

# Bord na Móna

Derryadd, Derryaroge and Lough Bannow Bogs – Application for Substitute Consent

**Remedial Environmental Impact Assessment Report** 

Chapter 14- Material Assets Including Traffic & Transportation

March 2025



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# 14.0 MATERIAL ASSETS INCLUDING TRAFFIC & TRANSPORTATION

# 14.1 INTRODUCTION

This chapter of the remedial Environmental Impact Assessment Report (rEIAR) assesses the likely significant effects of the historical peat extraction activities and all ancillary works on Material Assets. The EPA 'Guidelines on the information to be contained in Environmental Impact Assessment Report') (2022) outline that 'Material assets can now be taken to mean built services and infrastructure. Traffic is included because in effect traffic consumes transport infrastructure'.

The EPA Guidelines (2022) define the following material assets

- Built Services
- Roads and Traffic
- Waste Management

The EPA Advice Notes for Preparing Environmental Impact Statements Draft September 2015, outline that "*resources that are valued and that are intrinsic to specific places are called 'material assets' They may be either of human or natural origin*."

Following detailed EIA scoping and evaluation of the project, the Material Assets brought forward for assessment in this chapter are Traffic and Transportation (Section 14.1) and Other Material Assets (Section 14.2), namely Electricity (Section 14.2.3.1), Water Supply Infrastructure (Section 14.2.3.2), Wastewater Services & Infrastructure (Section 14.2.3.3) and Waste Management (Section 14.2.3.4) and Telecommunications & Aviation (Section 14.2.3.5).

The cultural assets of Archaeology and Cultural Heritage are addressed in Chapter 13 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 8: Land, Soils and Geology, Chapter 9: Hydrology, Hydrogeology and Water, and Chapter 10: Air Quality and Chapter 15 Climate. Tourism and amenity resources, which are also considered material assets, are addressed in Chapter 6 on Population and Human Health. The Population and Human Health chapter also addresses existing land-uses.

# 14.2 TRAFFIC AND TRANSPORTATION

### 14.2.1 Introduction

This section reports the findings of an assessment of any likely significant effects on traffic and transportation occurring as a result of Bord na Móna's historic peat extraction activities and all ancillary works at Derryadd, Derryaroge and Lough Bannow Bogs (the 'Application Site') during three different 'phases 'as described in Chapter 4, (Section 4.3.1)

- Peat Extraction Phase: The likely significant effects on material assets which may have occurred between July 1988 and July 2019;
- Current Phase: The likely significant effects on material assets which may have occurred since the cessation of peat extraction in July 2019 to present day; and
- Remedial Phase: The likely significant effects on material assets that are likely to occur during future plans to restore the Application Site.

Chapter 4 (Project Description) provides a full description of the peat extraction activities and ancillary works which have taken place, are currently taking place, and are intended to take place across the three project phases as outlined above.

# 14.2.2 Statement of Authority

This Chapter has been prepared by Maria Rooney and Caroline Naughton (TOBIN).

The traffic section has been completed by Maria Rooney. Maria is familiar with the nature of traffic movements at the Application Site and has worked on numerous similar industrial and commercial development projects.

Maria Rooney (TOBIN Senior Engineer: Roads and Traffic) is a Chartered Engineer and has a Bachelor of Engineering in Civil Engineering and Master of Engineering in Roads and Transport Engineering. She has over ten years' work experience in roads and transport engineering. Maria has undertaken many Traffic and Transportation Assessments (TTA) and EIAR Traffic Chapters for various developments including environmental projects, waste management facilities and energy projects.

This material assets section has been prepared by Caroline Naughton.

Caroline Naughton is a Senior Project Manager in TOBIN's Environmental & Planning Division. Caroline holds a BSC (Hons) in Environmental Science/Geology from University College Cork. Caroline has over 15 years' experience in environmental science and consultancy working with leading companies across a range of industries including renewables, construction, waste and pharmaceutical. She has extensive industry experience with a strong technical background and is experienced in the preparation of planning applications for a variety of environmental projects including Wind Farms, Solar Farms, Substations and Waste Facilities.

This chapter has been reviewed by Orla Fitzpatrick, Chartered Environmentalist and Technical Director in TOBIN. Orla has over 20 years' experience working in the delivery of EIA projects in environmental consultancy. She holds a BSc in Geophysics and MSc in Environmental Consultancy and has considerable experience as technical approver of environmental deliverables for major infrastructure projects.

# 14.2.3 Methodology

# 14.2.3.1 <u>Guidance and Legislative Review</u>

This chapter has been prepared having regard to the following guidelines and policy documents:

- EPA Guidelines on the information to be contained in Environmental Impact Assessment Reports (EPA, 2022);
- European Commission (EC) Environmental Impact Assessment of Projects Guidance on the preparation of the Environmental Impact Assessment Report (EC 2017);
- Traffic and Transport Assessment Guidelines (PE-PDV-02045) (TII May 2014);
- TII Project Appraisal Guidelines (PE-PAG-02017) Unit 5.3: Travel Demand Projections (TII 2021);
- Guidelines for the Environmental Assessment of Road Traffic (Institute of Environmental Management and Assessment (IEMA, 1994)
- Longford County Development Plan 1990;
- Longford County Development Plan 2003 2009;
- Longford County Development Plan 2009 2015;
- Longford County Development Plan 2015 2021; and

• Longford County Development Plan 2021 – 2027.

# 14.2.3.2 Background

Between 1952 and 2021, peat which was extracted from the Application Site was transported via internal private rail network was predominantly utilised for the transportation of peat to the power station (originally Lanesborough Power Station, and subsequently the Lough Ree Power Station), see Section 4.4.3.2, Chapter 4 of this rEIAR. Less frequently, this rail network also facilitated the transportation of materials to locations on the bog for operations or maintenance purposes as required. Post-2021, peat stockpiles were transported by heavy goods vehicles (HGV's) via the local road network. A review of potential impacts on the road network from the movement of peat since 2021 has been undertaken, in addition to a review of the staff traffic movements during the Peat Extraction Phase, Current Phase and Remedial Phase.

An existing workshop, Mountdillon Works, is located external to the Application Site, and is located on the southern side of the N63. The Mountdillon Works includes a car parking area that services the staff travelling to and from the Application Site for the historical Peat Extraction Phase, the Current Phase and future Remedial Phase. As outlined in Chapter 1, this application for Substitute Consent does not include the buildings at the Mountdillon Works.

Peat extraction machinery was stored at local holding areas, the location of which are shown on Figure 4-3 in Chapter 4. Given the size of the Application Site, informal holding areas were established by workers to park peat extraction machinery at the end of the working day. These informal areas were located close to the road network to allow easy and safe access without tracking over the bog.

Staff traffic volumes from 1988 were compared with existing traffic conditions to assess the impacts of the peat extraction to the traffic volumes of the area. The relative impact that traffic had on the areas was taken as the percentage of the traffic generated by staff at the Application Site and Mountdillon Works and existing traffic which was expressed as a percentage. Where areas of the Application Site is served by the national road network, the Transport Infrastructure Ireland (TII) Traffic Data website (<u>https://trafficdata.tii.ie/publicmultinodemap.asp</u>) has been utilised to identify average daily traffic (ADT) for the road. On the regional roads, a historical daily traffic volume was used.

As exact routes taken for the staff travelling to the facility by road are not available, a direct route was chosen to their destination on the N63 to the Mountdillon Works. The assumed route minimised the usage of smaller local roads where possible.

# 14.2.3.3 Consultation

As part of the assessment, TII were consulted. TII outlined the site extents traverse the N63, national secondary road, at a location on the network that is subject to a 100kph speed limit. Therefore, they have outlined the official policy and road safety considerations that would need to be resolved in relation to potential for access to national roads.

*"TII would be specifically concerned as to potential significant impacts the development has had on the national road network (and junctions with national roads) in the proximity of the development; N63, national secondary road."* 

TII also recommends the following:

- subject to meeting the appropriate thresholds and criteria and having regard to best practice, a Traffic and Transport Assessment (TTA) be carried out in accordance with TII's Traffic and Transport Assessment Guidelines (2014); and,
- that that applicant/developer should clearly identify haul routes proposed and fully assess the network to be traversed.

Therefore, the assessment focuses on:

- the Peat Extraction Phase:
  - the impact of staff vehicles travelling to work for peat extraction on the surrounding road network,
- during the Current Phase and future Remedial Phase:
  - the impact of both staff vehicles and HGV traffic movements on the surrounding road network.

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

### 14.2.3.4 Impact Assessment Methodology

In order to assess the traffic and transportation impacts associated with the project, the following approach was adopted in line with the EPA Guidelines:

- Data Collection:
- Establish the baseline traffic flows of 1988 on the existing adjoining roads;
- Estimate the traffic volumes generated by the Peat Extraction, Current Phase and Remedial Phases of the development. As outlined in Section 14.2.3.2 the number of traffic movements was prepared in conjunction with the works location;
- Assessment of Effects:
- Determination of Significance of Effects on surrounding road network in accordance with EPA guidelines;
- Assessment of effects on other road issues such as safety, vulnerable road users and public transport;
- Assessment of Cumulative Impacts and Indirect Impacts;
- Identification of Control Measures; and
- Confirmation of Residual Impacts.

