health risks arising from major hazards associated with the project, effects caused by changes in disease vectors caused by the Project, changes in living conditions, effects on vulnerable groups, exposure to traffic noise or air pollutants) are obvious aspects to study. In addition, these would concern the commissioning, operation and decommissioning of a project in relation to workers on the project and surrounding population”.

EPA EIAR Guidelines (2022)

The 2022 EIAR Guidelines published by the EPA state that “*While no specific guidance on the meaning of the term Human Health has been issued in the context of Directive 2014/52/EU, the same term was used in the SEA Directive (2001/42/EC).* The Commission’s SEA Implementation Guidance states ‘*The notion of human health should be considered in the context of the other issues mentioned in paragraph (f)*’. Paragraph (f) (of Annex I of the SEA Directive) lists the environmental factors including soils, water, landscape, and air.

The 2022 EPA Guidelines also state that the above health assessment approach is “*consistent with the approach set out in the 2002 EPA Guidelines where health was considered through assessment of the environmental pathways through which it could be affected, such as air, water, or soil*”. In addition, the 2002 EPA Guidelines state “*The evaluation of effects on these pathways is carried out by reference to accepted standards (usually international) of safety in dose, exposure, or risk. These standards are in turn based upon medical and scientific*



investigation of the direct effects on health of the individual substance, effect, or risk. This practice of reliance upon limits, doses, and thresholds for environmental pathways, such as air, water, or soil, provides robust and reliable health protectors [protection criteria] for analysis relating to the environment”.

The 2022 EPA Guidelines also note that in an EIAR, *“the assessment of impacts on population & human health should refer to the assessments of those factors under which human health effects might occur, as addressed elsewhere in the EIAR e.g., under the environmental factors of air, water, soil, etc.”* and that *“Assessment of other health & safety issues are carried out under other EU Directives, as relevant. These may include reports prepared under the Industrial Emissions, Waste Framework, Landfill, Strategic Environmental Assessment, Seveso III, Water Framework Directive, Floods or Nuclear Safety Directives. In keeping with the requirement of the amended Directive, an EIAR should take account of the results of such assessments without duplicating them”.*

IEMA ‘Health in Environmental Impact Assessment’, (2017)

The Institute of Environmental Assessment (IEMA) (now known as the Institute of Sustainability and Environmental Professionals) issued a discussion document in 2017 titled *“Health in Environmental Impact Assessment”*, which it describes as a primer for discussion on the proportionate assessment of the impacts on health within the EIA process and suggests what should be assessed in this context. The IEMA Primer notes with reference to ‘*proportionate*’ that *‘the scoping of population and human health issues into EIA should focus on whether the potential impacts are likely to be significant’*. Where they are found likely to be significant, effort should focus on identifying and gaining commitment to avoiding or reducing any adverse effects and to enhancing beneficial effects.

The discussion document notes that Health Impact Assessment (HIA) and EIA are separate processes and that while a HIA can inform EIA practice in relation to human health, a HIA alone will not necessarily meet the EIA human health requirement. The discussion document also notes that the WHO provides an overview of health in different types of impact assessment and presents the WHO perspective on the relationship of HIA to other types of impact assessment as follows:

“The health sector, by crafting and promoting HIA, can be regarded as contributing to fragmentation among impact assessments. Given the value of impact assessments from a societal perspective, this is a risk not to be taken lightly...The need...and justification for separate HIA cannot automatically be derived from the universally accepted significance of health; rather, it should be demonstrated whether and how HIA offers a comparative advantage in terms of societal benefits. Health issues can, and need to, be included [in impact assessment] irrespective of levels of integration. At the same time, from a civic society perspective, it would be unacceptable for HIA to weaken other impact assessments. A prudent attitude suggests optimizing the coverage of health along all three avenues:

- *Better consideration of health in existing impact assessments other than HIA;*
- *Dedicated HIA; and*
- *Integrated forms of impact assessment.” (ISEP, 2007)*

This indicates that the WHO does not support a stand-alone HIA unless it could be demonstrated to be of advantage over an EIAR. Furthermore, HIA is not routinely carried out for major infrastructure schemes in Ireland. It is for these reasons that this health assessment is part of the EIAR and there is no stand-alone HIA.

One of the messages in the IEMA document in terms of assessing health in EIA, is that there should be a greater emphasis on health outcomes (i.e., the potential effects on human health), rather than simply the health determinants (i.e., the agents or emissions which could have the potential to have health effects). The IEMA document noted that in EIA, there has previously been a strong focus on just the agents or emission levels (e.g., dust) rather than focusing on the effects of these agents/emission levels on human health. This change in emphasis does not mean a complete change in practice.

The IEMA document notes that “*public health is defined as the science and art of promoting and protecting health and well-being, preventing ill-health and prolonging life through the organised efforts of society and has three domains of practice: health protection, health improvement and improving services*”. The IEMA document suggests that these three domains should be considered in the assessment of health in EIA. Examples of health protection issues to be considered could include issues such as chemicals, radiation, health hazards, emergency response and infectious diseases whilst health improvement issues could include lifestyles, inequalities, housing, community, and employment. Examples of improving service issues could include service planning, equity, and efficiencies.

The WHO defined health, in its broader sense, in its 1948 constitution as “*a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity*”. Therefore, whilst the Irish EPA EIAR Guidance is useful in terms of health protection, for a more holistic assessment, as per the IEMA document, it is also worthwhile to look at broader health effects in terms of opportunities for improvement of health and for improvement of access to services. While it is important to do this, it is also important not to attribute every conceivable event as being a health effect. To further rely on the WHO definition, a health effect would be something that would have a material impact on somebody’s physical, mental and social wellbeing, be that positive or negative.

The IEMA 2017 discussion document is a useful document when considering what can and should be assessed in the context of EIA. Regard has been given to the general approach put forward in this discussion document when preparing this chapter.

IEMA ‘Determining Significance for Human Health In Environmental Impact Assessment’ Guidance (2022)

In November 2022, IEMA (now ISEP) published a guide “*Determining Significance for Human Health in Environmental Impact Assessment*”. The guidance is intended to support those commissioning, undertaking, or reviewing EIAs in determining the significance of effects on human health. It focuses on defining ‘significance’ in the context of human health and provides a structured approach to its assessment. The guidance also considers population health and health inequalities as relevant outcomes. Regard has been given to the general approach set out in this guidance in preparing this chapter.

Health Protection

The assessment of human health for the development, in terms of health protection, follows the approach set out in the 2022 EIAR Guidelines and in the 2017 EC's Guidance on the preparation of the EIAR. It is also similar in nature to the US Environmental Protection Agency (USEPA) Guidance, entitled Health Impact Assessment Resource and Tool Compilation (USEPA, 2016). Human health protection is considered through the assessment of the environmental factors (pathways) through which health could be affected such as air, noise, water, and soils. The USEPA Guidance includes a four-step approach which is represented graphically below.

The 4 Step Risk Assessment Process

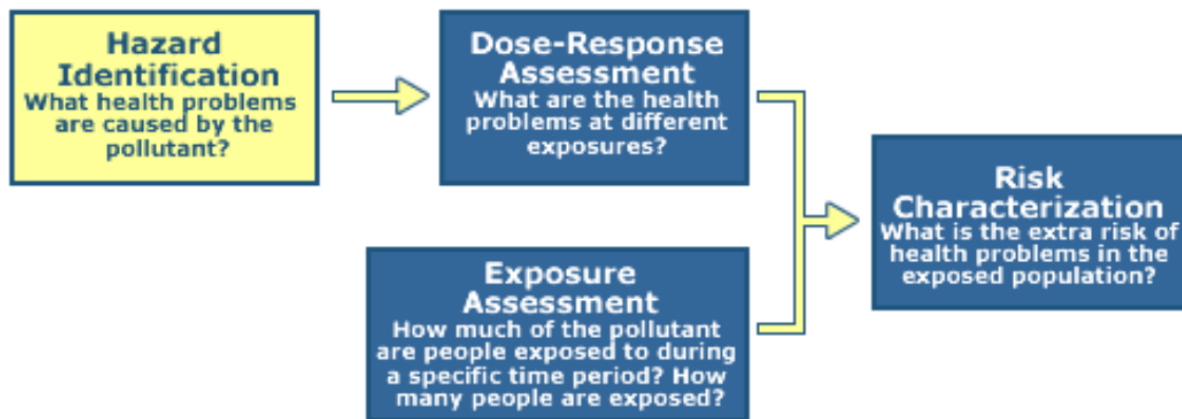


Figure 6-1: Four-step Risk Assessment Process (Source: USEPA, 2016)

This USEPA risk assessment process is similar to the Irish 2022 EIAR Guidelines in that the potential noise, air, soils, and water impacts which could affect human health are identified (Hazard Identification), the scale of these potential impacts (Dose-Response Assessment) and their duration (Exposure Assessment) are assessed and the significance of the potential impact on human health is determined (Risk Characterisation).

It should be noted that the identification of individual environmental hazards and the associated potential impacts and duration are undertaken in other chapters of this remedial EIAR, namely Noise, Air Quality and Climate. The associated significance in terms of the potential impact on human health is then considered in this chapter.

6.2.2 Field Survey

Site visits to the Application Site were undertaken on 4 July 2022 and 1 November 2022. These site visits were carried out to obtain an understanding of the site, verify existing descriptions, and collect information on the local area and the orientation of the Application Site boundaries. Mapping from Ordnance Survey Ireland (OSI) was used to identify current and historical land use within the area, as well as relevant amenity facilities and the main surrounding settlement areas. This information informed the impact assessment.

A follow up desktop study was carried out in May 2026.

6.2.3 Scoping and Consultation

EIA scoping for the Project has been carried out in accordance with the relevant EIA guidance documents and is outlined in Section 2.4 of Chapter 2 (remedial EIA Methodology) of this remedial EIAR.

A scoping letter, providing details of the Application Site and the Project, was prepared by TOBIN and was circulated in March 2023. TOBIN requested the comments of the relevant bodies in their respective capacities as consultees with regards to the remedial EIAR process. A further round of scoping was conducted in June 2026.

Table 2-1 of Chapter 2 (remedial EIA Methodology) summarises the feedback received in response to consultation letters issued in 2023 and 2026 and outlines how this feedback has been considered and addressed in this remedial EIAR. Consultees relevant to this assessment included the Health Service Executive (HSE), Fáilte Ireland, the Health and Safety Authority (HSA), and the Department of Tourism, Culture, Arts, Gaeltacht, Sport and Media (DTCAGSM). Each of these bodies was consulted as part of the scoping process.

A community consultation letter was distributed to residents within approximately 2 km of the Application Site in February 2023. The letter explained the purposes of the Substitute Consent application, namely, to seek retrospective planning consent to regularise the planning status of historic peat extraction activities and associated ancillary works undertaken by Bord na Móna within the Application Site. A copy of the community consultation letter is included in Appendix 2-2 of this remedial EIAR.

6.2.4 Impact Assessment Methodology

This section on 'Impact Assessment Methodology' applies to both population and human health.

A desktop study and site visit were carried out in order to examine relevant information pertaining to this population and human health impact assessment. The significance of potential effect has been evaluated using a systematic approach, based upon identification of the importance/value of receptors. Once identified their sensitivity to the Project activity, together with the predicted magnitude of the impact was assessed.

The terms used to define receptor sensitivity and magnitude of impact are based on those set out in the 2022 EPA EIAR Guidelines. These criteria have been adopted in order to implement a specific methodology.

For each effect, the assessment identifies receptors sensitive to that impact and implements a systematic approach to understanding the impact pathways and the level of impacts on given receptors.

Receptor sensitivity is determined by considering a combination of value, tolerance, adaptability and recoverability.

6.2.5 Assumptions and Limitations

While every effort has been made to source relevant historical baseline environmental data, this remedial EIAR has been limited by the availability, completeness, accuracy, age and accessibility of the data.

There is no Electoral District (ED) data available at local level prior to 2006. ED boundaries were subject to frequent revision, splitting, and merging, resulting in reduced temporal comparability between census years and limiting their suitability for longitudinal trend analysis

Sensitive receptors were identified from a combination of publicly available mapping and aerial imagery and GeoDirectory address data, as well as verification of properties from review of publicly available mapping, aerial imagery, street-level imagery and earth imagery. This process provides an indication of the property receptors present in the area at the time it was undertaken. It's not feasible to identify individual properties surrounding the Application Site from 1988, as buildings may have been constructed and demolished during this time. Consequently, the sensitive receptors presented in Figure 6-2 represent those sensitive receptors as of June 2026. Live and consented planning applications in the vicinity of the Application Site from the baseline year 1988 up to August 2026 have also been considered (See Section 2.9.2, Chapter 2 (remedial EIA Methodology) of the remedial EIAR).

