

14. MATERIAL ASSETS

This chapter reports the findings of an assessment of any likely significant effects on material assets which may have occurred or are occurring as a result of peat extraction and ancillary activities from July 1988 that have been carried out and will be carried out within the Application Site. Chapter 4: Project Description provides a full description of the elements of the Project; the baseline as of July 1988, the activities from July 1988 to the cessation of peat extraction in June 2020, the management of the Application Site since June 2020, and the activities relating to historic peat extraction intended to be carried out into the future. The assessments in this chapter will determine any likely significant effects that occurred on material assets (or are likely to occur) during three differing timeframes termed 'Phases' (as described in Chapter 4: Project Description):

- **Peat Extraction Phase:** peat extraction activities and all ancillary works at the Application Site from July 1988 to the cessation of peat extraction in June 2020 (July 1988 – June 2020). The Peat Extraction Phase is described in detail in Section 4.6 to Section 4.7 in Chapter 4: Project Description;
- **Current Phase:** the management of the Application Site since June 2020 (June 2020 to present). The Current Phase is described in detail in Section 4.7 to Section 4.8 in Chapter 4: Project Description; and,
- **Remedial Phase:** the activities intended to be carried out at the Application Site into the future. The Remedial Phase is described in detail in Section 4.9 in Chapter 4: Project Description.

As outlined in the EPA Guidelines (2022), material assets can be taken to mean built services and infrastructure, roads and traffic, and waste management. In Directive 2011/92/EU this factor included architectural and archaeological heritage. Directive 2014/52/EU now includes those heritage aspects as components of cultural heritage, which are addressed in Chapter: 13 Archaeology and Cultural Heritage of this rEIAR. Economic assets of natural heritage include non-renewable resources such as minerals or soils, and renewable resources such as wind and water. These assets are addressed in Chapter 7 Land, Soils and Geology, Chapter 8: Hydrology and Hydrogeology, Chapter 9: Air Quality and Chapter: 10 Climate. Tourism and amenity resources, which are also considered material assets, are addressed in Chapter 5: Population and Human Health. The railway infrastructure at the Application Site is considered in Chapter 13: Archaeology and Cultural Heritage.

This chapter of the rEIAR addresses the likely significant effects of peat extraction and ancillary activities on transportation and utilities (electricity, water, wastewater and waste management), telecommunications and aviation assets which are economic assets of human origin.

14.1.1 Statement of Authority

This section of the rEIAR has been prepared by Karen O'Neill and reviewed by Ellen Costello and Sean Creedon, all of MKO.

Karen O'Neill is a Project Environmental Scientist with MKO with over five years' experience in private consultancy. Karen holds a BA (Joint Hons) in Geography and Archaeology, and a MSc (Hons) in Environmental Science where she focused her studies on environmental and planning policy. Karen's key strengths and expertise are Project Management, report writing and reviewing, Environmental Impact Assessment, and Landscape and Visual Impacts. Through previous roles, Karen has been involved in the delivery of planning applications for a range of renewable energy infrastructure projects, including onshore and offshore wind energy developments, and multifaceted projects comprising wind energy, solar energy, battery storage and associated electrical infrastructure.

Ellen Costello is a Senior Environmental Scientist with MKO with over five years' experience in private consultancy. Ellen holds a BSc (Hons) in Earth Science, and a MSc (Hons) in Climate Change:

Integrated Environmental and Social Science Aspects where she focused her studies on renewable energy development in Europe and its implications on environment and society. Ellen's key strengths and expertise are Environmental Protection and Management, Environmental Impact Statements, Project Management, and GIS Mapping and Modelling. Since joining MKO, Ellen has been involved in a range of large-scale infrastructure projects including that of housing, tourism and recreation, renewable energy infrastructure and substitute consent applications for peat extraction. In her role as a senior project manager, Ellen works with and co-ordinates large multidisciplinary teams including members from MKO's Environmental, Planning, Ecological and Ornithological departments as well as sub-contractors from various fields in the preparation and production of EIARs.

Sean Creedon is an Associate Director in the Environment Team at MKO. He oversees a team of highly skilled environmental professionals working on EIARs for large and medium scale Renewable Energy infrastructure. Sean has directed and overseen multiple renewable energy projects across wind, solar, battery and hydrogen as well as a range of thermal and other energy related developments. He is a member of the MKO senior management team responsible for developing the business, mentoring team members, fostering a positive culture and promoting continuous employee professional development. Sean has over 24 years' experience in program and project development, holds an MSc from NUI Galway and a Diploma in Project Management from Institute of Project Management Ireland.

14.1.2 Assumptions and Limitations

Traffic and Transport

- The transport methods assessed herein are for the movement of extracted peat from the individual bog units within the Application Site to the listed customers/destinations and the interactions of those movements with the public road network.
- Bord na Móna (BnM) have internal records of milled and horticultural peat transport via rail and HGV between 1994 and 2021 (during the Peat Extraction Phase and Current Phase), which provide context of how these movements interacted with the public road network. Sod peat was transported exclusively via rail from the bog units to various customers between 1988 and 2003, however there are no clear records of how these movements interacted with the public road network. To calculate the annual number of interactions records of sod peat volumes transported via rail during this period were used, assuming that peat haulage locomotives were stocked to their maximum haulage capacity of 100 tonnes. Table 14-1 outlines the number of interactions of rail and HGV movements with the public road network.
- Whilst the Peat Extraction Phase ends in June 2020, when peat extraction within the Application Site ceased, the vehicular movements for the full year 2020 (up to December 2020) are included in the calculations for the Peat Extraction Phase and the Current Phase.
- Rail movements and resulting interactions with the public road network assume a return journey for rail cars for sod peat deliveries to and from Allenwood Power Station and the tiphead at Ballydermot Works.
- In the absence of detailed records relating to routes of rail movements, for the purposes of assessment and as a worst-case scenario, it is assumed that all sod rail movements to Allenwood Power Station and the tiphead at Ballydermot Works took place using the 2 no. guarded level crossings along the R414 within the Application Site i.e. interacted with the public road network. At the level crossings, road users were required to stop to allow rail cars cross. 2 no. unguarded level crossings are also located on site, between Blackriver and Barnaran bogs and between Codd 1 and Codd 2 bogs, however these level crossings have no interactions with the public road network as they are both positioned at private roads with no access to the general public.
- A total of 4 no. underpasses were also present within the Application Site boundary which facilitated rail movements that occurred due to the Project. These underpasses ensured that

there was limited interaction between road users and the rail cars / rail movements at their respective locations.

- Wait times at level crossings were estimated at a maximum of 5 minutes on the basis that the level crossings were operated by the driver of the Peat Haulage Locomotives. The wait time duration of a maximum of 5 minutes at the level crossings has been identified from personal communications with BnM Employees.
- Due to the lack of TII traffic count data¹ in the immediate vicinity of the Application Site, traffic count data collected in 2025 to inform the proposed Ballydermot Wind Farm application was used to inform the assessment herein. The count data was collected in 2025 and is used to estimate baseline traffic numbers during the Peat Extraction Phase in the absence of historic data, at four specific locations in the vicinity of the Application Site. This is done by applying a reduction factor on traffic movements to account for population changes between 1986 and 2022 (census years). The reduction factor is **31%** based off national population changes. The traffic counts are used to compare the Applicant's generated traffic against average traffic volumes on the surrounding public road network.
- To assess a precautionary scenario, it is assumed that all staff, both seasonal and permanent, have travelled to the Application Site all year round. It is likely that the traffic figures and respective impacts assessed would have been less in reality.
- Details pertaining to ancillary activities that would give rise to vehicular movements such as general collections and deliveries, fuel deliveries and monitoring work are not available or there is limited data available. It is considered that the level of movements associated with these activities are not significant in comparison to the conservative levels of vehicle movements arising from staff movements during the Peat Extraction Phase, and HGV and LGV vehicle movements arising from the Current Phase. However, given that there would have been some sporadic HGV movements to and from the site to facilitate ancillary activities, in order to assess a highly precautionary scenario, it is assumed that 1 no. HGV travelled to and from the site per day over the duration of the Peat Extraction Phase and Current Phase, in addition to those HGV movements relating to transport of extracted peat off-site.
- All journeys are represented by whole numbers rounded up. This is to show complete traffic movements only and remain representative of the theoretical precautionary scenario.

Other Material Assets

No Assumptions or Limitations are outlined for the Other Material Assets discussed in this chapter.

¹ <https://trafficdata.tii.ie/publicmultinodemap.asp>

14.2 Traffic and Transport

14.2.1 Introduction

14.2.1.1 Background and Objectives

The purpose of this section is to assess the effects of the Project on Traffic and Transportation.

14.2.1.2 Guidance and Legislation

This section of the rEIAR has been completed in accordance with the guidance set out in Chapter 1: Introduction. The assessment uses standard terminology to describe the likely significant effects associated with peat extraction and ancillary activities at the Application Site. Further information on the Classification of effects used in this assessment is presented in Section 1.8.2 of this rEIAR.

The assessment adopts the guidance for such assessments set out by TII in the document ‘Traffic and Transport Assessment Guidelines May 2014²’.

14.2.1.3 Scoping and Consultation

The scope for this assessment has been informed by consultation with statutory consultees, bodies with environmental responsibility and other interested parties as outlined in Section 2.5 of Chapter 2: Background of the rEIAR. Please see Appendix 2-1 for scoping correspondences with consultees in relation to this rEIAR.

Transport Infrastructure Ireland

A scoping request was issued to the Transport Infrastructure Ireland (TII) on the 21st of February 2022. A response was received on the 28th of February 2022, and included recommendations providing ‘*only general guidance [whilst seeking to uphold official national road and light rail policy and guidelines including the Department of the Environment, Community and Local Government (DoECLG) Guidelines, ‘Spatial Planning and National Roads Guidelines for Planning Authorities’ (2012), and TII Publications] for the preparation of an EIAR, which may affect the national road network.*’

Owing to the passage of time between the initial scoping request in February 2022 and the preparation of this rEIAR, a subsequent scoping request was issued to Transport Infrastructure Ireland (TII) on the 15th January 2026. A response was received under reference TII26-134825 on the 11th of February 2026 stating ‘*TII wishes to advise that it is not in a position to engage directly with planning applicants with respect to proposed developments. TII will endeavour to consider and respond to planning applications referred to it given its status and duties as a statutory consultee under the Planning Acts.*’ The response also outlined TII’s general guidance for the preparation of an rEIAR, which may affect the national roads network.

² TII Publications May 2014 Traffic and Transport Assessment Guidelines. Available at: <https://www.TIIPublications.ie/library/PE-PDV-02045-01.pdf>

Department of Transport (and Department of Climate, Environment and Energy)

A scoping request was issued to the Department of Transport (DoT) on the 21st of February 2022. A response was received on the 1st of March 2022, and stated that *‘the Department of Transport has no observations to make at this point in time.’*

Owing to the passage of time between the initial scoping request in February 2022 and the preparation of this rEIAR, a subsequent scoping request was issued to the Department of Transport on the 15th of January 2026. A response was received under reference TTAS-MO-00301-2026 on the 19th of January 2026 stating that *‘this is a matter under the remit of the Department of Climate, Environment and Energy’* as such, the Department of Transport *‘shared the email with the Minister’s private office in that Department for attention and direct reply.’* Please note, the Department of Climate, Environment and Energy (DCEE) was issued a separate scoping request on the 15th of January 2026, and followed up on the 10th of February 2026. No further response has been received from the DoT, and no response from the DCEE has been received to date.

Kildare County Council (Planning Department and Roads Division)

A scoping request was issued to the Kildare County Council (KCC) on the 21st of February 2022. A response was received via the EPA, which included comments from KCC on the 16th of March 2022. The response included concerns for hydrology and hydrogeology in the vicinity of the Application Site, and concerns for air quality relating to odours and dust.

Owing to the passage of time between the initial scoping request in February 2022 and the preparation of this rEIAR, a subsequent scoping request was issued to Kildare County Council Roads Division on the 15th of January 2026. A response was received on 19th of January 2026, and stated *‘this is a matter for Planning Department, I suggest you refer it to the Senior Planner’*. Please note, the Planning Department was subsequently contacted, however no response relevant to Traffic and Transport was received.

Offaly County Council (Planning Department and Roads Division)

A scoping request was issued to the Offaly County Council (OCC) on the 21st of February 2022. No response was received at that time.

A scoping request was issued to Offaly County Council Roads Division on the 15th of January 2026. No response was received; therefore a follow up request was issued on the 10th of February 2026. No response has been received to date.

Iarnród Éireann - Irish Rail

A scoping request was issued to Iarnród Éireann on the 15th of January 2026. A response was received on 15th of January 2026, and stated *‘this is remote from the Iarnród Éireann rail network and has no effect on it, so we have no comments to make’*.

Please see Appendix 2-1 for scoping correspondences with consultees in relation to this application.

14.2.2 Methodology

As stated in 14.2.1.2, the assessment herein adopts the guidance for such assessments set out by TII in the document *‘Traffic and Transport Assessment Guidelines May 2014’*.

The Traffic and Transport Section of the rEIAR is set out as follows:

1. A review of the historic and existing transport infrastructure in the vicinity of the Application Site, to establish the 1988 Baseline for this assessment (Section 14.2.3).
2. A description of the traffic and rail movements/interactions associated with the Project in each phase; Peat Extraction Phase, Current Phase and the Remedial Phase (Section 14.2.4);
 - a. Customers/destinations across the Peat Extraction Phase were; Ballydermot Works for sale to the public via the tiphead, Allenwood Power Station, Edenderry Power Station, Lullymore Works, Ballivor Factory, Cúil na Móna Factory, Derrinlough Briquette Factory, Dublin Port, Kilberry Factory, Lanesboro Power Station, Littleton Briquette Factory, Lough Ree Power Station, Lullymore Briquette Factory, West Offaly Power station and other external customers according to BnM sales records.
 - b. Customers/destinations across the Current Phase were; Ballivor Factory, Derrinlough Briquette Factory, Cúil na Móna Factory, Dublin Port, Edenderry Power Station and other external customers, according to BnM sales records.
 - c. In addition to the transport of peat to the aforementioned destinations/customers, the volume of traffic generated on the road network arising from staff movements relating to peat extraction and ancillary activities through all Project phases is extrapolated from employment figures across all Project phases. Given that there would have been some sporadic HGV movements to and from the site, in order to assess a highly precautionary scenario, it is assumed that 1 no. HGV travelled to and from the site per day over the duration of the Peat Extraction Phase and Current Phase to facilitate ancillary activities.
 - d. Utilising traffic count data collected in October 2025 to inform the proposed Ballydermot Wind Farm application, traffic counts were reviewed along a number of main routes surrounding the Application Site. To ensure appropriate coverage, four points - to the North, East, South and West were utilised for the assessment herein.
 - e. As a conservative measure, traffic volumes generated by the Project across all Project phases have been assessed against the calculated³ 2025 Annual Average Daily Traffic (AADT) data. For the Peat Extraction Phase, a theoretical 1988 AADT value has been quantified using Census population data for the State. The 45% increase in State population between Census years 1986 and 2022 was also accounted for. A 31% reduction (representing the 45% population increase from 1986 to 2022) was applied to the 2025 traffic count data, to represent the estimated traffic figure for 1988. The AADT value is compared with the Project's annual average daily traffic volume. By using the AADT as a comparison, the greatest potential impact of traffic volumes generated by the Project is identified.
 - f. This is to infer a theoretical precautionary scenario as Table 14-6 below presents the Project's traffic interactions with the public road network as a percentage of the lowest recorded daily traffic count. Similarly, the 2025 data has been utilised for the Current Phase and Remedial Phase as it is most representative of this time period, and historic counts are not available for the same locations, and as such, presents a precautionary scenario.
 - g. The average daily traffic movements from the Application Site would have travelled in various directions; however, as a conservative measure, the following sections assess the impact of the total daily Project traffic movements on each route, as if all daily movements travelled to the same destination at one time. Therefore, the results generated produce a much greater impact that would have occurred in reality.

14.2.3 Establishment of Baseline (July 1988)

Between July 1988 and the cessation of peat extraction June 2020 approximately 11,174,206 tonnes of peat were extracted at the Application Site, with an average of 349,194 tonnes of peat extracted each

³ <https://cdn.tii.ie/publications/PE-PAG-02039-01.pdf>

year. The total tonnage of peat extracted for June-December 1988 is estimated to be 234,160 tonnes (based on average peat extraction volumes at the Application Site in the 10-year period between 1994 and 2004 in the absence of accurate data for 1988). Peat extracted at the Application Site during the year 1988 was transported via rail and road to Allenwood Power Station, and Lullymore Briquette factory, Kilberry Factory and Ballydermot Works for public sale via the tiphead. It is estimated that the rail movements interacted with the public road network in the vicinity of the Application Site 2900 times in 1988, including return trips.

Railway infrastructure was present across the Application Site and connected each of the bog units within the Application Site to other bogs within the Allen Bog Group via an underpass under the R401 road between Edenderry and Clonbullogue (Offaly Co. Co. Ref 86/184).

The main entrance points to the Application Site were at the Ballydermot Works entrance on the L-3001 road in the southwest of the Application Site, and from a L2506-3 local road which crosses the Grand Canal, passing the Lullymore Briquette Factory before cutting through the northeastern part of Killina Bog. Other access points include entrances off the L3001 Rathangan to Edenderry Road which cuts through the Application Site in a north to south direction and off the Allenwood to Rathangan Road (designated R414 in 1993) which cuts through the southeastern part of the Application Site. Ballydermot Works, located adjacent to the Application Site on the L3001 Killinthomas road, comprised of welfare facilities such as a canteen and toilets, storage sheds, maintenance buildings, staff carparks, HGVs storage area, a tiphead and refuelling area, and was therefore the main hub of the Application Site. It was from here that most traffic generated from the Application Site entered the local road network, with the balance of traffic generated at the Application Site joining the local road network via the site access points on various local roads as described above.

It should be noted that there was local holding areas located throughout the Application Site, situated proximate to road networks to allow staff easy and safe access without tracking over bog and essentially comprised of flat areas which were suitable for machines to park on. These local holding areas were areas in which peat extraction machinery was parked at the end of the working day, rather than being transported back to the main hub, thus minimising traffic movements within the Application Site.

The Application Site was served by several local roads to the north, south, east and west connecting the Application Site to the M7 approximately 10km to the east/southeast of the Application Site, and M4 (formerly the N4, before gradual reclassification of the route in line with upgrade works) approximately 11km north/northeast of the Application Site. Various third- and fourth-class roads provided access to the Application Site as well as public rights of way. The closest settlements to the Application Site are and were Clonbullogue Village (approx. 1.7km west), Rathangan (approx. 2.4km south), Edenderry (approx. 2.2km northwest) and Allenwood (approx. 3.3km east).

As detailed in Section 5.3.3.2 in Chapter 5 of this rEIAR, in the late 1980s (including the baseline assessment year of 1988), the total BnM employment numbers dropped by c. 43% across all sectors due to the introduction of voluntary redundancies brought in by the company. BnM employment records at the Application Site for the year 1992-1993 indicate that there were a total of 128 employees on site (assumed to be permanent in the absence of further detail). As such, it is assumed that there were approximately 128 permanent employees on average at the Application Site throughout the Peat Extraction Phase. Numbers remained largely similar from 1988, through the 1990s and 2000s.

The BnM railway infrastructure is described in detail in Section 4.2.3 of Chapter 4: Project Description. A general description is included below as it forms part of the baseline environment considered relevant in this chapter.

By 1988, peat extraction areas were served by a dynamic network of narrow-gauge rail tracks within the Application Site. Annual Reports from 1947 and 1948 indicate that development works were underway at the Application Site, including the installation of railway infrastructure in Ballydermot, Blackriver,

Lodge and Glashabaun Bogs, each of which are located within the Application Site. Aerial photographs from 1973 indicate that by this period, railway infrastructure within the peat extraction areas connecting to the Ballydermot Works, Allenwood Power Station and Lullymore Briquette Factory was in place. By 1988, 1 no. rail underpass was in place at the Application Site beneath the R401 (Offaly Co. Co. Ref. 86/184) to facilitate access between the Application Site and the Cloncreen Bog, also within the Allen Bog group (IPC Licence P0503-01). 2 no. guarded level crossings were in place along the R414 within the Application Site between 1951 and 1952, before the implementation of the first Planning and Development Act (1963), which came into effect on October 1st 1964, and these structures are not part of this substitute consent application. They were constructed to facilitate the connection of Barnaran, Lodge and Killina Bogs to Lullymore Briquette Factory and Allenwood Power Station. In addition, 2 no. unguarded level crossings were installed between Blackriver and Barnaran bogs and between Codd 1 and Codd 2 bogs the installation date of these level crossings are unknown, therefore they have been included in this application. The unguarded level crossings are both positioned at private roads with no access to the general public. 2 no. standard warning signs and warning lights were placed on approach at each of the unguarded level crossings.