#### Assessment Criteria

TII PE-PDV-02045 Traffic and Transportation Assessment Guidelines 2014, Table 2.1 'Traffic Management Guidelines Thresholds for Transport Assessments' sets out various threshold values and criteria that typically trigger that a TTA is required where national roads are affected by traffic arising from any proposed development. A general threshold value which is commonly used to identify whether a TTA including detailed junction capacity assessments is required is as follows:

• Traffic to and from the development exceeds 10% of the traffic flow on the adjoining road

It should be noted the 10% flow is generally a prompt for whether or not a TTA is recommended, it is not typically used to determine the significance of effects. It is nonetheless commonly used in TTA to reference the scale of difference in traffic flows when assessing the forecast long-term operational traffic effects of proposed developments. As a measure of the potential magnitude of impact or effect on the receiving road network the following has regard to the percentage threshold values set out in the TII guidelines. The breakdown of the magnitude of impacts used in this assessment is based on the scale of development traffic expressed as a percentage of existing network traffic flows on the receiving road network.

Magnitude of Impact	Definition
High	Scale of additional traffic exceeds 25% of baseline traffic flow on the receiving road network
Medium	Scale of additional traffic is between 10% and 25% of baseline traffic flow on the receiving road network
Low	Scale of additional traffic is between 5% and 10% of baseline traffic flow on the receiving road network
Negligible	Scale of additional traffic is less than 5% of baseline traffic flow on the receiving road network

#### *Table 14-1:* Definition of Terms Relating to Magnitude of Traffic Impact

In addition to establishing the magnitude of impacts on traffic it is considered worthwhile that the sensitivity of the receptors (receiving road network) should also factor in assessing the level of significance of the traffic effects arising from the continued generation of traffic from the development site. The general criteria defining sensitivity in this chapter is set out in Table 14-2.

Sensitivity	Definition
High	High Importance and rarity, national scale and limited potential for substitution
Medium	High or medium importance and rarity, regional scale, limited potential for substitution
Low	Low or medium importance and rarity, local scale
Negligible	Very low importance and rarity, local scale

#### *Table 14-2: Definition of Terms Relating to Sensitivity of Traffic Receptor*

The significance of the effect of the proposed development on traffic and transportation is determined by correlating the magnitude of the impact and the sensitivity of the receptor. The matrix used in this assessment is presented in Table 14-3 where a range of significance of effects is presented the final assessment for each effect is based upon the application of the above assessment criteria. For the purposes of this assessment any effects with a significance level of slight or less are categorised as not significant in terms of EIA guidance.

	Magnitude of Impact					
		Negligible	Low	Medium	High	
	Negligible Imperceptible Imp		Imperceptible or Slight	Imperceptible or Slight	Slight	
	Low	Imperceptible or Slight	Imperceptible or Slight	Slight	Slight or Moderate	
	Medium	Imperceptible or Slight	Slight	Moderate	Moderate or Major	
Sensitivity	High	Slight	Slight or Moderate	Moderate or Major	Major or Profound	

# 14.2.4 Receiving Environment (1988)

# 14.2.4.1 <u>Study Area</u>

The defined study area includes the Application Site and surrounding road network. Potential impacts and changes to traffic volumes during the Peat Extraction Phase (1988 - July 2019) the Current Phase (July 2019 to Present Day) and the Future Remedial Phase, are also considered within this extent.

The surrounding road network includes the N63, R392 and R398. The N63, is a national secondary road. It has a rural cross-section with grass verges and no hard-shoulder. The R392 and R398 are both regional roads. The cross sections of both regional roads are rural in nature, with narrower carriageway widths on the R398. See Figure 14.1 below which shows the Application Site and surrounding roads which have been considered



7°48'0"W

# 14.2.4.2 <u>Desk Review</u>

A desk study was undertaken in order to collate and review background information of the project during the assessment. The information obtained is referenced in Table 14-4.

#### Table 14-4: Data Sources

Source	Data	Date
тіі	Traffic Data Website*	Accessed December 2022
Abacus Transportation Survey	Historical Traffic Count Data on Regional Roads	Accessed December 2022
Bord na Móna	Historical Staff Volumes	Accessed December 2024
Bord na Móna	Historical Tonnage of peat extracted	Accessed December 2024

\* https://trafficdata.tii.ie/publicmultinodemap.asp

#### **Baseflow Traffic**

Due to the limitation on availability of historical traffic data for the Application Site and road network, more recent traffic survey data had to be utilised. For the N63, national road, traffic survey data for 2022 has been obtained utilising the TII Traffic Count database (<u>https://trafficdata.tii.ie/publicmultinodemap.asp</u>). The counter is located west of the Application Site; at TII Station Id: TMU N63 020.0 W (N63 Between Lanesborough and Roscommon Town, Cloontimullan, Co. Roscommon).

For the regional roads, traffic count data compiled by Abacus Transportation Survey on behalf of Bord na Mona on the 17<sup>th</sup> of May 2017 have been used.

It is noted there is are TII Traffic Count data prior to 2013, therefore the years (2022 and 2017) was utilised for the assessment. A factor has been applied to determine an estimate of the 1988 baseline assessment year traffic volumes, which incorporates local census data.

The population recorded in the 2022 and 2016 censes in Longford was 46,634 and 40,873 people respectively. The total number of people recorded in the 1988 census was 31,496. The car ownership per 1000 people recorded in Ireland in 1990 was 228 cars /1000 people and this increased to 442 cars /1000 people in 2019. On this basis a factor of 0.5 was applied to traffic figures recorded in 2017 to estimate the 1988 ADT.

Year	Population	Car Ownership Factor	ADT N63	ADT R392	ADT R398
2022	46,634	1	4,778	1,844	1,082
2017	40,873*	1	4,580	1,725	1,012
1988	31,496	0.5	2,290	863	506

 Table 14-5: Population, car ownership factor and Average Daily Traffic for the N63, R392 & R398

\* 1. The population value for 2017 is represented by the 2016 Census.

*2. Regional road 2017 data was forecasted by using the Medium Growth LV Rates (TII PE-PAG-02017).* **Staff Volumes** 

Prior to the baseline of 1988, the availability of information on staff records was limited between the 1940s and 1960s. Through historical records and interviews with both former and current Bord na Móna employees, estimates have been developed from 1949 to the present day.

In the late 1980s (including the baseline assessment year of 1988), the total Bord na Móna employment numbers dropped by c. 50% across all sectors due to the introduction of voluntary redundancies brought in by the company. By 1988, staff numbers at the Application Site had fallen to approximately 120 employees in total. A breakdown of the staffing numbers from this period is given below:

- There were approximately 15 employees associated with annual peat extraction (seasonal) at Derryaroge Bog;
- There were approximately 18 employees associated with annual peat extraction (seasonal) at Derryadd Bog;
- There were approximately 15 employees associated with annual peat extraction (seasonal) at Lough Bannow Bog; and
- There were approximately 15 employees in Mountdillon Works offices and;
- Approximately 60 employees across the workshops at the Application Site.

Numbers remained largely similar through the 1990s and 2000s, with only small decreases in work staff as employment numbers fell very slightly from the workshops leading to numbers dropping to approximately 110 employees a year during the 1990s and approximately 105 employees during the 2000s.

By 2019 (i.e., the last year of peat extraction at the Application Site), peat extraction had already begun to wind down, which is reflected by the number of employees at the site. In total, there were approximately 80-90 employees at the Application Site during this year. A breakdown of the staffing numbers from 2019 is given below:

- There were approximately 15 employees associated with annual peat extraction (seasonal) at Derryaroge Bog;
- There were approximately 15 employees associated with annual peat extraction (seasonal) at Derryadd Bog;
- There were approximately 15 employees associated with annual peat extraction (seasonal) at Lough Bannow Bog; and
- There were approximately 12 employees in Mountdillon Works offices and;
- Approximately 30 employees across the workshops at the Application Site.

Following the cessation of peat extraction, present day employment numbers at the Application Site have decreased significantly. However, there are still approximately 30 staff at the Application Site (2025) associated with decommissioning of the site and office administration. Workers who were familiar with the bogs and the machinery in place at the Application Site were retained to carry out the decommissioning works and will continue to be engaged for future rehabilitation activities. A breakdown of the staffing numbers from 2025 is given below:

- There are 3 employees based in the Mountdillon offices;
- There are 7 employees based in 'Workshop' which include stores, craft and management of equipment and machinery;
- There are 25 employees based in 'Operations' across various different bog locations (of which 11 are seasonal workers).

Table 14-6 summarises the above information on total annual employment numbers and associated staff traffic movements at the Application Site between 1988 and 2022.