The study area for this population and human health assessment primarily focused the local receiving environment surrounding the Application site. The study area is defined as the EDs that overlap with the Application Site boundary. This was used to ensure that those properties within reasonable proximity to the Application Site are captured in the assessment. However, a 1.5 km buffer has been used in the assessment to capture sensitive receptors based on standard practice used by other similar applications.

As stated, study area for population and human health includes review of relevant information on a county and national scale but is mainly concentrated on the EDs within which the Project is located. The ED is a useful level at which to conduct the study due to readily accessible local population data. The assessment undertaken in this chapter will cover the EDs that overlap with the Application Site boundary as it is currently detailed in Figure 6-2 and Section 6.3.1.

Any likely significant effects relating to air quality, noise and vibration, land use, soils, water quality, landscape and visual, traffic and transport are presented and addressed within their respective chapters and have been reviewed with respect to this assessment. The associated significance in terms of the potential effects on population and human health is considered in this chapter.

6.3 ESTABLISHMENT OF BASELINE (JULY 1998)

6.3.1 Study Area

Data has been captured on an Electoral Divisions (ED) basis as this is the most appropriate scale for collated Census data and is commonly used for defining the existing population profile. The study area comprises of 13 EDs within which the Application Site is located.

Table 6-1 lists the EDs in which the Application Site is situated.

Table 6-1: Electoral Divisions at the Application Site

Electoral Division (ED)	County
Enniscoffey	Westmeath
Griffinstown	Westmeath
Ballyboggan	Meath
Castlejordan	Meath
Knockdrin	Offaly
Clonmore	Offaly
Milltown	Westmeath
Castlelost	Westmeath
Croghan	Offaly
Ballyburly	Offaly
Rahugh	Offaly
Ballykilmore	Westmeath
Newtown	Westmeath

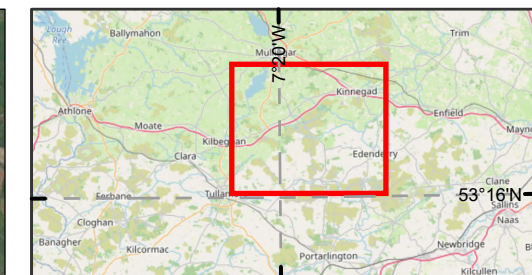
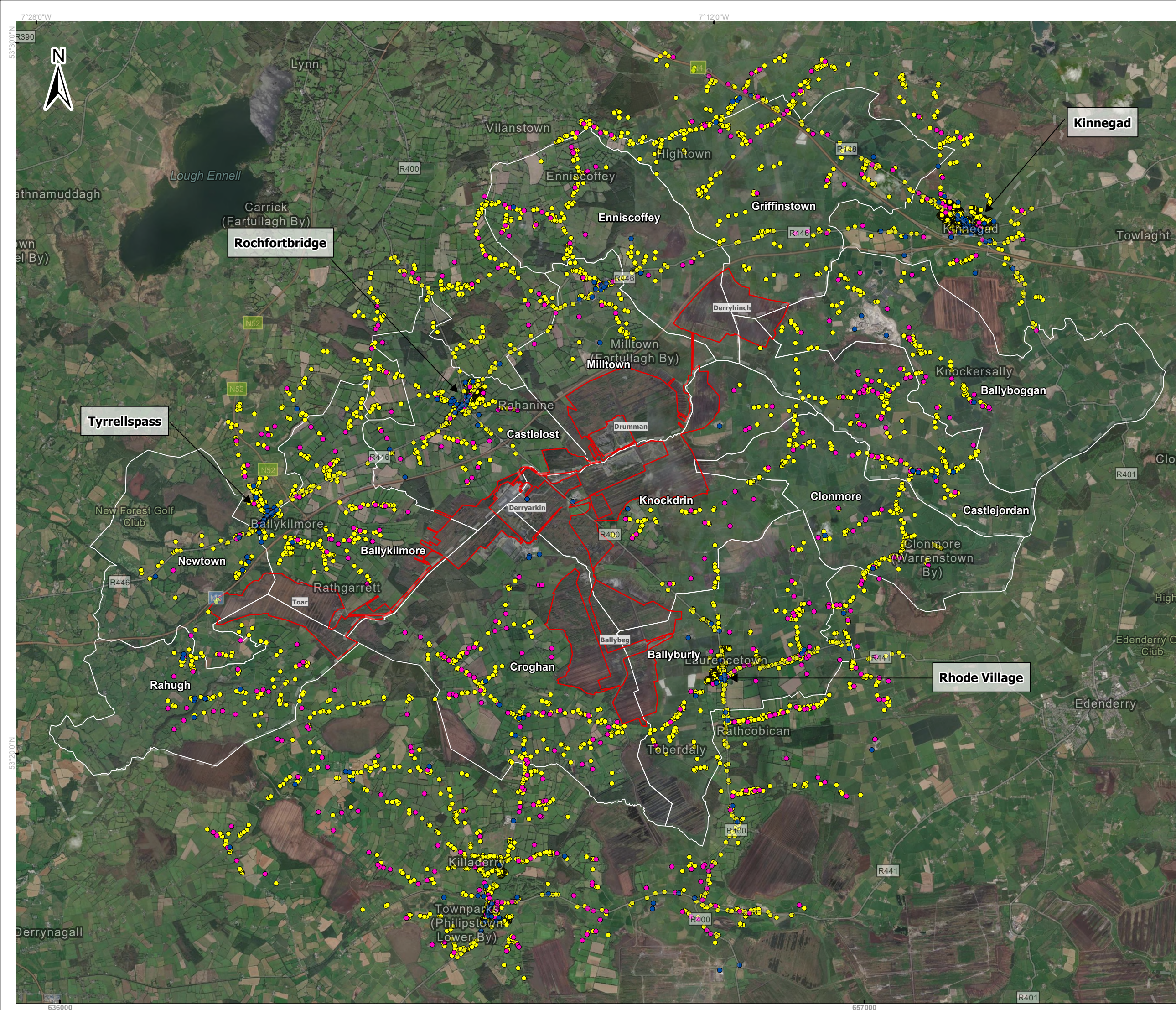
During industrial peat extraction in the late 1980s, the immediate receiving environment of the Application Site was rural, with the primary land uses being peat extraction and agriculture. Rhode village is situated to the south and southeast of the Application Site, approximately 1.5 km to the east of the Site at its closest point. The village has various services including a post office, a garda station, a shop and a public house that were active in the late 1980s.

National and county data has been considered to support the assessment, all of which are accessible on the CSO database. In addition, every sensitive receptor/property within the EDs surrounding the Application Site boundary were examined (Figure 6-2). Typically, sensitive receptors within an ED are considered for detailed assessment on any likely significant effects on population or human health. However, the distance from the Application Site boundary may be amended during the assessment on account of the location of population centres, density of receptors or specific local considerations.

Subject to the data available from the CSO²⁰, this section presents an analysis of socio-economic indicators which provides the narrative and evidence base of the current and historic status of the area including and surrounding the Application Site (which is comprised of Derryhinch, Drumman, Derryarkin, Ballybeg and Toar Bogs).

²⁰ <https://www.cso.ie/en/census/> (accessed on 17 June 2026)





- Legend**
- Application Site
 - Electoral Divisions

- Receptors**
- Residential
 - Both Residential and Commercial
 - Commercial



Spatial Reference Datum: IRENET95 EPSG: 2157		Copyrights: Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community,	
A	10/09/2026	First issue	K.K B.K
Rev	Date	Description	By Chkd.

Client: **BnM**

Project: **Derrygreenagh Substitute Consent**

Title: **Figure 6.2:
Sensitive Receptors map**

Scale @ A3: 1:90,000

Prepared by: K.Kale Checked by: B.Kasonde Date: September 2026

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Map Ref: 12234-023-SENS.R-S.BO-TOB-A Draft: **A**

Activity associated with the Application Site would have influenced the need for services in the surrounding area. The arrival of employees in the area would have resulted in additional customers in the local shops and public houses located in the towns including Castlejordan, Rochfordbridge, Tyrellspass, Croghan, Rhode and the surrounding area (see Figure 6-2).

In 1952, approximately 98 dwellings were built in Rochfordbridge to house workers. This would have resulted in an increase in footfall for local businesses located in Rhode Village (these dwellings are now derelict).

The subsequent section establishes the baseline at 1988 (subject to available historic data), and the environment during peat extraction activities from 1988 up to the present day regarding the following characteristics;

- Land use;
- Demographic profile including population trends from the 1980s to present day;
- Economic profile, socio-economic factors, and employment;
- Local community facilities;
- Tourism and recreation; and
- Human health including sensitive receptors and community health profile.

6.3.2 Population

6.3.2.1 Land Use

The current land use area of the Application Site equates to approximately 2,637 hectares (ha) which includes:

- Cutaway bog - Refers to peat fields that have been economically depleted of their peat resource. This land type forms the vast majority of the Application Site;
- Cutover bog - Refers to peat fields that have been subject to peat extraction activities such that the bog is degraded but have far more peat still intact than cutaway bog. These areas are typically found in small fragments around the margins of the site;
- Forestry - Forested areas under Coillte stewardship;
- Other areas include waterbodies, silt ponds, railway lines, grassland, and marginal lands.

The R400 road, constructed in the 1850's, connecting Rhode and Rochfordbridge, provided a direct transport network for workers living in Rhode and Rochfordbridge and those travelling from further destinations.

Ancillary structures such as railway tracks, and welfare facilities were situated throughout the Application Site (as detailed in Section 4.4.7 of Chapter 4).

Presently, the environment immediately surrounding the Application Site consists primarily of rural, agricultural, sand and gravel extraction and peat.

As detailed in Chapter 4 (Project Description), since the 1950s, the land has been used primarily for industrial scale peat extraction operations to supply the 80 MW Rhode and Croghan Power Station linked to the Electricity Supply Board (ESB). Following the cessation of peat extraction, any remaining stockpiled peat at the Application Site was systematically transferred to Ballivor Horticultural Works, Derrinlough Briquette Factory, Lough Ree Power Station, West Offaly

Power Station, Cúil na Móna Horticultural Works, Edenderry Power Station, and other third-party horticultural peat customers.

6.3.2.2 Population Trends

The Census years of 1986, 1991, 1996, 2002, 2006, 2011, 2016 and 2022 provide a representative breakdown on population trends nationally and locally over the assessment period (i.e., 1988 - present day). CSO Census 2022 is the latest Census data available at the time of writing (June 2026).

An examination of the population in the study area has been carried out to identify population trends, density and to define the properties/receptors surrounding the Application Site from the baseline year of 1988 to present day. Census data from the period 1986²¹-1991²² are displayed in Table 6-4 and 1996²³, 2006²⁴, 2016²⁵ and 2022²⁶ are displayed in Table 6-5. These tables illustrate population figures for the state, county and electoral divisions from 1986 to 2022, and indicates the overall percentage change between the Census year 1986 and 2022.

The Application site is situated across in three local authority areas (Meath, Offaly, and Westmeath) and 13 Electoral Divisions (EDs). Census data from 1986 and 1991 (see Table 6-4) are displayed in a separate table as the territorial divisions in 1986 and 1991 were based upon the District Electoral Divisions of the time²⁷. The District Electoral Divisions (DEDs) changed in 1996, under the Local Government Act 1994 to the Electoral Divisions, as such the locations included in Table 6-4 differ slightly than that of 1996 onwards.

However, as mentioned in Section 6.2.5, there is no data available at local level prior to 2006. ED boundaries were subject to more frequent revision, splitting, and merging, resulting in reduced temporal comparability between census years and limiting their suitability for longitudinal trend analysis. From 2006 onwards, ED boundaries have remained broadly stable within a harmonised statistical geography framework, enabling more robust assessment of demographic change over time. Accordingly, ED-level trends in this EIAR are presented for the 2006–2022 period only to ensure spatial and statistical consistency.

