



DESIGNING AND DELIVERING
A SUSTAINABLE FUTURE

LONGFORDPASS, LITTLETON, LANESPARK AND DERRYVELLA BOGS – APPLICATION FOR SUBSTITUTE CONSENT

Remedial Environmental Impact Assessment Report

Chapter 13 - Material Assets (including Traffic and Transportation)

Prepared for:
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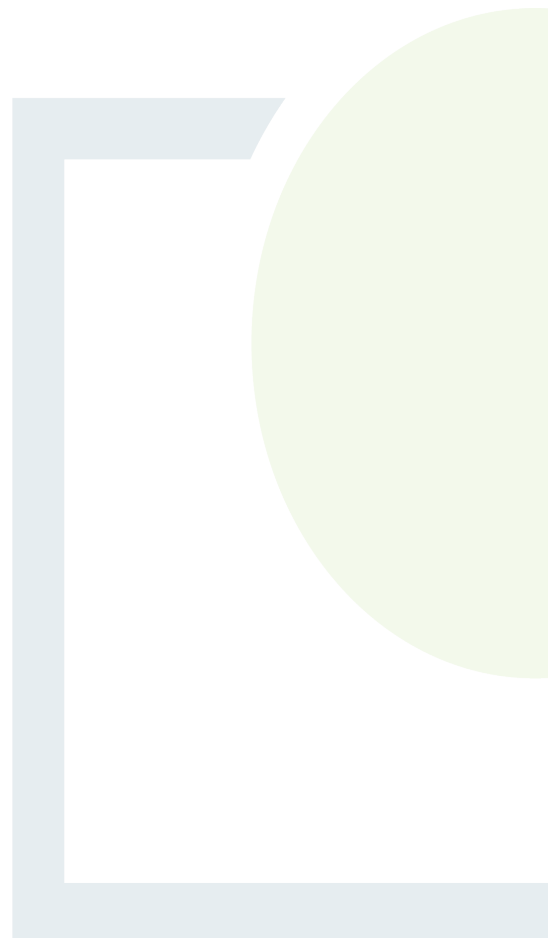


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13. MATERIAL ASSETS (INCLUDING TRAFFIC AND TRANSPORTATION)

13.1 Introduction

This chapter of the remedial Environmental Impact Assessment Report (rEIAR) provides a description of the likely effects of the peat extraction and ancillary activities on material assets. This assessment will cover the peat extraction and ancillary activities, the works carried out since cessation of extraction and the activities relating to historic peat extraction intended to be carried out into the future.

The Environmental Protection Agency (EPA) Guidelines on the information to be contained in Environmental Impact Assessment Report (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 of either human or natural origin.”*

The EPA Guidelines (2022) states *‘Material assets can now be taken to mean built services and infrastructure. Traffic is included because in effect traffic consumes transport infrastructure’*. This chapter will examine the effects on material assets under the headings of Traffic and Transportation (13.2) and Other Material Assets (13.3), with Other Material Assets encompassing built services and waste management, as per the 2022 EPA Guidelines.

As described in Chapter 1 - Introduction, Volume 2, of this rEIAR, July 1988 is taken as the baseline assessment year for this rEIAR. This was the latest date that the EIA Directive (Council Directive 85/337/EEC) was required to be transposed into Irish legislation. This approach has been taken on a precautionary basis and strictly without prejudice, as EIA may not have been a legal requirement at that time. The assessment period for the rEIAR is from July 1988 to the present day.

The cultural assets of Archaeology and Cultural Heritage are addressed in Chapter 12 - Cultural Heritage, Volume 2, of this rEIAR. Economic assets of natural heritage include non-renewable resources such as minerals or soils, and renewable resources such as wind and water. These assets are addressed in Chapter 7 - Land, Soils and Geology, Chapter 8: Hydrology, Hydrogeology and Water Quality, and Chapter 9 - Air Quality and Chapter 14 Climate (All Volume 2). Tourism and amenity resources, which are also considered material assets, are addressed in Chapter 5 - Population and Human Health (Volume 2). The Population and Human Health chapter also addresses existing land-uses.