Application Site	Road	1988 (2 staff per vehicle)	1990 (2 staff per vehicle)	2000s (1.5 staff per vehicle)	2019 (1.5 staff per vehicle)	2022 (1 staff per vehicle)
Derryaroge Bog	N63	15 (s)	15 (s)	15 (s)	15 (s)	
Derryadd Bog	N63	18 (s)	15 (s)	15 (s)	15 (s)	8
Lough Bannow Bog	R392/R398	15 (s)	15 (s)	15 (s)	15 (s)	
Mountdillon Workshop	N63	75	67	62	42	22
Total Staff	120	110	105	90	30	
Traffic LVs (two-way)	120	110	140	120	60	

Table 14-6: Application Site staff numbers and staff traffic on associated roads from 1988 to present

Note:

1. Seasonal staff number are denoted with (s) in the table above.

### Working Hours

During the Peat Extraction Phase, operations on the peatlands took place between 08:00hrs to 21:00hrs in the summer months, with transportation of the peat between the hours of 06:00 and 11:00. The operational hours reduced to between 08:00 to 16:30 for the other periods in the year. Office hours and workshop hours were between 08:00 to 16:30 all year round.

# *14.2.5 Assessment of Significant Effects on Traffic and Transportation*

#### 14.2.5.1 'Do-Nothing' Option

Given that the baseline assessment year for this rEIAR is taken as 1988 (year of the required transposition of EIA Directive) the 'Do-Nothing' option in this instance would involve no further peat extraction or related activities at the Application Site from 1988 onwards. As previously discussed in Chapter 4, the Application Site initially began peat extraction in the 1950s and 1960s, and by 1988 the entirety of the Application Site was in peat extraction and consisted largely of cutaway habitat. The Application Site ceased all peat extraction in the summer of 2019, and some areas have since gradually begun to revegetate naturally. Under the 'Do-Nothing' Option whereby peat extraction activities did not continue beyond 1988 it is envisaged that much, or all of the Application Site would have since revegetated with predominantly birch woodland and wetland habitats.

Since the cessation of peat extraction in 2019 there has been a decline in traffic volumes on the local road infrastructure, as fewer staff movements to and from the Application Site have been required. Under the 'Do-Nothing' option whereby peat extraction activities did not continue beyond 1988 it is envisaged that a similar decline in traffic volumes would have been experienced at a much earlier date.

Under this 'Do-Nothing' option, the IPC licence and associated decommissioning and rehabilitation efforts would not have occurred, and the site recovery potential and associated traffic movements would not have occurred.

#### Significance of Effects

The 'Do-Nothing' Option would have resulted in decreased traffic volumes to and from the Application Site at a much earlier stage and is therefore considered to be a long-term slight positive impact on traffic and transportation.

### 14.2.5.2 Peat Extraction Phase (1988-July 2019)

An impact analysis was carried out in Section 14.2.4, utilising all available information.

The following details are presented in Table 14-7 below.

- The volume of staff to the facility in 1988 (baseline);
- The ADT estimated on the roads in the assessment (i.e. N63, R392, R398);
- The relative impact of the traffic generated by the peat extraction and associated activities on the connecting road, expressed as a percentage. This was obtained by dividing the Applicant Site traffic generated by the total daily traffic of the area; and
- The number of vehicles travelling the route daily was established using TII Traffic Count data (<u>https://trafficdata.tii.ie/publicmultinodemap.asp</u>) (2022) or historical traffic count data (2017), and this was also compared to the generated traffic to establish a relative impact.

Destination	Average Daily Traffic (Two-way)	Annual Daily Traffic (ADT)	Relative impact (% increase)	Below TII TTA Thresholds
N63	108	2,290	4.7%	Yes
R392	15	863	1.7%	Yes
R398	15	506	3.0%	Yes

### Table 14-7: Impact Analysis – Peat Extraction Phase

As can be seen in Table 14-7 the average daily runs are marginal when compared with the ADT of the surrounding road. This impact analysis showed that the overall contribution of the movement of staff associated with peat extraction to the overall traffic of the area was a maximum of 4.7%. This is below the TII TTA Guidelines thresholds and hence a TTA is not required.

An impact analysis of the years 1990, 2000 and 2019, was not undertaken as the baseline traffic volumes are higher than in 1988, therefore the relative impact for those years would be lower and below the TII TA thresholds.

#### Significance of Effects

The effects of the Peat Extraction Phase activities at the Application Site on traffic and transport from 1988 to 2019 are considered a long-term imperceptible negative effect.

### 14.2.5.3 <u>Current Phase (July 2019 - Present Day)</u>

Peat extraction ceased at the Application Site in July 2019. Decommissioning is underway across the site; decommissioning includes removal of all buildings, rail tracks, diesel storage tanks, septic tanks and removal of materials from site. Full details of the process are presented in the Chapter 4 (Project Description).

The plant associated with the Current Phase are outlined in Table 14-8 and will arrive to site at the commencement of the decommissioning phase and depart at the end of this phase. The delivery of the plant was via the Mountdillon Works entrance on the N63. The plant will be stored at the Mountdillon Works at the end of the workday; they will not utilise the public road network except when crossing the road (2 movements per day) to access other bogs.

HGV	No. of vehicles per day
Wheeled Loader Lorry	1
Track Excavator	1
Dozer	4
Dump Truck	1

#### Table 14-8: Volume of Decommissioning Plant

HGV	No. of vehicles per day
Plough	1
Tractor	4
Total	12 HGVs

Traffic generated (HGVs) since the cessation of peat extraction comprises the removal of stockpiled peat at the Application Site to Edenderry Power Station, Lough Ree Power Station and Derrinlough Briquette Factory. The total stockpile tonnage of 61,374 from 2020 to 2022 were transported to:

- Lough Ree Power Station
- 8,571 tonnes, or 14% of total stockpiles 2,039 tonnes, or 3% of total stockpiles 50,764 tonnes, or 83% of total stockpiles
- Edenderry Power Station

Derrinlough Briquette Factory

The stockpiles transported to Lough Ree Power Station (LRPS) (i.e. 8,571 tonnes in 2020) was transported by rail. Hence, it has been excluded from the HGV tables below as it will not impact the road network.

Following the closure of LRPS in December 2020, the haul route for the removal of stockpile material from the Applicant Site to Edenderry Power Station and Derrinlough Briquetting Factory, was via Lanesborough (N63) to Ballymahon (R392). It is noted the haul route initially utilised the Cloonfore/Clonfower Local Road (L1163). However, a weight restriction was put in place on the L1163 in 2022 by Longford County Council and the local road was removed from the haul route where movements subsequently were via the N63 and R392. From Ballymahon the route to Edenderry is via Castletown Geoghan, Rhode to Edenderry, on primarily regional and national roads. From Ballymahon to Derrinlough the route is via Athlone, Ferbane, Cloghan to the Derrinlough Factory on primarily national and regional roads. Removal of stockpiled peat from the Application Site was completed in November 2022.

The peak peat stockpile tonnage transported was in September 2022, with 271 tonnes to Derrlinlough and 10,019 tonnes to Edenderry, a grand total of 10,290 tonnes. A total of 119 tonnes were stockpiled at Lough Bannow bog and following the closure of LRPS, all peat was brought from the stockpiles to Mountdillon Works via rail. Here, the peat was loaded into HGVs using a peat loading facility before leaving the Application Site via the road network on the R398 to the R392 and onwards to Ballymahon. The 119 tonnes represented 1.2% of total stockpile materials in the peak month. Based on a HGV with load capacity of 27 tonnes, it results in a total of 381 HGVs trips generated in the month of September 2022 or 18 HGVs / day trips. With 1.2% or 1 HGV departing on the R398 from Lough Bannow, the remaining 17 HGVs / day will be via Mountdillon onto the N63.

Application Site	Road	Sept 2022 Stockpile Ton	nage		Truck Load	Trip per days (HGVs)
		Derrinlough	Edenderry	Total		
Derryaroge Bog	N63/ R392	0	0	0	27 t	0
Derryadd Bog	N63/ R392	231 t	9,940 t	10,171 t	27 t	17
Lough Bannow Bog	R392/ R398	40 t	79 t	119 t	27 t	1

#### Table 14-9: Peat Stockpile Tonnages & HGV movements

Note:

In December 2020, stockpiles material was transported from Derryaroge and Lough Bannow to Lough Ree Power Station by rail, hence, no HGV movement.

In determining the trips per day, it is assumed that the peat stockpiling transport occurred over • 5.5 days of the week with each month having 4 weeks.

As per IPC Licence (Reg. Ref. P0504-01) requirements, 8 personnel vehicles (LVs) travel to and from the site to carry out the removal of stockpiled peat and necessary environmental monitoring measures. This movement of stockpiled peat was completed in November 2022.

An additional 5,000 tonnes were transported to Edenderry Power Station in the summer of 2023. Over the summer months (i.e. 3 months) this resulted in 3 HGV trips a day. This number of trips is lower than that identified in Table 14-9 and hence, the HGV value in Table 14-9 has been assessed as the more robust value.

Similar to the Peat Extraction Phase, the approach for the Current Phase is to assess the traffic volumes to demonstrate that no significant effect is likely to have occurred. The volume of HGVs per day involved in the Current Phase is shown in Table 14-10.