Table 6-2: Population Trends 1986-1991

Area	Population 1986	Population 1991	% Change from 1986 -1991
State	3540463	3525719	-0.4%
Co. Meath	103881	105370	+1.4%
Co. Offaly	59835	58494	-2%
Co. Westmeath	63379	61880	-2%

²¹ https://www.cso.ie/en/media/csoie/census/census1986results/volume1/C_1986_V1_T19.pdf

²² https://www.cso.ie/en/media/csoie/census/census1991results/volume1/C1991_V1_T20.pdf

²³ <https://data.gov.ie/dataset/a0106-1996-population-density-and-area-size>

²⁴ [https://data.gov.ie/ga/dataset/c0106-population-density-and-area-size/resource/f329d408-a6af-49fe-91af-297a3245dbad#&r=C02779V03348&c=TLIST\(A1\)](https://data.gov.ie/ga/dataset/c0106-population-density-and-area-size/resource/f329d408-a6af-49fe-91af-297a3245dbad#&r=C02779V03348&c=TLIST(A1))

²⁵ [Census 2016 Small Area Population Statistics - CSO - Central Statistics Office](#)

²⁶ [Geographic Changes - CSO - Central Statistics Office](#)

²⁷



Area	Population 1986	Population 1991	% Change from 1986 -1991
Portarlinton	3295	3211	-3%
Rhode	524	500	-5%
Daingean	659	641	-3%
Edenderry	3539 *(214 environs)	3525 *(217 environs)	0% +*1%
Tullamore	8484 *(958 environs)	8622 *(808 environs)	+1.6% -*17%
Rochfordbridge	792	721	-9%
Tyrellspass	328	376	+14%
Kilbeggan	603	617	+2%
Kinnegad	433	415	-4%
Mullingar	8077 *(4050 environs)	8003 *(3864 environs)	-1% -*5%

During the period 1986 to 1991 the national population decreased by 0.4%. The populations of Offaly, Westmeath and Laois decreased by 2% while the population of County Meath increased by 1.4%. Of the 10 DEDs, 6 saw a decrease in population; Portarlinton, Rhode, Daingean, Rochfordbridge, Kinnegad and Mullingar. The lowest decrease was Mullingar 1% while the largest decrease was 9% in Rochfordbridge. 3 DEDs increased in population; Tullamore, Tyrellspass and Kilbeggan. The largest increase was Tyrellspass 14% while the smallest increase was Tullamore 1.6%. Edenderry saw no change in population. The environs of Edenderry, Tullamore and Mullingar saw different population changes than those of the towns. The largest change in environs was 17% population decrease in Tullamore, while the smallest increase was 1% in the environs of Edenderry.

Table 6-3: Local and National Population Trends 1996 – 2022

Area	Population 1996	Population 2002	Population 2006	Population 2011	Population 2016	% Change from 1996 - 2006	% Change from 2006 - 2016	Population 2022	% Change from 2016 - 2022
State	3,626,087	3,917,203	4,239,848	4,588,252	4,761,865	+16%	+12%	5,149,139	+8%
Co. Meath	109,732	134,005	162,831	184,135	195,000	+39%	+20%	220,826	+12%
Co. Offaly	59,117	63,663	70,868	76,687	78,000	+18%	10%	83,150	+6%
Co. Westmeath	63,314	71,858	79,346	86,164	88,800	+22%	+12%	96,221	+8%
Electoral Divisions									
Griffinstown	436	493	498	558	574	+13%	+15%	605	+5%
Ballyboggan	448	489	507	536	528	+12%	+4%	567	+7%
Enniscoffey	298	337	379	409	446	+24%	+18%	431	-3%
Castlejordan	379	423	481	471	427	+24%	-11%	440	+3%
Knockdrin	113	141	157	189	204	+33%	+30%	198	-3%
Clonmore	296	345	419	420	433	+34%	+3%	508	+17%
Milltown	282	315	319	300	299	+12%	-6%	320	+7%
Castlelost	920	1,594	1,690	1,718	1,692	+59%	0%	1,736	+3%
Ballykilmore	496	623	692	707	732	+33%	+6%	778	+6%
Croghan	419	458	457	526	547	+9%	+20%	570	+4%
Ballyburly	861	1,148	1,291	1,325	1,364	+40%	+6%	1,388	+2%
Rahugh	290	300	300	297	273	+3%	-9%	310	14%
Newtown	208	203	239	216	229	+15%	-4%	262	14%



Between 2006 and 2016, the population of Ireland increased nationally by approximately 16%, while the populations of Counties Meath, Offaly, and Westmeath increased by approximately 20%, 10%, and 21% respectively.

Between 2016 and 2022, the majority of EDs within the study area recorded population growth. Eight of the eleven EDs - Griffinstown, Ballyboggan, Enniscoffey, Knockdrin, Clonmore, Ballykilmore, Croghan, and Ballyburly - experienced increases in population during this period. The smallest increases were recorded in Castlelost and Ballyburly, both at approximately 2%, while the largest increase was observed in Clonmore, at approximately 17%.

Castlelost ED showed relatively little overall change between 2006 and 2022, with its population increasing by approximately 2%. Despite this limited growth, it remained the most populous ED within the study area in 2022, with a population of 1,723 persons (Census 2022).

In contrast, Castlejordan and Milltown EDs recorded population declines between 2016 and 2022, decreasing by approximately 8% and 1% respectively.

It is reasonable to conclude that employment opportunities associated with the Application Site from 1988 to 2020, contributed to relatively high levels of employment within the local area (refer to Section 6.3.2.7, Employment and Economy, of this chapter). This economic activity is likely to have acted as a localised pull factor²⁸, encouraging in-migration and the settlement of families in the area, and is likely to have contributed to the population growth observed over subsequent intercensal periods.

The Socio-Economic Impact of Bord na Móna on the East Midlands (Curry, 1987 – included as Appendix 6.1) states that: “Overall then, it can be suggested that in socio-economic terms the Bord na Móna has contributed greatly to economic prosperity in the towns of Rhode and Rochfordbridge”.

Table 6-4: Population density of Counties, Meath, Offaly and Westmeath - 1986 to 2022

County	Population Density per Census Year (per km ²)							
	1986	1991	1996	2002	2006	2011	2016	2022
Meath	40.7	45.0	46.9	57.2	69.5	78.6	83.3	94.1
Offaly	29.2	29.5	30.4	31.8	35.4	38.3	39.0	41.3
Westmeath	34.4	34.7	35.9	39.1	43.1	46.8	48.3	52.1

During the Peat Extraction Phase, significant increases in population levels and density were recorded within the local area surrounding the Application Site. Given the scale of employment associated with peat extraction operations, it is reasonable to conclude that these activities

²⁸ Pull factors' are the reason people move to or are drawn to a particular area; 'Push factors' are the reasons people leave. Pull factors are positive conditions which can include higher wages, better employment opportunities, a higher standard of living and educational opportunities (European Parliament (2024)) -

<https://www.europarl.europa.eu/topics/en/article/20200624STO81906/exploring-migration-causes-why-people-migrate>



were a significant contributing factor to local population growth. The employment opportunities generated likely acted as a socio-economic pull factor, encouraging inward migration and supporting the establishment and retention of households within the area.

6.3.2.3 Demographic Profile

The report, *The Socio-Economic Impact of Bord na Móna on the East Midlands* (Curry, 1987), states ‘*Much of the resentment present in the early days is gone due to intermarriage, and the fact that many small farmers have found employment with Bord na Móna*’. The report also highlights Bord na Móna’s ownership of a substantial proportion of local housing stock and observes that younger people in the area did not regard the company as a major source of employment. The report also notes an increase in emigration from the region in 1981, suggesting that local employment opportunities were insufficient to fully offset broader demographic trends affecting the area at that time.

These findings indicate that Bord na Móna played a significant role in shaping the social and demographic characteristics of the East Midlands through the provision of employment and housing; but wider economic and demographic factors influenced the population movements and settlement patterns within the region.

Table 6-5: Male & Female Population Composition for the Electoral Division (ED)

Male & Female Population Composition - % difference breakdown 1991 to 2022 (locally and nationally) ²⁹ Electoral Division (ED)	1991		2022		% Change of Male & Female between 1991 and 2022	
	Male	Female	Male	Female	Male	Female
State	1,753,481	1,772,301	2,529,936	2,593,600	+44.3%	+46.3%
Enniscoffey	53.2%	46.8%	52.2%	47.8%	-1%	+1%
Griffinstown	54.6%	45.4%	51.3%	48.7%	-3.3%	+3.3%
Ballyboggan	48.8%	51.2%	53.1%	46.9%	+4.3%	-4.3%
Castlejordan	52.1%	47.9%	50.9%	49.1%	-1.2%	+1.2%
Knockdrin	60.7%	39.3%	50.5%	49.5%	-10.2%	+10.2%
Clonmore	51%	49%	50%	50%	-1%	+1%
Milltown	50.8%	49.2%	48.4	51.6	-1.6%	2.4%
Castlelost	48.9%	51.1%	49.5%	51.5%	+0.6%	-0.6%

²⁹<https://www.cso.ie/en/census/censusvolumes1926to1991/historicalreports/census1991reports/census1991volume1-populationclassifiedbyarea/>



Male & Female Population Composition - % difference breakdown 1991 to 2022 (locally and nationally) ²⁹ Electoral Division (ED)	1991		2022		% Change of Male & Female between 1991 and 2022	
	Male	Female	Male	Female	Male	Female
Croghan		49%	51%	50.4%	49.6%	+1.4%
Ballyburly		52.6%	47.4%	49.1%	50.9%	-3.5%
Rahugh		52.1%	47.9%	50.6%	49.4%	-1.5%
Ballykilmore		53.5%	46.5%	50.1%	49.9%	-3.4%
Newtown		54.2%	45.8%	48.5	51.5	-5.7%

Nationally, census results for the period between 1986 and 2022 indicate that, in 7 of the 8 censuses conducted, the proportion of females to males was marginally higher.

In contrast, the counties and local study area recorded a slightly higher proportion of males. This demographic profile is likely influenced by the historical economic characteristics of the area, including the prominence of the peat industry as a major source of employment. As noted by Curry (1987), employment opportunities associated with the bogs may have attracted and retained a greater proportion of male workers and their families, contributing to the observed gender distribution within the local population.

Table 6-6: Age Distribution Offaly

Age Group	1986	1991	1996	2002	2006	2011	2016	2022	% change 1986 - 2022
0-4 years	6101	4816	4256	4897	5449	6239	5631	4833	-23.2%
5-9 years	6387	5659	4910	4760	5428	5930	6239	5842	-8.9%
10-14 years	6503	6410	5852	5142	5080	5786	5857	6492	-0.2%
15-19 years	6268	5805	5896	5308	5120	4954	5410	5819	-7.4%
20-24 years	4712	3748	4143	4483	4970	4469	3948	4569	-3.1%
25-29 years	4470	3830	3761	4496	5619	5374	4120	4137	-7.7%
30-34 years	4268	3922	4112	4690	5617	5892	5389	4757	+10.8%
35-39 years	3959	3759	4135	4644	5289	5899	5924	5761	+37.1%
40-44 years	3209	3542	3790	4511	5148	5551	5758	6524	+68.1%
45-49 years	2822	2933	3535	4064	4697	5242	5380	6072	+73.1%
50-54 years	2616	2520	2931	3707	4035	4694	5156	5581	+72.3%
55-59 years	2627	2415	2444	3154	3715	4081	4571	5138	+64.7%
60-64 years	2714	2322	2336	2415	2943	3667	3987	4667	+66.2%
65-69 years	2346	2386	2174	2311	2356	2870	3537	4013	+52.4%
70+	1996	4427	4842	5081	5402	6039	7054	8945	+127.0%
All age groups	63379	58494	59117	63663	70868	76687	77961	83150	+27.0%

Table 6-7: Age Distribution Westmeath

Age Group	1986	1991	1996	2002	2006	2011	2016	2022	% change 1986 - 2022
0-4 years	5799	2396	4555	5578	6000	6882	6464	5751	+0.8%
5-9 years	6366	3025	4998	5317	5919	6389	6948	6825	+7.0%
10-14 years	6570	3326	6192	5549	5732	6169	6363	7203	+9.2%
15-19 years	5629	3045	6308	6040	5559	5732	5978	6419	+13.1%
20-24 years	4398	2321	4784	5479	6070	5373	5018	5434	+21.1%
25-29 years	4185	1980	4128	5263	6341	6461	5191	5175	+21.2%
30-34 years	3818	2150	4362	5537	6317	6932	6466	5912	+43.0%
35-39 years	3574	2091	4376	5419	6244	6640	6967	7303	+68.6%
40-44 years	3043	1956	4253	4976	5754	6315	6479	7460	+84.1%
45-49 years	2594	1601	3811	4683	5167	5863	6261	6869	+90.4%
50-54 years	2489	1355	3082	4090	4608	5205	5761	6453	+88.7%
55-59 years	2471	1311	2608	3393	3961	4517	5077	5880	+81.6%
60-64 years	2565	1213	2415	2636	3182	3890	4427	5168	+67.3%
65-69 years	2329	1188	2279	2382	2532	3098	3787	4588	+65.3%
70+	4004	2048	5163	5516	5960	6698	7583	9781	+83.8%
All age groups	59,834	31006	63314	71858	79346	86164	88770	96221	+46.6%



Table 6-8: Age Distribution of Meath

Age Group	1986	1991	1996	2002	2006	2011	2016	2022	% change 1986 - 2022
0-4 years	10856	4548	7778	11205	14,228	17502	15736	14217	+26.8%
5-9 years	11917	5644	9511	9932	12,800	15495	17774	17006	+35.2%
10-14 years	11302	6110	11318	10529	11,122	13469	15421	19009	+50.9%
15-19 years	9438	5393	10858	10842	10,605	11064	12994	15951	+51.3%
20-24 years	7138	3573	7580	9817	11,356	9908	9372	12279	+53.0%
25-29 years	7385	3251	6844	10164	14,131	13041	9773	10351	+33.4%
30-34 years	7736	3707	7658	11278	15,485	16235	14014	13178	+50.0%
35-39 years	7529	3885	8377	11114	14,382	16791	16832	16804	+76.2%
40-44 years	6091	3773	8041	9952	12,493	14856	16635	18818	+102.2%
45-49 years	4447	3069	7383	8851	10,370	12641	14551	17558	+119.2%
50-54 years	3822	2241	5918	7757	8,927	10320	12360	15421	+120.6%
55-59 years	3566	1837	4236	6449	7,764	8879	10124	12811	+112.9%
60-64 years	3554	1726	3604	4462	6,144	7612	8670	10364	+97.9%
65-69 years	3193	1637	3259	3593	4,168	5914	7398	8732	+92.9%
70+	5907	2897	7367	2939	8,856	10408	13390	18327	+102.5%
All age groups	103881	53291	109732	134005	162,831	184135	195044	220826	+72.0%



The CSO published the first results from Census 2022 in June 2022, providing preliminary insights into Ireland's population and housing. These initial findings formed part of a series of publications, with detailed results issued on a phased basis from April 2023 onwards.