13.2 Traffic and Transportation

13.2.1 Introduction

This section will examine whether there were likely significant effects caused by the traffic and transportation associated with the peat extraction and ancillary activities at the Application Site. The works at the Application Site and the associated effects will be examined under three phases:

- **Peat Extraction Phase:** The likely significant effects between the years 1988 and 2017. This was the period of time after the latest date that Council Directive 85/337/EEC was required to be transposed into Irish legislation until the cessation of peat extraction in 2017.
- **Current Phase:** The period from the end of extraction in 2017 to the present day. This phase encompasses the management of the Application Site since 2017 to present day including decommissioning works and Rehabilitation Phase 1 works..
- **Remedial Phase:** This phase encompasses the activities intended to be carried out at the Application Site into the future (Rehabilitation Phase 2 works) in line with the Littleton Bog Group Integrated Pollution Control Licence (IPC Licence Ref. P0499-01).

13.2.2 Study Area

The Application Site comprises Lanespark Bog, Longfordpass Bog, Deryvella Bog and Littleton Bog which are part of the Littleton Bog Group. The Application Site comprises an area of c. 1,616 hectares (ha) within which bog drainage works began in 1941 followed by the commencement of peat extraction from 1952. The Application Site is located within north County Tipperary, c.3km east of Littleton. The Application Site measures approximately c.12km in length from north to south, and approximately c.3km from east to west, at its widest point. Irish Grid Reference co-ordinates for the approximate site centre are E 223130, N 155345.

The study area for this Chapter comprises the elements of the existing transportation network that could potentially have been affected by activities associated with the Application Site during peat extraction, or during current and future rehabilitation works. The transport network comprising the study area is presented in Figure 13-1 (Volume 4).

It should be noted that the transport network surrounding the Application Site has undergone substantial change since the baseline assessment year of 1988. The M8 Motorway which passes through the Application Site was constructed in eight stages between 1985 and 2010. Major construction of the M8 took place between 2006 and 2010, replacing the old N8 through Tipperary. The M8 fully opened in May 2010, bypassing Littleton and diverting long-distance traffic away from the village onto the motorway. The Cashel-Cullahill section, consisting of junctions 7 to 4, passes through the Application Site. This section was opened in December 2008. The Application Site is located between Exit 5, onto the N75, and Exit 6 onto the N62.



13.2.3 Statement of Authority

This chapter has been prepared by Philip McDowell, and reviewed by Trevor Byrne, of Fehily Timoney and Company.

Philip McDowell is a Project Civil Engineer at Fehily Timoney and Company working in the Energy and Planning Department. He holds a First-Class Honours Bachelor's Degree and Master's Degree in Civil, Structural and Environmental Engineering from Trinity College Dublin. He is a member of Engineers Ireland (EI) and has experience working on residential, infrastructure and renewable energy projects at all stages from concept to construction. Philip provides technical and engineering support to the rEIAR teams for a variety of commercial scale renewable energy projects.

Trevor is an Associate Director at Fehily Timoney and a chartered member of Engineers Ireland with over 15 years of industry experience and over 10 years' experience in the preparation of EIAR's for large scale renewable energy projects. Trevor holds a Master's degree in Sustainable Energy Systems and a first-class honours degree in Civil and Environmental Engineering. Trevor also holds an Advanced Diploma in Planning and Environmental Law from the Honourable Society of Kings Inns. Throughout his career to date, Trevor has provided technical advisory services through all stages of project delivery from feasibility assessment, impact assessment, design, expert witness, contract administration and construction.

13.2.4 Methodology

This assessment has been prepared in line with best practice and with regard to TII publications, and other relevant guidance listed in Section 13.2.4.1 of this EIAR Chapter. The details of the Application Site are considered in relation to the three different phases of the Project: Peat Extraction Phase, Current Phase and Remedial Phase of the Project.

The likely traffic that was and will be generated by the different phases of activity at the Application Site has been assessed to identify potential past or future disruptions to road users within the study area. Based on information supplied by Bord na Móna estimates were made of the vehicle journeys generated by the Application Site; during the three phases of the project. These estimates are used to assess the effect on the road network in numerical terms.

Traffic count data from surveys undertaken by Traffinomics Ltd. were also used to inform these assessments. The data were collected during seven-day traffic surveys carried out between the 27th of September and 4th of October 2023.

The traffic impacts associated with the Peat Extraction Phase, as well as those arising during the Current and Remedial phase at the Application Site were assessed as part of this rEIAR. The potential effects of these activities on the local transport network are considered and described in terms of quality, duration and significance. The potential requirement for mitigation measures was considered in addition to identifying any potential residual effects. In addition, the potential for cumulative effects in combination with other developments was also assessed.

13.2.4.1 *Guidance and Legislative Review*

The following guidelines and policy documents were reviewed in the development of this chapter:

- 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, 2023);
- Tipperary County Development Plan 2022-2028;
- South Tipperary County Development Plan 2009-2015 (as varied);
- North Tipperary County Development Plan 2010-2016 (as varied).