Table 14-10 presents the summary of the ADT for the decommissioning and peat stockpile transport at the Applicant Site and includes the following:

- The volume of HGVs decommission works (i.e. 2 HGV movements crossing the public • road as per Table 14-9) in 2022;
- The volume of HGVs associated with the stockpiling transport (i.e. Table 14-9);
- The volume of LVs for staff associated with the decommissioning works (i.e. Table 14-6 • and paragraph below Table 14-9); and
- The ADT estimated on the roads in the assessment (i.e. N63, R392, R398). •

Route	Peak Daily Runs - LVs (Two-way)	Peak Daily Runs - All other Decommissioning Activities HGVs (Two-way)	Peak Daily Runs - Peat Stockpile HGVs (Two-way)	Total Peak Daily Runs - ADT (Two-way)
N63	55	24	34	113
R392	5	0	36	41
R398	5	24	2	31

#### Table 14-10: Summary of Current Phase Transport Traffic – 2022

Note:

- 1. During Decommissioning the HGV movements of plant:
- from Mountdillon to Derryaroge Bog will cross the N63;
- from Mountdillon to Derryadd Bog will not be on the public road;
- from Mountdillon to Lough Bannow Bog will cross the R398; and
  - a. No plant will cross the R392, hence a value of zero for HGV Decommissioning.

The following details are presented in Table 14-11:

- The ADT estimated on the roads in the assessment (i.e. N63, R392, R398);
- The relative impact of the traffic generated by the decommissioning phase on the connecting road network, expressed as a percentage. This was obtained by dividing the traffic generated by the total daily traffic of the area.
- The number of vehicles travelling the route daily was established using TII Traffic Count data (<u>https://trafficdata.tii.ie/publicmultinodemap.asp</u>) or historical traffic count data (2017), and this was also compared to the generated traffic to establish a relative impact.

Destination	Peak Daily Runs ADT (Two-way)	ADT	Relative impact - (%)	Below TII TTA Thresholds
N63	113	4,778	2.4%	Yes
R392	41	1,844	2.2%	Yes
R398	31	1,082	2.9%	Yes

#### *Table 14-11: Impact Analysis 2022 – Current Phase Transport*

\*It should be noted the number of movements is a conservative assessment as typically vehicles remained on site for large periods of the decommissioning and stockpile works.

#### Significance of Effects

The effects of the Current Phase activities on traffic and transport are considered a short-term imperceptible negative effect.

# 14.2.5.4 <u>Remedial Phase</u>

It is a requirement of Condition 10 of the IPC Licence that Bord na Móna, prepare (to the satisfaction of the EPA) and implement a Cutaway Bog Decommissioning and Rehabilitation Plan for each bog within the Application Site. The Plans set out the Applicant's proposal for each bog to facilitate and enhance peatland rehabilitation in order to bring about environmental stabilisation across each bog. 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 EPA licence for the Application Site. These works will require 1-2 excavators and tractors at each bog 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 Mountdillon Works at the end of the workday; they will not utilise the public road network except when crossing the road (2 movements per day) to access other bogs.

The long-term phase (year 3 onwards) will entail 1-2 LGVs on site per month to evaluate the success of the plans and monitor silt ponds. Please see Chapter 4 and Appendix 4-3 for more details on the Remedial Phase measures.

#### Remedial Phase – Traffic Volumes

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 12 personnel vehicles per year are considered for the long-term phase over a period of 30 years. Thus, zero HGV traffic movements are an anticipated for this phase.

Year	Peak Daily Runs LVs (Two-way)	Peak Daily Runs HGVs (Two-way)	Total Peak Daily Runs ADT (Two-way)
Year 1 and Year 2 (short term action plan)	12	12	24
Year 3 to year 30	12	0	12

Table 14-12: Application Site predicted traffic on roads associated with the Remedial Phase

Note:

1. It should be noted the number of HGV movements is a conservative assessment as typically the activities in this phase result in vehicles remaining on site for large periods of time rather than moving to and from site each day.

- For the short-term action plan LVs, it is assumed that the personnel will arrive and depart at Mountdillon. The personnel will travel to all 3 bogs within the Applicant Site on the same day as a worst-case scenario. The vehicle occupancy will be one personnel per vehicle.
- N63 Movements: 2 no. arriving to site at Mountdillon, 4 no. crossing of the N63 to Derryaroge Bog and 2 no. departures from Mountdillon.
- *R392, no movements on this road, all travel within the Applicant Site except for crossings between the bogs.*

- *R398 Movements, 4 no. movements with 2 no. from Derryadd Bog to Lough Bannow Bog and returning to Mountdillon to depart work.*
- 2. For the long-term action plan LVs, it is assumed as a worst-case that staff will visit all 3 bogs once a month, as per note 1 above.

Similar to the Peat Extraction Phase, the approach for the Remedial Phase is to assess the traffic volumes to demonstrate that no significant effect is likely to occur in the future years.

As outlined in Chapter 4, the future rehabilitation works will commence immediately following the full decommissioning of the site which is envisaged to be completed in 2024 or early 2025. The baseflow ADT on the network have been forecasted to the future rehabilitation years of 2025 and 2055, to represent the short-term and long-term action plan years for the rehabilitation works.

The baseflow ADT for 2022 has been forecasted using the *TII Project Appraisal Guidelines for National Roads Unit 5.3 - Travel Demand Projections (TII PE-PAG-02017 October 2021) Table 6.1 Link-based Growth Rates: County Annual Growth Rates (excluding Metropolitan Area)* for County Longford. It is noted that the growth rates are limited to the year of 2050 and this year has been taken as the long-term action plan assessment.

The following details are presented in Table 14-13 and Table 14-14:

- The peak ADT estimated associated with the Remedial Phase for the short-term and long-term action plans respectively on the roads in the assessment (i.e. N63, R392, R398);
- The forecasted ADT on the road network to the 2025 and 2050 future rehabilitation years.
- The relative impact of the traffic generated by the Remedial Phases (i.e. short and longterm action plans) on the connecting road network, expressed as a percentage. This was obtained by dividing the traffic generated by the total daily traffic of the area.
- The number of vehicles travelling the route daily was established using TII Traffic Count data (<u>https://trafficdata.tii.ie/publicmultinodemap.asp</u>) or historical traffic count data (2017). This data was forecasted using the TII PE-PAG-02017 Table 6.1 Link-based growth rates (i.e. Central Growth Rates). This was also compared to the generated traffic to establish a relative impact.

Destination	Peak Daily Runs ADT (Two-way)	ADT	Relative impact - (%)	Below TII TTA Thresholds
N63	12	4,973	0.2%	Yes
R392	0	1,919	0.0%	Yes
R398	8	1,126	0.7%	Yes

#### Table 14-13: Impact Analysis 2025 – Remedial Phase – Short-term Action Plan

\*It should be noted the number of movements predicted for the Remedial Phase is a conservative assessment as the types of activities in this phase will likely result in vehicles remaining on site for large periods of time rather than moving to and from site each day

Destination	Peak Daily Runs ADT (Two-way)	ADT	Relative impact - (%)	Below TII TTA Thresholds
N63	8	5,671	0.1%	Yes
R392	0	2,189	0.0%	Yes
R398	4	1,284	0.3%	Yes

#### Table 14-14: Impact Analysis 2050 – Remedial Phase – Long-term Action Plan

\* It should be noted the number of movements predicted for the Remedial Phase is a conservative assessment as the types of activities in this phase will likely result in vehicles remaining on site for large periods of time rather than moving to and from site each day

#### Significance of Effects

In comparison to the average annual daily traffic count reported by TII along representative roads, the traffic numbers which are likely to be generated by the Remedial Phase at the Application Site are considerably lower than the daily average. Traffic generated by the Application Site are estimated to contribute to less than 1% of daily traffic volumes on representative roads.

The effects of the Remedial Phase activities on traffic and transport are predicted to be for the:

- Short-term action plan (i.e. 2 years) of a *short-term imperceptible negative effect*
- Long-term action plan (i.e. 28 years) of a long-term imperceptible negative effect.

### 14.2.6 Cumulative and Indirect Impacts

The cumulative impacts are associated with projects which have been built and were operational during the time period from 1988 to present day. The following is a list of relevant cumulative projects as outlined in Chapter 2, Section 2.9:

- Lanesborough Power Station (1988 2003)
- Lough Ree Power Station (2004 2020)
- Sliabh Bawn Wind Farm
- Derraghan Ash Disposal Site
- Other Nearby Bogs within Mountdillon Bog Group
- Future Uses of the Application Site

#### Lanesborough Power Station

This power station was constructed in 1958, long before the baseline assessment year of 1988. Hence, the construction of this power station is not a cumulative impact. The operational traffic volumes associated with the power station are low (i.e., staff movements), with an imperceptible negative effect of a long-term duration. The Lanesborough Power Station was decommissioned in 2004 and demolished in 2007. The traffic associated with the decommissioning and demolition works of Lanesborough Power Station has the potential to generate a cumulative impact as it occurred during the Peat Extraction Phase at the Application Site. The combined impact of traffic generated as a result of the Peat Extraction Phase at the Application Site with estimated traffic movements associated with Lanesborough Power Station would have a slight negative effect of short-term duration on the road network.

#### Lough Ree Power Station

Lough Ree Power Station was commissioned in 2004 and was constructed to replace the ageing Lanesborough Power Station. Construction traffic associated with the construction of Lough Ree Power Station would have a slight negative effect of temporary duration on the road network. Lough Ree Power Station was decommissioned in December 2020. During the Peat Extraction Phase between 2004 and July 2019, the transfer of peat from the Application Site via rail would have a not significant negative effect of a medium-term duration.