While standard level crossing lamps, with light sensors that switched the light on when daylight faded, were fitted across all BnM crossing gates, these were decommissioned when the removal of peat from the Application Site ceased in October 2021. Catch points are also fitted into railway tracks on either side of level crossing gates as a standard safety practice to de-rail any runaway trains before reaching the level crossing. Wait times at level crossings were estimated at a maximum of 5 minutes on the basis that the level crossings were operated by the driver of the Peat Haulage Locomotives.

The railway tracks comprised permanent and temporary lines laid to facilitate the transportation of peat off the bog, to Allenwood Power Station and Lullymore Briquette Factory, and into the Ballydermot Works and Lullymore workshop as required. Once peat stocks were exhausted from one area, the temporary tracks were taken up and re-laid in new areas of bog which had entered production. Thus, over the decades the railway line layout changed shape regularly. Records of where and when the railway tracks were moved to and from over the decades have not been retained. The permanent tracks comprised several limbs of railway route branching across the individual bogs from where it entered the Application Site, at the site entrance along the R401, connecting all sections of the Application Site to the Ballydermot Works and Edenderry Power Station. 7 no. railway bridges were installed within the Application Site to facilitate the narrow-gauge railway network that provided access to various areas of the Application Site, crossing rivers and drainage channels where necessary. The installation date of the railway bridges is unknown in reality it is likely that the majority were in place prior to the commencement of the formal planning system however due to the lack of records confirming this, they have been included as part of the development for which substitute consent is being sought. Approximately 51 km of permanent track was located within the Application Site boundary and facilitated the movement of extracted peat within the Application Site from 1935 until October 2021 when stockpile removal finished.

8 no. vehicular bridges were installed within the Application Site to facilitate vehicular access to various areas of the site, including crossings of rivers and drainage channels where required. The installation date of the vehicle bridges is unknown in reality it is likely that the majority were in place prior to the commencement of the formal planning system however due to the lack of records confirming this, they have been included as part of the development for which substitute consent is being sought.

The road network and access points described above remained the same throughout the proceeding decades since 1988.

The above describes the infrastructure which was or is assumed to have been on site in 1988, in the absence of further records. However, during the Peat Extraction Phase additional infrastructure was constructed on site. There was the addition of 3 no. underpasses built between 2001 and 2005. There are 2 no. rail underpass beneath the R401, Offaly Co. Co. Ref. 86/184 built between 1988 and 1995,

and Offaly Co. Co. Ref. 97/699 built between 2001 and 2005. There is 1 no. rail underpass located within the southwest of the Application Site (Kildare Co. Co. Ref. 97/1140), along the L3001 and facilitates the connection of Ballydermot North and South Bogs to Blackriver Bog within the Application Site itself. There is 1 no. rail underpass located within the northwest of the Application Site (Offaly Co. Co. Ref. 97/520), along the L1001 and facilitated connection between Codd 2 and Glashabaun North Bog within the Application Site itself.

Figure 14-1 below identifies the locations of the site entrances, 4 no. rail underpasses, 2 no. unguarded level crossings, 2 no. guarded level crossings, and 7 no. railway bridges and 8 no. vehicle bridges present during the Peat Extraction Phase that facilitated transport of peat within the Application Site and to the adjacent Edenderry Power Station, Allenwood Power Station and the tiphead at Ballydermot Works via the internal private rail network.

14.2.4 Traffic and Rail Movements/Interactions

14.2.4.1 Peat Extraction Phase 1988 to June 2020

Traffic interactions from the Application Site during the Peat Extraction Phase can be found in Table 14-1 below.

Peat Extraction Activities

Peat extracted from the Application Site between 1988 and June 2020 was transported from the individual bog units to the customers/destinations via a mixture of rail and HGV, with HGV movements beginning in 1994. In a number of cases, the peat was then sold on and transported externally, however detailed records of the final end-users are not available. notwithstanding, the number of interactions these rail and HGV movements would have had with the public road network in the vicinity of the Application Site are estimated and provided in Table 14-1.

In order to identify the average number of traffic interactions that the Project had with the public road network, the following assumptions have been made:

- Large transport vehicles are assumed as 26 tonne HGVs, all remaining vehicles are assumed as Light Goods Vehicles (LGVs);
- Rail movements were estimated on the basis that BnM's Peat Haulage Locomotives were stocked to their maximum haulage capacity of 100 tonnes;
- All personnel (LGV) vehicle movements to the site are considered to have interacted with the public road network twice per day;
- HGV interactions with the road network are estimated based on BnM sales records;
- A 252-day work year is assumed (5 day working week over 52 weeks of a year); this is a precautionary assumption as the nature of the peat extraction works is that it is seasonal over the course of the year (only occurring from April to September) and would in reality be less than 252 days.
- Peat production ceased on site in June 2020 meaning part of the year falls within the Peat Extraction Phase and part of the year falls within the Current Phase, however, a detailed breakdown of the months that peat was delivered during 2020 is not available, therefore the deliveries made for the whole of 2020 (including July 2020 – December 2020, i.e. during the current phase) have been accounted for within the Peat Extraction Phase (Section 14.2.4.1, Table 14-1) and within the Current Phase, to present the most precautionary scenario.

Present in 1988 was a single underpass under the R401 regional road, 3 no. underpasses were consented in 1997 and constructed along the L3001, L1001 and an additional underpass along the R401 onsite between 2001 and 2005. The underpasses allowed road users and the rail movements to take

place independently without interaction. 2 no. guarded level crossings were consented and installed along the R414, within the Application Site between 1951 and 1952, At the level crossing locations, road users were required to stop to allow rail cars cross.

Figure 14-1 below identifies the locations of the site entrances, 4 no. rail underpasses, 2 no. unguarded level crossings, 2 no. guarded level crossings, and 7 no. railway bridges and 8 no. vehicle bridges present during the Peat Extraction Phase that facilitated transport of peat within the Application Site and to the adjacent Edenderry Power Station, Allenwood Power Station and the tiphead at Ballydermot Works via the internal private rail network.

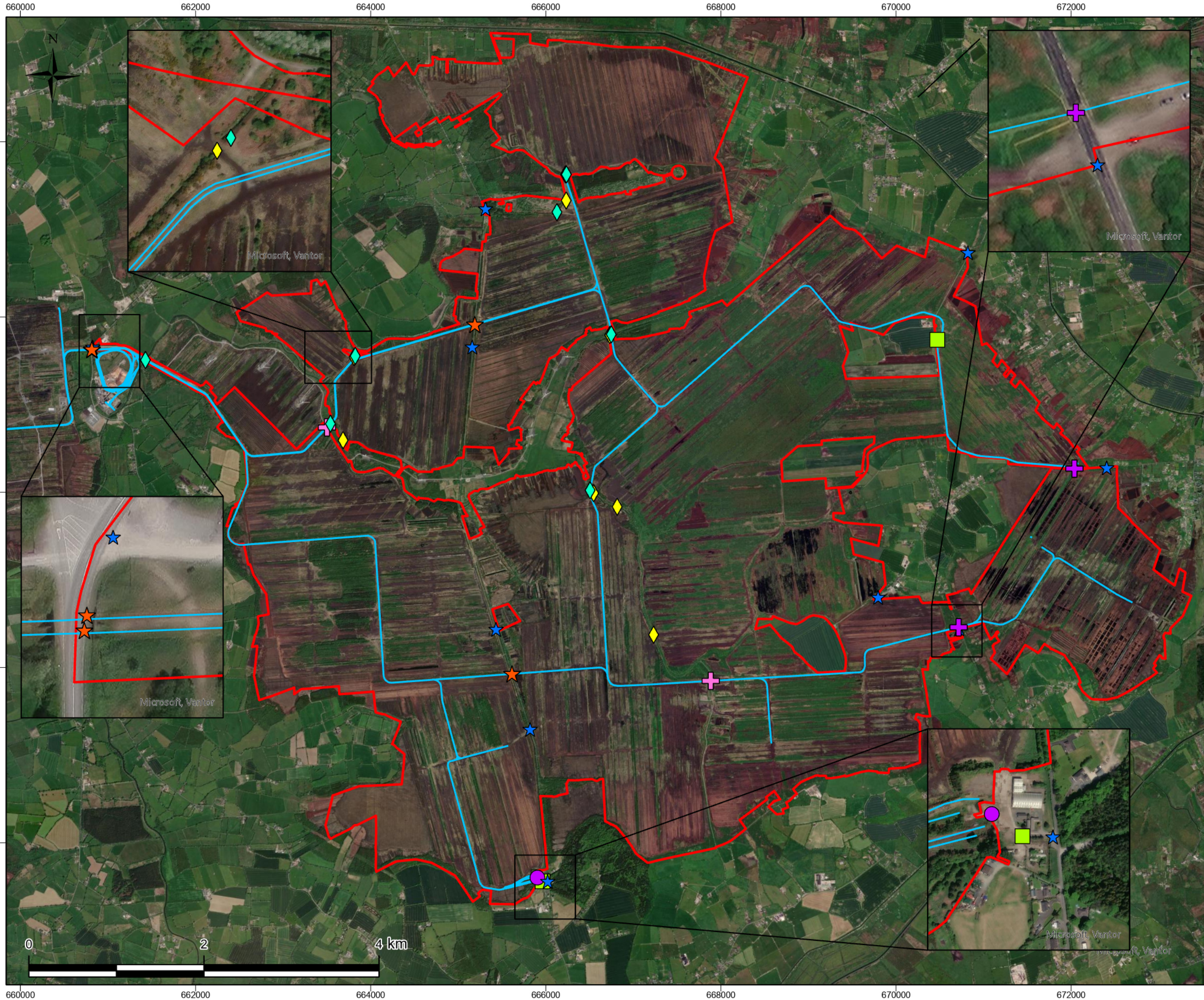
An estimate of rail and HGV interactions with the public road network in the vicinity of the site each year are provided in Table 14-1 below. These estimates are based off BnM sales records which outline volume and transport method, which is used to calculate number of rail/HGV movements based on peat sales volumes and the maximum capacity of a BnM Peat Haulage Locomotive (100 tonnes) and HGV (26 tonnes).

Using the precautionary principle, it is assumed that rail cars transporting sod peat to Allenwood Power Station and the tiphead at Ballydermot Works returned to the same bog units via the same route they exited, and as such, the rail movements in Table 14-1 for these instances only have been doubled to reflect returning rail cars.

As detailed in Table 14-1, the average number of interactions between the rail network and the public road network per year for the period 1988 to 2020 (inclusive) was approximately 2,014 annually, or 8 interactions/crossings per day, based on a 252-day work year. In reality, the 4 no. underpass constructed during the Peat Extraction Phase would have facilitated rail movements via the internal private rail network throughout the Application Site minimising interactions with the public road network.

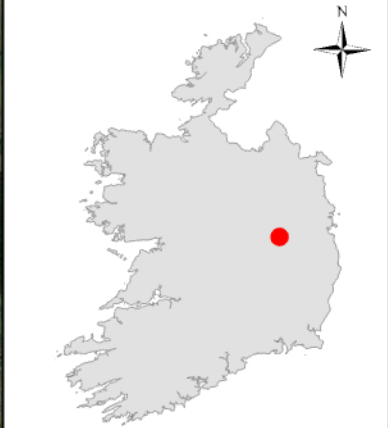
The average number of interactions between HGVs associated with the movement of extracted peat and the public road network per year, for the period 1988 to 2020 (inclusive), was approximately 791 interactions/crossings or 3 per day, based on a 252-day work year.

It should be noted that while extraction ceased in June 2020, HGV and rail movements continued beyond this date until October 2021 where operations at the Application Site were focused on removing stockpiled from the Application Site to various end users via HGV and rail, as detailed in Section 14.2.4.2 as part of the Current Phase.



- Map Legend
- Application Site Boundary
 - Railway Line
 - Site Entrances
 - Tiphead
 - Fuel Tanks
 - Guarded Level Crossings
 - Unguarded Level crossings
 - Vehicle Bridges
 - Railway Bridges
 - Underpasses

Spatial Reference
Name: IREN95 Irish Transverse Mercator
Datum: IREN95
Projection: Transverse Mercator



SITE LOCATION - NOT TO SCALE

Drawing Title
Rail Infrastructure within and adjacent to the Application Site, 2026

Project Title
Peat Extraction at Ballydermot, Co. Kildare and Co. Offaly

Project No.	Drawing No.	Scale
250709	14-1	1:40,000
Drawn By	Checked By	Date
SOR	KON	14/08/2026



Personnel Traffic Movements

Employment figures at the Application Site for the year 1988 are estimated at 128 employees. In the absence of detailed annual employment figures within the AERs for the Application Site specifically, it is estimated by BnM that, on average 128 employees were employed in peat extraction and ancillary activities at the Application Site, each year of the Peat Extraction Phase (1988-2020). Furthermore, there are no details on the annual status of these employees i.e. seasonal or permanent, thus using the precautionary principle, it is assumed that the 128 employees were permanent staff. In reality, it is likely that staff numbers at the Application Site fluctuated throughout the Peat Extraction Phase and gradually declined in the years prior to 2020.

While extracted peat was exported from the Application Site to the various customers/destinations throughout the year, peat extraction itself was seasonal, only occurring from approximately April to September inclusive (i.e. 6 calendar months, corresponding to 126 workdays). As such, the majority of personnel travelled to and from the Application Site during these months only. The means by which personnel travelled to the Application Site included walking, cycling, by bus, by rail and by car. Using the precautionary principle, personnel traffic movements have been calculated assuming a car (i.e. an LGV), as the sole transport mode on the road network for all staff personnel and is assumed for full calendar year (i.e. 252 working days).

Using the precautionary principle, personnel traffic movements calculated in

Table 14-2 considers the following:

- From the period 1988 – 2020 it is assumed all 128 personnel travelled to and from the Application Site throughout the year in their own LGV hence a 1:1 ratio of personnel member to LGV has been used (i.e. for 252 days a year – 5 days a week, every week, excluding the 8 days of public holidays observed in Ireland by the baseline year of 1988). It is likely that a number of these personnel would have been seasonal workers, who would only travel to site 6 months of the year, however in the absence of data which distinguishes between permanent and seasonal employees and to present a highly conservative precautionary scenario, it is assumed that all 128 staff travelled to site all year round.
- From 2000 – 2020, 1 no. compliance officer was employed to undertake monitoring at the Application Site through an assumed 2 visits per month, 24 visits per year i.e. 480 visits during the Peat Extraction Phase. The compliance officer is to undertake monitoring of the site in line with the IPC Licence (Licence No. P0503-01).
- Using the precautionary principle, staff personnel movements for the years 1988 and 2020 have been extrapolated from the full year of employment rather than the period from July 1988 to December 1988 and January 2020 to June 2020.

Therefore, for the period 1988-2020, 128 vehicles per day were considered to have travelled to and from the Application Site each day for 252 workdays. Therefore, for the period 1988-2020, 256 LGV trips per day were considered to have travelled to and from the Application Site for 252 workdays.

Table 14-2 shown below identifies a total of 2,128,896 LGV traffic movements were generated by 128 staff from 1988 to 2020 (33-years) and 1 no. compliance officer from 2000-2020, which equates to an annual average of 64,512 LGV movements or a daily average of 256 traffic movements. These figures all reflect 2 journeys - to and from the Application Site, for all personnel each travelling by an LGV for the full working year throughout the Peat Extraction Phase.

Other Vehicular Movements

Further vehicular movements on the Application Site associated with activities such as construction work, general collections and deliveries, fuel deliveries and monitoring work would have taken place as required by rail, HGV, LGV and machinery such as tractors. Similarly, approximately 1 no. staff personnel have been continuously employed by the Applicant to undertake environmental monitoring of the Applicant's sites which have been operating under IPC Licence. Accordingly, vehicular movements associated with staff undertaking environmental monitoring would also have been generated through the year. The traffic movements of vehicles travelling to and from the Application Site are not considered significant when viewed in comparison to the number of movements associated with staff movements to and from the Application Site. Furthermore, under the assumption that 1 HGV would have come to the site per day for the entirety of the Peat Extraction Phase for activities such as construction work, fuel deliveries, maintenance activities, and collections and deliveries, a total of 16,632 HGV movements (1 x 252 working days x 33 years x 2 (inbound and outbound)) are included in this assessment. This is considered within the context that the traffic movements estimated for the Peat Extraction Phase have been identified on a highly conservative precautionary basis which allows other machinery, such as tractors be accounted for.

Summary

During the Peat Extraction Phase (33-year period), there was a total of 26,087 HGV interactions with the public road network related to the transport of extracted peat (see Table 14-1), and an estimated 16,632 HGV interactions related to other activities onsite, as outlined above, resulting in a combined annual average of 1,295 HGV interactions, and total daily average of 5 HGVs. In addition to this, there was an estimated total of 2,128,896 LGV/personnel vehicle interactions with the public road network for the peat extraction phase, considering staff journeys to and from site, which equates to an annual average of 64,512 LGV movements or a daily average of 256 traffic movements. Regarding rail movement interactions with the public road network during transport of extracted peat, there was estimated to be a total of 66,446 rail interactions with the public road network to and from the Application Site as a consequence of the Project, with a yearly average and daily average of 2,014 and 8 respectively.

Table 14-1 Traffic Movements during the Peat Extraction Phase

Peat Extraction Phase (July 1988 – June 2020) ⁴				
Year	Customer	Peat Type (Sod/Milled (incl. Horticultural Peat))	Transport Method	No. Annual Interactions with Public Road
1988	Allen PS	Sod	Rail	1900*
	Public Sales	Sod	Rail	1000*
1989	Allen PS	Sod	Rail	2100*
	Public Sales	Sod	Rail	1000*
1990	Allen PS	Sod	Rail	2100*
	Public Sales	Sod	Rail	1000*
1991	Allen PS	Sod	Rail	1800*
	Public Sales	Sod	Rail	800*
1992	Public Sales	Sod	Rail	1600*
1993	Public Sales	Sod	Rail	1600*
1994	Lullymore	Milled	HGV	29
	Public Sales	Sod	Rail	1600*
1995	Lullymore	Milled	HGV	188
	Lanesboro	Milled	HGV	825
	Public Sales	Sod	Rail	1600*
1996	Public Sales	Sod	Rail	1400*
1997	Public Sales	Sod	Rail	1380*
1998	Lanesboro	Milled	HGV	1088
	Public Sales	Sod	Rail	1380*
1999	Lanesboro	Milled	HGV	1352
	Public Sales	Sod	Rail	1360*

⁴ For the purpose of the assessment a full year is assumed for 2020, although the Peat Extraction Phase ends in June 2020.

* Return journeys of rail cars accounted for in the number of annual interactions with the public road network (i.e. the known number of road interactions was doubled to account for the return journey).