13.2.4.2 Consultation

For full details on the rEIAR consultation, please refer to Chapter 1 - Introduction, Volume 2, of the rEIAR.

Transport Infrastructure Ireland (TII) were consulted as part of the rEIAR scoping process and provided the below response:

TII will endeavour to consider and respond to planning applications referred to it given its status and duties as a statutory consultee under the Planning Acts. The approach to be adopted by TII in making such submissions or comments will seek to uphold official policy and guidelines as outlined in the Section 28 Ministerial Guidelines 'Spatial Planning and National Roads Guidelines for Planning Authorities' (DoECLG, 2012). Regard should also be had to other relevant guidance available at www.tii.ie.

The issuing of this correspondence is provided as best practice guidance only and does not prejudice TII's statutory right to make any observations, requests for further information, objections or appeals following the examination of any valid planning application referred.

TII notes the proposed site extents adjoin the M8 Motorway. With respect to rEIAR scoping issues, the recommendations indicated below provide only general guidance for the preparation of a rEIAR, which may impact the National Roads Network.

The developer/scheme promoter should have regard, inter alia, to the following:

- *Consultations should be had with the relevant Local Authority/National Roads Design Office with regard to locations of existing and future national road schemes.*
- *TII would be specifically concerned as to potential significant impacts the development would have on the National Road Network, and junctions with national roads, in the proximity of the proposed development.
The developer should assess visual impacts from existing national roads.*
- *The developer should have regard to any Environmental Impact Statement and all conditions and/or modifications imposed by An Coimisiún Pleanála regarding road schemes in the area. The developer should in particular have regard to any potential cumulative impacts.*
- *The developer, in preparing rEIAR, should have regard to TII Publications (formerly DMRB and the Manual of Contract Documents for Road Works).*



- *The EIAR should have regard to TII's Environmental Assessment and Construction Guidelines, including the Good Practice Guidance for the Treatment of Noise during the Planning of National Road Schemes (March, 2014). The EIAR should consider the European Communities (Environmental Noise) Regulations 2018 (S.I. No. 549 of 2018)) and, in particular, how the development will affect future action plans by the relevant competent authority. The developer may need to consider the incorporation of noise barriers to reduce noise impacts (see Good Practice Guidance for the Treatment of Noise during the Planning of National Road Schemes (March, 2014)).*
- *It would be important that, where appropriate, subject to meeting the appropriate thresholds and criteria and having regard to best practice, a Traffic and Transport Assessment be carried out in accordance with relevant guidelines, noting traffic volumes attending the site and traffic routes to/from the site with reference to impacts on the national road network and junctions of lower category roads with national roads. In relation to national roads, the Authority's Traffic and Transport Assessment Guidelines (2014) should be referred to in relation to proposed development with potential impacts on the National Road Network. The scheme promoter is also advised to have regard to Section 2.2 of the NRA/TII TTA Guidelines which addresses requirements for sub-threshold TTA. Any improvements required to facilitate development should be identified. It will be the responsibility of the developer to pay for the costs of any improvements to national roads to facilitate the private development proposed as TII will not be responsible for such costs.*
- *The designers are asked to consult TII Publications to determine whether a Road Safety Audit is required, In the interests of maintaining the safety and standard of the National Road Network, the rEIAR should identify the methods/techniques proposed for any works traversing/in proximity to the National Road Network, including any national road structures and motorway assets, underpasses, culverts, drainage regimes, etc.*
- *TII recommends that that applicant/developer should clearly identify haul routes proposed and fully assess the network to be traversed. Where abnormal 'weight' loads are proposed, separate structure approvals/permits and other licences may be required in connection with the proposed haul route and all structures on the haul route through all the relevant County Council administrative areas should be checked by the applicant/developer to confirm their capacity to accommodate any abnormal 'weight' load proposed.*
- *Notwithstanding any of the above, the developer should be aware that this list is non-exhaustive, thus site and development specific issues should be addressed in accordance with best practise.*

Tipperary County Council (TCC) were also consulted as part of the EIAR Scoping process. TCC responded on 20th and 22d of January 2026 confirming that they have no comments to make on the Application.