The final Census 2022 results confirm that the population of Ireland on Census Night (3 April 2022) was 5,149,139 persons, representing an increase of 361,671 persons (7.6%) since the previous census in 2016. This was the first time since 1841 that the population exceeded 5 million. The average annual population growth rate over the intercensal period was approximately 1.2%.

Key findings from Census 2022 include:

- Population growth occurred in every county between 2016 and 2022;
- The overall population increase comprised both natural increase and positive net migration;
- Ireland's housing stock increased by over 120,000 units (approximately 6%) to more than 2.1 million dwellings, representing a substantial increase compared to the 2011–2016 intercensal period;
- The number of occupied households increased significantly, while the number of vacant dwellings declined compared to 2016;
- The national vacancy rate decreased relative to previous census periods;
- The sex ratio declined slightly compared to 2016, continuing a longer-term trend.

Census 2022 results also indicate that the Midlands Region and Mid-East Region experienced population increases of approximately 8% and 11%, respectively, between 2016 and 2022.

At Electoral Division (ED) level, Census 2022 data indicates that population change varied across the State, with a proportion of EDs experiencing strong growth, while others recorded population decline or no change. Within the study area, the combined population of the 13 EDs was recorded as 8,113 persons in 2022, representing an increase of approximately 4.7% compared to 7,748 persons in 2016.

While this growth was lower than that recorded across the Midlands and Mid-East regions, it demonstrates that the study area continued to experience population growth during the most recent intercensal period, reflecting broader demographic trends observed at county and regional levels.

6.3.2.4 Property and Receptors

The locations of sensitive receptors in the study area surrounding the Application Site have been identified using address data from the GeoDirectory database, which is used to populate Eircodes, as well as local knowledge. The validity of the GeoDirectory data has been confirmed by way of publicly available mapping, aerial imagery, street-level imagery and earth imagery.

It's not feasible to list the individual properties surrounding the Application Site from 1988, as buildings may have been constructed and demolished during this time. All receptors within the EDs discussed in Section 6.3.1 have been identified and verified by means of the desktop reviews (Section 6.2.1) and the Methodology outlined in Chapter 2 of this remedial EIAR. This

information is used to inform assessments within this remedial EIAR, in particular identifying sensitive receptors for the noise impact assessment (Chapter 11 of this remedial EIAR).

The EDs included in Section 6.3.1 were used to ensure that those properties within reasonable proximity to the Application Site are defined, and there are publicly accessible data relating to the socio-economic status of these areas. The locations of these receptors in relation to the Application Site are shown in Figure 6-2.

In April 2026, a total of 944 no. receptors from the GeoDirectory database, and planning search, were identified, 798 sensitive, 45 non-sensitive, and 2 new planning applications.

Table 6-11 below summarises the number of sensitive receptors including properties under construction and non-sensitive receptors. In addition, a search of recent planning applications (applications submitted up to August 2026 (Current Phase)) within the surrounding environs of the Application Site boundary was carried out (most recently in July 2026) to identify applications which are under consideration or have been consented.

Table 6-9: Summary of Properties within the EDs surrounding the Application Site

Type of Property	Total No. of Properties
Sensitive receptors	798
Non-Sensitive receptors	45
New Planning Applications	2
Other (churches, schools and community)	-

'Sensitive receptors' are those in residential use. Non-sensitive receptors are properties/buildings that fall under the categories of industrial businesses, garages and commercial buildings, that are not deemed habitable and would require planning permission to facilitate such use. These receptors are identified as non-sensitive receptors in Table 6-9.

From the planning search, any invalidated planning applications or consented (but unbuilt) developments where the duration of consent for development had elapsed were excluded.

6.3.2.5 Bord na Móna Community Facilities, Recreation and Tourism

Since its establishment, Bord na Móna has played a central role in supporting community development within the Midlands through a range of social, recreational and housing initiatives.

The case studies of Rochfortbridge and Coill Dubh presented in The Socio-Economic impact of Bord na Móna on the East Midlands (Curry, 1987) provide evidence that social and economic benefits associated with housing schemes and employment opportunities contributed to making rural areas more attractive place to live.

The report notes that existing community organisations and recreational facilities were strengthened through Bord na Móna's involvement, stating that *"existing clubs such as the football, tennis and youth clubs were strengthened". The report further records that "a community hall was built... to which Bord na Móna contributed a substantial amount... When*

the housing scheme was built, Bord na Móna provided 8 acres for children and gave land to a pitch and putting club enabling it to be extended to an 18-hole course” (Curry, 1987).

Bord na Móna also provided housing developments within proximity of the Application Site to attract employees to work on the bogs during the Peat Extraction Phase.

The nearest church to the Application Site is Saint Peter's Catholic Church, is located in Rhode and was constructed in 1816. This facility is located approximately 1.5km from the bog boundary. There are no medical centres or hospitals in the study area.

Sensitive receptors have been identified within each of the specialist chapters and assessed in line with the study area requirements, guidance and methodologies relevant and specific to those assessments (for example air, noise and traffic).

6.3.2.6 Property Values

Data available from the CSO on property values is presented in terms of Eircode Routing Key areas. It is not feasible to list of the individual properties surrounding the site from 1988, as buildings may have been constructed and demolished during this time. The site is located within a number of Eircode Routing Key boundaries, namely R35: Tullamore, and N91: Mullingar. The latest RPPI data indicates that the median price of residential properties sold in R35: Tullamore in February 2026, €335,000³⁰.

6.3.2.7 Employment and Economic Activity

Employment is a key indicator of the economic characteristics of an area. This section describes employment status and unemployment levels in the vicinity of the Application Site. Employment data for the census years 1986, 1991, 1996, 2002, 2006, 2011, 2016 and 2022 for Ireland and County Meath, Offaly and Westmeath are presented in Table 6-12.

Table 6-10: Employment of persons aged 15 years and over at National and County Level 1986-2022³¹

Area	1986	1991	1996	2002	2006	2011	2016	2022
State	1,091,155	1,149,080	1,307,236	1,800,933	1,930,042	2,232,203	2,304,037	2,531,099
Co. Meath	30,969	33,649	40,457	63,134	78,437	90,634	93,782	109,313
Co. Offaly	17,208	17,797	20,006	28,058	31,231	35,849	36,031	38,899
Co. Westmeath	19,318	19,895	22,328	31,945	35,469	40,956	41,955	46,485

A marginal decrease in national and county employment figures occurred between 2006 and 2011, which corresponds with the global economic recession in 2008, which resulted in a fall in employment figures reported by Census 2011. Despite this, the Census 2016 results for both county and national levels see an increase in employment figures with this trend continuing for the 2022 Census also.

³⁰ Latest available data at time of writing (June 2026) <https://visual.cso.ie/?body=entity/rppi#>

³¹ <https://www.cso.ie/en/census/>



Counties Meath, Offaly and Westmeath experienced an increase in the number of persons on the Live Register between February 2022 – February 2023 (4.2%, 4.6%, and 13.4% respectively). Overall, there is an increasing trend in Live Register figures, with the latest figures indicating a need for further employment in the Midland and Mid-East Regions, including Counties Meath, Offaly and Westmeath.

These employment figures indicate a general increase over the years and follow the employment trends at national and county level for the same period. The rise in employment figures also correlate with population growth over the same periods.

6.3.2.8 Employment at the Application Site

By 1980, significant progress had been made in the drainage and development works on approximately 17,000 hectares of Bord na Móna lands. The majority of these works related to the expansion of Bord na Móna's existing operations and the expansion of horticultural peat production. Bord na Móna became a vital contributor to Ireland's social and economic landscape, employing approximately 7,000 workers at its peak. Major civil works were carried out to extend the railway network and associated infrastructure, supporting the expansion and peat production.

From 1989 to 1993, Bord na Móna implemented a rationalisation program aimed at reducing high production costs and boosting productivity. Various cost-cutting initiatives were introduced across all company operations. In the financial year 1988/89, staff costs amounted to £59.1m out of a total operating cost of £100m. Significant workforce reductions were made, and a new system called Autonomous Units was implemented, where workers were paid based on output and efficiency, resulting in productivity gains. However, around 3,500 jobs were lost during this process. Additionally, the company underwent divisionalisation in April 1989, with separate divisions established to operate autonomously, aligning the company's focus more closely with market demands and customer needs.

The decision to commence peat extraction at the Application Site was closely linked to the decision of the Electricity Supply Board (ESB) to construct the 80 MW Rhode Power Station, located southeast of the Application Site. Rhode Power Station was decommissioned in 2003, and peat exports were transported to other end destinations.

Croghan Briquette Factory was also constructed near the Application Site in 1960 which consisted of a large-scale industrial facility designed to process milled peat into solid fuel briquettes. Croghan Briquette Factory was closed in 2000 and demolished in 2021.

Peat extracted from the Application Site was supplied to a range of energy-generation and horticultural facilities. Deliveries commenced to Edenderry Power Station, Co. Offaly, in 2001, followed by Derrinlough Briquette Factory in 2002, Lough Ree Power Station in 2004, and West Offaly Power Station in 2005.

Peat was also supplied for horticultural use, including to Cúil na Móna, Co. Laois, from 1995, Kilberry Horticultural Works, Co. Kildare, from 2003, and Ballivor Horticultural Works on a limited basis in 2013 and 2015. From 2012 onwards, peat was also supplied to other third-party horticultural users.

During the Peat Extraction Phase at the Application Site, staff would commute to the works and local holding areas to obtain the necessary machinery and equipment before accessing the bogs.



Table 6-11 below provides the approximate staff numbers during each phase at the Application Site.

Table 6-11: Approximate Numbers of Staff

Project Phase	Approximate Staff Numbers on site per day
Peat Extraction Phase	75
Current Phase	20*
Remedial Phase	6

*A worst-case assumption has been estimated based on the peak of the Current Phase and is likely to be significantly reduced once decommissioning works have been completed.

6.3.3 Human Health

The human health effects of the receiving environment, as it relates to the Air Quality, Noise and Vibration, Water, Land and Soils, and Traffic is presented in their respective topic chapters within this remedial EIAR, as referenced in Section 6.1.

A desktop literature review was undertaken in order to identify any relevant literature relating to peat extraction activities and human health.

6.3.3.1 Census Data

Human health data for 1988 are not available at either the State, County or study area levels. Questions related to general health were only introduced within Census 2011; therefore, no health data is available for preceding Census years (i.e., 1986-2006). Census health data for the years 2011, 2016 and 2022 have been reviewed to infer the 1988 baseline.

Census results related to general health for the State and County Meath, Westmeath and Offaly (2011, 2016 and 2022 Census data) are presented in Table 6-14.

In general, the percentage health breakdown for the State and County populations are similar and have remained consistent across the Census periods reviewed (i.e. 2011, 2016 and 2022).

In terms of disabilities, Census 2011 reported 595,335 persons (289,728 Males (48.7%) / 305,607 Females (51.3%)) with disabilities living in the State, and in 2016 this figure was 643,131 (311,580 Males (48.4%) / 331,551 Females (51.6%)).