Peat Extraction Phase (July 1988 – June 2020) ⁴				
Year	Customer	Peat Type (Sod/Milled (incl. Horticultural Peat))	Transport Method	No. Annual Interactions with Public Road
2000	Edenderry Power Station	Milled	Rail	226
	Public Sales	Sod	Rail	1300*
2001	Edenderry Power Station	Milled	Rail	3169
	Public Sales	Sod	Rail	1200*
2002	Edenderry Power Station	Milled	Rail	3026
	Public Sales	Sod	Rail	1200*
2003	Edenderry Power Station	Milled	Rail	2605
	Public Sales	Sod	Rail	1200*
2004	Edenderry Power Station	Milled	Rail	3587
2005	Edenderry Power Station	Milled	Rail	3260
2006	Edenderry Power Station	Milled	Rail	1907
2007	Edenderry Power Station	Milled	Rail	1803
2008	West Offaly Power station	Milled	HGV	468
	Derrinlough	Milled	HGV	627
	Others	Milled	HGV	123
	Edenderry Power Station	Milled	Rail	1292
2009	Edenderry Power Station	Milled	Rail	1676
	Edenderry Power Station	Milled	HGV	2
	Derrinlough	Milled	HGV	448
	West Offaly Power Station	Milled	HGV	187
2010	Derrinlough	Milled	HGV	2072
	West Offaly Power station	Milled	HGV	994
	Kilberry	Milled	HGV	12
	Edenderry Power Station	Milled	HGV	54

Peat Extraction Phase (July 1988 – June 2020) ⁴				
Year	Customer	Peat Type (Sod/Milled (incl. Horticultural Peat))	Transport Method	No. Annual Interactions with Public Road
	Edenderry Power Station	Milled	Rail	2167
2011	Edenderry Power Station	Milled	Rail	1191
2012	Edenderry Power Station	Milled	Rail	1918
2013	Edenderry Power Station	Milled	Rail	1081
	Derrinlough	Milled	HGV	2160
	West Offaly Power station	Milled	HGV	518
	Littleton	Milled	HGV	1
2014	Edenderry Power Station	Milled	Rail	2006
	Derrinlough	Milled	HGV	387
	West Offaly Power Station	Milled	HGV	782
	Kilberry	Milled	HGV	20
2015	Edenderry Power Station	Milled	Rail	1613
	Derrinlough	Milled	HGV	872
	West Offaly Power station	Milled	HGV	2115
	Littleton	Milled	HGV	1
2016	Edenderry Power Station	Milled	Rail	1453
	Derrinlough	Milled	HGV	599
	Cúil na Móna	Milled	HGV	11
	West Offaly Power station	Milled	HGV	777
	Others	Milled	HGV	126
2017	Edenderry Power Station	Milled	Rail	1305
	Derrinlough	Milled	HGV	324
	Cúil na Móna	Milled	HGV	127
	West Offaly Power station	Milled	HGV	523

Peat Extraction Phase (July 1988 – June 2020) ⁴				
Year	Customer	Peat Type (Sod/Milled (incl. Horticultural Peat))	Transport Method	No. Annual Interactions with Public Road
	Kilberry	Milled	HGV	259
	Others	Milled	HGV	354
	Litter	Milled	HGV	9
	Dublin Port	Milled	HGV	211
2018	Edenderry Power Station	Milled	Rail	1337
	Derrinlough	Milled	HGV	352
	Cúil na Móna	Milled	HGV	240
	West Offaly Power station	Milled	HGV	81
	Kilberry	Milled	HGV	47
	Others	Milled	HGV	329
	Litter	Milled	HGV	112
	Dublin Port	Milled	HGV	501
	White moss	Milled	HGV	3
2019	Edenderry Power Station	Milled	Rail	580
	Lough Ree Power Station	Milled	HGV	2
	Ballivor	Milled	HGV	1
	Derrinlough	Milled	HGV	367
	Cúil na Móna	Milled	HGV	152
	West Offaly Power Station	Milled	HGV	371
	Others	Milled	HGV	389
	Litter	Milled	HGV	29
	Dublin Port	Milled	HGV	880
	Edenderry Power Station	Milled	Rail	724
2020	Ballivor	Milled	HGV	1

Peat Extraction Phase (July 1988 – June 2020) ⁴				
Year	Customer	Peat Type (Sod/Milled (incl. Horticultural Peat))	Transport Method	No. Annual Interactions with Public Road
	Derrinlough	Milled	HGV	2
	Cúil na Móna	Milled	HGV	766
	West Offaly Power station	Milled	HGV	99
	Kilberry	Milled	HGV	6
	Others	Milled	HGV	1481
	Litter	Milled	HGV	59
	Dublin Port	Milled	HGV	1111
	Westland	Milled	HGV	61
Total no. rail interactions with roads		66,446	Total no. HGV interactions with roads	26087
Annual average no. rail interactions with roads		2,014	Annual average no. HGV interactions with roads	791

Table 14-2 Personnel movements during the Peat Extraction Phase

Total no. annual staff during the Peat Extraction Phase	128
Daily movements of staff LGVs during the Peat Extraction Phase (to and from site)	128 x 2 = 256 daily movements
Average annual staff LGV movements during the Peat Extraction Phase	256 x 252 working days = 64,512 average annual movements
Total staff LGV movements during the Peat Extraction Phase	64,512 x 33 years = 2,128,896 total movements

14.2.4.2 Current Phase: June 2020 to present day

Traffic and rail movements to and from the Application Site during the Current Phase can be found in Table 14-3 and Table 14-4 below.

Peat Stockpile Removal

Following the cessation of peat extraction in June 2020, stockpiled peat from the Application Site was supplied to the Derrinlough Briquette Factory, Edenderry Power Station, Cúil na Móna Factory, Ballivor Works, West Offaly Power Station, Westland Horticulture, Kilberry Factory, Dublin Port and other horticultural and external customers. The stockpiled peat was moved from the Application Site to end-users by HGV using the public road network, with deliveries to Edenderry Power Station via private rail only. Removal of peat stockpiles was completed in October 2021. Sales Records, including the of number of deliveries made by HGV and rail from the Application Site for the years 2020 and 2021, have been provided by BnM.

As stated in Section 14.2.4.1, peat production ceased on site in June 2020 meaning part of the year falls within the Peat Extraction Phase and part of the year falls within the Current Phase, however, a detailed breakdown of the months stockpiled material was delivered to end-users during 2020 is not available, therefore the deliveries made for the whole of 2020 (including July 2020 – December 2020, i.e. during the current phase) have been accounted for within the Peat Extraction Phase (Section 14.2.4.1, Table 14-1) and within the Current Phase, to present the most precautionary scenario.

For the years 2020 and 2021, records identify that there was a total of 1,418 interactions between the rail deliveries of stockpiled peat to Edenderry Power Station and the public road network. This would have resulted in an annual average of 709 interactions, and approximately 3 per day for the two-year period (based on a 252 working day year, as transportation and monitoring are not seasonal like extraction).

For the same period, there was a total of 4,120 interactions between HGV deliveries of stockpiled peat to the aforementioned destinations, and the public road network. This equates to an annual average of 2,060 interactions and approximately 9 per day, for the two-year period (based on a 252 working day year, as transportation and monitoring are not seasonal like extraction).

Personnel Traffic Movements

The Applicant employed approximately 12 no. permanent staff to facilitate the removal of stockpiled peat off the bog for transportation to the Derrinlough Briquette Factory, Edenderry Power Station, Cúil na Móna Factory, Ballivor Factory, West Offaly Power Station, Westland Horticulture, Kilberry Factory, Dublin Port and other horticultural and external customers, until the last of the stockpiles were removed by October 2021.

Using the precautionary principle, personnel traffic movements calculated in Table 14-4 considers the following:

- From the period 2020-2021, it is assumed all 12 personnel travelled to and from the Application Site throughout the year, therefore 24 movements per day, considering return trips (i.e. for 252 days a year, 504 days total).
- From the period 2021-present, it is assumed 1 compliance officer has travelled and will travel to and from the Application Site for 2 visits per month, 24 visits per year. The compliance officer is to undertake monitoring of the site in line with the IPC Licence (Licence No. P0503-01).

- Using the precautionary principle, it is assumed that every personnel member travelled alone to and from the Application Site from local towns, villages and rural settlements, hence a 1:1 ratio of personnel member to LGV has been used.

Please see Chapter 4: Project Description for more details on the Current Phase activities. Please see Table 14-3 for the estimated annual traffic movements generated during the Current Phase.

Table 14-4 details the LGV movements to the application site for the period 2020 to present i.e. the Current Phase. Between 2020 and 2021 it is estimated that there were a total of 12,144 LGV trips to and from the Application Site, resulting in an annual average of 6,072 movements, thus 24 daily LGV trips (incl. return journeys) of staff to and from the Application Site based on a 252-day work year. Between 2022 and 2026 (5-year period), it is estimated that a total of 240 LGV trips to and from the Application Site occurred. This results in an annual average of approximately 48 LGV trips between 2022 and 2026.

The overall total of LGV trips to and from the Application site for the current phase is estimated to be 12,384 LGVs, resulting in an annual average of 1,769 LGV trips per year, and 7 trips daily.

Other Vehicle Movements

Further vehicular movements to and from the Application Site associated with activities such as construction work, general collections and deliveries, fuel deliveries and monitoring work would have taken place as required by rail, HGV, LGV and tractor. These traffic movements are not considered significant when viewed in comparison to the number of movements associated with staff movements to and from the Application Site. Furthermore, under the assumption that 1 HGV would have come to the site per day for the entirety of the Current Phase for activities such as construction work, general collections and deliveries, fuel deliveries and monitoring work. Therefore, a total of 1,764 (i.e. 252 days per year, over seven years) additional HGV movements (i.e. not for peat transport) are included in this assessment. This is considered within the context that the traffic movements estimated for the Current Phase vehicles have been identified on a highly conservative precautionary basis.

Summary

For the years 2020 and 2021, records identify that there was a total of 1,418 interactions between the rail deliveries of stockpiled peat to Edenderry Power Station and the public road network, resulting in an annual average of 709 interactions, and approximately 3 per day for the two-year period (based on a 252 working day year, as transportation and monitoring are not seasonal like extraction). For the same period, there was a total of 4,120 interactions between HGV deliveries of stockpiled peat to the aforementioned destinations, and the public road network, not accounting for return trips. This equates to an annual average of 2,060 interactions and approximately 9 per day, for the two-year period (based on a 252 working day year, as transportation and monitoring are not seasonal like extraction).

A total of 1,764 (i.e. 252 days per year, over 7-years) additional HGV movements (i.e. not for peat transport) are included in this assessment. For the years 2020 and 2021 this would have resulted in a total of 4,624 interactions (4,120 peat HGV movements and 504 additional HGVs (1 per day for 504 working days)), when considered alongside the HGV movements for the purpose of transporting peat. Therefore, for the period 2020 and 2021 there was an annual average of 2,312 HGV interactions with the public road network, thus an average of 9 daily interactions. For the remaining portion of the Current Phase (2022 - 2026 inclusive) a total of 1,260 HGV interactions are estimated to have occurred to facilitate other activities on site, resulting in an annual average of 252 interactions i.e. 1 per day.

In relation to HGVs, there would have been a total of 5,884 HGV movements over the 7-year period, associated with movement of extracted peat and other activities, averaging 841 movements annually

over 7-years. However, as previously described, in reality most of these movements would have occurred between 2020 and 2021 during the removal of stockpiled peat.

The overall total of LGV trips to and from the Application site for the current phase is estimated to be 12,384 LGVs, resulting in an annual average of 1,769 LGV trips per year, and 7 trips daily.

Table 14-3 Traffic Movements during the Current Phase

Current Phase (June 2020 – October 2021) ⁵				
Year	Customer	Peat Type (Sod/Milled)	Transport Method	No. Annual Interactions with Public Road
2020	Edenderry Power Station	Milled	Rail	724
	Ballivor	Milled	HGV	1
	Derrinlough	Milled	HGV	2
	Cúil na Móna	Milled	HGV	766
	West Offaly Power station	Milled	HGV	99
	Kilberry	Milled	HGV	6
	Others	Milled	HGV	1481
	Litter	Milled	HGV	59
	Dublin Port	Milled	HGV	1111
	Westland	Milled	HGV	61
2021	Ballivor	Milled	HGV	52
	Derrinlough	Milled	HGV	72
	Cúil na Móna	Milled	HGV	170
	Other	Milled	HGV	9
	Dublin Port	Milled	HGV	231
	Edenderry Power Station	Milled	Rail	694
Total rail movements during Current Phase 2020-2021		1,418	*Total HGV movements during Current Phase (2020 - 2021 only)	4,120
Annual average no. rail interactions with roads (2020-2021)		709	*Annual average no. HGV interactions with roads (2020-2021 only)	2,060

*HVG movements associated with transport of extracted peat only. HGV movements for other activities are not incorporated to the total figure here.

⁵ For the purpose of the assessment a full year is assumed for 2020, although the Peat Extraction Phase ends in June 2020.

Table 14-4 Personnel and other vehicle movements during the Current Phase

Other Vehicle Movements (2020 – Present)		
	Annual average LGV Movements	Compliance officer LGV movements
2020	6,048	-
2021	6,048	48
Total up to final removal of stockpiled peat	12,144	
2022	-	48
2023	-	48
2024	-	48
2025	-	48
2026	-	48
Total after final removal of stockpiled peat - present	-	240
Total LGV movements during the Current Phase	12,384	
Average annual LGV movements during the Current Phase (7 years)	1,769	

14.2.4.3 Remedial Phase

Traffic movements to and from the Application Site during the Remedial Phase can be found in Table 14-5 below.

It is a requirement of ‘*Condition 10 Cutaway Bog Rehabilitation*’ of the IPC Licence (Reg. P0503-01) that the Applicant, prepare (to the satisfaction of the EPA) and implements a Cutaway Bog Decommissioning and Rehabilitation Plan for each bog within the Allen Bog Group, including the Application Site. The plans set out the Applicant’s proposal for the Application Site to facilitate and enhance peatland rehabilitation in order to bring about environmental stabilisation across these bogs. BnM have produced a Cutaway Bog Decommissioning and Rehabilitation Plan for 10 of the bogs within the Application Site (i.e., Ballydermot, Blackriver, Barnaran, Killina, Lullymore, Lullybeg, Derrybrennan, Glashabaun, Codd and Ticknevin). The Cutaway Bog Decommissioning and Rehabilitation Plans for Ballydermot North, Ballydermot South, Glashabaun North, Glashabaun South, Codd 1 and Codd 2 have been combined into the respective Ballydermot, Glashabaun and Codd Cutaway Bog Decommissioning and Rehabilitation Plans. BnM have produced a final Cutaway Bog Decommissioning and Rehabilitation Plan for Lodge Bog, and works related to the rehabilitation at Lodge Bog have been ongoing since 2022. It is the intention of the Applicant to rehabilitate the bogs in a phased approach under the requirements of the IPC Licence. Please see Appendix 4-2 for details.

The Remedial Phase actions are divided into short- and long-term planning actions. As part of the short-term planning actions (0-2 years), the Applicant will undertake site wide ecological surveys, a drainage management assessment, implement drainage blocking and continue with environmental monitoring as outlined in the IPC Licence for the Application Site. These works will require 1-2 excavators and tractors at the Application Site per day and 1-2 personnel vehicles on site per day for the 2-year period. The tractors and excavators will be stored at the Ballydermot Works site (adjacent to the Application Site) at the end of the workday or will be stored at local holding areas, scattered throughout the bog units within the Application Site; they will not utilise the public road network except where vehicles cross the public road network to access adjacent areas on the Application Site, movements will generally be undertaken during periods of very low traffic activity, thereby minimising interaction with other road users.. The long-term phase (year 3 onwards) will entail 1-2 LGVs on site per month to evaluate the success of the plan and monitor silt ponds. There is also 1 no. compliance officer accounted for in these traffic figures for the Remedial Phase, assuming 2 visits per month, 24 visits per year. The compliance officer is to undertake monitoring of the site in line with the IPC Licence (Licence No. P0503-01). Please see Chapter 4: Project Description for more details on the Remedial Phase activities.

For the purposes of estimating traffic generation from the above activities, 2 personnel vehicles per workday (2 vehicles on site for 252 days per year) are considered for the first 2 years and then 24 personnel vehicles per year are considered for the long-term phase over a period of 27 years. 1 no. compliance officer visiting 2 times per month, 24 times per year is assumed to continue for the duration of the Remedial Phase. Thus, there are no HGV traffic movements anticipated for the Remedial Phase.

The overall total of LGV traffic movements for the first 2 years of the Remedial Phase is estimated to be 2,112 movements or 5 daily movements based on a 252-day work year. The overall total of LGV traffic movements for the following 27-years of the Remedial Phase is estimated to be 2,592 movements or 96 annual traffic movements which equates to less than 1 per day, or 8 total movements per month based on a 252-day work year.

Table 14-5 Traffic Movements for the Remedial Phase

Remedial Phase				
Year	Total HGV Movements per year	Average annual LGV Movements	Total LGV Movements over time-period	Average daily LGV Movements
Year 1 and Year 2 (short term action plan)	0	1,056	2,112	5
Year 3 to year 30	0	96	2,592	Less than 1 per day
Total at the end of the Remedial Phase	0	157 Average annual Movements over 30-year period	4,704 Total LGV movements over 30-year period	Less than 1 per day

14.2.4.4 Traffic volumes generated in comparison to Average Annual Daily Traffic Count Data

Table 14-1 to Table 14-5 above sets out the traffic movements to and from the Application Site during the Peat Extraction Phase, Current Phase and Remedial Phase.

Table 14-6 below sets out the impact that the traffic movements generated during all three Project phases had or will have on the surrounding road networks using traffic count data which was collected on October 2025 to inform the proposed Ballydermot Wind Farm application (see Appendix 14-1).

As detailed in Section 14.2.2, peat extracted on the Application Site was transported to a range of destinations including; Allenwood Power Station, Edenderry Power Station, Ballydermot Works for public sale, Lullymore Works, Ballivor Factory, Cúil na Móna Factory, Derrinlough Briquette Factory, Dublin Port, , Kilberry factory, Lanesboro, Littleton Briquette Factory, Lough Ree Power Station, West Offaly Power station, Westland Horticulture, White moss and others external customers according to BnM sales records. The exact end destination and haul routes are uncertain, along with commuting routes for staff personnel.

To inform the proposed Ballydermot Wind Farm application, traffic counts were collected at a number of locations in the immediate and wider vicinity of the Application Site. Using the precautionary principle, four of those traffic count locations in the vicinity of the Application Site have been used herein to identify Annual Average Daily Traffic (AADT) data for the Application Site's surrounding road network. The four locations were identified in as close as possible to a North-East-South-West direction surrounding the Application Site.

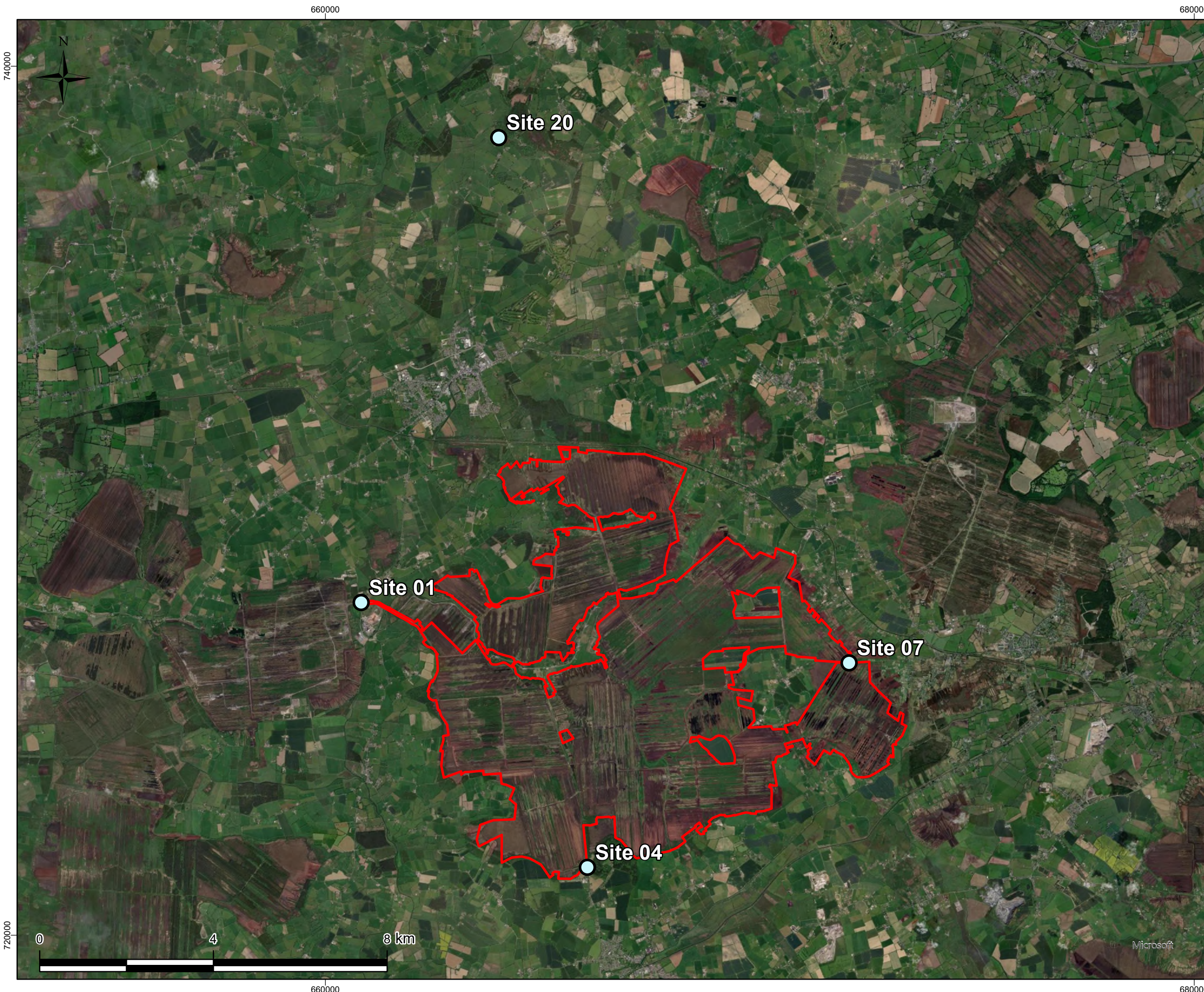
The representative traffic count locations selected are identified below and presented in Figure 14-2:

- **North of Application Site:** Site 20 R401 Between Edenderry & Kinnegad (Location: ITM X663990, Y738354).
- **East of Application Site:** Site 07 R414 Lodge Bog Access/Access 5 (Location: ITM X672056, Y726267).
- **South of Application Site:** Site 04 Bord Na Mona Ballydermot/Access 8 (Location: ITM X666031, Y721563).
- **West of Application Site:** Site 01 R401 Cloncreen 110KV WF Sub-Station/Access 1 (Location: ITM X660824, Y727656).