#### Sliabh Bawn Wind Farm

The Sliabh Bawn Wind Farm is a 20 no. turbine wind farm development located off the R371 to the north-west of Lanesborough. The wind farm was constructed in 2015 over an 18-month period, with turbines delivered to site in July to October 2016. The wind farm has been operational since spring of 2017. The turbine delivery route was from the N4 onto the R371 and hence the turbine delivery is not a cumulative development. The construction activities for the turbine foundations would have had a temporary moderately negative effect on the N63 and potentially the R392. The operational traffic at the wind farm will be of low volume, typically LVs for staff for maintenance and operational activities with occasional HGVs (i.e. once a month or less). The cumulative impact is assumed to have an imperceptible negative long-term effect on the N63 and R392.

#### Derraghan Ash Disposal Site

To dispose of the ash produced at the plant, the planning consent for Lough Ree Power Station (Longford County Council Reg. Ref. 01/115; An Bord Pleanála Planning Ref. PL14.125540), provided for the ancillary development of a dedicated off-site ash disposal facility (ADF) in the townlands of Derraghan More and Derraghan Beg, approximately 10km southeast of the power station. The ADF was designed to exclusively accept peat ash from the station.

The ADF at Derraghan was constructed in 2004 over a 33ha site, within the Derraghan Bog in the Mountdillon Bog Group, less than 500m west of Lough Bannow Bog. It was designed to accommodate dry peat ash over the operational life of the power station. The ADF was designed and consented as an integral part of the Lough Ree Power Station development.

The ADF is operated in accordance with Industrial Emissions (IE) Licence P0610-02 issued by the EPA. This Licence covers both generation and ash disposal facility activities. The facility is maintained by the Electricity Supply Board (ESB).

Derraghan ADF is served by a dedicated access way from the R392, and also by a railway. Ash was transported from the power station exclusively by private Bord na Móna rail line which traverses areas of bog within the Mountdillon Bog Group between the power station and ADF before crossing under the R392 Regional Road, at the entrance to the facility, and continuing south to the ADF. As a result, there was no use of the R392 by HGVs moving ash from the power station to the ADF. Low road traffic volumes are estimated from these activities and hence the cumulative impact on the R392 would have been medium-term, negative and imperceptible.

### Mountdillon Bog Group

Consideration has been given to other nearby bogs within the Mountdillon Bog Group. As the bog group extends over a large area and includes many bogs to the west of the River Shannon in County Roscommon, the bogs considered which may have had a cumulative impact are limited to:

- Derryadd 2 Bog (located directly adjacent and east of Derryadd Bog);
- Corlea Bog (located directly adjacent and south of Lough Bannow Bog);
- Derryshanoge Bog (located directly adjacent and southwest of Derryadd Bog);
- Knappoge Bog (located directly adjacent and northeast of Derryaroge Bog); and
- Derraghan Bog (located approximately 300m west of Lough Bannow Bog).

All peat extracted from these bogs was transported by Bord na Móna rail. Therefore, the potential for cumulative traffic movements with the bogs listed above with the activities at the Application Site would have been and is limited to occasional staff for surveying, monitoring, decommissioning activities, and similar non-peat extraction type works.

### Future Uses of the Application Site

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. The EIAR for the proposed Derryadd Wind Farm application will include an assessment of the implementation of the rehabilitation plans in conjunction with the construction, operation and decommissioning of the wind farm. The overall footprint of the proposed wind farm will 1,900ha compared to 2,244ha of the total area of the Application Site boundary and therefore will not impact or change the overall goals and outcomes of the rehabilitation plans. As such, it is the intention of the Applicant to integrate the peatland rehabilitation measures with the proposed future wind farm. The key measures such as revegetation and targeted drain blocking will occur between and surrounding the proposed wind farm infrastructure. The EIAR for the proposed Derryadd Wind Farm development details issues related to potential impacts during wind farm construction.

The proposed Derryadd Wind Farm is assessed in a separate EIAR in terms of direct and indirect effects on the Material Assets and dedicated mitigation measures will be included so as to avoid any negative effects on material assets within and surrounding the site. When the proposed Derryadd Wind Farm is considered with the past peat activities, current works and future rehabilitation works, potential effects will not increase due to the implementation of mitigation measures. Overall cumulative effects when considering the life cycle of the site and the proposed Derryadd Wind Farm will not occur.

### Significance of Effects

The traffic generated due to historic peat extraction activities have had a minimal impact on road users, as peat was transported via the rail network. Where road transport was utilised by staff, the facilities are in close proximity to the national and regional road networks, which they do not saturate. For the purposes of this assessment, traffic generated to and from the Application Site during the Peat Extraction Phase between 1988 and 2019 is considered to have had an imperceptible long-term negative effect on traffic volumes, roads and road users. By its nature this approach considers cumulative effects also.

A review was undertaken of projects considered in relation to the potential for cumulative effects, as listed in Section 2.9, Chapter 2 for the Current Phase between July 2019 to present day. During this phase, stockpiles of peat were transported from the Mountdillon Works via the local road network to their onward destination. No projects were identified as having cumulative effect during this phase.

The ongoing rehabilitation of the bogs at the Application Site, started during the Current Phase and to continue into the Remedial Phase, will not result in any cumulative effects on traffic.

# 14.2.7 Control Measures

Following the assessment of potential effects from arising from peat extraction and associated activities on traffic and transportation, there were no additional specific control or mitigation measures required to ameliorate the impacts on traffic and transportation during the Peat Extraction Phase, Current Phase, or Remedial Phase.

# 14.2.7.1 Peat Extraction Phase (July 1988 and July 2019)

- Peat deliveries from the Application Site to the Lanesborough Power Station, and subsequently Lough Ree Power station, were carried out via internal rail network with no impact to road users.
- Dust suppression measures were used when storing peat at stockpiles.
- Machinery crossing points on local roads between bogs were inspected at the end of each working day.
- Three railway level crossing points at local roads were established by Bord na Móna at the Application Site. The railway locomotives underwent continuous inspection and maintenance to prevent fires, accidents, fuel leaks and de-railments within the bogs and at the level crossings locations. 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 designated 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.

### 14.2.7.2 <u>Current Phase (July 2019 to Present Day)</u>

Control measures undertaken during this phase are the same as those undertaken in the Peat Extraction Phase and also applied to HGV movements for the transport of stockpiled peat from the Mountdillon Works after 2021. In addition, as part of Bord na Móna'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. Therefore, there potential to reduce the daily LGV numbers travelling to and from at the Application Site even further.

### 14.2.7.3 <u>Remedial Phase</u>

- 1. All HGVs used on site will undergo regular inspection and maintenance checks.
- 2. All HGVs used on site will undergo wheel washing prior to crossing the local road network to access other bogs or return to the Works for storage.
- 3. Only HGV licence holders will operate the HGVs and will undergo regular re-training on HGV safety operations and vehicle maintenance.
- 4. Refuelling of vehicles will be undertaken at the Mountdillon Works only.
- 5. Machinery crossing points on local roads between bogs will be inspected at the end of each working day.
- 6. As per the ongoing decommissioning phase, car sharing by personnel and bike to work schemes will be encouraged.

# 14.2.8 Residual Effects

## 14.2.8.1 Peat Extraction Phase (July 1988 and July 2019)

The traffic generated due to historic peat extraction activities has had a minimal impact on road users, as peat was transported via the rail network. Where road transport was utilised by staff the contribution to the road network was minimal and the facilities are in close proximity to the national and regional road networks. For the purposes of this assessment, traffic generated to and from the Application Site during the Peat Extraction Phase between 1988 and 2019 is considered to have had an imperceptible long-term negative effect on traffic volumes, roads and road users.

# 14.2.8.2 Current Phase (July 2019 to Present Day)

The traffic generated to and from the Application Site during the ongoing decommissioning phase (including peat stockpile transport, which has ceased) is considered to be a negative, short term, imperceptible effect on traffic volumes, roads and road users.

### 14.2.8.3 <u>Remedial Phase</u>

The Remedial Phase will have a short-term imperceptible negative impact on traffic volumes, roads and road users for the short-term action plan and a long-term imperceptible negative impact for the long-term action plan.

# *14.2.9 Major Accidents and Disasters*

There has not been any accident that would have created a traffic and transportation effect on the road network in the vicinity of the Applicant Site.

# 14.3 OTHER MATERIAL ASSETS

### 14.3.1 Introduction

This section reports the findings of an assessment of any likely significant effects on other material assets, including electricity, telecommunications, gas, water supply infrastructure, wastewater infrastructure and waste management occurring as a result of Bord na Móna's historic peat extraction activities at Derryadd, Derryaroge and Lough Bannow Bogs (the Application Site) during the Peat Extraction Phase (1988-2019), Current Phase (July 2019 to present day)and Remedial Phase (Post present day).

### 14.3.2 Methodology

The preparation of this assessment of the significance of effects on Material Assets involved a desktop study and review of those material assets other than traffic, which has been assessed in the preceding Section 14.2. This entailed a review of available and relevant data and documentation concerning the Application Site in relation to the following material assets:

- Electricity, gas supply and water infrastructure;
- Surface water infrastructure;
- Wastewater infrastructure;
- Waste management facilities; and
- Telecommunications and Aviation.