In 2022, Census results indicated there were 1,109,557 persons (531,207 Males (47.9%) / 578,350 Females (52.1%)) living with a disability, to any extent, in Ireland. Census results indicate that there were 187,112 (72,999 Males (39%) / 114,113 Females (61%)), 195,263 (77,112 Males (39.5%) / 118,151 Females (60.5%)), 2,639 (1,088 Males (41.2%) / 1,551 Females (58.8%)) carers in the in the state in 2011, 2016, and 2022 respectively.

Census 2016 responses regarding general health found that approximately 87% of the Ireland's population felt they had 'Very Good' or 'Good' health, although down slightly (-1%), this remained consistent with 2011 responses.

The Census 2022 responses regarding general health found that approximately 83% of the Ireland's population felt they had 'Very Good' or 'Good' health, marginally declining (-4%) from



2016 when it was 87% Health responses for 2011, 2016, and 2022 at a county level are detailed in Table 6-12 below.

Table 6-12: Percentage of the General Health of the Population at State and County Level (2011, 2016 and 2022 Census)

Area	2011					2016					2022				
	Very Good	Good	Fair	Bad	Very Bad	Very Good	Good	Fair	Bad	Very Bad	Very Good	Good	Fair	Bad	Very Bad
State	60.3	28.0	8.0	1.2	0.3	59.4	27.6	8.0	1.3	0.3	53.2	29.7	8.6	1.4	0.3
Meath	63.9	26.7	6.4	0.9	0.2	63.1	26.5	6.7	1.0	0.2	57.1	29.6	7.6	1.2	0.3
Offaly	58.9	29.1	8.7	1.4	0.3	57.3	29.2	9.0	1.5	0.3	51.7	31.2	9.4	1.7	0.4
West-meath	59.3	28.8	8.3	1.3	0.3	58.6	28.7	8.2	1.4	0.3	52.1	30.2	8.8	1.4	0.3

Deprivation Index

The Pobal HP Deprivation Index is Ireland's principal measure of relative affluence and disadvantage and is widely used by Government Departments, local authorities and state agencies to identify areas of socio-economic need and inform the targeting of public services and resources.

The Index has been published since 2006, and has been published for the census years 2006, 2011, 2016 and 2022.

No deprivation data is available from Pobal for the years preceding 2006. A review of latest deprivation indices (2022) available from Pobal which ranges from 'very affluent' to 'extremely disadvantaged', shows that Counties Offaly and Westmeath are currently considered 'Marginally Below Average' while County Meath are currently considered 'Marginally Above Average'.

These findings suggest that the area is neither particularly affluent nor particularly deprived and is typical in comparison with the county overall. There are likely to be localised areas of deprivation where the county-level statistics simply do not apply. It is not possible to identify specific baseline health data for individual receptors. However, communities contain individuals who may be more susceptible to environmental or socio-economic effects due to factors such as age, existing health conditions, disability or other vulnerabilities. Such groups may include older persons, children, individuals with respiratory conditions (e.g. asthma), neurodevelopmental conditions or those experiencing mental health challenges.

The presence of potentially vulnerable populations has been considered, where relevant, within the specialist assessments presented in this rEIAR and in accordance with the methodologies and guidance applicable to each assessment topic.

6.3.3.2 Environmental Factors

The following sections present a brief summary of the baseline environment relative to each of the environmental factors assessed in terms of human health (i.e., air, noise and vibration, water, land and soils, traffic emissions). Full baseline details and their applicable study areas relative to the Application Site are presented in Chapter 8 (Land, Soils and Geology), Chapter 9 (Hydrology, Hydrogeology and Water Quality), Chapter 10 (Air Quality), Chapter 11 (Noise and Vibration), and Chapter 14 (Material Assets including Traffic and Transport) of this remedial EIAR.

6.3.3.3 Air Quality

There are no data pertaining to dust monitoring at the site or surrounding area for the period 1988 to 2000. Monitoring for dust deposition has been undertaken on the Application Site as a requirement of the IPC Licence (Reg. P0501-01) for the Application Site since 2000. The monitoring results are reported in the Annual Environmental Report (AER) each year, which are included as Appendix 4-1 of this remedial EIAR.

Monitoring typically takes place between May to September of each year to correspond with the main extent of the peat extraction season, which generally runs from March to October.

Monitoring is conducted at 4 no. locations in the Derrygreenagh Bog Group: DM01 Toar Bog (within the Application Site, to the west), DM02 Derryhinch Bog (within the Application Site, to the north), DM03 Ballivor Bog (approximately 15 km north-east of Derryhinch Bog) and DM04



Ballybeg Bog (within the Application Site, to the south). While monitoring was not specifically conducted at all locations within the Application Site, three of the four monitoring locations within the Derrygreenagh Bog Group (within which the Application Site is located) are within the Application Site and can be considered representative of the Application Site.

Table 10.5 of Chapter 10 (Air Quality) of this remedial EIAR details the maximum annual result recorded at the monitoring locations as reports in the previous AERs for the Derrygreenagh Bog Group.

There have been a small number of dust-related complaints reported in the AERs for the Derrygreenagh Bog Group over the 2000 – 2025 period which indicates that at times there have been issues with dust emissions from the Derrygreenagh Bog Group impacting local residences. The dust issues were related to either fires on site or peat extraction activities. Remedial measures were put in place to rectify any dust nuisance issues. The AERs note that training programmes with staff were implemented to raise awareness regarding dust emissions from site activities.

Based on the average monitoring results within the Derrygreenagh Bog Group (in which the Application Site is located) a baseline concentration of 155 mg/m²/day for dust deposition at the Application Site has been established.

Site surveys and monitoring have continued to be undertaken at the Application Site during the Current Phase and Remedial Phase as part of the as per the draft Cutaway Bog Decommissioning and Rehabilitation Plans.

6.3.3.4 Water Quality

Water consumption across the Application Site would have primarily been at the Derrygreenagh Works for the workshop, which is located outside the Application Site boundary. The water supply is from the Toberdaly Public Water Scheme (PWS) which is supplied from groundwater boreholes.

Based on the results recorded at the EPA water monitoring stations, the overall water quality in the watercourses around the Application Site have been generally moderate to good over the past 30 years, since regular monitoring commenced (See Table 9 11 to Table 9 20) of Chapter 9 of this remedial EIAR.

The regional natural surface water drainage pattern, in the environs of the Application Site consists of the Mongagh and Yellow River which drains the central part of the Application Site. The Mongagh and Yellow rivers flow eastwards, externally to the site and effectively dividing the site. The Yellow [Castlejordan]_SC_010 drains a Sub-catchment of approximately 184 km² before entering the River Boyne downgradient of Clongall Bridge.

The groundwater within the Application Site primarily drains to surface water bodies situated around the bogs. The Application Site has been relatively good in terms of water quality since regular monitoring commenced in 2000. The waters of the Mongagh and Yellow catchment area are of moderate to good quality with Q-values between 3-4 and 4 throughout the last 20 years.

Wastewater from the welfare facilities at the Derrygreenagh Works was, and currently is, discharged to an on-site septic tank with the effluent discharged to a percolation system through peat before penetrating to ground. The septic tank is inspected and de-sludge annually



by a licenced waste permit holder to ensure the treatment system is working optimally. The tank is in place since pre-1988. No issues with the existing septic tank were noted during the site visits.

See Chapter 9 (Hydrology, Hydrogeology and Water Quality) of this remedial EIAR for further details of the baseline environment in terms of water quality, and the assessment of the impacts to water quality resulting from Bord na Móna's historic peat extraction activities and ancillary activities at the Application Site.

6.3.3.5 Noise

By 1988 peat extraction was well established at the Application Site. Drainage was installed in all bogs, and railway infrastructure was laid on all bogs as required. In 1988, different types of machinery were in use on the Application Site during different seasons of the year, for the purposes of peat extraction activities and all ancillary works and are listed in Chapter 4 (Project Description) of this remedial EIAR.

Additionally, vehicular movements to and from the Application Site will have made use of existing roads to reach various end users. Potential noise impacts from plant and equipment would have been experienced intermittently at any given sensitive receptor location during the active periods due to the continuous movement of machinery around the bogs, i.e., no machinery operated continuously in the one location near sensitive receptors.

In the absence of baseline noise data from 1988, reference is made to the background noise survey undertaken at noise-sensitive locations in the vicinity of the Application Site to support the for the Derrygreenagh Power planning application. The relevant details are discussed in Chapter 11 (Noise and Vibration) of this remedial EIAR.

The types of noise generating peat extraction machines used during the Peat Extraction Phase are detailed in Section 4.2.2 and Section 4.2.3 of Chapter 4 of this remedial EIAR and are summarised below.

- Drainage and Bog Preparation Machinery such as Dragline/Shovel Excavator
- Peat Extraction Machinery such as:
 - Tractors
 - Milled Peat Harvester
- Dump Truck
- Wheeled Loader Lorry;
- Track Excavator;
- Dozer;
- Dewatering Pumps;
- Rail Shifter;
- Locomotive and Wagons and
- Service Vehicles.

In addition to these machines, peat which had been extracted at the Application Site was transported to Rhode Power station and other end users via both industrial rail lines along the bog and HGVs. Vehicular traffic also arose from the movement of personnel to and from the Application Site in the mornings and evenings. As mentioned, from 2000 onwards, the Application Site has operated under IPC Licence P0501-01. As activity on the Application Site



had been carried out in daytime hours only, the relevant noise level limit is 55dB LAeq,30min at noise-sensitive locations. This noise criterion is applied to the Peat Extraction Phase, the Current Phase and Remedial Phase; this is considered appropriate as the activities in each phase formed or will form part of the normal scheduled activities at the Application Site for that period.

Since the implementation of the above noise limitation, there have been no breaches of noise limits by the onsite activities or noise complaints from noise sensitive locations in the vicinity of the Application Site. There are no records of noise complaints ever received regarding the Application Site for the period 1988 to the implementation of the above limits in 2000.

Although peat extraction has ceased at the Application Site since July 2020, the Application Site still operates under the requirements of IPC Licence P0501-01. However, due to decreased levels of activity and the corresponding reduced employee numbers at the Application Site during the Current Phase, noise generating movements are at a much lesser volume than during the Peat Extraction Phase. The onsite machinery which are used during the Current Phase are detailed in Section 4.2.2 and Section 4.2.3 of Chapter 4 of this remedial EIAR, and are summarised below:

- Wheeled Loader Lorry;
- Track Excavator;
- Locomotive and Wagons;
- Dump Truck; and
- Tractors.

Chapter 11 (Noise and Vibration) of this remedial EIAR presents the noise assessment for the Current Phase. Based on the predicted noise levels, the Application Site has been in full compliance with the noise limits set out in the IPC Licence during the Current Phase.

6.3.3.6 Health and Safety

As one of the country's largest and longest established industrial employers, Bord na Móna has a long-standing health and safety protocols in place across all their sites. Below is a list of training that was in place across all the Bord na Móna's landholdings including the Application Site since the 1940s and were part of the day-to-day training and operations during the period 1988 to 2020.

- Fire safety;
- First Aid;
- Operation and maintenance of plant and machinery;
- Use of hand and power tools;
- Site Safety;
- Road Safety;
- Safe Workshop Operation Procedures;
- Transport Operation Procedures;
- Hazard Identification, Risk Assessment; and
- Working at Heights.

6.3.3.7 Vulnerability of the Application Site to Major Accidents and Natural Disasters

Ireland is located in a geologically stable country with a mild temperate climate. Therefore, historically there has been limited potential for natural disasters to occur within the Application Site.

Measures to prevent and contain such events were in place in 1988 and during the Peat Extraction Phase (1988 to 2020) are discussed below. These measures formed part of day-today bog operations and management. Potential natural disasters that may occur on a bog sites such as the Application Site may include; bog fire, flooding and landslides. Risk of Major Accidents and Natural Disasters is discussed further in Section 6.4.5 of this chapter.

6.3.3.8 Bog Fires

There are two primary potential sources which could cause a fire at a bog; internal and external sources. Internal sources typical relate to machinery, heating peat, hot work (e.g., in production areas and internal rail lines) on site. External source may include use of cigarettes and matches, trespassers (e.g., using vehicles such as motorcycles), and burning of gorse.

Based on the data in the Annual Environmental Reports (AER) there is record of a bog fire at the Application Site in 2013. The most recent incident occurred at Drumman Bog in July 2026 and was reported to the Environmental Protection Agency (EPA) under Incident No. INCI033357 on the 15 July 2026 and updates to the EPA were provided on 14 August 2026. The fire followed a period of exceptionally high temperatures. Corrective measures implemented to prevent the spread of the fire both within and beyond Bord na Móna lands included the establishment of fire breaks. The fire was subsequently brought under control later in July 2026.