The count data available at all four locations was collected for a one-week period in October 2025 and used to deduce an Annual Average Daily Traffic (AADT) for the year 2025, using TII guidance on Expansion Factors for Short Period Traffic Counts⁶. For the earliest year in the Peat Extraction Phase, 1988, it is considered that AADT values would have been lower than the estimated 2025 AADT values, however, AADT count data for 1988 is unavailable. In order to estimate an AADT value that would be more representative of 1988, Census population data presented in Chapter 5 Section 5.4 of this rEIAR has been utilised. The population of the State increased from 3,540,643 (c. 3.54 million) to approximately 5,149,139 (c. 5.15 million) representing an approximate c. 45% increase in population from the year 1986 (Census Year) to 2022 (Census Year). In order to present a precautionary scenario and align AADT data with the population at the time, the estimated AADT based on the traffic count data for 2025 is assumed to be 145% of the theoretical 1988 AADT Count, thus the AADT count data for 2025 has been reduced by **31%** (45 as a percentage of 145), and a theoretical 1988 AADT count has been deduced.

⁶ TII, October 2016. Available at: <https://cdn.tii.ie/publications/PE-PAG-02039-01.pdf>

It should be noted that the average daily Project traffic movements (e.g., 5 daily HGV and 256 daily LGV movements during the Peat Extraction Phase) leaving the Application Site would have travelled in various directions; however, as a conservative measure, Table 14-6 below calculates the impact of traffic movements associated with the Project as if all traffic movements were towards the same destination, i.e. 5 HGV and 256 LGV movements are compared with the average daily traffic count on each available route. Therefore, the results below identify a much greater impact that would have occurred in reality.



- Map Legend
- Application Site Boundary
 - Traffic Count Locations

Spatial Reference
Name: IREN95 Irish Transverse Mercator
Datum: IREN95
Projection: Transverse Mercator



SITE LOCATION - NOT TO SCALE

Four Selected Traffic Count Locations

Project Title		
Peat Extraction at Ballydermot, Co. Kildare and Co. Offaly		
Project No.	Drawing No.	Scale
250709	14-2	1:80,000
Drawn By	Checked By	Date
SOR	KON	30/07/2026



Email: info@mkofireland.ie / Website: www.mkofireland.ie

Table 14-6 Traffic movements generated by the Project in comparison with 2025 recorded daily averages along assumed chosen routes.

Representative Count Station and Location	AADT Data Year: 2025 Daily average based on traffic counts for a 5-day work week in October 2025	AADT Data Year: 1988 ⁷ daily average Estimated by applying a 31% reduction factor to account for population changes	Peat Extraction Phase: 1988 to June 2020		Current Phase: June 2020 to present day				Remedial Phase	
			The Project's average daily road interactions from 1988 to June 2020 (LGV and HGV combined)	The Project's average daily road interactions as % of 1988 estimated AADT	The Project's average daily road interactions (LGV and HGV combined)		The Project's average daily traffic movements as % of 2025 AADT		The Project's average daily LGV and HGV traffic movements	The Project's average daily traffic movements as % of 2025 AADT
					2020 - 2021	2022 - 2026	2020 - 2021	2022 - 2026		
North of the Application Site: Count Site 20 R401 Between Edenderry & Kinnegad	4,118	(31% of 4,118 = 1,277) 2,841	261	9.2%	33	1 per day	0.8%	<0.1%	Less than 1 per day	<0.1%
East of the Application Site: Site 07 R414 Lodge Bog Access/Access 5	1,882	(31% of 1,882 = 583) 1,299	261	20%	33	1 per day	1.8%	<0.1%	Less than 1 per day	<0.1%

⁷ For the Peat Extraction Phase, a theoretical 1988 AADT value has been quantified using Census population data for the State. The 31% reduction in State population between Census years 2022 and 1986 was also applied to the traffic count data gathered in the vicinity of the Application Site, in October 2025

Representative Count Station and Location	AADT Data Year: 2025 Daily average based on traffic counts for a 5-day work week in October 2025	AADT Data Year: 1988 7 daily average Estimated by applying a 31% reduction factor to account for population changes	Peat Extraction Phase: 1988 to June 2020		Current Phase: June 2020 to present day				Remedial Phase	
			The Project's average daily road interactions from 1988 to June 2020 (LGV and HGV combined)	The Project's average daily road interactions as % of 1988 estimated AADT	The Project's average daily road interactions (LGV and HGV combined)		The Project's average daily traffic movements as % of 2025 AADT		The Project's average daily LGV and HGV traffic movements	The Project's average daily traffic movements as % of 2025 AADT
					2020 - 2021	2022 - 2026	2020 - 2021	2022 - 2026		
South of the Application Site: Site 04 Bord Na Mona Ballydermot/ Access 8	3,394	(31% of 3,394 = 1,052) 2,342	261	11.1%	33	1 per day	0.9%	<0.1%	Less than 1 per day	<0.1%
West of the Application Site: Site 01 R401 Cloncreen 110KV WF Sub-Station/Access 1	3,976	(31% of 3,976 = 1,233) 2,743	261	9.5%	33	1 per day	0.8%	<0.1%	Less than 1 per day	<0.1%

14.2.4.5 Rail interactions with the public road network

Table 14-1 and Table 14-3 above sets out the rail interactions with the public road network resulting from peat transport from the Application Site during the Peat Extraction Phase and Current Phase of the Project.

As detailed in Section 14.2.2, peat extracted on the Application Site was transported to one of a range of end destinations. Customers/destinations across the Peat Extraction Phase were; Ballydermot Works for sale to the public via the tiphead, Allenwood Power Station, Edenderry Power Station, Lullymore Works, Ballivor Factory, Cúil na Móna Factory, Derrinlough Briquette Factory, Dublin Port, Kilberry Factory, Lanesboro Power Station, Littleton Briquette Factory, Lough Ree Power Station, Lullymore Briquette Factory, West Offaly Power station and other external customers according to BnM sales records. Customers/destinations across the Current Phase were; Ballivor Factory, Derrinlough Briquette Factory, Cúil na Móna Factory, Dublin Port, Edenderry Power Station and other external customers, according to BnM sales records.

As detailed in Sections 14.2.4.1 and Section 14.2.4.2, the average daily Project rail movements were 8 daily rail movements during the Peat Extraction Phase and 3 daily rail movements during the Current Phase (2020 – 2021 only).

Using the precautionary principle, it is assumed that only rail movements of sod peat being transported from the Application Site to Allenwood Power Station or the tiphead at Ballydermot Works travelled via the 2 no. guarded level crossings along the R414. Therefore, there would have been a total of 25,016 rail interactions with the road network during the Peat Extraction Phase (1988 - 2003 only), resulting in a maximum total of 6 potential interactions with the public road network per day during the Peat Extraction Phase (1988 - 2003 only), and none during the Current Phase (between 2020 and October 2021) as transport of sod peat to the Allenwood Power Station ceased in 1991 and to the tiphead at Ballydermot Works ceased in 2003.

Wait times at level crossings were estimated at a maximum of 5 minutes on the basis that the level crossings were operated by the driver of the Peat Haulage Locomotives. The wait time duration of a maximum of 5 minutes at the level crossings has been identified from personal communications with BnM Employees. As such, during the Peat Extraction Phase of the Project, it is estimated that the combined waiting time for all road users at both level crossings was a maximum of 20 minutes per day.

14.2.5 Assessment of significant Effects and Mitigation Measures

14.2.5.1 'Do-Nothing' Scenario

As outlined in the EPA Guidelines (May 2022), the description of 'Do-Nothing Effects' relates to the environment as it would be in the future should the Project not be carried out. Peat extraction was underway at the Application Site prior to the required date for the transposition of the EIA Directive in 1988. If peat extraction and related activities had ceased from 1988 onwards, then consequently there would have been no further peat extraction from the site and therefore no impact on traffic and transport.

For those lands which as of 1988 had been subject to the installation of drainage in preparation for peat extraction but not peat extraction itself, it is assumed in the 'Do-Nothing' scenario that drainage would have remained in situ. Maintenance works to keep established drainage channels clear would have

ceased as of 1988 in the 'Do-Nothing' scenario. It is likely that these areas would have been subject to natural recolonisation of the bog surface.

However, consideration must be given to the following:

- The legislative mandate given to Bord na Móna in the form of the Turf Development Act 1946, (as amended) to acquire and develop peatlands; and
- The uncertainty with respect to the planning status of the activity did not arise until 2019 and was not evident in 1988.

Therefore, this 'Do-Nothing' scenario was not the chosen scenario. Peat extraction and ancillary activities have occurred at the Application Site from July 1988 onwards. A decision to cease peat extraction at the Application Site was taken in 2020 and the Application Site needs to be considered in the context of regularising (without prejudice) the planning status of the lands to facilitate future development (subject to planning consent as required). The Application Site has and will continue to revegetate, and there will be a change from areas of cutover peatland to revegetated peatland.

As part of BnM's statutory obligations under IPC Licence requirements, a Cutaway Bog Decommissioning and Rehabilitation Plan will continue to be implemented for the Application Site separate to, and independent of, the Substitute Consent application. The implementation of this plan is included in the impact assessment below. See Appendix 4-2 Bord na Móna Cutaway Bog Decommissioning and Rehabilitation Plans.

14.2.5.2 Peat Extraction Phase: July 1988 to June 2020

Identification of Impact

Peat extraction and ancillary activities at the Application Site resulted in the concentration of daily personnel LGVs traffic movements to the Application Site in the mornings and from the Application Site in the evenings, particularly during the peat extraction season of April to September. It is estimated that an average of 256 staff personnel LGV movements were made to and from the Application Site each day during the Peat Extraction Phase.

During the Peat Extraction Phase, there was a total of 66,446 rail interactions with the public road network during deliveries of excavated peat to various destinations as a consequence of the Project, with a yearly average and daily average of 2,014 and 8 respectively. Of these it is understood that only sod peat being delivered to Allenwood Power Station and the tiphead at Ballydermot Works would have utilised the 2 no. level crossings within the Application Site, to travel to and from those destinations. This represents a total 25,016 possible interaction between rail cars and the 2 no. of guarded level crossings between 1988 to 2003, resulting in a maximum total of 6 potential interactions daily for the same period.

The total time that each level crossing location was closed was approximately 30 minutes per day with each closed for 6 no. 5 minute periods. Impacts on road users due to the presence of level crossings to facilitate BnM locomotive movements to and from the Application Site is considered to have had a negative, slight, long term effect on traffic volumes, roads and road users during the Peat Extraction Phase, which is not significant. This is based on a highly precautionary scenario and would have likely been less than this in reality.

The daily deliveries of peat out of the Application Site resulted in a concentration of HGV movements from the Application Site during off peak times. An average of 26 tonnes of peat were transported per delivery, and it is estimated that an average of 3 HGV movements were made to and from the Application Site each day, to facilitate peat deliveries only.

General construction, fuel deliveries, maintenance activities, general collections and deliveries resulted in an estimated total of 2 HGV movements per day, and subsequently a total of 16,632 HGV movements for these other activities throughout the Peat Extraction Phase (33 years, 252 working days per year). This is based on a highly precautionary scenario and would have likely been less than this in reality, allowing us to account for occasional machinery, such as tractor movements.

There was a daily average of 256 LGV traffic movements to and from the Application Site to accommodate staff/personnel travelling to site.

In comparison to the average annual daily traffic count for the theoretical Year 1988 along the Application Site surrounding road network, the traffic numbers generated by the Application Site are lower than the daily average. The average annual LGV and HGV traffic movements combined generated by the Project is estimated to have contributed between 9 – 20% of the AADT (Year 1988) for the four representative traffic count locations.

The traffic generated to and from the Application Site during the Peat Extraction Phase from 1988 to June 2020 is considered to have had a negative, moderate, long-term effect on traffic volumes, roads and road users, which is not significant.

Control Measures

- Peat deliveries from the Application Site out to various destinations were carried out during off-peak times only.
- The railway locomotives underwent continuous inspection and maintenance to prevent fires, accidents, fuel leaks and de-railments within the bog and at the level crossing locations at both the Application Site and wider rail network. Catch points were also fitted into railway tracks on either side of level crossing gates as a standard safety practice to de-rail any runaway trains before reaching the level crossing.
- The locomotives were fitted with beam lighting, electric windscreen wipers and driving mirrors for both directions of travel. Wagons were also designate as fire safety wagons and were stocked with various fire safety paraphernalia including hoses, buckets, breathing apparatus, first aid kit, drums of foam and foam making machine, extinguishers.
- Dust suppression measures were used when transporting peat loads to end users. Peat loads were secured with polythene film gauge sheets to prevent dust emissions to the atmosphere during transportation. (By c. 2008, fully enclosed bed trailers were used so dust generation from peat loads in transport was no longer an issue)
- Machinery crossing points on local roads between bogs were cleaned down at the end of each working day
- All HGVs underwent regular inspection and maintenance checks.
- All HGVs underwent wheel washing prior to leaving the Application Site to minimise the soiling of local roads.
- Only HGV licence holders operated the peat delivery vehicles and underwent regular re-training on HGV safety operations and vehicle maintenance.
- Refuelling of all HGV vehicles was undertaken at the Ballydermot Works, adjacent to the Application Site, at the fuel tank to the west of Killina Bog or by using bunded mobile refuelling units on site where required.

Residual Effect

The traffic generated to and from the Application Site during the Peat Extraction Phase from 1988 to June 2020 is considered to have had a negative, moderate, long-term effect on traffic volumes, roads and road users, which is not significant.

Given the low frequency of crossings, operation of the level crossing at off-peak times only and the presence of gates and sensory notification lighting, the impact on road users due to the presence of level crossings to facilitate BnM locomotive movements to and from the Application Site is considered to have had a negative, slight, long term effect on traffic volumes, roads and road users during the Peat Extraction Phase, which is not significant.

Significance of Effects

The effects of the Peat Extraction Phase activities on traffic and transport from 1988 to June 2020 are considered not significant.

14.2.5.3 Current Phase: June 2020 to Present Day

Identification of Impact

Peat extraction ceased at the Application Site in June 2020. Traffic generated during the Current Phase comprised the removal of stockpiled peat at the Application Site to Edenderry Power Station, Ballivor Factory, Derrinlough Briquette Factory, Cúil na Móna Factory, West Offaly Power Station, Kilberry Factory, Dublin Port, Ballydermot Works, other external customers and staff personnel vehicles travelling to and from the Application Site. The stockpiled peat was moved from the Application Site to end-users by HGV using the public road network, with deliveries to Edenderry Power Station via private rail only. Removal of peat stockpiles was completed in October 2021.

For the years 2020 and 2021, records identify that there was a total of 1,418 interactions between the rail deliveries of stockpiled peat to Edenderry Power Station and the public road network. This would have resulted in an annual average of 709 interactions, and approximately 3 per day for the two-year period (based on a 252 working day year, as transportation and monitoring are not seasonal like extraction).

For the years 2020 and 2021 there was a total of 4,120 interactions between HGV deliveries of stockpiled peat to the aforementioned destinations, and the public road network, typically concentrated during off peak times. This equates to an annual average of 2,060 interactions and approximately 9 per day, for the two-year period (based on a 252 working day year, as transportation and monitoring are not seasonal like extraction). In addition, it is estimated that throughout the Current Phase, there was also 1 HGV per day for construction work, general collections and deliveries, fuel deliveries and monitoring work. As such, it is estimated that an additional 504 HGV movements occurred during the two-year period 2021-2022, resulting in a total of 4,624 HGV interactions over the two years. Therefore, there was an annual average of 2,312 HGV interactions with the public road network, thus an average of 9 daily interactions. For the remaining portion of the Current Phase (2022 - 2026 inclusive) a total of 1,260 HGV interactions are estimated to have occurred to facilitate other activities on site, resulting in an annual average of 252 interaction i.e. 1 per day.

The daily average of LGV traffic movements combined generated by the Application Site is approximately 7 movements (2020-present). In comparison to the average annual daily traffic count for the year 2025 along the road network surrounding the Application Site, the traffic numbers generated by the Application Site are considerably lower than the daily average. The average daily LGV and HGV traffic movements generated by the Project during 2021-2022 contributed 0.8 - 1.8% of the AADT (Year 2025) for the representative traffic count locations. Comparatively, once stockpile removal was complete, the average daily LGV and HGV traffic movements generated by the Project contributed <0.1% of the AADT (Year 2025) for the representative traffic count locations.

The traffic generated to and from the Application Site during the Current Phase is considered to have had a negative, short term, slight effect on traffic volumes, roads and road users, which is not significant.

Control Measures

Control measures undertaken during the Current Phase are the same as those undertaken in the Peat Extraction Phase, as detailed in Section 14.2.5.2 above. In addition, as part of the Applicant's vision for a climate neutral Ireland by 2050, the Applicant encourages and promotes car sharing and cycle to work schemes where possible for its staff personnel. Therefore, there giving rise to the potential to reduce the daily LGV numbers travelling to and from at the Application Site.

Residual Effect

The traffic generated to and from the Application Site during the Current Phase is considered to have had a negative, short term, slight-imperceptible effect on traffic volumes, roads and road users.

Significance of Effects

The effects of the Current Phase activities on traffic and transport are considered not significant.

14.2.5.4 Remedial Phase

Identification of Impact

During the Remedial Phase, ecologists, engineers and site operatives will oversee and undertake the process of rehabilitation including drain blocking which requires 1-2 HGVs at the Application Site for the first 2 years of the Remedial Phase. These HGVs will not utilise the public road network; they will cross the road once in the morning and once in the evening to track back to the Works where they will be stored but will not contribute to traffic flow numbers. It is estimated that 1-2 LGVs will travel to and from the Application Site each day for the first two years. After that, just 1-2 LGVs will be required to visit the Application Site each month to inspect the progress of the remedial measures.

In comparison to the average annual daily traffic count data reported along representative roads the LGV numbers generated by the Application Site for this phase are considerably lower than the daily average annual traffic count numbers. It is estimated that the LGV traffic generated by the Application Site for this phase will contribute to less than 0.1% of daily traffic volumes on representative roads.

Impacts on road users due traffic movements produced by the Application Site is expected to have a negative, imperceptible, long-term effect on traffic volumes, roads and road users during the Remedial Phase, which is not significant.

Mitigation Measures

- All HGVs used on site will undergo regular inspection and maintenance checks.
- All HGVs used on site will undergo wheel washing prior to crossing the local road network to access other bogs or return to the Ballydermot Works for storage.
- Only HGV licence holders will operate the HGVs and will undergo regular re-training on HGV safety operations and vehicle maintenance.
- Refuelling of all HGV vehicles will be undertaken at the Ballydermot Works only.
- Machinery crossing points on local roads between bogs will be cleaned down at the end of each working day.
- Car sharing by personnel and bike to work schemes will be encouraged. As part of the Applicant's vision for a climate neutral Ireland by 2050, the applicant encourages and promotes car sharing and cycle to work schemes where possible for its personnel.

Residual Effect

The estimated traffic levels generated to and from the Application Site during the Remedial Phase is considered to have had a negative, long term, imperceptible effect on traffic volumes, roads and road users, which is not significant.

Significance of Effects

The effects of the Remedial Phase activities on traffic and transport are considered not significant.

14.2.5.5 Summary

Please see the below Table 14-7 for a summary of all identified impact for the Project relating to traffic and transport.

Table 14-7 EIA Summary Table

Topic	Pre-Mitigation Effect (EPA, 2022 Classification)	Mitigation Section Reference	Residual Effect (EPA, 2022 Classification)	EIA significance Threshold
Peat Extraction Phase				
Traffic volumes and road users	Negative, moderate, long-term effect	14.2.5.2, 14.2.5.3	Negative, moderate, long-term effect	not significant
Current Phase				
Traffic volumes and road users	Negative, short term, slight	14.2.5.3	Negative, short term, slight-imperceptible	not significant
Remedial Phase				
Traffic volumes and road users	Negative, imperceptible, long-term	14.2.5.4	Negative, imperceptible, long-term	not significant

14.3 Cumulative and In-Combination Effects

14.3.1.1 Peat Extraction Phase (July 1988 - June 2020)

The potential cumulative and in-combination effects of peat extraction and ancillary activities at the Application Site with other relevant activities/projects from 1988 to 2020 are considered below. Further information on activities or developments as part of the cumulative assessment are given in Chapter 2: Background.

Given that during the Peat Extraction Phase, peat extraction and ancillary activities were well established at the Application Site, it is considered that traffic movements that took place between 1935 and 1988 (53-year period) (i.e. between the commencement of peat extraction and before the EIA Directive was required to be transposed into Irish law), would have been less than during the Peat Extraction Phase (33-year period) as the level of annual average annual peat extraction is estimated to be lower than the 1988 to 2020 period. As detailed in Section 4.3.3 of Chapter 4: Project Description, BnM records indicate that milled peat extraction continued on the Application Site from 1988 until 2019, sod peat extraction from 1988 to 2000, sod moss extraction from 1988 to 2019 and bin sod from 2000 to 2019 at which point peat extraction paused across the Application Site until June 2020 where extraction commenced again for 3 weeks before ceasing permanently. During the latter part of the 1988 to 2020 assessment period (i.e., from late 1990s/2000 onwards), peat extraction gradually slowed down and then ceased permanently in June 2020 across the Application Site.