A retrospective assessment has been undertaken to evaluate the significance of effects on those other material assets listed as a result of activities at the Application Site during the Peat Extraction Phase, Current Phase and Remedial Phase.

This section of the EIAR has been prepared in line with methodology from Chapter 2 and the EPA *Guidelines on the information to be contained in Environmental Impact Assessment Reports* (May 2022).

# 14.3.2.1 Annual Environmental Reports

As outlined in Section 4.7.6, Bord na Móna was granted an IPC Licence (Reg. No. P0504-01) for the Mountdillon Bog Group (within which the Application Site is located) in May 2000. Annual Environmental Reports (AERs) are submitted to the EPA annually and include the amount of energy utilised, waste produced (type, reuse and disposal methods), and emissions for the whole Mountdillon Bog Group. AERs from 2000 to 2023 are included in Appendix 4.4.

# 14.3.3 Receiving Environment (Baseline 1988)

# 14.3.3.1 <u>Electricity</u>

Electricity supply to Mountdillon Works buildings and workshops, and also to the surface water pump stations across the Application Site, was powered by mains electricity from the national electricity grid supplied from overhead 110kV and 38kV electrical power lines which cross the Application Site to the south of the Mountdillon Works and at the northern end of Derryaroge Bog.

Lanesborough Power Station (LPS) was constructed in 1958, long before the baseline assessment time period year of 1988 and prior to commencement of formal planning legislation in Ireland.

### 14.3.3.2 Water Supply Infrastructure

Water consumption across the Application Site would have primarily been at the Mountdillon Works for the workshop. The water supply since 1988 is from the Lanesborough Public Water Scheme (PWS) which is supplied from two groundwater boreholes; one located at Lisrevagh to the west, and one located to the northwest next to the former LPS.

There are no known groundwater abstraction wells within the Application Site.

As outlined in Section 4.4.5.8 the majority of rail tracks were constructed in the 1950s and 1960s. By 1988 drainage channels, silt ponds, outfalls and pumps were extant at the Application Site (Section 4.5.3).

As outlined in Section 4.5.3.1, in 1988, there were 11 no. pumps, 6 no. silt ponds, and 10 no. surface water emission points installed on Derryaroge Bog.

As outlined in Section 4.5.3.2 by 1988, there were at least 3 no., and up to 6 no. pumps installed at Derryadd Bog. The uncertainty around the number of pumps in situ as of 1988 is a result of the uncertainty of the date of installation of 3 no. pumps which are present on the bog. For the purposes of this rEIAR, it is assumed that these pumps were in place at the 1988 baseline.

As outlined in section 4.5.3.3, there are 3 no. pumps located at Lough Bannow Bog. The date of installation of these pumps is not known. For the purposes of this rEIAR, it is assumed that these 3 no. pumps were in place at the 1988 baseline.

The chronology of the installation of the drainage network in place in Derryaroge, Derryadd and Lough Bannow Bogs is outlined in Figures 4.7, 4.8 and 4.9 respectively.

# 14.3.3.3 <u>Wastewater Services & Infrastructure</u>

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

# 14.3.3.4 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. The majority of these items were stored in a waste deposition area on the Application Site:

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

As outlined in Section 4.5.5.10, the following measures were carried out with respect to management of waste, in 1988:

- 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 form the self-contained machine parts washer were collected within a sludge tank at the workshops;
- 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 practice changed to the use of skips which were then collected by licenced waste contractors.

### 14.3.3.5 <u>Telecommunications & Aviation</u>

The nearest significant aeronautical surfaces that existed in 1988 are Ireland West International Airport and the privately-owned Aerodrome at Abbeyshrule, as outlined in Table 14-15 below.

#### *Table 14-15:* Aviation Environment

Installation	Description	Distance from Application Site	Year Built
Ireland West Airport	International Airport Single Runway (Code 4)	60 km	1985
Abbeyshrule Aerodrome	Privately-owned Aerodrome Single Runway (Code 1)	13 km	1977

Radio waves, including microwave radio waves, are used for a wide variety of communication purposes across aviation communications and surveillance systems and across telecommunications (telecoms) systems.

# *14.3.4 Peat Extraction Phase*

# 14.3.4.1 <u>Electricity</u>

As outlined in 14.2.3.1 above, electricity supply to Mountdillon Works buildings and workshops, and also to the drainage pump stations, was powered by mains electricity from the national electricity grid connected to overhead 110kV and 38kV electrical power lines which cross the Application Site to the south of the Mountdillon Works and at the northern end of Derryaroge Bog.

### 14.3.4.2 Water Supply Infrastructure

As outlined in Section 14.3.3 above, water consumption across the Application Site would have primarily been at the Mountdillon Works for the workshop from the Lanesborough Public Water Scheme. No known groundwater abstraction wells existed within the Application Site.

The chronology of the installation of the drainage network in place in Derryaroge, Derryadd and Lough Bannow Bogs is outlined in Figures 4.7, 4.8 and 4.9 respectively in Chapter 4. As described in Section 4.7.1 of Chapter 4 between 1988 and 1995, three silt ponds were installed at each of Derryaroge, Derryadd, and Lough Bannow Bogs, while one pump was installed in Derryaroge. These pumps and silt ponds are in addition to those described in Section 14.3.3. The installation dates of some pumps in Derryadd and Lough Bannow remain unknown.

### 14.3.4.3 Wastewater Services & Infrastructure

Wastewater from the welfare facilities at the Mountdillon Works is discharged to an on-site septic tank with the effluent discharged to a percolation system through peat before penetrating to ground. The septic tank is inspected and de-sludged annually by a licenced waste permit holder to ensure the treatment system is working optimally, (Section 4.2.7)

There was no connection to public sewer services during the Peat Extraction Phase and accordingly no impact on public sewerage and wastewater infrastructure associated with the peat extraction activities at the Application Site.

#### 14.3.4.4 Waste Management

Between 1988 and 2019, waste management at the facility became more regulated with the introduction of IPC Licence P0504-01 in 2000, requiring an Environmental Management System (EMS) and specific waste handling procedures. Hazardous and non-hazardous waste were managed under the licence, with improved bunding, oil interceptors, and refueling procedures. Peat extraction ceased in 2019, leading to a reduction in both hazardous and non-hazardous waste volumes. Compliance with waste regulations, including The Waste Management Act 1996 (as amended), ensured proper waste disposal and reporting through the AER.

### 14.3.4.5 <u>Telecommunications & Aviation</u>

A telecoms scoping exercise was undertaken in May 2023 as part of the proposed Derryadd Wind Farm project.

Whilst this scoping exercise took place after the Peat Extraction Phase, the locations and status of telecommunications links, and the presence or lack of, fixed position masts at the Application Site provides an insight into what was present at the Application Site during the Peat Extraction Phase.

Results from the telecom operator consultations and desktop survey analysis indicate that there are nineteen radio links in the vicinity of the proposed development. The 19. no telecommunications links pass over and above the Application Site sending and receiving messages from one tower mast to another. These links could not be impacted by peat extraction activities and all ancillary works as these activities take place at ground level.

A scoping exercise for the Project was also undertaken with the Department of Defence August 2022 and a further round of scoping was conducted in September 2024. Please see scoping response form the Department of Defence included in Appendix 2.1 - Records of Consultation 2022\_2024.

Peat extraction and associated activities did not interact with TV and telecoms links which pass over the Application Site.

### *14.3.5 Current Phase*

#### 14.3.5.1 Electricity, Water Supply, Wastewater, Telecommunications & Aviation

The material assets outlined in the Peat Extraction Phase under these headings remain unchanged for the Current Phase. No on-site modifications have occurred, nor have any new applications been submitted for nearby links or aviation assets in the surrounding landscape that could be affected by the Current Phase at the Application Site.

#### 14.3.5.2 Waste Management

In January 2021, Bord na Móna announced the cessation of peat extraction across all its bogs, with the Application Site ceasing operations in July 2019. Decommissioning activities are underway in accordance with Condition 10 of the IPC Licence, which mandates the removal,

disposal, or recovery of any materials, equipment, or substances that could result in environmental pollution. This includes decommissioning buildings, equipment, waste, remaining peat stockpiles, and rail tracks, with specific actions detailed in the decommissioning plan.

Waste management follows Condition 7 of the IPC Licence, ensuring waste is disposed of or recovered by licensed contractors and records are maintained. Bord na Móna aims to reuse or recycle waste where possible, (see Section 4.6.1)

The waste that was generated during the Current Phase comprises the items listed below.

- Waste oils and brake fluids
- Oil and fuel filters
- Used batteries
- Off-washings from machine parts washer (sludge)
- Boiler ash
- Waste polythene
- Workshop waste and general refuse (canteens/offices)

As outlined in Section 4.6.1, decommissioning of the peat extraction activities associated with the IPC Licence is currently underway across the Application Site in accordance with Condition No. 10 of the IPC Licence.