No formal fire prevention or safety procedure documentation is available pre-1988. However, communication with former and current personnel employed by Bord na Móna confirmed that fire procedures were in place in 1988 and during the Peat Extraction Phase (1988 to 2020).

6.3.3.9 Peat Landslide

The Bord na Móna 's records do not document the occurrence of any historic landslides at the Application Site. Similarly, the GSI's online database³² does not report any historic landslides within the Application Site or in the surrounding study area. The majority of the site has Low susceptibility for landslides. The more elevated areas within the bog have a Moderately Low susceptibility. Figure 8-6, under Section 8.3.10 of Chapter 8 (Land, Soils and Geology) of the remedial EIAR shows the landslide susceptibility classification of the bogs.

Given that the Application Site is relatively flat lying and that the peat across the site has generally been drained and worked, the risk of slope or peat instability associated with the extent of the site is low. The GSI have developed a landslide susceptibility map which identifies areas which are subject to landslides and is measured from low to high. The landslide susceptibility map considers where the landslides occur and what causes them (slope, soil type and the impact of the flow of water in an area). The site and the surrounding areas are classified

³²<https://gsi.geodata.gov.ie/portal/apps/webappviewer/index.html?id=be808e49f2be4808bd4e2e60820fa856>



as Low susceptibility. No evidence of peat instability (i.e., peat pipes) was noted on the site during any of the site walkovers.

As the Application Site was subject to peat extraction for close to 40 years prior to 1988, the residual peat depths across the Application Site in 1988 were reduced and the bogs were drained with shallow slopes. No peat slide/slope failures occurred during the period from 1988 to present day.

A qualitative assessment of geohazards at each of the 5 no. bogs of the Application Site has been completed and is presented in Table 8-11. of Chapter 8 (Land, Soils and Geology) of this remedial EIAR. The assessment reviews any local historical failures, residual slopes within each bog, and residual peat depths at each bog. The assessment presents an evaluation of slope failure risks associated with each bog unit. Each of the bogs are drained, and peat extraction has now ceased. Each of the bogs have very low ground slope levels within the extraction areas, they occur within low-lying enclosed basins, and these in combination with the historical and continued drainage reduces the peat failure risks significantly.

See Chapter 8 (Land, Soils and Geology) of this remedial EIAR for further details

6.3.3.10 Flooding

The OPW 'Flood Hazard Database' was used to obtain information on historical flooding events within the Application Site. No historical flood events were identified within 1 km of the Application Site.

There are two areas of fluvial flooding noted within the Derryarkin bog, one extent is located in the south and arises due to flooding from the River Rathgarrett and the Yellow River. The other extent is located in the northwest of the site and arises due to flooding from the Kiltotan and Collinstown River. Both areas flood in a 1 in 100-year (1% AEP) event. Slightly larger extents are noted in the same areas in 1 in 1000-year (0.1% AEP) events.

There is also flooding noted along the connecting road between the Derryarkin and Toar bogs during the 1 in 100-year event.

There is one area of fluvial flooding noted within the Ballybeg bog, this extent is located in the south and arises due to flooding from the Yellow River. Both areas flood in a 1 in 100-year (1% AEP) event. Slightly larger extents are noted in the same areas in 1 in 1000-year (0.1% AEP) events.

The River Mongagh flows through the Drumman bog. During a 1% AEP fluvial event it is predicted to overtop its banks in two distinct locations. During a 0.1% AEP fluvial event there are four noted areas of fluvial flooding.

The Derryhinch bog is liable to fluvial flooding during a 1% AEP fluvial event as a result of flooding from the Milltownpass River.

GSI Groundwater Flooding Probability Maps were reviewed for the Application Site. Areas of GSI historic surface water are noted within the Application Site boundaries. There is evidence of surface water flooding in Derryarkin, Drumman, Ballybeg as well as Derryhinch bogs. The closest groundwater feature is 30 m south-west of the Toar bog; there are further groundwater extents 1km north-west of the Derryarkin bog. There are no noted groundwater extents within the Application Site boundary.

The risk of flooding is addressed further in Chapter 9 (Hydrology, Hydrogeology and Water Quality) and Appendix 9.1 (Flood Risk Assessment) of this remedial EIAR.

6.4 ASSESSMENT OF SIGNIFICANT EFFECTS ON POPULATION AND HUMAN HEALTH

6.4.1 'Do Nothing' Scenario

A description on the approach to the 'Do-Nothing Scenario' in this remedial EIAR is presented in Section 2.11 of Chapter 2 of this remedial EIAR. Overall, considering the 'Do-Nothing Scenario' as it relates to population and human health, constitutes the cessation of peat extraction activities at the Application Site in 1988, which would have resulted in the lands being allowed to naturally revegetate. However, under this scenario, IPC Licence P0501-01 would not have been issued in 2000, and the associated decommissioning and planned rehabilitation works would not have been implemented.

It should be noted that the 'do nothing' scenario may have had negative implications for population growth and the local economy due to reduced employment opportunities. These impacts are discussed in detail below.

6.4.1.1 Population

Under the Do-Nothing Scenario, the main land use in 1988, which was industrial peat extraction, would have ceased and the lands would have been allowed to naturally revegetate. Community receptors within the EDs surrounding the Application Site boundary would not have experienced effects which are associated with peat extraction activities.

The cessation of peat extraction would have resulted in the loss of direct and indirect employment opportunities associated with the site. Given the historic importance of the peat industry as a source of local employment, it is reasonable to conclude that the absence of this employment opportunities may have reduced the area's ability to attract and retain working-age residents. Over time, this could have contributed to reduced population growth and an ageing demographic profile.

The potential effects on residential amenity and property values are less certain, as these can be influenced by a range of factors. While the cessation of industrial activities may have resulted in some environmental and amenity benefits for nearby residents, the loss of employment and associated economic activity could have adversely affected the local economy. Consequently, the overall effect on property values cannot be determined with confidence.

Overall, it is reasonable to conclude that the Do-Nothing Scenario would likely have resulted in a slight to moderate, negative, long-term effect on the local economy and demographic profile of the Application Site and surrounding area, principally due to the loss of employment opportunities and the associated reduction in economic activity.

6.4.1.2 Human Health

Under the Do-Nothing Scenario, the cessation of peat extraction and associated ancillary activities in 1988 would have resulted in a reduction in noise, vibration and dust emissions generated by activities at the Application Site. Peat extraction machinery and associated

operations would have ceased, thereby eliminating these emissions. Although some plant and machinery would likely still have remained at the site for maintenance works, the scale and intensity of activity would have been substantially reduced, decreasing the potential for adverse effects on nearby communities.

Engine emissions associated with the peat extraction machinery and transport of the milled peat from the bogs to the Rhode Power Station would also have ceased. While some transport movements may have continued for a limited period to remove existing peat sticks, overall traffic volumes associated with the Application Site would have been significantly lower than those arising from the peat extraction operations. Consequently, emissions to air attributes to site activities would have been reduced.

In terms of air quality, the cessation of peat extraction activities from 1988 onwards would have eliminated the ongoing generation of dust and combustion-related emissions associated with peat extraction operations and associated vehicle movements. This would likely have resulted in a slight, positive, long-term effect on local air quality within and surrounding the Application Site.

Overall, it is reasonable to conclude that overall, the Do-Nothing Scenario would have resulted in a slight, positive, long-term effect on human health within and surrounding the Application Site and surrounding area, primarily due to reductions in noise, vibration, dust and air emissions associated with peat extraction activities. However, it is also acknowledged that the loss of employment opportunities and associated economic activity may have resulted in indirect socio-economic effects on the local community's health.

6.4.2 Peat Extraction Phase 1988 – 2020

6.4.2.1 Population

Land Use

From 1988, land use within the Application Site remained primarily the same as pre-1988 with peat extraction underway across the Application Site. As shown in the peat extraction maps in Chapter 4 (Project Description) of this remedial EIAR, the total area of the Application Site subject to peat extraction was consistently reducing in size from 1988 until June 2020 when peat extraction ceased completely.

As extraction activities were phased out, the result was a gradual change in land use across the Application Site from predominantly active cutaway and cutover peatlands to a mosaic of habitats and land uses resulting from natural revegetation of the site. Consequently, the proportion of the site in active industrial use reduced over time, while areas undergoing natural regeneration increased.

The change in land use from the baseline year of 1988 to 2020 is considered to have had a, moderate, neutral, permanent effect in terms of land use at the Application Site. This change was consistent with the existing and emerging baseline trend, which involved the removal of peat from the majority of bogland within the Application Site.

As Bord na Móna gradually ceased peat extraction, which ended in June 2020, more land was given over to natural revegetation as described in the remedial phase. The cessation of peat extraction within the Application Site resulted in a gradual reduction in the extent of land in



active industrial use and a corresponding increase in areas undergoing natural revegetation and regeneration. Between 1988 and June 2020, the area subject to peat extraction reduced, with peat extraction ceasing entirely in June 2020. Consequently, the land use character of the Application Site transitioned from predominantly active cutaway and cutover peatlands towards a mosaic of habitats and land uses associated with natural regeneration.

This change represents a moderate, neutral and permanent effect on land use and is considered to be consistent with the existing and emerging baseline trend associated with the cessation of peat extraction across the Application Site.

Demographic Effects

Population and housing effects associated with peat extraction activities following the 1988 baseline year are considered to have been limited but locally significant. During the 1980's, Ireland experienced a downturn in economic activity, characterised by high unemployment and substantial outward migration, particularly among younger age cohorts seeking employment opportunities abroad. Against this backdrop, employment opportunities provided by Bord na Móna represented an important source of economic stability within the local area.

In the late 1980s Bord na Móna implemented a programme of voluntary redundancies, resulting in approximately 50% reduction of staff across all sectors, a trend which was also reflected in peat production volumes.

It is therefore considered that from the baseline year of 1988 to 2020, activities at the Application Site would have resulted in a moderate, positive, long-term effect on the demographic profile of the local area through the provision of employment and the support of local economic activity. These effects are considered to have contributed to population retention and community stability within the surrounding area over the operational life of the Application Site. Annual peat extraction quantities for the period 1988 to 2022 are detailed in Table 4-4 of Chapter 4 (Project Description).

Economic Effects

Peat extraction and ancillary activities provided direct and indirect employment which would have had a positive impact on local employment. Staff numbers during the Peat Extraction Phase include approximately 75 no. permanent employees.

Between 1989 and 1993, financial implications and concern over conservation of peat came to the fore and the economics of peat extraction activities became less viable and alternative fuel technologies such as oil and gas increased in popularity. A series of initiatives were implemented in all areas of company activity. This led to a reduction in staff numbers and a change in how the business was operated. Furthermore, new technologies and machinery were introduced that required less staff.

It is therefore considered that from the baseline year of 1988 to 2020 activity at the Application Site resulted in a moderate, positive, long-term effect in terms of employment and economy.

Property Value

As outline in section 6.3.2.6 of this chapter, the potential effects on residential amenity and property values are less certain, as these can be influenced by a range of factors. The overall effect on property values cannot be determined with confidence.



Community Facilities

Bord na Móna played a significant historic role in the development and sustainability of Derrygreenagh and Rochfortbridge, while also providing a major employment and economic base for Rhode and the surrounding area. Its contribution extended beyond direct employment and included the provision of 100 houses at Derrygreenagh Park, a purpose-built community centre, eight acres of children's recreational space, land and machinery to support the development of Rochfortbridge Pitch & Putt Club, drainage and road infrastructure, apprenticeships, skilled employment and wider economic activity that supported local shops, services, schools and businesses.

Bord na Móna also provided practical and long-standing support to community and voluntary activity in the areas in which it operated. This included:

- Sponsorship and support of local sports clubs and sporting events;
- Sponsorship and support of social and recreational clubs including drama, pitch and putt, and Gaelic Athletic Association (GAA);
- Providing and building amenity areas, often in partnership with local authorities and community groups; and
- Supporting local development associations and parish events.

These community initiatives illustrate the company's historic role not only as an employer and economic contributor, but also as an active supporter of the social, sporting, cultural and community life of Derrygreenagh, Rochfortbridge, Rhode and the wider area. As such, it is considered that activities during the Peat Extraction Phase would have resulted in moderate, positive, long-term effects on community facilities.

Tourism and Recreation

It is unlikely that the Peat Extraction Phase had any measurable effects on tourism and recreation in the local area. The active peat extraction fields would not have been accessible or permitted for tourists or walkers to pass through.

The principal tourist and recreational attraction in the area is Croghan Hill, which is located outside the Application Boundary. A publicly accessible walking route provides a summit to the mound, which is believed to be a Bronze Age burial site. Though local use on St Patrick's Day has long been a tradition, public access was not formally facilitated until 2018 with the support from Offaly County Council.