13.2.4.3 *Impact Assessment Methodology*

The assessment of traffic and transportation impacts at the Application Site is based on the below methodology:

- Establishing estimated baseline traffic flows for 1988 on the existing adjoining road network;
- Estimating traffic volumes generated by the Peat Extraction Phase, the Current Phase and the Remedial Phase of the Application Site;
- Assessment of the effects associated with the above traffic flows and activities;
- Determination of the significance of effects on the surrounding road network in accordance with EPA guidelines;
- Assessment of additional transport-related considerations, including vulnerable road users and public transport;



- Assessment of cumulative and indirect effects
- Identification of control and mitigation measures;
- Confirmation of residual effects.

13.2.5 Estimating Baseline Traffic Flows

Traffic volumes on roads adjoining the Application Site were taken from a 2023 survey of annual average daily traffic volumes carried out by Traffinomics Ltd. The survey was conducted for 7 days between the 27th of September and 4th of October 2023. This survey recorded both volumes of light goods vehicles (LGV) and heavy goods vehicles (HGV). The combined volume of both LGVs and HGVs, referred to as the annual average daily traffic (AADT), was the volume primarily used in traffic calculations.

This survey covered seven key locations in the local and regional road network, of which three roads were deemed to be likely commuting routes for workers to the Application Site. These three locations are shown in Figure 13-2 (Volume 4).

The destination to which workers at the Application Site would travel varied based on a number of factors, including the location at which peat extraction was occurring at the time. The rural nature of the Application Site meant that it was not served by public transport. Typically, workers would travel by car to one of the three locations highlighted as "Local Holding Areas" in Figure 13-3 (Volume 4), or to the Littleton Works adjacent to the Application Site.

The traffic flows from the 2023 traffic count survey were used as a baseline for the Current and Remedial Phase. For the Peat Extraction Phase an estimate of 1988 traffic volumes was made by assessing population growth and car ownership rates in County Tipperary.

Census data from 2022 was used to estimate the population and car ownership rates at the time of the 2023 traffic count survey. Census data from 1986 and 1991 was averaged to approximate these statistics for the year 1988. Factors were created by comparing the differences in Tipperary's populations and car ownership rates (refer to Table 13-1). These factors were then applied to the survey data from the road network adjoining the Application Site to create estimated traffic flows for the baseline year of the Peat Extraction Phase (refer to Table 13-2).



Table 13-1: Census Data Used in Approximation of 1988 Traffic Volumes

Census	Co. Tipperary Population	Population Factor	Car Ownership*	Car Ownership Rate	Car Ownership Factor
2022 (Approximating 2023 baseline)	167,895	1	83,948	0.5	1
Average of 1986 and 1991 (Approximating 1988)	134,696	0.8	33,201	0.25	0.5

*2022 Car ownership rate taken from number of licensed vehicles in Tipperary, equivalent statistic was not recorded in 1986 or 1991 census, data was given on cars per household and a car ownership value was calculated from this.

Table 13-2: Surveyed and estimated traffic volumes on key roads serving the development

Location	2023 AADT	Estimated 1988 AADT
R639 (Urlingford)	4,543	1,817
R639 (Littleton)	2,682	1,073
L4101	1,818	727

13.2.6 Estimating Traffic Flows Associated with The Application Site

Traffic resulting from staff commuting

Limited records were kept of the numbers of staff working at the Application Site at a given time. The available historic staff volumes were obtained from Bord na Móna in addition to proposed staff numbers for the future Remedial Phase. The staff volumes for the various phases are as listed in Table 13-3. The staff numbers used were representative of the average number of staff employed or that will be employed over each of the three phases.

Table 13-3: Application Site Staff Numbers by Phase

Development Phase	Staff Volumes
Extraction Phase	c. 19 (14 seasonal and 5 permanent)
Current Phase	10 (permanent)
Remedial Phase	2 (permanent)

The staff at the Application Site as listed in Table 13-3 would commute to the works or one of the three Local Holding Areas within the Application Site (As shown in Figure 13-3 - Volume 4). These locations are not served directly by a public transport link, so it was assumed that staff commuted by car. To be conservative it was assumed there was no car sharing between staff, therefore each member of staff generated 2 no. journeys per day; travelling to and from the Application Site.



It is likely that staff would have travelled to the Application Site by a variety of different routes. To be conservative, the traffic impact calculations were performed assuming that all staff drove by each of the three routes. This assumption covers a worst-case scenario where all staff were travelling to the Application Site from the same direction and all using one of the three roads.

Milled Peat was the only form of peat extracted from the Application Site during the Peat Extraction Phase as described in Chapter 4 Description of Development, Volume 2 of this rEIAR. The milled peat harvested at the Application Site was delivered to the Littleton Briquette factory via the bog railway for processing into briquettes. Therefore, the peat extracted during the Peat Extraction Phase was not transported via public roads.