In addition to this, with respect to land uses such as peat extraction, agriculture and forestry in the wider area, the potential cumulative effect on traffic volumes, roads and road users arising from traffic and rail movements that occurred due to the Project and land-uses in the wider area is considered to have had a negative, long-term, slight cumulative effect on traffic volumes.

14.3.1.2 **Current Phase (June 2020 – Present Day)**

The potential cumulative and in-combination effects with other relevant activities/projects with Current Phase activities at the Application Site are considered in the following text. Further information on activities or developments as part of the in-combination assessment are given in Chapter 2: Background.

Other projects and activities as described in the cumulative assessment in Chapter 2 of this rEIAR have had the potential to generate traffic movements associated with day-to-day roads users and local industry such as agriculture for the period from June 2020 to present day. Therefore, in combination with the traffic movements in the area from other projects, the potential for the Current Phase activities are considered to have had a negative, short term, imperceptible effect on traffic volumes, roads and road users, and is not significant.

14.3.1.3 **Remedial Phase**

The potential cumulative and in-combination effects with other relevant activities/projects with Remedial Phase activities at the Application Site are considered below. Further information on activities or developments as part of the in-combination assessment are given in Chapter 2: Background.

It is intended to utilise the Application Site for both peatland rehabilitation and wind energy infrastructure and to facilitate environmental stabilisation of the Application Site and the optimisation of climate action benefits.

Bord na Móna Powergen Ltd. are proposing a wind energy development within the Application Site consisting of 47 no. turbines, 20 no. turbines will have a maximum blade tip height of 200 metres (m) above the top of the foundation, and 27 no. turbines will have a maximum blade tip height of 220 metres (m) above the top of the foundation⁸. A separate EIAR and accompanying NIS are being undertaken for the proposed Ballydermot Wind Farm development. At the time of writing, the planning application for this development has not yet been submitted to An Coimisiún Pleanála.

The implementation of the Draft Bord na Móna Cutaway Bog Decommissioning and Rehabilitation Plan in conjunction with the construction, operation and decommissioning of the Ballydermot Wind Farm as well as proposed, permitted and operational plans and projects listed in Chapter 2 of its EIAR

⁸ <https://www.ballydermotwindfarm.ie/>

is considered. As detailed in Section 14.2.5.4, the potential effect of the Remedial Phase of the Project on traffic and transport is considered a short-term, imperceptible negative effect. There is a potential for increased traffic movements associated with the implementation of the rehabilitation works identified in the Remedial Phase. The effect of the construction, operational and decommissioning phases of the proposed Ballydermot Wind Farm in combination with the Remedial Phase of the Project is not considered to be significant, given the nature of the Remedial Phase works. As such the potential cumulative effect of the Project with the proposed Ballydermot Wind Farm is considered to be a potential slight, negative, short term, effect on traffic volumes, roads and road users.

The EIAR for the proposed Ballydermot Wind Farm development will detail issues related to peat management during wind farm construction. In summary, during construction for access tracks, hardstands and other areas, peat is excavated from the cutaway, moved to the side, graded into berms not more than 1m and allowed to naturally re-vegetate. This has proven successful during construction of Mountlucas, Cloncreen and Derrinlough Wind Farms. In the event that natural re-vegetation was unsuccessful, then other measures such as re-seeding would be considered.

In addition, a planning application was submitted to An Coimisiún Pleanála (ACP) in December 2025 for an Uisce Éireann Water Supply Project for the Eastern and Midlands Region (ACP Ref. PA92.323980)⁹. The Applicant is in consultation with Uisce Éireann regarding the water supply project. The pipeline for this project is proposed to traverse the Application Site, through Codd 2, Glashabaun South and Derrybrennan. Based on the estimated timeline for the construction of the water supply project, it is expected that the short-term rehabilitation actions at the Application Site (see Rehab Plans (Appendix 4-2)) will be completed. The remaining long-term rehabilitation works will comprise monitoring, aftercare and maintenance to validate the efficacy of the rehabilitation measures in achieving environmental stabilisation, as described in rEIAR Chapter 4, Section 4.9. In terms of traffic, the number of staff visits to the Application Site during these long-term Remedial Phase works will be imperceptible, thus are not expected to interfere with the construction phase of the Water Supply Project, therefore the cumulative or in combination effects on traffic are assessed as the same.

Overall cumulative effects when considering the life cycle of the Application Site and the proposed Ballydermot Wind Farm will not occur. Furthermore, cumulative effects when considering the existing Cushaling Wind Farm and Cloncreen Wind Farm, and any other proposed, permitted or operational plans or projects listed in Chapter 2: Background of this rEIAR are considered not significant given the nature of the Remedial Phase works.

⁹ <https://www.water.ie/projects/national-projects/water-supply-project-east-1>

14.4 Other Material Assets

14.4.1 Introduction

14.4.1.1 Background and Objectives

The purpose of this section is to assess the effects of the Project on material assets such as telecoms, aviation, utilities and waste management.

14.4.1.2 Guidance and Legislation

This section of the rEIAR has been completed in accordance with the guidance set out in Chapter 1. The assessment uses standard terminology to describe the likely significant effects associated with peat extraction and ancillary activities at the Application Site. Further information on the classification of effects used in this assessment is presented in Section 1.8.2 of this rEIAR.

14.4.1.3 Scoping and Consultation

The scope for this assessment has been informed by consultation with statutory consultees, bodies with environmental responsibility and other interested parties as outlined in Section 2.4 of Chapter 2 of the rEIAR. Scoping was carried out in line with the recommendations set out in May 2022 *Guidelines on the information to be contained in Environmental Impact Assessment Report*. A full description of the scoping and consultation exercise is provided in Section 2.4 of Chapter 2 of this rEIAR. The assessment of likely significant effects on material assets uses the standard methodology and classification of impacts as presented in Section 1.8.2 of Chapter 1 of this rEIAR.

Scoping for the Project was undertaken in January 2026. Telecoms scoping was undertaken for the proposed Ballydermot Wind Farm in May 2026 and has been included in Appendix 2-1 for completeness.

Uisce Éireann

A scoping request was issued to Uisce Éireann (formerly known as Irish Water) on the 21st of February 2022, however no response was received from Uisce Éireann.

Another scoping request was issued to Uisce Éireann on the 15th of January 2026. A response was received on the 10th of February 2026 under the reference PN26000036142.

The response notes the presence of the Figile River Well abstraction point near the village of Clonbulloge, Kildare approximately 2 kilometres from the Application Site, and outlined the zone of contribution for this asset is more proximate, extending to a point approximately 500 meters from the development's westernmost boundary. As such Uisce Éireann requested that any future EIAR consider the potential for impact on this asset or any other surface water or groundwater abstraction points where a potential hydrological and hydrogeological pathway exists should also be considered.

The response also goes on to list several aspects of water & wastewater services that should be addressed in the scope of an EIAR and planning proposals ahead of submission of a planning application. Please see Appendix 2-1 for scoping correspondences with consultees in relation to this rEIAR.

Waterways Ireland

A scoping request was sent to Waterways Ireland on the 21st of February 2022. No response was received.

Another scoping request was sent to Waterways Ireland on the 15th of January 2026. No response was received, therefore a follow-up request was issued on the 10th of February 2026. No response has been received from Waterways Ireland with regards to the Ballydermot Substitute Consent Application to date.

Department of Climate, Energy and the Environment

A scoping request was sent to the Department of Climate, Energy and the Environment (DCEE)(formerly Department of Communications, Climate Action and Environment) on the 21st February 2022. No response was received.

Another scoping request was issued on the 15th January 2026. No response was received, therefore a follow-up request was issued on the 10th February 2026. No response has been received from DCEE with regards to the Ballydermot Substitute Consent Application to date.

ESB

A scoping request was sent to ESB on the 9th September 2022. No response was received.

Another scoping request was issued to the ESB on the 4th of March 2026. No response was received. A follow-up request was issued to the ESB on the 30th of March 2026. No response has been received from ESB with regards to the Ballydermot Substitute Consent Application to date.

Eirgrid

A scoping request was sent to ESB on the 9th September 2022. No response was received.

Another scoping request was issued to Eirgrid on the 15th January 2026. No response was received, therefore a follow-up request was issued on the 10th February 2026. No response has been received from Eirgrid with regards to the Ballydermot Substitute Consent Application to date.

Irish Aviation Authority (IAA)

A scoping request was sent to the IAA in relation to the Project proposed the peat extraction and ancillary activities for which substitute consent are being sought in January 2026 on the 15th January 2026. This request was subsequently followed up on 10th February 2026, and a response received on 13th February 2026. The IAA stated that: *“based on the information provided, the IAA has no comment or observations.”*

Department of Defence (DoD)

A scoping request was issued to the DoD in relation to the peat extraction and ancillary activities for which substitute consent are being sought on the 15th January 2026. An email confirming receipt of request was received on 11th February 2026, however no further follow-up correspondence was received regarding this matter.

14.4.2 Methodology

The EPA Guidelines on the information to be contained in EIARs (2022) states that material assets are taken to mean built services and infrastructure, roads and traffic and waste management. This section of the assessment focuses on those material assets other than traffic, which has been assessed in Section 14.2. This section assesses built services and infrastructure which have not already been addressed elsewhere in this rEIAR. The potential impacts on built services and infrastructure, if any, are assessed in terms of the following:

- Electricity;
- Gas Supply;
- Water Supply;
- Surface Water Infrastructure;
- Wastewater;
- Waste Management; and,
- Telecommunications and Aviation.

This section of the assessment provides a review of the material assets located within the Application Site and immediate surrounds which may have been impacted by the activities undertaken at the Application Site during the Peat Extraction Phase, Current Phase and Remedial Phase.

14.4.2.1 Annual Environmental Reports

Annual Environmental Reports (AERs) have been produced by the Applicant and submitted to the EPA annually since 2000 when the Application Site began to operate under IPC Licence (Reg. No. P0503-01). AERs are submitted to the EPA by March 1st each year and include at minimum the information included in *Schedule 4 Recording and Reporting* to the Agency. The AERs include the amount of energy utilised, waste produced (type, reuse and disposal methods), and emissions for the whole Allen Bog Group, which include, but are not specific to, the Application Site. Therefore, figures such as waste volumes reported are higher than what was actually produced at the Application Site. AERs relating to IPC Licence P0503-01 are included in Appendix 4-3.

14.4.3 Establishment of Baseline (July 1988)

14.4.3.1 Electricity

It is unknown when a power supply was first established at the Application Site, but it is likely to have occurred simultaneously with the establishment of the local rural supply to the surrounding areas which began as early as 1929 under the Shannon Scheme and continued to expand with the establishment of Lullymore Briquette Factory (1936) and Allenwood Power Station (1952). ESB archives indicate that areas surrounding the Bog Group were electrified as early as 1929: Edenderry was connected to the national grid in 1929 via the Shannon Scheme; Brownstown at Lullymore was connected in 1936 via the Shannon Scheme; Allen Rural Area was connected in 1951-52 and Clonsast was connected in 1952-53. The electrification of Lullymore Rural Area occurred in 1957-58.¹⁰ In addition, an internal BnM Annual Report for the year ending March 1945 records expenditure on bog power for the Lullymore Works, indicating that an electrical supply was in place at that time.

As outlined in Section 4.2.3 of Chapter 4: Project Description, the Ballydermot Works, provided a central location for support services to the Application Site and other adjacent bogs. There were also

¹⁰ Rural electrification of Ireland: <https://esbarchives.ie/2020/06/09/electrifying-ireland-how-esb-connected-one-million-irish-homes-to-the-national-grid-1929-1978/>

several other satellite workshops were located at Blackriver, Lullymore and Glashabaun North Bogs, which were built prior to 1988. However, there is no record of any of these workshops being connected to mains electricity by 1988. Peat extraction equipment used on the Application Site that was electrically powered would have been energised via an internal electrical network which would have been actively in use on the Application Site. A planning application for the installation of electrical wires across the Edenderry/Rathangan Road in the townland of Cushaling was submitted to Offaly Co. in 1988, to supply power to peat production machines in an area of previously un-cut peatland (Planning reference 88/182). Construction of Edenderry Power Station did not commence until 1999 and is therefore not considered relevant to the initial establishment of power at the Application Site. Please see Chapter 4: Project Description for details.

14.4.3.2 Gas Supply

A data request was sent to Gas Networks Ireland in March 2026. The data return concluded there are no gas pipelines within the Application Site, nor are there any records of any having existed at the Application Site.

14.4.3.3 Water Supply

A data request was sent to Uisce Éireann in March 2026. The data provided included the water distribution network and sewerage network. The data return concluded that there are two sections of pipeline within the Application Site boundary, both of which were installed in 1978. These two pipelines run along the R414, which passes through the site to southeast between Lodge Bog and Barnaran Bog, with one pipe oriented in a southerly direction, the other in a northerly direction, and meet at a water junction (designated points where pipes meet) along the section of road within the redline. The total length of pipeline within the Application Site boundary is approximately 240m.

At each of the Lullymore, Glashabaun and Ballydermot Works, which are located outside of the Application Site boundary, surface water drainage systems implemented as part of building and hardstand construction over the decades discharged into adjacent peatlands surface water drainage network, including the Application Site. Machine washings generated due to the cleaning of various plant machinery at both the Application Site and at wash bays at the Works also drained into the adjacent Application Site peatlands drainage system.

14.4.3.4 Wastewater

There are no underground sewerage networks within the Application Site, nor are there any records of any having existed at the Application Site.

Welfare facilities were provided for employees involved in peat extraction; however, site-specific details pertaining to the construction and design of welfare facilities when they were constructed pre-1988 for the Application Site are not available. Typically, the Applicant's onsite welfare facilities included toilet facilities which served work and tea centres and were discharged into an on-site septic tank. Final effluent from these treatment units typically with the effluent discharged to a percolation system through peat before penetrating to ground.

14.4.3.5 Waste Management

Waste records do not exist for the Application Site for 1988. However, waste records do exist for the Peat Extraction Phase from 2000 onwards. Given that the activities ongoing at the Application Site during 1988 were the same as those which were ongoing during the Peat Extraction Phase, it is considered that the records of waste types which were generated for the Peat Extraction Phase (as per

the AERs) are representative of the waste types generated at the 1988 baseline.+ Waste that would have been generated in July 1988 comprised the items listed below.

- Waste oils and brake fluids drained from machinery during servicing were collected in drums and emptied to a designated waste oil storage tank;
- Waste oil storage tank contents were transported off-site by a licenced waste disposal contractor;
- Oil and fuel filters were changed at vehicle service intervals;
- Spent filters were collected and disposed of by a licensed waste disposal contractor;
- Used batteries were collected by licensed battery collection contractor;
- Off-washings from the self-contained machine parts washer were collected within a sludge tank at the workshops;
- Anti-freeze was either evaporated or drained into an appropriate container if a machine breaks down on the bog and the coolant system needs to be drained. An appropriate waste contractor removed the anti-freeze waste from site.
- Ash from the onsite boiler was stored in a skip onsite and collected by a licenced waste contractor and taken to a landfill for disposal;
- Waste polythene removed from stockpiles was collected at the roadside by a plastic recycling company; and,
- Workshop waste and general refuse from canteens/offices were historically burned on site or disposed of into waste disposal areas at the workshops. This practise changed to the use of skips which were then collected by licenced waste contractors.

Other waste materials, such as those listed below, would have been stored in a waste deposition area on the Application Site.

- Scrap metal;
- General waste;
- Paper and cardboard;
- Glass;
- Wood;
- Biodegradable kitchen and canteen waste;
- Workshop waste; and
- Packaging waste.

14.4.3.6 Telecommunications and Aviation

Radio Telefis Éireann established a TV transposer station (Planning Reference 702532) at Cairn Hill in Longford in 1970 from which a television link passes over the site to a corresponding mast in the Dublin Mountains. Peat extraction and related activities do not interact with TV and telecoms links which pass over the site.

Clonbullogue Airfield is a small private airfield located approximately 2km west of Clonbullogue and approximately 4km west of the Application Site, in County Offaly. It is owned and operated by the Irish Parachute Club, which began operating out of this airfield in 1988. As outlined in Section 14.4.1.3 the IAA were contacted as part of scoping. The IAA responded stating that: *“based on the information provided, the IAA has no comment or observations.”* No concerns were raised relating to the Irish Parachute Club who operate out of Clonbullogue Airfield.

It is understood that the Application Site is located within the Edenderry/Allenwood/Rathangan (Lullymore) Air Corps Low Flying Training Area, however it is not known when this area began use as a training zone for the DoD. As outlined in Section 14.4.1.3, the DoD were also contacted as part of scoping, however no response beyond recognition of receipt was received from the DoD in relation to the Project.

As such, peat extraction and related activities did not interact with telecommunication or aviation services in the vicinity of the Application Site in 1988.

14.4.4 Peat Extraction Phase: July 1988 to June 2020

14.4.4.1 Electricity

14.4.4.1.1 Grid Infrastructure

The 110kV Cushaling - Newbridge overhead power line passes the Application Site along the western edge of the boundary, and to the south of Ballydermot Works in a generally northwest to southeast orientation. Peat extraction was underway at the Application Site prior to the installation of this line, which is thought to have been commissioned in 2000, at the same time as the adjacent Edenderry Power Station. Extraction operations continued in the Ballydermot South, Ballydermot North and Codd 1 bogs, which were the nearest bog units to the line, until June 2020 with no interference or impact on electricity services. Safety measures were in place to ensure no physical interaction with any machinery associated with peat extraction and ancillary activities and the line occurred.

Other grid infrastructure adjacent to the Application Site includes:

- 110kV Cushaling to Portlaoise overhead line: Runs southwards along the western boundary of the Application Site from Edenderry Power Station before turning southwest towards Portlaoise. It connects into the Portlaoise 110kV substation in the south of the town, c. 29km southwest of the Application Site.
- A 38kV lines in a northwest to southeast direction within 2km northeast of the Bog Group, and again in a southwest to northeast direction within 300m of Lodge Bog.
- Edenderry 110kV Power Station.

Peat extraction was underway at the Application Site prior to the installation of these above grid infrastructure. Extraction operations within Codd 1 Bog are estimated to have commenced in 1973 and continued in this bog until 2020. Extraction was not undertaken within the western edge of the bog where 110kV infrastructure is located. As such, there have been no interference or impact on electricity services. Safety measures were and continue to be in place to ensure no physical interaction with extraction machinery and the line occurred.

14.4.4.1.2 Electrical Supply Infrastructure

Electricity supply to Ballydermot Works buildings, workshops and staff facilities, and also to the drainage pump stations, and other onsite welfare facilities are powered by mains electricity from the national grid connected to overhead electrical power lines. The Ballydermot works were commissioned between 1948-1949. The Allenwood Power Station, which was situated approximately 1.9km east of the Application Site, had been in operation since 1952 and remained operational until its closure in 1992 and demolition in 1994.

14.4.4.2 Gas

A data request was sent to Gas Networks Ireland in March 2026. The data return concluded there are no gas pipelines within the Application Site.

14.4.4.3 Water Supply

Water consumption across the Application Site is primarily from bored wells across the Application Site for domestic use. Well ID: IE_GSI_GW_Well_12220 supplied Ballydermot Works, Well ID: IE_GSI_GW_Well_12532 supplied Lullymore and Well ID: IE_GSI_GW_Well_27090 supplied Glashabaun and surrounding area.

A data request was sent to Uisce Éireann in March 2026. The data provided included the water distribution network and sewerage network. The data return concluded that there are two sections of pipeline within the Application Site boundary, both of which were installed in 1978. These two pipelines run along the R414, which passes through the site to southeast between Lodge Bog and Barnaran Bog, with one pipe oriented in a southerly direction, the other in a northerly direction, and meet at a water junction (designated points where pipes meet) along the section of road within the redline. The total length of pipeline within the Application Site boundary is approximately 240m. Beyond this, the location of other underground water networks within the Application Site are unknown.

As outlined in Section 14.2.1.3, a scoping request was issued to Uisce Éireann (formerly known as Irish Water) on the 21st of February 2022, however no response was received. Another scoping request was issued on the 15th of January 2026. A response was received on the 10th of February 2026 under the reference PN26000036142. Please see Appendix 2-1 for scoping correspondences with consultees in relation to this rEIA. Further details on scoping are outlined above in Section 14.2.1.3.

Welfare facilities were provided for employees involved in peat extraction; however, site-specific details pertaining to the construction and design of welfare facilities pre 1988 for the Application Site are not available. Typical BnM on site welfare facilities included toilet facilities which discharged into a septic tank.