The nearest recreational facility to the Application Site includes Rhode GAA sport pitch, which is located less than 1km east of Ballybeg Bog, and St Mary's Rochfortbridge GAA pitch, which is located approximately 2.5km north west of Drumman Bog, both of which were founded prior to the baseline period of 1988.

Given the limited interaction between peat extraction activities and tourism or recreational receptors, and the absence of direct effects on established tourism assets or recreational facilities, it is considered that activities during the Peat Extraction Phase (1988 – 2020) would have resulted in a Not Significant, Neutral, Long-Term effect on tourism and recreation in the area.

6.4.2.2 Human Health

The effects of the industrial peat extraction work on human health, such as dust nuisance, noise, traffic, and visual effects, have been assessed in the relevant environmental chapters of this remedial EIAR referenced in Section 6.1 of this chapter.

Human health impacts could have potentially included the following:

- Air quality - the primary concerns with respect to potential impacts from the peat extraction operations and associated activities on public health are dust/particulate matter emissions from milling, stockpiling works and from transportation. Emissions from vehicles during the Peat Extraction Phase would have impacted air quality. The air quality assessment established that the peat extraction and ancillary activities during the Peat Extraction Phase had an overall Low Risk of dust soiling impacts and a Low Risk of dust-related human health impacts. However, prior to mitigation measures being put in place, (IPC Licence: Condition 11) workers may have experienced health impacts from the inhalation of dust and particulate matter emissions while working on site and in machinery. Furthermore, air quality conditions would have improved post 1988 following the implementation of mitigation measures and a greater emphasis on human health and well-being. The improvement in engine emissions would also have reduced the negative effects of engine emissions on the workers and the local environment over the period from 1988 to 2020.
- Noise – excessive levels can result in deficiencies in hearing and sleeping patterns. It can also contribute to hypertension, heart disease, and annoyance. All these effects can assist in the deterioration of an individual's personal health and well-being. However, the noise impact assessment did not identify significant noise levels on nearby sensitive receptors given the distances between the peat extraction machinery and nearby noise sensitive receptors;
- Water – there would have been potential for pollutant pathways from the Application Site to receiving waterbodies from the storage of fuel and other pollutants, primarily at the Derrygreenagh Works, which is located outside the Application Site boundary. This would have had the potential to impact on local water quality and possibly on local water supplies, however measures were in place during the Peat Extraction Phase to prevent release of pollutants and silt from the Application Site and therefore reduce the potential for impacts on human health from water sources. As outlined in Section 9.3.4.3 of Chapter 9 of this remedial EIAR, drainage channels and silt ponds were in place by 1988. Drainage channels were maintained and are present throughout the Application Site which is currently operated under IPC licence P0501-01 since 2000.
- Traffic – impacts relating to traffic and transport include health and safety impacts, traffic nuisance and traffic noise. During the Peat Extraction Phase, traffic associated with the Application Site occurred in combination with traffic generated by these surrounding land uses. As detailed in Section 14.1.5.2 of Chapter 14, of this remedial EIAR, the internal industrial rail network facilitated peat transport without sole reliance on the public road network, although road-based peat transport also occurred, particularly during the later years of the Peat Extraction Phase. The traffic impact assessment did not identify any significant effects from traffic and transport and there

are no records available of any traffic health and safety incidents in the vicinity of the Application Site in relation to the peat extraction activities.

Significant negative effects on the health of sensitive receptors in the local population are unlikely due to their distance from the production areas and the seasonal nature of the activity.

Working conditions were standardised following the introduction of the Safety, Health and Welfare at Work Act 1989 and similar legislation. Production centres which included canteens and welfare facilities were in place at the Application Site prior to 1988.

From 2000, the peat extraction activities were regulated by the EPA in accordance with an Integrated Pollution Control (IPC) licence (Reg. No P0501-01). This licence is still in place. This licence ensured that the peat extraction activities operated in accordance with specific emissions standards to ensure both environmental and human health protection.

As such, it is considered that activities during the Peat Extraction Phase (1988-2020) would have resulted in not significant, negative, temporary to medium-term effects on human health.

6.4.3 Current Phase (2020 – Present Day)

6.4.3.1 Population

Land Use

Peat extraction activities at the Application Site ceased in June 2020, and the Site is currently undergoing natural revegetation. The Current Phase comprises decommissioning activities and Rehabilitation Phase 1 works, which have been undertaken in accordance with the draft Cutaway Bog Decommissioning and Rehabilitation Plans.

The cessation of peat extraction has also created opportunities for alternative land uses on the former peatlands, including renewable energy development. This transition is evident across other Bord na Móna lands, where renewable energy projects have been developed to support Ireland's transition to a low-carbon economy while contributing to the national supply of sustainable energy.

Demographic Effects

The Current Phase (2020-Present Day) is not considered to have materially influenced population growth, population distribution, or housing demand within the study area. While the cessation of peat extraction resulted in a reduction in employment at the Application Site, the scale of job losses was relatively limited in the context of the wider local labour market. Accordingly, any associated changes in population or housing are considered to have been negligible.

Economic Effects

The Current Phase (June 2020 – present day) has had a slight negative/moderate effect on the staff employed by Bord na Móna at the Application Site. At the peak of the Current Phase there was approximately 20 no. of staff at the Application Site however, this is based on a worst-case estimate and the average number of staff on site during this period is considerably lower.

The Current Phase has therefore resulted in job losses and has had a slight negative impact on the local population. It is therefore considered that the Current Phase at the Application Site resulted in slight negative, short-term effect in terms of employment and the local economy.

Property Value

There are no residential receptors within the Application Site boundary.

As property values are affected by numerous external factors, a direct relationship between the Current Phase of the Application Site and local property values cannot be determined. Therefore, no significant effect on property values is predicted.

Tourism and Recreation

Given the limited interaction between the Current Phase and tourism or recreational receptors including Croghan Hill and nearby GAA facilities, and the absence of direct effects on established tourism assets or recreational facilities, it is considered that activities during the Current Phase (2020-present day) would have resulted in a Not Significant, Neutral, Long-Term effect on tourism and recreation in the area.

6.4.3.2 Human Health

Potential Human Health impacts during the Current Phase include the following:

- **Air Quality-** During the Current Phase (June 2020 to present day), the activity on the Application Site is much reduced due to the cessation of the peat extraction. The activity included the removal and transportation off site of any remaining peat stockpiles which was completed in 2021. There was the potential for dust emissions associated with the removal of stockpiled peat. The dust control measures stipulated within the IPC licence for the Application Site are required to be in place to avoid potential dust issues. Due to the negligible risk of dust impacts from the removal of the stockpiled peat from the Application Site, dust emissions are predicted to have had a short-term, negative and imperceptible impact on air quality which is overall not significant. Decommissioning works involving the removal of buildings and compounds and removal of internal railway tracks may also result in some dust emissions. However, any dust emissions are likely to be minor in nature and would have a short-term, negative impact on the low number of nearby sensitive receptors which is overall not significant.
- **Noise-** Decommissioning plans are underway across the Application during the Current Phase. The noise assessment predicts noise levels at various distances, to demonstrate that no significant effect has occurred or is likely to occur in the future. The potential effects at the nearest noise-sensitive location associated with the Current Phase are described as negative, not significant and short-term. Vibration measurements carried out by AWN Consulting, for an unrelated project, at a distance of 15 m from the main Dublin to Limerick/Cork train line yielded a VDV value of 0.02 m·s^{-1.75}. Considering that the much lower speeds of the locomotives and wagons in use during the Current Phase, it is not considered that a significant vibration effect occurred. The resultant vibration impact is negative, not significant and long-term
- **Water-** During this Current Phase, the Application Site has operated in accordance with IPC licensing requirements. Silt ponds are maintained and silt is removed from the silt

ponds. Discharge volumes from the Application Site to nearby surface watercourses are comparable to surface water discharges during the Peat Extraction Phase. There are no significant effects of drainage on bog hydrogeology and downstream surface water hydrology as a result of the Current Phase of the Application Site. As state previously, Water consumption across the Application Site would have primarily been at the Derrygreenagh Works located outside of the Application Site boundary. No effect on local groundwater abstractions is likely to occur from the rehabilitation of the Application Site.

It is also worth considering that the decommissioning of peat extraction and ancillary activities opened new opportunities for sustainable renewable development potential on these peatlands. This can already be seen by the development of renewable energy installations across other Bord na Móna lands. These developments will provide a sustainable and green energy supply to Ireland, in addition to providing employment opportunities.

The Current Phase would have had slight, positive, long-term effect on human health due to the end of peat extraction and ancillary activities.

6.4.4 Remedial Phase

The Remedial Phase is undertaken in accordance with Condition 10.2 of the IPC Licence (P0501-01) to prepare and implement a Cutaway Bog Rehabilitation Plan. This seeks to enhance peatland decommissioning, rehabilitation and restoration measures in line with Bord na Móna's accelerated decarbonisation strategy.

6.4.4.1 Population

Land Use

The Remedial Phase consists of works at the Application Site in accordance with the Draft Cutaway Bog Decommissioning and Rehabilitation Plans (Appendix 4-3).

The stabilisation of peatlands will support future development of these lands. It is intended to seek planning consent for a renewable energy development on the Application Site, herein referred to as Derrygreenagh Wind and Solar project, subject to separate planning consent.

A third party intends to develop infrastructure at lands within the Application Site, consistent with the Government's Large Energy User Action Plan (LEAP), and which will be subject to separate planning and regulatory consent as appropriate.

Any future development proposed at the Application Site will be subject to environmental assessments, which will inform development layout and infrastructure. The proposed development will be designed such that it does not impact or change the overall goals and outcomes of the Cutaway Bog Decommissioning and Rehabilitation Plan.

Demographic Effects

During the Remedial Phase, the impact on population and housing will be slight negative as there is a marginal reduction in job numbers from 20 no. permanent jobs to a total of 6 staff. While the reduction in employment may have a minor effect on the local population, the relatively small number of jobs affected means that the overall effect is considered to be slight negative and short-term.

Economic Effects

During the Remedial Phase, staffing levels at the Application Site will reduce to approximately 6 permanent staff, which is a reduction of 14 staff from the Current Phase.

This reduction in direct employment will result in a minor loss of economic activity associated with the Application Site and is expected to have a slight negative effect on the local population and economy. However, given the relatively small number of jobs affected, the overall impact is considered to be slight negative and short-term in terms of employment and economic activity within the area.

Property Value

As previously stated, there are no residential receptors within the Application Site.

Therefore, no significant effect on property values is predicted.

Community Facilities, Tourism and Recreation

The peatland rehabilitation as outlined in the draft Cutaway Bog Decommissioning and Rehabilitation Plans (Appendix 4-3) will provide minor improvements to the landscape, ecological enhancements and reduce carbon emissions from peatlands, supporting biodiversity and improvements to water quality.

The Remedial Phase will therefore have a minor improvement on the local tourism and recreational areas, including Croghan Hill.

6.4.4.2 Human Health

Bord na Móna is undertaking rehabilitation measures at the Application Site in accordance with the Rehabilitation Plans required under IPC Licence P0501-01. The rehabilitation works primarily involve hydrological restoration and natural revegetation measures designed to stabilise the peatland and support the development of wetland, fen and native woodland habitats.

Peatland rehabilitation expected to deliver a range of environmental benefits, including improved water quality, reduced carbon emissions from residual peat, enhanced biodiversity and improvements in landscape quality. These outcomes contribute positively to environmental conditions that support human health and wellbeing.

The potential human health effects associated with the rehabilitation works are assessed within the relevant technical chapters of this Remedial EIAR. In addition, the stabilisation of the peatlands may facilitate future sustainable development opportunities at the Application Site, as outlined in Chapter 4 – Description of the Development.

On balance, it is considered that the Remedial Phase will result in a Slight, Positive, Long-Term effect on human health.

6.5 RISK OF MAJOR ACCIDENTS AND NATURAL DISASTER

Historically, there has been limited potential for significant natural disasters to occur at the Application Site. The potential natural disasters that may occur on peatlands are limited to flooding, fire, or peat instability. Flood risk is assessed in Chapter 9 (Hydrology, Hydrogeology

and Water Quality) of this remedial EIAR. The risk of landslides has been assessed in Chapter 8 (Land, Soils and Geology) of this remedial EIAR.

Bog fires may be considered both a natural hazard, where they arise as a consequence of prolonged dry weather or lightning strikes, and a major accident where they result in significant environmental effects or arise from operational or third-party activities. The likelihood of wildfire occurrence is expected to reduce over time as rehabilitation measures, including re-wetting and water level management, are implemented across the Application Site.