# 14.3.6 Remedial Phase

#### 14.3.6.1 Electricity, Water Supply, Wastewater, Telecommunications & Aviation

The material assets outlined in the Peat Extraction Phase and Current Phase are considered unchanged for the Remedial Phase. The Remedial Phase will involve, *inter alia*, targeted drain blocking as part of the rehabilitation works in accordance with Condition 10 of the IPC Licence and Cutaway Bog Decommissioning and Rehabilitation Plans (see Section 4.9.1 and Appendix 4.3) and enhanced rehabilitation under the Peatlands Climate Action Scheme (PCAS).

### 14.3.6.2 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 Measures Phase will be limited to minimal amounts of general waste generated by the limited on-site staff, which will be transported off site by a licensed waste collection contractor and transported to a suitably licenced/permitted facility for offsite reuse/recycling/recovery/disposal as appropriate.

### 14.3.7 Assessment of Significant Effects and Mitigation Measures

### 14.3.7.1 <u>'Do Nothing' Option</u>

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 proposed project not be carried out. As discussed in Section 3.3, the assessment period of this rEIAR commenced in 1988, a time at which peat extraction was already well-established at the site. In the context of this rEIAR, the Project has been ongoing since the baseline assessment year of 1988. As outlined in Section 3.3, peat extraction activities commenced at the Application Site in 1949 with the installation of drainage.

The 'Do-Nothing' option is defined as the Project (as described in Section 4.3 of Chapter 4) having ceased at the Application Site in 1988.

In the event of the cessation of the Project at the Application Site in 1988, it is assumed that those lands which by that point had not been subject to the installation of drainage and peat extraction would have remained as a relatively intact raised bog with varying raised bog habitats (such as bog woodland, fen, sphagnum mosses).

Subsequently, other land-use practices may also have taken place on the Application Site such as agricultural or commercial forestry, or other commercial or non-commercial uses. Under this 'Do-Nothing' option, IPC Licence Ref. P0504-01 would not have been granted by the EPA in 2000, and associated decommissioning and planned rehabilitation would not have occurred.

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. Minor third party turbary activities likely would have occurred along the intact bog edges as was common practise at sites such as the Application Site.

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 ceased from 1988 onwards, then the various residual effects, described throughout this rEIAR, would not have occurred.

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' option was not the chosen option. Peat extraction and all ancillary works have occurred at the Application Site from July 1988 onwards. A decision to cease peat extraction at the Application Site was taken in 2019 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. These are described in the individual chapters of the rEIAR.

In the event that Substitute Consent is not granted, in effect, the "Do Nothing" option represents the current situation as at the date of the application for Substitute Consent. As part of Bord na Móna's statutory obligations under IPC Licence requirements, Cutaway Bog Decommissioning and Rehabilitation Plans will continue to be implemented for the Application Site separate to, and independent of, the Substitute Consent application. The implementation of the plans is included in the impact assessment below.

The role of cutaway/cutover peatlands such as the Application Site as a significant potential resource for amenity, tourism, biodiversity enhancement and conservation, improvement in air quality, climate mitigation, renewable energy development and education are part of Bord na Móna's vision for the Application Site. The regularisation of the planning status of the Application Site is a significant facilitator in ensuring the sustainable use and management of

these peatlands. If this does not occur, the opportunity to continue employment and alternative use of the Application Site for the potential resources and activities mentioned above will be significantly restricted.

#### 14.3.7.2 <u>Peat Extraction Phase (1988 to July 2019)</u>

#### Electricity

#### Identification of Impact

As outlined in Section 4.2.7 electricity supply to Mountdillon Works buildings and workshops, and also to the drainage pump stations, was powered by mains electricity from the national grid connected to overhead electrical power lines, within the Application Site. There are existing 110kV and 38kV overhead power lines which cross the Application Site to the south of the Mountdillon Works and at the northern end of Derryaroge Bog.

#### Control Measures

When working near power lines, all of the Applicant's sites follow the measures detailed below:

- All staff are trained on the routes and operating voltages of overhead electricity lines running across or near Bord na Móna landholdings.
- All staff must be trained to be aware of the risks associated with overhead lines.
- All contractors that may visit the sites are made aware of the location of lines before they come on to site.
- Information on safe clearances is provided to all staff and bog visitors.
- The suitability of machinery and equipment for use near power lines is risk assessed.
- Signage is erected in canteens and on site.
- Goalposts, when used, should not exceed a height of 4.2 metres, unless specifically agreed with ESB Networks
- Barriers should 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 must be carried out beneath overhead lines, a site-specific risk assessment is undertaken prior to any works. The risk assessment must take into account the maximum potential height that can be reached by the plant or equipment that will be used is undertaken prior to any works.
- Overhead line proximity detection equipment is fitted to machinery when such works are required.

#### **Residual Effect**

Peat extraction activities and associated groundworks have no impact or interaction with the quality or supply of electricity from overhead power lines. Safety measures were implemented at the Application Site to prevent any physical contact between machinery and the lines. Electricity demand during the Peat Extraction Phase was relatively minor. As a result, the residual effect on electricity supply during this phase is considered long-term, not significant, and neutral.

#### Significance of Effects

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

#### Water Supply

#### Identification of Impact

As outlined in Section 4.2.7 Water consumption across the Application Site is primarily at the Mountdillon Works for domestic use. There are no known groundwater abstraction wells within the Application Site.

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

#### 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 related to machinery maintenance and storage, refuelling facilities, surface water management, a maintenance programme for internal drains, maintenance of onsite water pumps, and silt management; these measures have been outlined in Sections 4.5.5.1 to 4.5.5.9 of Chapter 4.

#### 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 the IPC Licence which pertain to Emissions to Water and Water Protection respectively.

#### Condition 6 Emissions to Water

- No specified emission to water shall exceed the emission limit values set out in Schedule1(i) Emissions to Water subject to Condition 3 of this licence. There shall be no other emissions to water of environmental significance.
- The licensee shall within three months of date of grant submit to the Agency for 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.
- 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 composite sampler to one representative discharge point within the licensed area. The proposal shall set out the rational for selection of the nominated discharge point as well as the 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.
- Monitoring and analyses of each agreed emission monitoring location shall be carried out as specified in *Schedule 1(H) Monitoring of Emissions to Water* of this licence. A report on the results of this monitoring shall be submitted to the Agency quarterly.
- 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.
  - 6.1 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.

- 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 12 months of the date of grant of licence demonstrate to the satisfaction of the Agency that the programme of inspection is adequate.
- 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). Septic tanks and interceptors are required to be inspected and cleaned as necessary with a log being maintained.
- 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.
  - 6.2 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 cms'1.
- 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.
  - 6.3 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.
  - 6.4 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:
- drainage manholes are protected and maintained free of excessive peat
- headlands are kept clean and free of excessive loose peat,
- all new manholes and outfalls are set well back from turning grounds, drivers of bog plant do not turn short (over drains) at headlands,
- harrows, millers, ridgers do not drag loose peat onto manholes or into drains, outside harrow spoons are directed away from drains,
  - (i) silt run-off, while piping or ditching, is minimised,
  - (ii) outfalls are controlled to minimise silt discharge during cleaning operations,
  - (iii) drains are ditched in dry weather,
  - (iv) while ditching, outfalls are blocked and ditch towards outfall,
  - (v) outlets from stockpile field drains are blocked during stockpile loading,
- field drains adjacent to stockpiles are cleaned as soon as practicable after stockpile loading,

- (i) adequate room is allowed for rail bed beside Peco stockpiles,
- (ii) all fields that have been milled are ridged at the end of the production season,
- (iii) 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 offsite 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 data 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 activities and all ancillary works on water services is considered to have had a long term imperceptible neutral effect.

#### Significance of Effects

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

#### Waste Water

#### Identification of Impact

Wastewater from the welfare facilities at the Mountdillon Works was, discharged to an on-site septic tank with the effluent discharged to a percolation system through peat before penetrating to ground. The septic tank was inspected and de-sludged annually by a licenced waste permit holder to ensure the treatment system is working optimally.

#### **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 activities and all ancillary works on wastewater is considered to have had a long term imperceptible neutral effect.

#### Significance of Effects

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

#### Waste Management

#### Identification of Impact

As outlined in Section 4.5.10 control measures were carried out with respect to management of waste. Since 2000 onwards, a waste management procedure in line with Condition 7 of the IPC Licence compliance has been in operation at the Application Site. All waste materials are documented, weighed, recycled or reused where possible, and removed from site by licenced contractors.

#### Control Measures

#### Pre-IPC Licence

Between 1988 and 2000, prior to the implementation of the IPC Licence at the Application Site, the Applicant had adopted control measures to mitigate potential impacts associated with waste management. These measures, as detailed in Section 4.5.5.10 of Chapter 4, were implemented to minimise environmental risks and ensure responsible waste handling practices.

#### Post-IPC Licence

Bord na Móna was granted an IPC Licence (Reg. No. P0504-01) for the Mountdillon Bog Group (within which the Application Site is located) in May 2000. Following the grant of the IPC Licence, the control measures listed in Section 4.5.6 have been updated and expanded. A copy of the IPC Licence is provided in Appendix 4-1.

Condition 7 of the licence requires the Applicant to ensure proper disposal of waste at licensed 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(H) 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 time-scale stipulated by the Agency.

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

#### **Residual Effect**

The residual effect of peat extraction activities and all ancillary works on waste management is considered to have had a long term slight negative effect.