At each of the Works, which are located outside of the Application Site boundary, surface water drainage systems implemented as part of building and hardstand construction there over the decades discharged into the adjacent Application Site peatlands surface water drainage network at the Application Site. Machine washings generated due to the cleaning of various plant machinery at both at the Application Site and at wash bays at the Works also drained into the adjacent Application Site peatlands drainage system.

Onsite welfare facilities relating to the Peat Extraction at Ballydermot, include the Ballydermot works, Glashabaun works and Lullymore works located adjacent to and outside the Application Site boundary, and a smaller welfare facility within the Application Site boundary (approximate location at 53.295934 N, -6.942983 E). This welfare facility comprises a c. 6m by 10m building covering approx. 60m², in Killina Bog in the townland of Derrybrennan, Co. Kildare. The facility provided welfare facilities for workers at the Application Site during the Peat Extraction Phase. This facility was constructed in the 1960s.

The nearest Public Water Supply (PWS) is the Clonbulloge PWS, where the outer source protection area associated with the Clonbulloge PWS is located approximately 0.5km west of Codd 1 Bog. The inner source protection area is mapped approximately 1.8km from the Application Site, close to the centre of Clonbullogue village. The potential for the peat extraction and ancillary activities to impact the hydrogeology of the Clonbulloge PWS has been reduced as the bog drainage regime was already largely in place at the time the Figle River Well/Clonbulloge Spring abstraction point was commissioned, in 1968. The natural hydrological and hydrogeological regime of peat bogs, with little groundwater recharge and high runoff rates, also limit the potential effects that peat extraction may have had on local groundwater abstractions including the Clonbulloge PWS. The Application Site is not located within the mapped SPA area to the Clonbulloge PWS. Please see Chapter 8 Hydrology and Hydrogeology for further details.

14.4.4.4 Wastewater

There are no underground sewerage networks within the Application Site, nor has there been a record of any.

Welfare facilities were provided for employees involved in peat extraction; however, site-specific details pertaining to the construction and design of welfare facilities when they were constructed pre-1988 for the Application Site are not available. The Applicant's onsite welfare facility included toilet facilities which discharged into an on-site septic tank. Final effluent from these treatment units typically discharged to a percolation area before penetration to ground.

The Welfare Facility located in Killina Bog comprises a c. 6m by 10m building covering approx. 60m². The facility provided welfare facilities for workers at the Application Site during the Peat Extraction Phase. This facility was constructed in the 1960's.

An additional Welfare Facility was located in Glashabaun North Bog which provided a hand-washing station, a toilet facility and associated septic tank for discharged water. This facility was constructed in 1995.

14.4.4.5 Waste Management

Waste records do not exist for the Application Site for 1988. However, waste records exist for the Peat Extraction Phase from 2000 onwards and are summarised below. Waste that would have been generated in during the Peat Extraction Phase comprised the items listed below (as per the AERs).

- Waste oils and brake fluids drained from machinery during servicing were collected in drums and emptied to a designated waste oil storage tank;
- Waste oil storage tank contents were transported off-site by a licenced waste disposal contractor;
- Oil and fuel filters were changed at vehicle service intervals;
- Spent filters were collected and disposed of by a licensed waste disposal contractor;
- Used batteries were collected by licensed battery collection contractor;
- Off-washings from the self-contained machine parts washer were collected within a sludge tank at the workshops;
- Anti-freeze was either evaporated or drained into an appropriate container if a machine breaks down on the bog and the coolant system needs to be drained. An appropriate waste contractor removed the anti-freeze waste from site.
- Ash from the onsite boiler was stored in a skip onsite and collected by a licenced waste contractor and taken to a landfill for disposal;
- Waste polythene removed from stockpiles was collected at the roadside by a plastic recycling company; and,
- Workshop waste and general refuse from canteens/offices were historically burned on site or disposed of into waste disposal areas at the workshops. This practise changed to the use of skips which were then collected by licenced waste contractors.

Other waste materials, such as those listed below, would have been stored in a waste deposition area on the Application Site.

- Scrap metal;
- General waste;
- Paper and cardboard;
- Glass;
- Wood;
- Biodegradable kitchen and canteen waste;

- Workshop waste; and
- Packaging waste.

14.4.4.6 Telecommunications and Aviation

A telecommunications scoping exercise was undertaken as part of the proposed Ballydermot Wind Farm application in May 2025. During the consultation process, nineteen telecoms operators were contacted, fourteen of which responded to the consultation request. The scoping exercise indicated that as of May 2025, there are twenty-eight radio links that cross over/through the Application Site.

As of 2025, there are two meteorological masts, two telecommunications towers and one telecommunications relay tower located within the Application Site. In May 2025, there were 6 no. telecommunications operators with 28 no. links or communication channels between masts traversing the Application Site. These links pass over and above the Application Site, sending and receiving messages from one tower mast to another. The RTE 2rn link traversing the site was established in 1970 and the remaining links were established from 1990 onwards with continuous retention permissions and upgrades over the years, thus demonstrating the viability of the telecommunications alongside the peat extraction industry. These are not tangible links that can be impacted by peat extraction or related activities on the ground. Peat extraction had been in operation at this site for decades prior the implementation of these telecommunication links and the Applicant's activities have and continue, to operate harmoniously with these communication assets for decades.

Clonbullogue Airfield is a small private airfield located approximately 2km west of Clonbullogue and approximately 4km west of the Application Site, in County Offaly. It is owned and operated by the Irish Parachute Club, which began operating out of this airfield in 1988. As outlined in Section 14.4.1.3 the IAA were contacted as part of scoping. The IAA responded stating that: *"based on the information provided, the IAA has no comment or observations."* No concerns were raised relating to the Irish Parachute Club who operate out of Clonbullogue Airfield.

It is understood that the Application Site is located within the Edenderry/Allenwood/Rathangan (Lullymore) Air Corps Low Flying Training Area, however it is not known when this area began use as a training zone for the DoD. As outlined in Section 14.4.1.3, the DoD were also contacted as part of scoping, however no response beyond recognition of receipt was received from the DoD in relation to the Project.

14.4.5 Current Phase: June 2020 to present day

14.4.5.1 Electricity, Gas, Water Supply, Wastewater, Telecommunications and Aviation

The material assets described in the Peat Extraction Phase under these headings are considered the same for the Current Phase.

There have been no onsite changes or new applications for nearby electricity, gas or telecommunications links, wastewater infrastructure or aviation assets in the surrounding landscape that could be impacted by the Current Phase at the Application Site.

A planning application was submitted to An Coimisiún Pleanála (ACP) in December 2025 for an Uisce Éireann Water Supply Project for the Eastern and Midlands Region (ACP Ref. PA92.323980). The pipeline for this project is proposed to traverse the Application Site, through Codd 2, Glashabaun South and Derrybrennan. This project is relevant to the Remedial Phase, and has been addressed in Section 14.4.6.3.

14.4.5.2 Waste Management

Waste that is typically generated during the Current Phase comprises the items listed below.

- Heavy and light fuels;
- Waste oils (lubricating oil, hydraulic oil) and brake fluids;
- Antifreeze;
- Scrap metal;
- Wet and dry batteries;
- General waste;
- Solvents;
- Oil filters;
- Paper and cardboard;
- Glass;
- Wood;
- Biodegradable kitchen and canteen waste;
- Workshop waste;
- Packaging waste; and
- Waste plastic (primarily in the form of polythene sheeting).

All waste awaiting deposition is collected in a skip or appropriate waste receptacle at the Works prior to collection and transportation by a licenced waste collection contractor to a suitably licenced/permitted facility for offsite reuse/recycling/recovery/disposal as appropriate.

14.4.6 Remedial Phase

14.4.6.1 Electricity, Gas, Wastewater and Telecommunications

These material assets described in the Peat Extraction Phase and Current Phase are considered the same for the Remedial Phase at the time of writing. The Remedial Phase will comprise drainage blocking as part of the Draft Bord na Móna Cutaway Bog Decommissioning and Rehabilitation Plan associated with Condition 10 of the IPC Licence (see Section 4.9.1 of Chapter 4: Project Description for further detail) and routine environmental monitoring associated with the IPC Licence.

No interaction with material assets listed above are foreseen.

14.4.6.2 Aviation

Clonbullogue Airfield is a small private airfield located approximately 2km west of Clonbullogue, and approximately 4km west of the Application Site. It is owned and operated by the Irish Parachute Club, which began operating out of this airfield in 1988.

The Application Site falls within 20NM of Casement Aerodrome. The DoD also utilise the airspace over the Application Site as a low flying training area.

14.4.6.3 Water Supply

A planning application was submitted to An Coimisiún Pleanála (ACP) in December 2025 for an Uisce Éireann Water Supply Project for the Eastern and Midlands Region (ACP Ref. PA92.323980)¹¹. The

¹¹ <https://www.water.ie/projects/national-projects/water-supply-project-east-1>

Applicant is in consultation with Uisce Éireann regarding the water supply project. The pipeline for this project is proposed to traverse the Application Site, through Codd 2, Glashabaun South and Derrybrennan. The Water Supply Project for the Eastern and Midlands Region (Shannon to Dublin Pipeline) is currently scheduled for construction to begin in 2028, with an estimated completion within five years, putting the target completion date at approximately 2033. Based on the estimated timeline for the construction of the water supply project, it is expected that the short-term rehabilitation actions at the Application Site (see Rehab Plans (Appendix 4-2)) will be completed. The remaining long-term rehabilitation works will be ongoing whilst the pipeline is being constructed and comprise monitoring, aftercare and maintenance to validate the efficacy of the rehabilitation measures in achieving environmental stabilisation, as described in rEIAR Chapter 4, Section 4.9. However, the long-term rehabilitation works are not envisaged to inhibit the construction of the proposed pipeline, considering the nature of the works proposed during rehabilitation (see Appendix 4-2).

14.4.6.4 Waste Management

The Applicant has committed to continuing compliance with conditions outlined in the IPC Licence during the Remedial Phase, where applicable. Waste generated during the Remedial Phase will be limited to general waste generated by the limited on-site staff, which will be transported off site by a licenced waste collection contractor and transported to a suitably licenced/permitted facility for offsite reuse/recycling/recovery/disposal as appropriate.

14.4.7 Assessment of Significant Effects and Mitigation Measures

14.4.7.1 'Do-Nothing' Scenario

As outlined in the EPA Guidelines (May 2022), the description of 'Do-Nothing Effects' relates to the environment as it would be in the future should the Project not be carried out. Peat extraction was underway at the Application Site prior to the required date for the transposition of the EIA Directive in 1988. If peat extraction and related activities had ceased from 1988 onwards, then consequently there would have been no further peat extraction from the site and therefore no impact on material assets.

For those lands which, as of 1988 had been subject to the installation of drainage in preparation for peat extraction but not peat extraction itself, it is assumed in the 'Do-Nothing' scenario that drainage would have remained insitu. Maintenance works to keep established drainage channels clear would have ceased as of 1988 in the 'Do-Nothing' scenario. It is likely that these areas would have been subject to natural recolonisation of the bog surface.

However, consideration must be given to the following:

- The legislative mandate given to Bord na Móna in the form of the Turf Development Act 1946, as amended) to acquire and develop peatlands; and
- The uncertainty with respect to the planning status of the activity did not arise until 2019 and was not evident in 1988.

Therefore, this 'Do-Nothing' scenario was not the chosen scenario. Peat extraction and ancillary activities have occurred at the Application Site from July 1988 onwards. A decision to cease peat extraction at the Application Site was taken in 2020 and the Application Site needs to be considered in the context of regularising (without prejudice) the planning status of the lands to facilitate future development (subject to planning consent as required). The Application Site has and will continue to revegetate, and there will be a change from areas of cutover peatland to revegetated peatland.

As part of BnM's statutory obligations under IPC Licence requirements, the Draft Bord na Móna Cutaway Bog Decommissioning and Rehabilitation Plan will continue to be implemented for the Application Site separate to, and independent of, the Substitute Consent application. The implementation of this plan is included in the impact assessment below.

14.4.7.2 Peat Extraction Phase: July 1988 to June 2020

14.4.7.2.1 Electricity

Identification of Impact

The 110kV Cushaling - Newbridge overhead power line passes the Application Site along the western edge of the boundary, and to the south of Ballydermot Works in a generally northwest to southeast orientation. Peat extraction was underway at the Application Site prior to the installation of this line, which is thought to have been commissioned in 2000, and peat extraction continued at the Application Site until June 2020 with no interference, impact or injury reported.

As described in Chapter 4: Project Description, some peat extraction machinery was powered by electricity from overhead lines associated with an internal electricity network. However, the transition to mostly diesel-powered machinery began in the 1980s, mitigating the reliance on the electrical network to power machinery. Nonetheless, for the purposes of this assessment, it is considered that peat extraction machinery was in part powered by the internal electrical network during the Peat Extraction Phase. Additionally, electricity was required to power the welfare facilities, offices, and railway crossing infrastructure. Drainage pumps which were located on the bog (refer to Chapter 4: Project Description) were powered by electricity.

AERs (Appendix 4-3) prepared on an annual basis in compliance with the conditions of IPC Licence P0503-01 provide total energy consumption figures for the Allen Bog Group (within which the Application Site is located). There are no specific energy usage figures for the Application Site.

Electricity demand for the Peat Extraction Phase is considered to have been relatively minor given the level of activity on the Application Site. Therefore, the pre-mitigation effect on electricity supply during the Peat Extraction Phase is considered to be long term, slight, and neutral, which is not significant.

Control Measures

- When working near power lines, all of the Applicant's sites followed the measures detailed below: All staff were required to be trained on the routes and operating voltages of overhead electricity lines running across or near Bord na Móna landholdings.
- All staff were required to be trained to be aware of the risks associated with overhead lines.
- All contractors that may have visited the sites were made aware of the location of lines before they came on to site.
- Information on safe clearances was provided to all staff and bog visitors.
- The suitability of machinery and equipment for use near power lines was risk assessed.
- Signage was erected in canteens and on site.
- Goalposts, when used, were required not to exceed a height of 4.2 metres, unless specifically agreed with ESB Networks
- Barriers were required to run parallel to the overhead line at a minimum horizontal distance of 6 metres on plan from the nearest overhead line conductor wire.
- On occasions when work was required be carried out beneath overhead lines, a site-specific risk assessment was undertaken prior to any works. The risk assessment was required to take into account the maximum potential height that could be reached by the plant or equipment

that would have been used prior to any works. Overhead line proximity detection equipment was fitted to machinery when such works were required.

Since 2005, all of the Applicant's operations are in full accordance with The Safety, Health and Welfare Act 2005.

Residual Effect

Peat extraction and ancillary activities had no impact or interactions on the quality or supply of electricity from overhead power lines. Safety at work measures were in place at the Application Site to ensure no physical interaction between machinery and the line occurred.

Therefore, the residual effect on electricity supply during the Peat Extraction Phase is considered to be long term, not significant, and neutral, which is not significant.

Significance of Effects

Based on the assessment above there was no significant effect on electricity supply during the Peat Extraction Phase.

14.4.7.2.2 **Water Supply**

Identification of Impact

Water consumption across the Application Site is primarily from bored wells across the Application Site for domestic use. Well ID: IE_GSI_GW_Well_12220 supplied Ballydermot Works, Well ID: IE_GSI_GW_Well_12532 supplied Lullymore and Well ID: IE_GSI_GW_Well_27090 supplied Glashabaun and surrounding area.

The nearest Public Water Supply (PWS) is the Clonbulloge PWS, where the outer source protection area associated with the Clonbulloge PWS is located approximately 0.5km west of Codd 1 Bog. The inner source protection area is mapped approximately 1.8km from the Application Site, close to the centre of Clonbullogue village. The potential for the peat extraction and ancillary activities to impact the hydrogeology of the Clonbulloge PWS has been reduced as the bog drainage regime was already largely in place at the time the Figle River Well/Clonbulloge Spring abstraction point was commissioned, in 1968. The natural hydrological and hydrogeological regime of peat bogs, with little groundwater recharge and high runoff rates, also limit the potential effects that peat extraction may have had on local groundwater abstractions including the Clonbulloge PWS. The Application Site is not located within the mapped SPA area to the Clonbulloge PWS. Please see Chapter 8 Hydrology and Hydrogeology for further details.

A data request was sent to Uisce Éireann in March 2026. The data provided included the water distribution network and sewerage network. The data return concluded that there are two sections of pipeline within the Application Site boundary, both of which were installed in 1978. These two pipelines run along the R414, which passes through the site to southeast between Lodge Bog and Barnaran Bog, with one pipe oriented in a southerly direction, the other in a northerly direction, and meet at a water junction (designated points where pipes meet) along the section of road within the redline. The total length of pipeline within the Application Site boundary is approximately 240m. Both of these pipelines are laid underground, within/alongside the R414. Beyond this, the location of other underground water networks within the Application Site are unknown.

Water was not directly required for peat extraction. Water supply was used for machine washing, and for welfare and canteen facilities.

Therefore, the effect of peat extraction and ancillary activities on water services is considered to have had a long term, negative, imperceptible, indirect, unlikely effect, which is not significant.

Control Measures

Pre-IPC Licence

In the period between 1988 and 2000 (i.e. before the IPC Licence took effect at the Application Site), control measures had been adopted by the Applicant to protect water supply. These measures were related to machinery maintenance and storage, refuelling facilities, surface water management, a maintenance programme for internal drains, and silt management; these measures have been outlined in Sections 4.6 to 4.9 of Chapter 4: Project Description.

Post-IPC Licence

In addition to the pre-IPC Licence measures described above, since 2000 when the IPC Licence took effect, the Application Site complies with Condition 6 and Condition 9 of IPC Licence P0503-01 which pertain to Emissions to Water and Water Protection respectively.

Condition 6 Emissions to Water

6.1 No specified emission to water shall exceed the emission limit values set out in Schedule 1(i) Emissions to Water subject to Condition 3 of this licence. There shall be no other emissions to water of environmental significance.

6.2 The licensee shall within three months of date of grant of this licence submit to the Agency or approval, a proposal for a surface water discharge monitoring location programme. This programme shall, inter alia, have regard to the current status of each bogland (virgin, under development, operational or worked out), sensitivity of the receiving water, status of silt pond upgrade programme. This programme shall be reviewed and revised as necessary each year as part of the AER.

6.3 The licensee shall, within six months of date of grant of licence, present a proposal for the installation (on a long term basis) of a flow proportionate composite sampler to one representative process effluent surface water discharge point within the licensed area. The proposal shall set out the rationale for selection of the nominated discharge point as well as the intended sampling programme. The results of this monitoring are to be reported each year as part of the AER. Any proposal to relocate the composite sampler is to be dealt with under Condition 6.2.

6.4 Monitoring and analyses of each agreed emission monitoring location shall be carried out as specified in Schedule 1(ii) Monitoring of Emissions to Water of this licence. A report on the results of this monitoring shall be submitted to the Agency quarterly.

6.5 A summary report of emissions to water shall be submitted to the Agency as part of the AER. The information contained in this report shall be prepared in accordance with any relevant guidelines issued by the Agency.

6.6 The licensee shall, within six months of the date of grant of licence, develop and implement a programme to ensure that all drainage water from all boglands in the licensed area is discharged via an appropriately designed silt pond treatment arrangement. The programme, to be implemented within a period to be agreed with the Agency, shall ensure that all discharges associated with operational boglands should be prioritised within this programme.

6.7 Within three months of the date of grant of licence, the licensee shall prepare an operational procedure for de-silting of the silt ponds. The procedure shall as a minimum provide for visual inspection of all ponds on a fortnightly basis. The de-silting roster shall be based on recommendations of such visual inspection. A log of visual inspection and desilting shall be maintained and a summary report on the de-silting programme shall be included in the AER. The licensee shall, within twelve months of the date of grant of the licence, demonstrate to the satisfaction of the Agency that the programme of inspection is adequate.

6.8 Silt ponds serving operational bogs shall be cleaned as a minimum twice a year, once before ditching and once before harvesting, and more frequently as inspections may dictate (refer Condition 6.7).

6.9 Within six months of the date of grant of licence, the licensee shall prepare a programme, for agreement with the Agency, to upgrade all the sedimentation pond treatment system. The programme shall, inter alia, address provision of additional ponds, weir or pipe installation (inlet and outlet), pond configuration, use of baffles, performance efficiency and frequency of de-silting. The upgrade shall have regard to the minimum silt pond specifications detailed in Condition 6.10.

6.10 Within three years of date of grant of this licence all existing silt ponds serving operational bogs shall achieve the following minimum performance criteria (flood periods excepted):

- Maximum flow velocity < 10 cms¹
- Silt design capacity of lagoons, minimum 50m³ per nett ha of bog serviced

All new ponds installed shall be designed to achieve these stated minimum design criteria.

6.11 All silt ponds prone to flooding shall be de-silted by 1st November of each year. Excavated sludge shall be removed for disposal to a location outside the flood plain.