Based on the data in the Annual Environmental Reports (AER) there is record of a bog fire at the Application Site in 2013 and the most recent incident occurred at Drumman Bog in July 026, which was reported to the EPA under incident No. INCI033357 on the 15 July 2026. Corrective measures implemented to prevent the spread of the fire both within and beyond Bord na Móna lands included the establishment of fire breaks. The fire was subsequently brought under control later in July 2026.

Condition 13 of the IPC Licence requires the licence holder to maintain a documented Emergency Response Procedure to address any emergencies which may originate on-site. The IPC licence remains in force, and these procedures continue to apply.

Sources of pollution with the potential to cause significant environmental effects including fuels, hydrocarbons, chemicals and wastes, are managed in accordance with the conditions of the IPC licence.

In addition, the IPC Licence (P0501-01) was amended to incorporate the requirements of the European Communities Environmental Objectives (Surface Water) Regulations, 2009, including objectives relating to the protection and restoration of surface water quality. Through compliance with these licence conditions and the implementation of rehabilitation measures, the potential for significant environmental pollution has reduced.

The Application Site is not regulated under, connected to, or located in close proximity to any establishment subject to the Control of Major Accident Hazards Involving Dangerous Substances (COMAH/Seveso) Regulations. Consequently, there is no potential for significant effects arising from nearby Seveso establishments.

Overall, the risk of major accidents and natural disasters associated with the Application Site is considered to be low, with rehabilitation measures expected to further reduce the likelihood and potential consequences of wildfire, flooding and other environmental hazards over the long term.

6.6 CUMULATIVE AND INDIRECT EFFECTS

6.6.1 Peat Extraction Phase

The cumulative effects associated with projects that have been built and operational from 1988 to the present day, together with the potential future use of the lands at the Application Site, have been assessed. Projects and developments identified for consideration in the cumulative effects assessment are outlined in Section 2.9 of Chapter 2 (Remedial EIA Methodology) of this remedial EIAR.

The projects and developments identified for consideration in relation to activities and sites that are similar to, or in proximity to, the Application Site and which have the potential to contribute to cumulative effects on population and human health are listed below.

- Rhode Power Station – 80 MW, located adjacent to Ballybeg Bog and was operational until its decommissioning in 2002;
- Rhode Power Station 104 MW Peaker Plant, located on the former 80MW Rhode Power Station site and was granted planning permission by Offaly County Council under planning reference PL2/03/1280 and constructed in 2004.
- Lagan Cement Limited cement, aggregate and construction materials, located in Killaskillen, Kinnegad, County Meath, approximately 1.5 km east of Derryhinch Bog;
- Kilmurray Pre-cast Ltd., sand and gravel pit and processing plant, located adjacent to the Derryarkin Bog; and
- Derryarkin Sand and Gravel, located within Derryarkin and Drumman Bog.
- Skeagh and Carrick Piggeries, located approximately 150 m south of Derryarkin Bog and was consented by Offaly County Council in 2014 (Planning Ref: 1476).

During the Peat Extraction Phase, the Application Site operated alongside these established industrial, extractive, and energy-related developments. Collectively, these activities contributed to local employment opportunities, economic output, and indirect expenditure within the wider region. The peat extraction activities at the Application Site formed part of a broader network of industrial and energy-related land uses that supported economic activity in the area over an extended period.

Potential cumulative effects on population and human health were principally associated with employment provision, economic activity, environmental amenity, and environmental factors such as noise, air quality, and traffic, which are assessed in the relevant technical chapters of this rEIAR. Given the dispersed nature of the surrounding developments, the established industrial character of the receiving environment in parts of the study area, and the scale and extent of the peat extraction activities, no significant adverse cumulative effects on population and human health are identified during the Peat Extraction Phase. Rather, the Application Site contributed, in combination with other industrial, energy, and extractive developments, to employment and economic activity within the local area throughout the assessment period.

6.6.2 Current Phase (June 2020- Present Day)

The relevant projects considered during the Current Phase are identified in Table 2-4 of Chapter 2. These include permitted and proposed sand and gravel extraction, Derrygreenagh Power Plant, renewable energy and energy-storage developments, residential development, consented data centre and other infrastructure in proximity to the Application Site. Relevant consented planning applications within the vicinity of the site include:

- Energy-related developments within the Rhode, Derryiron, Clonin, Coolcor, Derrygreenagh and Rochfortbridge areas, including Yellow River Wind Farm, solar farms, battery energy storage systems (BESS), substations, grid connections, gas-fired generation facilities and other energy infrastructure;
- Grid and electricity infrastructure projects, including substation upgrades, transmission connections and overhead line works;

- Quarrying developments, including sand and gravel extraction facility in the townland of Derryarkin, which was consented in April 2026 by Offaly County Council (application reference 2560511);
- Large-scale strategic developments, such as the consented Red Admiral data centre and Derrygreenagh Power Plant;
- Agricultural and industrial developments within the study area, including biomass facilities, agricultural buildings and material importation projects;
- Future strategic infrastructure projects, including the Eastern and Midlands Water Supply Project and proposed Ballinla Wind Farm developments.

Collectively, these developments contribute to the evolving economic, industrial and energy landscape of the wider Midlands region. During the Current Phase, the Application Site has transitioned from active peat extraction to a period characterised by cessation of extraction activities and rehabilitation measures.

The identified developments have the potential to generate cumulative positive effects for population and human health through the provision of direct and indirect employment, support for local businesses, investment in regional infrastructure and contribution to national energy security and climate objectives. Construction activities associated with some developments may also generate temporary employment and expenditure within the local economy.

Potential adverse cumulative effects on population and human health may arise through environmental pathways such as noise, air quality, traffic, visual amenity and other environmental factors. These matters are assessed in detail within the relevant technical chapters of this rEIAR. Given the dispersed geographical distribution of the identified developments, their differing implementation timeframes, and the largely operational nature of many consented energy projects, significant adverse cumulative effects on population and human health are not anticipated.

Furthermore, the reduction and ultimate cessation of peat extraction activities at the Application Site in June 2020 has substantially reduced the potential for cumulative effects.

6.6.3 Remedial Phase (Future Activities)

The projects relevant to the Remedial Phase are identified Section 2.9.2.1 of Chapter 2.

These projects represent part of the ongoing transition of former peatland areas towards renewable energy generation, strategic infrastructure and economic development. While the details of these developments remain subject to separate planning and consent processes, they have the potential to contribute positively to population and human health through the creation of direct and indirect employment, support for local businesses, investment in infrastructure and enhanced economic activity within the wider Midlands region.

During the Remedial Phase, rehabilitation and after-use activities at the Application Site will occur alongside the planning, construction and operation of other developments within the study area. Potential cumulative positive effects may arise from increased employment opportunities, expenditure within the local economy and the continued productive use of previously developed peatland areas.

Potential adverse cumulative effects on population and human health may arise through environmental pathways such as noise, air quality, traffic, visual amenity and other environmental factors associated with construction and operational activities. These matters are assessed separately within the relevant technical chapters of this rEIAR and, where relevant, will also be assessed as part of the environmental assessment processes for future independent developments.

As future developments within the Application Site will be subject to separate planning applications, environmental assessments and mitigation measures, the precise scale, timing and characteristics of any cumulative interactions cannot be determined at this stage. Nevertheless, the rehabilitation works associated with the Remedial Phase are temporary, localised and of a relatively limited scale. In combination with the separate assessment and management of future developments, no significant adverse cumulative effects on population and human health are anticipated during the Remedial Phase.

Overall, the future rehabilitation and redevelopment of lands within the Application Site are considered likely to contribute positively to employment, economic activity and regional development objectives, while supporting the ongoing transition of the Midlands from peat-based land uses to renewable energy and other strategic development opportunities.

6.7 MITIGATING, MONITORING AND CONTROL MEASURES

Following the assessment of potential effects from peat extraction and associated activities on population and human health, no additional mitigation measures are considered necessary beyond those already implemented through the conditions of the IPC Licence P0501-01 and the measures outlined elsewhere in this remedial EIAR.

The IPC licence ensures compliance with a number of environmental emission criteria including dust emissions at sensitive locations, noise levels at sensitive locations, hazardous waste management and water protection, of which all can affect human health. Ongoing environmental monitoring and reporting are also undertaken as required under the licence.

In addition, the introduction of improved peat extraction technologies, machinery, and operational practices, together with compliance with relevant health and safety legislation, have contributed to safer working conditions and reduced environmental emissions.

Accordingly, no further mitigation, monitoring or control measures are required in respect of population and human health.

6.8 RESIDUAL EFFECTS

According to Environmental Protection Agency guidelines, Residual Impact is described as ‘the degree of environmental change that will occur after the proposed mitigation measures have taken place.’

6.8.1 Peat Extraction Phase (1988 – 2020)

6.8.1.1 Population

Since 2001, the peat extraction and ancillary activities have been regulated by the EPA in accordance with the IPC Licence P0501-01. The change in land use between the baseline year of 1988 to the cessation of peat extraction in 2020 is considered to have had a moderate, neutral, permanent effect in terms of land use at the Application Site.

During this period, advances in technology and operational practices led to increased mechanisation and efficiency, resulting in the number of staff required for peat extraction activities.

From 2001 onwards, following the implementation of monitoring and environmental management measures under IPC Licence P0501-01, peat extraction and ancillary activities are considered to have resulted in imperceptible, neutral, long-term effects on population.

6.8.1.2 Human Health

From 2001, IPC Licence P0501-01 required peat extraction and ancillary activities to operate in accordance with specific environmental emission limits and monitoring requirements, thereby ensuring the protection of both environmental receptors and human health.

Accordingly, following the implementation of the licence controls and associated mitigation measures, peat extraction and ancillary activities are considered imperceptible, neutral, long-term effects on human health.

6.8.2 Current Phase (2020- present day)

6.8.2.1 Population

Following the cessation of large-scale peat extraction activities in 2020 and the continued implementation of the environmental controls and monitoring requirements under IPC Licence P0501-01, the transition from active peat extraction to the Current Phase is considered to have resulted in imperceptible, positive, long-term effects on population.

6.8.2.2 Human Health

Following the implementation of the mitigation and monitoring measures required under IPC Licence P0501-01, emissions and environmental performance have continued to be managed in accordance with regulatory requirements, thereby safeguarding human health.

Accordingly, it is considered that the Current Phase has resulted in slight, positive, long-term effects on human health.

6.8.3 Remedial Phase

6.8.3.1 Population

The Remedial Phase will result in a reduction in the workforce directly associated with the management of the Application Site, decreasing from approximately 20 staff during the Current Phase to approximately 6 staff during the Remedial Phase. This reduction represents a negative effect on direct employment at the Application Site.

Notwithstanding this reduction, the rehabilitation of the Application Site will facilitate future land uses, including renewable energy development, recreation, biodiversity enhancement, and other potential commercial and tourism-related activities. While these opportunities are generally expected to occur outside the scope of the Remedial Phase and may not be located directly within the Application Site, they have the potential to generate indirect employment and contribute positively to the local economy in the longer term.

The rehabilitation of the Application Site will also contribute to a cumulative change in land use when considered alongside existing and permitted developments within the surrounding area. Future land-use proposals have been considered to the extent that information is currently available, and cumulative effects have been assessed in combination with other existing and permitted developments.

Overall, taking account of the reduction in direct site employment, together with the potential for indirect employment opportunities associated with future land uses, the Remedial Phase is predicted to result in a slight negative, long-term effect on population.

6.8.3.2 Human Health

As outlined above, the rehabilitation measures to be implemented at the Application Site in accordance IPC Licence P0501-01 include hydrological restoration and natural revegetation measures designed to stabilise the peatland and support the development of wetland, fen and native woodland habitats.

The implementation of these measures will require landscaping works which will involve a limited number of vehicles, plant and machinery. Given the temporary and localised nature of these activities, and the continued application of mitigation and environmental management measures, any potential effects on human health are expected to be minimal.

Once the remedial works have been completed, this will result in improved environmental quality, reduced dust emissions, enhanced ecosystem services and amenity value, it is predicated that the Remedial Phase will result in a slight positive, long term effect on human health. The shift from large-scale peat extraction by the Bord na Móna to the Current Phase has resulted in a decline in direct employment opportunities associated with the Application Site. Despite the reduction in direct employment, the historical positive influence on the local economy, housing development, and economic stability stemming from peat extraction remains. While direct employment opportunities have decreased, the potential for new jobs, along with the continuation of recreational amenities and tourism opportunities, is expected to contribute positively to the local population and economy. The historical purchasing power of employees, coupled with the company's past community initiatives, has previously shown a positive impact on local businesses and the overall well-being of the community.

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