13.2.6.1 Assessment of the Effects of Traffic from the Subject Development

The effects of traffic generated or that will be generated by each of the three phases of the development were assessed. Estimated traffic volumes associated with each of the three phases were compared with traffic volumes from traffic counts on the surrounding road network, to contextualise the scale of the works going on at the Application Site, relative to the existing baseline conditions.

Transport Infrastructure Ireland's 'Traffic and Transport Assessment Guidelines (May 2014)' sets out thresholds for the scale of development at which a full, detailed Traffic and Transport Assessment featuring junction analysis should be carried out. A commonly used threshold is whether the traffic volume generated by a development is expected to exceed 10% of the traffic on the public road.

This value of 10% of a roads traffic volume was used as a reference for what level of traffic generation might represent a significant effect on the public road network.

13.2.7 Receiving Environment (1988)

A retrospective assessment of the condition of the Application Site in 1988 was carried out in Section 4.4.1 of Chapter 4 - Description of the Development, Volume 2. From Satellite imagery and annual reports, it was assessed that the Application Site had been fully drained by 1988. It was assessed that approximately 1,353 ha. of the 1,616 ha. Application Site was subject to peat extraction in 1988, thus the main landcover type was cutover peat.

In terms of transport network, the internal rail Infrastructure was installed across the Application Site by 1988. The M8 Motorway had not yet been constructed in 1988. Figure 13-4 (Volume 4) shows the Application Site in relation to the historic road network.

13.2.8 Assessment of Significant Effects on Traffic and Transportation

13.2.8.1 'Do Nothing' Option

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 1941 with the installation of drainage.

The 'Do-Nothing' option is defined as the Project (as described in Section 4.3 of Chapter 4 - Description of the Development, Volume 2) 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. P0499-01 would not have been granted by the EPA in 2001, 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 practice 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 ancillary activities have occurred at the Application Site from July 1988 onwards. A decision to cease peat extraction at the Application Site was taken in 2017 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.



13.2.8.1.1 Significance of Effects

The "Do-Nothing" Scenario would have resulted in a decrease in traffic volumes to and from the Application Site. The decrease in traffic volume associated with the cessation of peat extraction and ancillary works would have occurred in 1988, as opposed to 2017. Additionally, the traffic associated with decommissioning and rehabilitation works would not have occurred. A "Do-Nothing" scenario is considered to be a long-term slight positive effect on traffic and the surrounding road network.

13.2.8.2 Peat Extraction Phase (1988-2017)

The Peat Extraction Phase as considered within this rEIAR was between the baseline year (1988) and the year in which extraction ceased (2017). An impact analysis for the Peat Extraction Phase at the Application Site was carried out in accordance with the methodology set out in Section 13.2.4 above.

Table 13-4 shows the estimated traffic volume generated by the activities associated with the Peat Extraction Phase at the Application Site. They are presented alongside estimated traffic volumes for the local road network in 1988, generated as per the methodology set out in Section 13.2.5.3.. The relative impact of traffic generated by the Application Site as a proportion of the road's overall traffic is also shown.

A conservative approach was taken assuming that all 19 members of staff travelled by each of the three selected routes to the Application Site. It is likely that the traffic from staff would have been distributed across different routes, however this approach presents a worst-case scenario. Fourteen of the 19 members of staff during the Peat Extraction Phase were also only seasonal staff. Seasonal staff would only be contributing to traffic from the Application Site during the Peat Extraction Season (April - September), however, to be conservative this was not accounted for in traffic impact calculations.

Table 13-4: Peat Extraction Phase Estimated Traffic Volumes

Destination	Average Daily Traffic (Two-way)	Annual Average Daily Traffic (AADT)	Relative Impact (% increase)
R639 (Urlingford)	38	1817	2.1%
R639 (Littleton)	38	1073	3.5%
L4101	38	727	5.2%

As can be seen in Table 13-4, the relative impact of traffic associated with the Application Site is low, with the highest being 5.2% on the L4101. This is significantly lower than the 10% relative impact at which a detailed Traffic and Transport Assessment would be recommended by TII for a proposed development.

This increase in traffic volume would have resulted in a slight negative effect on vulnerable road users throughout the course of The Peat Extraction Phase. While the increase in traffic volume is only slight, an increase in the volume of light goods vehicles/cars poses a slight increase in risk to any vulnerable road users that may have been using the roads.