#### Significance of Effects

It is considered that the Peat Extraction Phase had a long-term slight negative effect on waste management.

#### **Telecommunications and Aviation**

#### Identification of Impact

As outlined in Section 14.3.4, peat extraction and related activities did not interact with TV and telecoms links which pass over the Application Site. As outlined in Section 14.3.4.5 above, the historical peat extraction at the Application Site has not caused any interference with aviation or nearby structures, as the aviation area is outside the site boundaries.

#### **Control Measures**

No control measures for telecoms or aviation interference were necessary during the Peat Extraction Phase.

#### Residual Effect

The Peat Extraction Phase had no residual effects on Telecommunications and Aviation.

#### Significance of Effects

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

### 14.3.7.3 Current Phase (July 2019 to Present Day)

#### Electricity

#### Identification of Impact

The grid infrastructure in place during the Peat Extraction Phase remains unchanged in the Current Phase.

#### Control Measures

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

#### Residual Effect

There is no residual effect on electricity during the Current Phase.

#### Significance of Effects

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

#### Water Supply

#### Identification of Impact

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

#### Control Measures

The Application Site adheres to Conditions 6 and 9 of the IPC Licence, which relate to Emissions to Water and Water Protection, respectively.

#### Residual Effect

The residual impact of Current Phase activities on the water supply is considered a short-term, imperceptible negative effect.

#### Significance of Effects

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

#### Waste Water

#### Identification of Impact

Wastewater from the welfare facilities at the Mountdillon Works is, discharged to an on-site septic tank with the effluent discharged to a percolation system through peat before penetrating to ground.

#### **Control Measures**

The septic tank is inspected and de-sludged annually by a licenced waste permit holder to ensure the treatment system is working optimally.

#### Residual Effect

The residual effect of Current Phase activities on wastewater is regarded as a short-term, imperceptible negative effect.

#### Significance of Effects

There are no significant effects on wastewater during the Current Phase.

#### Waste Management

#### Identification of Impact

Waste management procedures compliant with Condition 7 of the IPC Licence have been in place at the Application Site, since 2000. All waste materials are recorded, weighed, recycled or reused where possible, and removed from the site by licensed contractors.

#### Control Measures

Condition 7 of the IPC Licence mandates the reduction, reuse, and recycling of waste materials whenever possible. Materials that cannot be reused or recycled are disposed of by licensed waste operators.

#### **Residual Effect**

The residual effect of the Current Phase activities on waste management is considered to be a short term slight negative effect

#### Significance of Effects

The Current Phase is considered to have a slight effect on Waste Management.

#### **Telecommunications and Aviation**

#### Identification of Impact

The potential impacts on telecoms and aviation assets are as outlined for the Peat Extraction Phase in Section 14.3.4 above.

#### **Control Measures**

No control measures for telecoms or aviation interference were required.

#### Residual Effect

There is no residual effect on telecoms or aviation during the Current Phase.

#### Significance of Effects

There were no significant effects on telecommunications and aviation during the Peat Extraction Phase.

14.3.7.4 <u>Remedial Phase</u>

#### Electricity

#### Identification of Impact

The potential impacts listed in the Peat Extraction Phase and Current Phase above stay the same.

#### Mitigation Measures

No mitigation measures are proposed.

#### **Residual Effect**

There will be no residual effect from the Remedial Phase on electricity

#### Significance of Effects

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

#### Water Supply

#### Identification of Impact

There are no underground water or sewerage networks within the Application Site where peatland rehabilitation works will occur.

#### **Mitigation Measures**

The Applicant will with IPC Licence requirements throughout the Remedial Phase as required.

#### **Residual Effect**

There will be no residual effect from the Remedial Phase on water supply

#### Significance of Effects

As outlined above there will be no residual effect on water supply during the Remedial Phase.

#### Waste Water

#### Identification of Impact

Wastewater from the welfare facilities at the Mountdillon Works will continue to be discharged to an on-site septic tank with the effluent discharged to a percolation system through peat before penetrating to ground.

#### **Mitigation Measures**

No mitigation measures are required.

#### **Residual Effect**

The Remedial Phase will not result in a residual effect on wastewater.

#### Significance of Effects

The Remedial Phase will have no significant effect on wastewater.

#### Waste Management

#### Identification of Impact

Waste generated during the Remedial Phase will be minimal, primarily consisting of general waste produced by the small on-site staff (3 to 4 people for the first two years, then 1 to 2 people visiting monthly), which will be removed from the site and recycled where possible.

#### **Mitigation Measures**

The Applicant will with IPC Licence requirements throughout the Remedial Phase as required.

#### **Residual Effect**

The residual effect of the Remedial Phase activities on waste management is a long-term, negligible negative effect.

#### Significance of Effects

The Remedial Phase will have no significant effect on waste management.

#### **Telecommunications and Aviation**

#### Identification of Impact

The potential impacts on telecoms and aviation assets are as outlined for the Peat Extraction Phase in Section 14.3.7.2.

#### **Control Measures**

No control measures for telecoms or aviation interference will be required

#### **Residual Effect**

There will be no residual effect on telecoms or aviation during the Remedial Phase

#### Significance of Effects

There will be no significant effects on telecoms and aviation assets during the Remedial Phase.

The residual effect of the Remedial Phase activities on waste management is a long-term, negligible negative effect.

# 14.3.8 Cumulative and In-Combination Effects

As outlined in Section 2.9.2, the projects assessed for potential cumulative effects included existing and historical large-scale developments surrounding the Application Site. This review considered developments constructed before 1988 but operational from 1988 onward alongside the peat extraction works, as well as those built after 1988 that were also operational during the same period.

### 14.3.8.1 Peat Extraction Phase

The potential cumulative and combined effects of the Peat Extraction Phase of the Project, along with other relevant activities and projects at the Application Site, are considered below. This includes peat extraction activities and all associated ancillary works that occurred before 1988. Additional details on activities and developments included in the cumulative assessment can be found in Section 2.9. The projects considered during the Peat Extraction Phase between 1988 until July 2019 are detailed in Chapter 2, Table 2-3.

#### Electricity, Telecommunications, Aviation

Peat extraction activities and all ancillary works 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 activities and all ancillary works on wastewater is considered to have had a long term slight negative effect.

#### Waste Water

The residual effect of peat extraction activities and all ancillary works on wastewater is considered to have had a long term slight negative effect.

#### Waste Management

The residual effect of peat extraction activities and all ancillary works 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, no additional cumulative or in combination effects on waste management are predicted.

#### 14.3.8.2 <u>Current Phase</u>

The projects considered in relation to the potential for cumulative effects during the Current Phase, from August 2019 until present day, are detailed in Table 2-4.

There are a number of applications for renewable energy projects including solar farms, battery energy storage systems, substations, grid uprate works applied for during the Current Phase. The location of these projects are outside the Application and therefore do not result in potential for significant cumulative effects during the Current Phase.

#### 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 Current Phase activities on water supply is regarded as a short-term, imperceptible negative effect. No additional cumulative or in combination effects on water supply are predicted.

#### Waste Water

The residual effect of Current Phase activities on water supply is regarded as a short-term, imperceptible negative effect. No additional cumulative or in combination effects on water supply are predicted.

#### Waste Management

The residual effect of Current Phase activities on waste management is regarded as a shortterm, imperceptible negative effect. No additional cumulative or in combination effects on water supply are predicted.

#### 14.3.8.3 <u>Remedial Phase</u>

Future projects, considered that may be constructed or continue to operate after present day during the Remedial Phase, are detailed in Table 2-5.

#### Electricity, Telecommunications, Aviation

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

#### Waste Management

The Remedial Phase activities at the Application Site will have a long-term, negligible negative effect on waste management. There are no projects identified in Chapter 2 that will give rise to cumulative or in- combination effects. waste management.

#### Potential Future Land Use

There is limited potential for impacts on electricity, telecommunication services, water supply and waste management associated with the implementation of the PCAS on certain parts of the Application Site.

The proposed future development of the lands for renewable energy, referred to as the Derryadd Wind Farm, will be subject to a separate planning consent application. This application will be accompanied by an EIAR which will include an assessment of the implementation of the rehabilitation measures at the Application Site in conjunction with the construction, operation, and decommissioning of the proposed wind farm.

The proposed Derryadd Wind Farm will be assessed in a separate EIAR in terms of direct and indirect effects on the Material Assets and dedicated mitigation measures will be included within its EIAR, if required, so as to avoid any negative effects on material assets within and surrounding the site. Overall cumulative effects when considering the life cycle of the site and the proposed Derryadd Wind Farm will not occur.

Furthermore, cumulative effects when considering any other proposed, permitted or operational plans or projects listed in Chapter 2 of this rEIAR are predicted not to occur during the Remedial Phase.

#### Major Accidents and Disasters

There has not been any accident that would have created an effect on the material assets in the vicinity of the Applicant Site.

#### 14.3.8.4 <u>References</u>

Environmental Impact Assessment Report Guidelines, EPA May 2022.

Traffic and Transportation Assessment Guidelines, TII May 2014 (TII PE-PDV-02045)

Project Appraisal Guidelines for National Roads Unit 5.3 – Travel Demand Projections, October 2021 (TII PE-PAG-02017)

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