6.12 In respect of silt control the licensee shall, within nine months of date of grant of this licence, prepare and implement procedures to ensure that:

- (i) drainage manholes are protected and maintained free of excessive peat,
- (ii) headlands are kept clean and free of excessive loose peat,
- (iii) all new manholes and outfalls are set well back from turning grounds, drivers of bog plant do not turn short (over drains) at headlands,
- (iv) harrows, millers, ridgers do not drag loose peat onto manholes or into drains, outside harrow spoons are directed away from drains,
- (v) silt run-off, while piping or ditching, is minimised,
- (vi) outfalls are controlled to minimise silt discharge during cleaning operations,
- (vii) drains are ditched in dry weather,
- (viii) while ditching, outfalls are blocked and ditch towards outfall, PC Licence Reg. Nº 503
- (ix) outlets from stockpile field drains are blocked during stockpile loading,
- (x) field drains adjacent to stockpiles are cleaned as soon as practicable after stockpile loading,
- (xi) adequate room is allowed for rail bed beside Peco stockpiles,

(xii) all fields that have been milled are ridged at the end of the production season,

(xiii) all fields liable to winter flooding have been cleared of milled peat or recompacted at the end of the production season.

Reason: To provide for the protection of the environment by way of control, limitation treatment and monitoring of emissions.

Condition 9 Water Protection

9.1 Surface & Groundwater Protection - Workshop areas and Depots

9.1.1 No potentially polluting substance or matter shall be permitted to discharge to off-site surface waters, off-site storm drains or groundwaters.

9.1.2 Monitoring and analyses of surface water discharges shall be carried out as specified in Schedule 3 Monitoring of Workshop/Depot Surface Water Run-off of this licence. A report on the results of this monitoring shall be submitted to the Agency quarterly.

9.1.3 In the event that any analyses or observations made on the quality or appearance of surface water runoff should indicate that contamination has taken place, the licensee shall

- (i) carry out an immediate investigation to identify and isolate the source of the contamination,*
- (ii) put in place measures to prevent further contamination and to minimise the effects of any contamination on the environment,*
- (iii) and notify the Agency as soon as is practicable.*

9.1.4 Within twelve months of the date of grant of licence, all tank and drum storage areas shall be rendered impervious to the materials stored therein. In addition, tank and drum storage areas shall, as a minimum be bunded, either locally or remotely, to a volume not less than the greater of the following;

- (i) 110% of the capacity of the largest tank or drum within the bunded area*
- (ii) 25% of the total volume of substance which could be stored within the bunded area.*

9.1.5 Drainage from bunded areas shall be diverted for collection and safe disposal.

9.1.6 The integrity and water tightness of all the bunding structures and their resistance to penetration by water or other materials stored therein shall be tested and demonstrated by the licensee to the satisfaction of the Agency and shall be reported to the Agency within eighteen months from the date of grant of this licence and every two years thereafter. A report on such tests shall be included in the AER.

9.1.7 Within twelve months of the date of grant of licence, the loading and unloading of fuel oils shall be carried out in designated areas protected against spillage and leachate run-off. While awaiting disposal, all materials shall be collected and stored in designated areas protected against spillage and leachate run-off.

9.1.8 With the exception of roof water, all surface water discharges from workshop areas shall, within twenty-four months of date of grant of this licence, be fitted with oil interceptors.

9.1.9 A maintenance/cleaning log for all oil interceptors and septic tanks shall be maintained. This log shall also record the observations made during weekly inspections of all oil interceptors and bi-annual inspections of septic tanks.

9.1.10 An inspection for leaks on all flanges and valves on over-ground pipes used to transport materials other than water shall be carried out weekly.

9.1.11 The provision of a catchment system to collect any leaks from flanges and valves of all over ground pipes used to transport material other than water shall be examined.

9.1.12 The licensee shall have in storage an adequate supply of containment booms and/or suitable absorbent material to contain and absorb any spillage.

9.1.13 The licensee shall maintain a log of bi-annual inspections of all rail and tractor transported fuelling units. These inspections as a minimum should record any damage or leaks or flaws in rolling stock that could result in accidental spillage.

Reason: To provide for the protection of surface waters and groundwater.

Residual Effect

The residual effect of peat extraction and ancillary activities on water supply is considered to have had a long term, imperceptible and neutral effect, which is not significant.

Significance of Effects

Based on the assessment above there were no significant effects on water supply during the Peat Extraction Phase.

14.4.7.2.3 Wastewater

Identification of Impact

There are no underground sewerage networks within the Application Site. Welfare facilities are present at each of the Works areas (adjacent to the Application Site boundary) and a smaller onsite welfare facility between Ticknevin Bog and Glashabaun North Bog from which effluent discharges into a septic tank and then to ground via percolation. All production area run off is treated via an associated silt pond designed, inspected and maintained in accordance with Condition 6 of the IPC Licence (see Appendix 4-1). Treated wastewater is released into the Bagenalstown Upper, Cushina, Kildare and Trim ground waterbodies, via various watercourses that pass through or near the Application Site.

The nearest Public Water Supply (PWS) is the Clonbulloge PWS, where the outer source protection area associated with the Clonbulloge PWS is located approximately 0.5km west of Codd 1 Bog. The inner source protection area is mapped approximately 1.8km from the Application Site, close to the centre of Clonbullogue village. The effect of peat extraction and ancillary activities on wastewater is considered to have had a long term, slight, negative, indirect and unlikely effect, which is not significant.

Control Measures

The Application Site complies with Condition 6 and Condition 9 of the IPC Licence which pertain to Emissions to Water and Water Protection respectively.

Residual Effect

The residual effect of peat extraction and ancillary activities on wastewater is considered to have had a long term, imperceptible and negative effect, which is not significant.

Significance of Effects

Based on the assessment above there were no significant effects on wastewater during the Peat Extraction Phase.

14.4.7.2.4 Waste Management

Identification of Impact

Waste generated from the peat extraction and ancillary activities comprised heavy and light fuels, batteries, welfare and workshop waste, machine fluids and plastics. Where possible, relevant materials were taken by licenced contractors and the rest was disposed of on the Application Site. Following cessation of this practice in 1998/1999, all waste awaiting deposition was collected in a skip at the Works prior to collection by a licenced waste collection contractor and transported to a suitably licenced/permitted facility for offsite reuse/recycling/recovery/disposal as appropriate. Since 2000 onwards, a waste management procedure in line with Condition 7 of the EPA licence compliance has been in operation at the Application Site. All waste materials are documented, weighed, recycled or reused where possible, and removed from Application Site by licenced contractors. The average volume of waste produced by the Allen Bog Group for the Peat Extraction Phase was 2,706.7 tonnes¹² according to the AERs for years 2000-2020¹³. This included, on average, 28.96 tonnes of Hazardous and 2677.74 tonnes of Non-Hazardous waste per year. Please note that no volumes are available for hazardous waste between 2000-2003, as all hazardous waste was sent to Derrygreenagh, which *'was used as a collection point for all hazardous waste emanating from all the areas in both the Allen and Derrygreenagh Groups... Records of all the hazardous wastes handled by the Allen and Derrygreenagh Groups from Jan-Dec [2000-2003 inclusive] have been submitted with the Derrygreenagh AERs'*. Furthermore, the AER waste figure is for the entire Allen Bog group within which the Application Site is situated, therefore the figures listed above would be significantly higher than the figures for the Application Site alone. Waste volume figures for the Application Site only are unavailable.

The effect of peat extraction and ancillary activities on waste management is considered to have had a long term, moderate, negative effect, which is not significant.

Control Measures

Pre-IPC Licence

In the period between 1988 and 2000 (i.e. before the IPC Licence took effect at the Application Site), control measures had been adopted by the Applicant to mitigate any impacts associated with waste management. These measures are outlined in Section 4.6.5 of Chapter 4: Project Description .

¹² This value does not include hazardous waste volumes for 2004 or 2005 which were oil-contaminated waste (oil filters, oily rags, parts wash kerosene) provided in litres. Hazardous waste volume for 2004 = 2,880L, Hazardous waste volume for 2005 = 1,140L.

¹³ Please note that the Peat Extraction Phase ended in June 2020, therefore the AER for 2020 is partially representative of the Peat Extraction Phase and partially representative of the Current Phase. The 2020 AER provides totals and does not distinguish between waste from these two phases. As such, the waste management information from the 2020 AER was used to inform the Peat Extraction Phase in 14.4.4.5.

Post-IPC Licence

In addition to the pre-IPC Licence measures described above, since 2000 when the IPC Licence took effect, the Application Site complies with Condition 7 of the IPC Licence which pertains to Waste management.

The measures listed above in Section 14.4.4.5 and the requirements of Condition 7 of the IPC Licence provide for the reduction, reuse and recycling of waste materials where possible. Non reusable or recyclable materials were disposed of through licenced operators. The measures undertaken in July 1988 continued until 2000 when the Application Site fell under IPC control. Condition 7 of the licence compels the Applicant to correctly dispose of waste to licenced facilities.

Condition 7 Waste Management

7.1 Disposal or recovery of waste shall take place only as specified in Schedule 2(i) Hazardous Wastes for Disposal/Recovery and Schedule 2(ii) Other Wastes for Disposal/Recovery of this licence and in accordance with the appropriate National and European legislation and protocols. No other waste shall be disposed of/recovered either on-site or off-site without prior notice to, and prior written agreement of, the Agency.

7.2 Waste sent off-site for recovery or disposal shall only be conveyed to a waste contractor, as agreed by the Agency, and only transported from the site of the activity to the site of recovery/disposal in a manner which will not adversely affect the environment.

7.3 A full record, which shall be open to inspection by authorised persons of the Agency at all times, shall be kept by the licensee on matters relating to the waste management operations and practices at this site. This record shall as a minimum contain details of the following:

7.3.1 The names of the agent and transporter of the waste.

7.3.2 The name of the persons responsible for the ultimate disposal/recovery of the waste.

7.3.3 The ultimate destination of the waste.

7.3.4 Written confirmation of the acceptance and disposal/recovery of any hazardous waste consignments sent off-site.

7.3.5 The tonnages and EWC Code for the waste materials listed in Schedule 2(i) Hazardous Wastes for Disposal/Recovery and Schedule 2(ii) Other Wastes for Disposal/Recovery sent off-site for disposal/recovery.

7.3.6 Details of any rejected consignments.

A copy of this Waste Management record shall be submitted to the Agency as part of the AER for the site.

7.4 Within nine months of the date of grant of licence, the licensee shall submit to the Agency for agreement, a proposal for identification and management of all ash and screening disposal areas. Once agreed, the proposal shall be implemented within a timescale stipulated by the Agency.

Reason: To provide for the disposal of waste and the protection of the environment.

Residual Effect

With the implementation of the control measures listed at Condition 7 of the IPC Licence P0503-01, the residual effect of peat extraction and ancillary activities on waste management is considered to have had a long term, slight and negative effect, which is not significant.

Significance of Effects

Based on the assessment above, there were no significant effects on waste management during the Peat Extraction Phase.

14.4.7.2.5 Telecommunications and Aviation

Identification of Impact

The RTE 2rn link was established in 1970 and the remaining 27 no. links that were identified in May 2025 were established from 1990 onwards with continuous retention permissions and upgrades over the years, thus demonstrating the viability of the telecommunications alongside the peat extraction and ancillary activities. Peat extraction and ancillary activities had been in operation at the Application Site for decades prior to the implementation of these telecommunication links and the Applicant's activities have operated harmoniously with these communication assets for decades.

Clonbullogue Airfield is a small private airfield located approximately 2km west of Clonbullogue, and approximately 4km west of the Application Site. It is owned and operated by the Irish Parachute Club, which began operating out of this airfield in 1988. In 2018 there was a fatal aircraft incident¹⁴ approximately 8km west of the Application Site, where an aircraft operating on behalf of the Irish Parachute Club out of Clonbullogue Airfield impacted nose-down into a forested peat bog at Ballaghassan, Co. Offaly. notwithstanding, the Air Accident Investigation Report did not indicate that peat extraction operations in the vicinity of the airfield and/or flight-path contributed to the probable cause of the accident. Furthermore, peat extraction and ancillary activities have been in operation at the Application Site for decades prior to the Clonbullogue Airfield being built/established in 1988, and the Applicant's activities have and continue, to operate harmoniously with this aviation asset for decades. For the peat extraction phase, there is no evidence that the peat extraction and ancillary activities at the Application Site had the potential to impact this aviation asset. In addition, as outlined in Section 14.4.1.3 the IAA were contacted as part of scoping. The IAA responded stating that: *"based on the information provided, the IAA has no comment or observations."* No concerns were raised relating to the Irish Parachute Club who operate out of Clonbullogue Airfield.

It is understood that the Application Site is located within the Edenderry/Allenwood/Rathangan (Lullymore) Air Corps Low Flying Training Area, however there are no reports or records of any issues arising between the peat extraction and ancillary activities on-site and any Air Corps aviation traffic or instruments during the Peat Extraction Phase.

Therefore, the effect of peat extraction and ancillary activities on telecommunications and aviation is considered to have had a long term, imperceptible, neutral effect, which is not significant.

Control Measures

No control measures for telecoms or aviation interference were undertaken.

¹⁴ <https://www.aaiu.ie/sites/default/files/report-attachments/G-KNYS%20Final%20Report.pdf>

Residual Effect

The residual effect of peat extraction and ancillary activities on telecommunications and aviation is considered to have had a long term, imperceptible, neutral effect, which is not significant.

Significance of Effects

Based on the assessment above there was no significant effects on telecommunications and aviation during the Peat Extraction Phase.

14.4.7.3 Current Phase June 2020 to Present Day

14.4.7.3.1 Electricity

Identification of Impact

The grid infrastructure present during the Current Phase is the same as the Peat Extraction Phase. As the onsite activity is limited to the transportation of peat from the bog (completed by the end of 2021) and environmental monitoring, the potential for impacting any grid infrastructure is considered less than the Peat Extraction Phase, therefore the demand on electricity during the Current Phase is considered to be long term, not significant, and neutral, which is not significant.

Control Measures

The Applicant implements all the measures listed in Section 14.4.7.2.1 across all sites at all times.

Residual Effect

The residual effect of Current Phase activities on electricity demand is considered to have had a short term, imperceptible, neutral effect, which is not significant.

Significance of Effects

Based on the assessment above there is no significant effect on electricity during the Current Phase.

14.4.7.3.2 Water Supply

Identification of Impact

The water supply at the Works, adjacent to the Application Site, and at smaller additional welfare facilities onsite is from the local mains water supply.

The nearest public water supply is the Clonbulloge PWS, where the outer source protection area associated with the Clonbulloge PWS is located approximately 0.5km west of Codd 1 Bog. The inner source protection area is mapped approximately 1.8km from the Application Site, close to the centre of Clonbulloge village.

The effect of Current Phase activities on water supply is considered to be a short term, slight, negative effect, which is not significant.

Control Measures

The Application Site complies with Conditions 6 and 9 of the IPC Licence which pertain to Emissions to Water and Water Protection respectively.

Residual Effect

The residual effect of Current Phase activities on water supply is considered to be a short term, imperceptible negative effect, which is not significant.

Significance of Effects

Based on the assessment above there is no significant effects on water supply during the Current Phase.

14.4.7.3.3 **Wastewater**

Identification of Impact

There are no underground water or sewerage networks within the Application Site. The water supply at each of the Works is from the local mains water supply and welfare facilities are present at the Works area (adjacent to the Application Site boundary) and a smaller onsite welfare facilities within the Application Site from which effluent discharges into a septic tank via a percolation system and then to ground.

The nearest public water supply is the Clonbulloge PWS, where the outer source protection area associated with the Clonbulloge PWS is located approximately 0.5km west of Codd 1 Bog and the inner source protection area is mapped approximately 1.8km from the Application Site.

The effect of Current Phase activities on wastewater is considered to be a short term, slight and negative effect, which is not significant.

Control Measures

The Application Site complies with Conditions 6 and 9 of the IPC Licence which pertain to Emissions to Water and Water Protection respectively.

Residual Effect

The residual effect of Current Phase activities on wastewater is considered to be a short term, imperceptible and negative effect, which is not significant.

Significance of Effects

Based on the assessment above there are no significant effects on wastewater during the Current Phase.

14.4.7.3.4 **Waste Management**

Identification of Impact

Since 2000, a waste management procedure in line with Condition 7 of the IPC Licence has been in operation at the Application Site. All waste materials are documented, weighed, recycled or reused where possible, and removed from the Application Site by licenced contractors. The AERs are for the Allen Bog Group in its entirety and so will list waste volumes significantly higher than the waste that would have been produced at the Application Site alone, the average volume of waste produced per year during the Peat Extraction Phase for the Allen Bog Group was 2,706.7 tonnes, according to the AERs for years 2000-2020¹⁵. The total volume of waste produced during the Current Phase (using the AERs from 2021-2025) across the Allen Bog Group was 13,270.32 tonnes, meaning an average of 2,654.1 tonnes over five years (an annual average decrease of c. 2%)(Appendix 4-3). Therefore, whilst there has been a decrease in waste material produced in the Allen Bog Group since peat extraction ceased, the waste volumes remain relatively high due to the removal of previous ancillary infrastructure as well as waste stored on the Application Site being removed during the current phase.

The effect of Current Phase activities on waste management is considered to be a short term, moderate, negative effect, which is not significant.

Control Measures

The requirements of Condition 7 of the IPC Licence provide for the reduction, reuse and recycling of waste materials where possible. Non-reusable or recyclable materials are disposed of through licenced waste operators.

Residual Effect

The residual effect of Current Phase activities on waste management is considered to be a short term, slight negative effect, which is not significant.

Significance of Effects

Based on the assessment above there are no significant effects on waste management during the Current Phase.

14.4.7.3.5 **Telecommunications and Aviation**

Identification of Impact

The potential impacts on telecommunications and aviation assets remains the same as those listed for the Peat Extraction Phase in Section 14.4.7.2.5 above, therefore the effect of the Current Phase activities on telecommunication and aviation is considered to have had a short term, imperceptible, neutral effect, which is not significant.

¹⁵ Please note that the Peat Extraction Phase ended in June 2020, therefore the AER for 2020 is partially representative of the Peat Extraction Phase and partially representative of the Current Phase. The 2020 AER provides totals and does not distinguish between waste from these two phases. As such, the waste management information from the 2020 AER was used to inform the Peat Extraction Phase in 14.4.4.5.

Control Measures

No control measures for telecommunications or aviation are identified.

Residual Effect

The residual effect of the Current Phase activities on telecommunications and aviation is considered to have remained a short term, imperceptible, neutral effect, which is not significant.

Significance of Effects

Based on the assessment above there was no significant effects on telecommunications and aviation during the Current Phase.

14.4.7.4 Remedial Phase

14.4.7.4.1 Electricity

Identification of Impact

The potential impacts listed in the Peat Extraction Phase and Current Phase above remain the same. As the Remedial Phase involves the blocking of drains and environmental monitoring there are no impacts on electricity, therefore the impact of the Remedial Phase on electricity demand is expected to be long term, not significant and neutral, which is not significant.

Mitigation Measures

The Applicant will comply with IPC Licence requirements as detailed in Section 14.4.7.2.1 during the Remedial Phase, where applicable.

Residual Effect

The residual effect of Remedial Phase activities on electricity demand is expected to be a long term, imperceptible and neutral, which is not significant.

Significance of Effects

There will be no significant effect on electricity during the Remedial Phase.

14.4.7.4.2 Water Supply

Identification of Impact

Water consumption across the Application Site is primarily from bored wells across the Application Site for domestic use. Well ID: IE_GSI_GW_Well_12220 supplied Ballydermot Works, Well ID: IE_GSI_GW_Well_12532 supplied Lullymore and Well ID: IE_GSI_GW_Well_27090 supplied Glashabaun and surrounding area.

There are no known underground water networks within the Application Site where peatland remedial works (drain blocking in year 1 and 2 only) will be undertaken. The nearest public water supply is the Clonbulloge PWS, where the outer source protection area associated with the Clonbulloge PWS is

located approximately 0.5km west of Codd 1 Bog and the inner source protection area is mapped approximately 1.8km from the Application Site.

A planning application was submitted to An Coimisiún Pleanála (ACP) in December 2025 for an Uisce Éireann Water Supply Project for the Eastern and Midlands Region (ACP Ref. PA92.323980)¹⁶. The Applicant is in consultation with Uisce Éireann regarding the water supply project. The pipeline for this project is proposed to traverse the Application Site, through Codd 2, Glashabaun South and Derrybrennan. The Water Supply Project for the Eastern and Midlands Region (Shannon to Dublin Pipeline) is currently scheduled for construction to begin in 2028, with an estimated completion within five years, putting the target completion date at approximately 2033. Based on the estimated timeline for the construction of the water supply project, it is expected that the short-term rehabilitation actions at the Application Site (see Rehab Plans (Appendix 4-2)) will be completed. The remaining long-term rehabilitation works will be ongoing whilst the pipeline is being constructed and comprise monitoring, aftercare and maintenance to validate the efficacy of the rehabilitation measures in achieving environmental stabilisation, as described in rEIA Chapter 4, Section 4.9. The long-term rehabilitation works are not envisaged to inhibit the construction of the proposed pipeline.

The effect of Remedial Phase activities on water supply is expected to be a long term, not significant, negative effect, which is not significant.

Mitigation Measures

The Applicant will comply with IPC Licence requirements as detailed in Section 14.4.7.2.2 during the Remedial Phase, where applicable.

Residual Effect

The residual effect of Remedial Phase activities on water supply is expected to be a long term, imperceptible and neutral, which is not significant.

Significance of Effects

Based on the assessment above there will be no significant effects on water during the Remedial Phase.

14.4.7.4.3 Wastewater

Identification of Impact

There are no underground sewerage networks within the Application Site.

The effect of Remedial Phase activities on wastewater is expected to be a long term, slight and negative effect, which is not significant.

Mitigation Measures

The Application Site complies with Conditions 6 and 9 of the IPC Licence which pertain to Emissions to Water and Water Protection respectively.

¹⁶ <https://www.water.ie/projects/national-projects/water-supply-project-east-1>

Residual Effect

The residual effect of Remedial Phase activities on wastewater is expected to be a long term, imperceptible and negative effect, which is not significant.

Significance of Effects

Based on the assessment above there will be no significant effects on wastewater during the Remedial Phase.

14.4.7.4.4 **Waste Management**

Identification of Impact

Waste generated from the Remedial Phase will be limited to general waste created by the limited on-site staff (3 to 4 people for the first two years then 1 to 2 people visiting per month) which will be taken off the Application Site and recycled where possible.

The effect of Remedial Phase activities on waste management is considered to be a long term, slight, negative effect, which is not significant.

Mitigation Measures

The requirements of Condition 7 of the IPC Licence provide for the reduction, reuse and recycling of waste materials where possible. Non-reusable or recyclable materials are disposed of through licenced operators. The Applicant has committed to continuing the compliance with conditions outlined in the IPC Licence during the Remedial Phase, where applicable.

Residual Effect

The residual effect of Remedial Phase activities on waste management is expected to be a long term, imperceptible, negative effect, which is not significant.

Significance of Effects

It is considered that the Remedial Phase will have no significant effect on waste management.

14.4.7.4.5 **Telecommunications and Aviation**

Identification of Impact

The potential impacts on telecommunications remains the same as those listed for the Peat Extraction Phase and Current Phase described above in Sections 14.4.7.2.5 and 14.4.7.3.5 respectively. The Remedial Phase activities of drain blocking, and environmental monitoring will have a long term, imperceptible, neutral effect on telecommunications links in the area.

Clonbullogue Airfield is a small private airfield located approximately 2km west of Clonbullogue, and approximately 4km west of the Application Site. It is owned and operated by the Irish Parachute Club, which began operating out of this airfield in 1988, and has coexisted alongside the peat extraction and ancillary activities within the Application Site since it began operating. Furthermore, remedial works, as described in Chapter 4 are already ongoing on site at present, and have not interfered with operations

at Clonbullogue. As a result the Remedial Phase activities of drain blocking, and environmental monitoring will have a long term, imperceptible, negligible effect on aviation assets in the area.

Mitigation Measures

No mitigation measures for telecoms or aviation are proposed.

Residual Effect

The residual effect of Remedial Phase activities on telecommunications and aviation is expected to be a long term, imperceptible, negligible effect, which is not significant.

Significance of Effects

There will be no significant effect on telecommunications and aviation assets during the Remedial Phase.

14.4.7.5 Summary

Please see the below Table 14-8 for a summary of all identified impact for the Project relating to other material assets across the Peat Extraction Phase, the Current Phase and the Remedial Phase.

Table 14-8 EIA Summary Table

Topic	Pre-Mitigation Effect (EPA, 2022 Classification)	Mitigation Section Reference	Residual Effect (EPA, 2022 Classification)	EIA significance Threshold
Peat Extraction Phase				
Electricity	long term, slight, and neutral	Section 14.5.7.2.1	long term, not significant, and neutral	not significant
Water Supply	long term, negative, imperceptible, indirect, unlikely	Section 14.5.7.2.2	long term, imperceptible and neutral	not significant
Wastewater	long term, slight, negative, indirect and unlikely	Section 14.5.7.2.3	long term, imperceptible and negative	not significant
Waste Management	long term, moderate, negative	Section 14.5.7.2.4	long term, slight and negative effect	not significant
Telecommunications and Aviation	long term, imperceptible, neutral effect	Section 14.5.7.2.5	long term, imperceptible, neutral	not significant
Current Phase				

Electricity	long term, not significant, and neutral	Section 14.5.7.3.1	short term, imperceptible, neutral	not significant
Water Supply	short term, slight, negative	Section 14.5.7.3.2	short term, imperceptible negative	not significant
Wastewater	a short term, slight and negative	Section 14.5.7.3.3	short term, imperceptible and negative	not significant
Waste Management	short term, moderate, negative	Section 14.5.7.3.4	short term, slight negative	not significant
Telecommunications and Aviation	a short term, imperceptible, neutral	Section 14.5.7.3.5	short term, imperceptible, neutral	not significant
Remedial Phase				
Electricity	long term, not significant and neutral	Section 14.5.7.4.1	long term, imperceptible and neutral	not significant
Water Supply	long term, not significant, negative	Section 14.5.7.4.2	a long term, imperceptible and neutral	not significant
Wastewater	long term, slight and negative	Section 14.5.7.4.3	long term, imperceptible and negative effect	not significant
Waste Management	a long term, slight, negative	Section 14.5.7.4.4	long term, imperceptible, negative	not significant
Telecommunications and Aviation	a long term, imperceptible, negligible	Section 14.5.7.4.5	long term, imperceptible, negligible effect	not significant

14.4.8 Cumulative and In-Combination Effects

14.4.8.1 Peat Extraction Phase

The potential cumulative and in combination effects of the Peat Extraction Phase of the Project with other relevant activities/projects at the Application Site are considered below, including that of peat extraction and ancillary activities at the Application Site that took place prior to 1988. Further

information on activities or developments as part of the cumulative assessment are given in Chapter 2: Background.

Electricity, Telecommunications, Aviation

Peat extraction and ancillary activities at the Application Site had no impact or interactions on the quality or supply of electricity, telecommunications or aviation assets. Therefore, there are no cumulative or in combination effects on these assets.

Water Supply

The residual effect of peat extraction and ancillary activities on water services is considered to have had a long term imperceptible negative effect. As the nearest public water supply is the Clonbulloge PWS, where the outer source protection area associated with the Clonbulloge PWS is located approximately 0.5km west of Codd 1 Bog and the inner source protection area is mapped approximately 1.8km from the Application Site,, the cumulative or in combination effects on water supply are assessed as the same.

Wastewater

The residual effect of peat extraction and ancillary activities on wastewater is considered to have had a long term, imperceptible and neutral effect. As there were no large-scale industrial developments within the vicinity of the Application Site, the cumulative or in combination effects on waste management are assessed as the same.

Waste Management

The residual effect of peat extraction and ancillary activities on waste management is considered to have had a long term slight negative effect. As there were no large-scale industrial developments within the vicinity of the Application Site, the cumulative or in combination effects on waste management are assessed as the same.

14.4.8.2 Current Phase

The potential cumulative and in combination effects of the extraction industry with other relevant activities/ projects at the Application Site during this phase are considered below. Further information on activities or developments as part of the cumulative assessment are given in Chapter 2: Background.

Electricity, Telecommunications, Aviation

The Current Phase activities at the Application Site have no impacts or interactions on the quality or supply of electricity, telecommunications or aviation assets. Therefore, there are no cumulative or in combination effects on these assets.

Water Supply

The residual effect of the Current Phase on water services is considered to have a short term imperceptible negative effect. As the nearest public water supply is located c. 2km west of the Application Site, and the source protection area for the scheme is located approximately 500m west of the Application Site, the cumulative or in combination effects on water supply are assessed as the same.

Wastewater

The residual effect of the Current Phase on wastewater is considered to have had a long term, imperceptible and neutral effect. As there were no large-scale industrial developments within the vicinity of the Application Site, the cumulative or in combination effects on waste management are assessed as the same.

Waste Management

The residual effect of Current Phase activities on waste management is considered to have had a short term slight negative effect. As there are no large-scale industrial developments within the vicinity nearest the cumulative or in combination effects on waste management are assessed as the same.

14.4.8.3 Remedial Phase

Electricity, Telecommunications, Aviation

The Remedial Phase activities at the Application Site have no impacts on the quality or supply of electricity, telecommunications or aviation assets. However, the proposed Ballydermot Wind Farm which is proposed to be constructed during the remedial phase of the Project has the potential for impacts on aviation as it relates to flight-paths and/or flight procedures, including restricted airspace, low flying areas, radar equipment and aerodromes as a result of the proposed turbines.

However, the proposed wind farm would not create a barrier to general aviation in terms of restricting the flying amenity of the typical Private Pilot during the construction, operation or decommissioning phases. A private pilot would be able to visually fly around or transit across the Proposed Development without undue concern about needing to fly in airspace they may not necessarily wish to enter. However, the proposed wind farm does not penetrate the Restricted Airspace and there is space to fly over the Application Site and wind turbines without entering into the restricted airspace. Therefore, there will be no significant effect on these airspace or military flight through these areas during the construction, operation and decommissioning phases.

There will be no significant effect on primary, secondary or meteorological radar or aerodromes during the construction, operation or decommissioning of the proposed wind farm. There is potential for impact on the Edenderry/Allenwood/Rathangan Low Flying Training area. As it is unknown what activities are carried out in this area, the type or extent of the impact is not known.

Mitigation in the form of airspace relocation over similar landcover owned by the Applicant is proposed which would remove any potential for impacts on Air Corps low flying training. With the implementation of this alternative, it is demonstrated that there will be no significant impacts on any Air Corps designated airspaces or low flying training areas. The mitigations and residual impacts related to these issues are expanded on within the planning application for the proposed wind farm.

notwithstanding, these potential impacts relate to the wind farm development, but will not be altered or effected by the remedial phase of the peat extraction activities which will occur entirely at ground-level. Therefore, there are no cumulative or in combination effects on these assets resulting from the remedial phase of the Project.

Water Supply

The Remedial Phase activities at the Application Site will have a long-term, slight and negative effect on water supply. As the nearest public water supply is the Clonbulloge PWS, where the outer source protection area associated with the Clonbulloge PWS is located approximately 0.5km west of Codd 1

Bog and the inner source protection area is mapped approximately 1.8km from the Application Site, the cumulative or in combination effects on water supply are assessed as the same.

A planning application was submitted to An Coimisiún Pleanála (ACP) in December 2025 for an Uisce Éireann Water Supply Project for the Eastern and Midlands Region (ACP Ref. PA92.323980)¹⁷. The Applicant is in consultation with Uisce Éireann regarding the water supply project. The pipeline for this project is proposed to traverse the Application Site, through Codd 2, Glashabaun South and Derrybrennan. Based on the estimated timeline for the construction of the water supply project, it is expected that the short-term rehabilitation actions at the Application Site (see Rehab Plans (Appendix 4-2)) will be completed. The remaining long-term rehabilitation works will comprise monitoring, aftercare and maintenance to validate the efficacy of the rehabilitation measures in achieving environmental stabilisation, as described in rEIAR Chapter 4, Section 4.9. These long-term works will be minimal thus are not expected to interfere with the construction phase of the Water Supply Project, therefore the cumulative or in combination effects on water supply are assessed as the same.

Wastewater

The residual effect of the Remedial Phase on wastewater is considered to have had a long term, imperceptible and negative effect. As there were no large-scale industrial developments within the vicinity of the Application Site, the cumulative or in combination effects on waste management are assessed as the same.

Waste Management.

The Remedial Phase activities at the Application Site will have a long-term imperceptible negative effect on waste management. As there are no industrial scale developments in the vicinity of the Application Site, the cumulative or in combination effects on waste management are assessed as the same.

14.4.8.4 Potential Future Land Use

It is intended to utilise the Application Site for both peatland remediation, wind energy infrastructure and to facilitate environmental stabilisation of the bog group and the optimisation of climate action benefits.

Bord na Móna Powergen Ltd. are proposing a wind energy development consisting of 47 no. turbines, 20 no. turbines will have a maximum blade tip height of 200 metres (m) above the top of the foundation and 27 no. turbines will have a maximum blade tip height of 220 metres (m) above the top of the foundation at the Application Site¹⁸. A separate EIAR and accompanying NIS are being undertaken for the proposed Ballydermot Wind Farm development. At the time of writing, the planning application for this development has not yet been submitted to An Coimisiún Pleanála. To address environmental concerns, the Draft Bord na Móna Cutaway Bog Decommissioning and Rehabilitation Plan for the Application Site can incorporate this infrastructure.

Overall cumulative effects when considering the life cycle of the Application Site and the proposed Ballydermot Wind Farm will not occur. Furthermore, cumulative effects when considering the existing Cushaling Wind Farm and Clonreen Wind Farm, and any other proposed, permitted or operational plans or projects listed in Chapter 2: Background of this rEIAR will not occur given the effects stated above.

¹⁷ <https://www.water.ie/projects/national-projects/water-supply-project-east-1>

¹⁸ <https://www.ballydermotwindfarm.ie/>

Conclusion

Traffic and Transport

This chapter assesses the potential effects on roads and local traffic from the additional traffic and rail movements that occurred due to the Project during the Peat Extraction Phase, including that of staff personnel commute. It also looks at the potential effect that the traffic and rail movements associated with the Current and Remedial Phases at the Application Site may have on roads and traffic, namely remaining stockpiled peat deliveries, staff personnel commute and rehabilitation works.

The peat extracted during the Peat Extraction Phase and peat which was stockpiled during the Current Phase was transported via rail and HGVs, respectively, to various end users around the country. Based on sales records available to BnM outlining peat destinations and volumes, an estimation of the annual number of rail and HGV interactions with the public road network was determined for the Peat Extraction Phase and Current Phase. Employment figures at the Application Site for all Project Phases were also utilised to determine the traffic movements associated with staff personnel travelling to and from the Application Site. When comparing the average annual traffic movements to and from the Application Site were assessed against the average national traffic volumes counted at four identified traffic count locations surrounding the Application Site. The traffic count was conducted in October 2025 to inform the proposed Ballydermot Wind Farm application. As such, for the Peat Extraction Phase, the average annual traffic volumes were factored to provide a more representative value for the baseline year of 1988. It is demonstrated that the additional volume of traffic generated by the Project for the Peat Extraction Phase would have a long-term, moderate, negative residual effect on road users and road conditions, i.e., for the Peat Extraction Phase this equated to 9-20% (HGV and LGV combined) of daily traffic volumes attributed to the Project. For the Current Phase and Remedial Phase this equated to less than 1.8% of daily traffic volumes attributed to the Project, which constituted a negative, short term, slight-imperceptible effect, and negative, long term, imperceptible effect respectively.

By 1988, peat extraction areas were served by a dynamic network of narrow-gauge rail tracks within the Application Site. Annual Reports from 1947 and 1948 indicate that development works were underway at the Application Site, including the installation of railway infrastructure in Ballydermot, Blackriver, Lodge and Glashabaun Bogs, each of which are located within the Application Site. Aerial photographs from 1973 indicate that by this period, railway infrastructure within the peat extraction areas connecting to the Ballydermot Works, Allenwood Power Station and Lullymore Briquette Factory was in place. By 1988, 1 no. rail underpass was in place at the Application Site beneath the R401 (Offaly Co. Co. Ref. 86/184) to facilitate access between the Application Site and the Cloncreen Bog, also within the Allen Bog group (IPC Licence P0503-01). By 1988, 7 no. railway bridges were installed within the Application Site to facilitate the narrow-gauge railway network that provided access to various areas of the Application Site, crossing rivers and drainage channels where necessary. The installation date of the railway bridges is unknown in reality it is likely that the majority were in place prior to the commencement of the formal planning system however due to the lack of records confirming this, they have been included as part of the development for which substitute consent is being sought. In addition, 2 no. guarded level crossings were in place along the R414 within the Application Site between 1951 and 1952, before the implementation of the first Planning and Development Act (1963), which came into effect on October 1st 1964, and these structures are not part of this substitute consent application. They were constructed to facilitate the connection of Barnaran, Lodge and Killina Bogs to Lullymore Briquette Factory and Allenwood Power Station. At the guarded level crossing locations, road users were required to stop to allow rail cars pass through, and the underpasses allowed road users and the rail movements to take place independently without interaction. 2 no. unguarded level crossings were installed between Blackriver and Barnaran bogs and between Codd 1 and Codd 2 bogs the

installation date of these level crossings are unknown, therefore they have been included in this application. The level crossings are both positioned at private roads with no access to the general public. 2 no. standard warning signs and warning lights were placed on approach at each of the unguarded level crossings.

While standard level crossing lamps with light sensors that switched to light on when daylight faded were fitted across all BnM crossing gates, these were decommissioned when peat extraction ceased in June 2020. Catch points are also fitted into railway tracks on either side of level crossing gates as a standard safety practice to de-rail any runaway trains before reaching the level crossing. Locomotives would have crossed the 2 no. guarded level crossings, which crossed the public road network within the Application Site boundary an average of 6 times per day during the Peat Extraction Phase (1988 - 2003) to reach end users. During the Peat Extraction phase, given the low frequency of crossings, operation of the level crossing at off-peak times only and the presence of gates and sensory notification lighting, the impact on wait times for road users at these level crossings is considered long-term negative and slight during the Peat Extraction Phase.

The impact on road users during the Current Phase is considered short-term, negative and not significant given the nature of the activities within the Application Site during this phase.

During the Remedial Phase, the estimated traffic levels generated to and from the Application Site arising from future plans to decommission and rehabilitation activities is considered to have a negative, long term, and imperceptible effect on traffic volumes, roads and road users.

Other Material Assets

This chapter also reviews other material assets located within the Application Site and immediate surrounds which may have been impacted by the Project such as utilities (water, wastewater, electricity, gas), telecommunications, aviation and waste management. There are two sections of water supply pipeline within the Application Site boundary, both of which were installed in 1978. These two pipelines run along the R414, which passes through the site to southeast between Lodge Bog and Barnaran Bog, with one pipe oriented in a southerly direction, the other in a northerly direction, and meet at a water junction (designated points where pipes meet) along the section of road within the redline. The total length of pipeline within the Application Site boundary is approximately 240m. Beyond this, the location of other underground water networks within the Application Site are unknown. There is no gas infrastructure within the Application Site. The 110kV Cushaling - Newbridge overhead power line passes the Application Site along the western edge of the boundary, and to the south of Ballydermot Works in a generally northwest to southeast orientation. In addition, a total of 28 no. telecommunications links traverse the site, whilst two met masts, two telecommunications towers and one telecoms relay mast are located within the Application Site boundary.

These assets were established long after peat extraction and ancillary activities commenced at the Application Site and have been able to operate successfully and uninhibited alongside the Peat Extraction Phase and Current Phase activities and will continue to do so during the Remedial Phase of the Project. The scoping exercise with the Irish Aviation Authority and DoD did not raise concern over any aviation assets that may have been or are impacted by activities past or present at the Application Site. However, there is the potential for impacts relating to the future land-use at the Application Site, as it relates to the proposed Ballydermot Wind Farm. notwithstanding, there is no potential for cumulative/in-combination impacts to aviation assets arising during the remedial phase of the Project when considered with the proposed wind farm, as the remedial works for the Project are limited to ground-level.

There has been, on average, a 2% decrease in waste produced by the Allen Bog Group (IPC Licence No. P0503-01) between the Peat Extraction Phase to the Current Phase. Therefore, whilst there has been an decrease in waste material produced at the Application Site since peat extraction ceased, the waste

volumes likely remained similar to the peat extraction phase due to the removal of previous ancillary infrastructure as well as waste stored on the Application Site being removed.

Since 2000, the Application Site has been operating under IPC Licence control which requires all hazardous and non-hazardous materials to be disposed of appropriately by licenced waste management operators. Likewise, details pertaining to waste (types, volume, name and address of licenced waste removal contractor, volumes recycled and reused), are recorded in AERs and submitted to the EPA annually and included in Appendix 4-3 of the rEIAR. Over the past few decades, activity decreased at the Allen Bog Group (in which the Application Site is located) and as a consequence of the cessation of peat extraction activity in 2020 and removal of remaining infrastructure, the volume of waste produced has increased. This increase in waste production is expected to fall during the Current Phase and Remedial Phases due to limited activities occurring at the Application Site, therefore an overall residual effect of a long term not significant negative is considered for waste management at the Application Site.

The water supply at the Works, adjacent to the Application Site, and a smaller additional welfare facilities onsite is from the local mains water supply. While under operating under IPC Licence P0503-01, conditions pertaining to wastewater and water supply have been strictly adhered to, therefore overall effects on wastewater and water supply have long term, slight negative effect.