The rural nature of the Application Site and it not being directly served by any public transport informed the assessment that the Application Site had no effect on Public Transport during The Peat Extraction Phase.



13.2.8.2.1 Significance of Effects

The effects of Peat Extraction Phase of the Application Site are assessed to have had a long-term, slight, negative effect on traffic and the surrounding road network.

13.2.8.3 Current Phase (2017 - present)

The Current Phase encapsulates the works that have occurred at the Application Site from the cessation of peat extraction in 2017 to the present. These works come under two categories: decommissioning works and Rehabilitation Phase 1 works. These works were carried out in compliance with the IPC Licence which the Application Site falls under.

Bord na Móna was granted an IPC Licence (P0499-01) in August 2001 for the Littleton Bog Group (within which the Application Site is located).

13.2.8.3.1 Decommissioning

Condition 10 of the IPC Licence establishes the requirements for the decommissioning of the application site:

'10.1 following termination of use or involvement of all or part of the site in the licenced activity, the licensee shall:

10.1.1 Decommission, render safe or remove for disposal/recovery, any soil, subsoils, buildings, plant or equipment, or any waste, materials or substances or other matter contained therein or thereon, that may result in environmental pollution.'

The only decommissioning works that have occurred to date are the removal of the peat stockpiles and the removal of rail infrastructure from Lanespark. All peat stockpiles were removed between 2018 and 2019 and rail infrastructure was removed from Lanespark in 2024. A full description of the decommissioning process is available in Section 4.8.1 of Chapter 4 - Description of the Development, contained within Volume 2 of the rEIAR.

It is also a requirement of 'Condition 10 Cutaway Bog Rehabilitation' of the IPC Licence that following the above decommissioning, Bord na Móna prepares (to the satisfaction of the EPA) and implements a Cutaway Bog Rehabilitation Plan.

13.2.8.3.2 Rehabilitation Phase 1

Further to decommissioning, it is also a requirement of the IPC that Bord na Móna prepare and implement a Cutaway Bog Rehabilitation Plan to the satisfaction of the EPA.

'10.2 Cutaway Bog Rehabilitation Plan:

10.2.1 The licensee shall prepare, to the satisfaction of the Agency, a fully detailed and costed plan for permanent rehabilitation of the cutaway boglands within the licensed area. This plan shall be submitted to the Agency for agreement within eighteen months of the date of grant of this licence.

10.2.2 The plan shall be reviewed every two years and proposed amendments thereto notified to the Agency for agreement as part of the AER. No amendments may be implemented without the written agreement of the Agency.'



In 2026 Bord na Móna produced Cutaway Bog Decommissioning and Rehabilitation Plans for the Longfordpass, Littleton, Lanespark and Derryvella bogs located within the Application Site. These reports have been submitted to the EPA. The works described in these reports are the Rehabilitation Phase 1 works, the traffic impacts of which are examined in this section (this followed the 2018 Plans, Bord na Móna produced for the Longfordpass, Littleton, Lanespark and Derryvella bogs located within the Application Site.)

13.2.8.3.3 Traffic Volumes

Bord na Móna has ten members of staff associated with the Application Site during the Current Phase, comprising of two members of staff onsite, one compliance officer and a further seven staff members. For the purposes of this impact assessment, the conservative assumption was made that all ten members of staff would travel to and from the Application Site each day. It was also assumed that each staff member would travel in their own vehicle (no carsharing) and a worst-case scenario of all staff travelling by each of the three routes to Application Site is presented (as opposed to a distribution of staff across the three).

Table 13-5: Current Phase Estimated Traffic Volumes

Destination	Average Daily Traffic (Two-way)	Annual Average Daily Traffic (AADT)	Relative Impact (% increase)
R639 (Urlingford)	20	4,543	0.4%
R639 (Littleton)	20	2,682	0.7%
L4101	20	1,818	1.1%

In addition to traffic generated by worker commuting, traffic was generated during the Current Phase by the removal of peat stockpiles. During the Peat Extraction Phase peat was removed from the Application Site by rail, with harvested peat being transferred directly by rail to the Littleton Briquette Factory. Following the cessation of extraction the remaining stockpiles of peat were removed as part of the Current Phase of works. The stockpile removal process involved a combination of rail and HGV movements, due to the closure of the Littleton Briquette Factory in 2018 the remaining stockpiles had to be transported to alternative destinations by HGV.

The removal of peat stockpiles occurred over 2018 and 2019, the volumes of peat removed and the destination to which they were brought was provided by Bord na Móna and is presented in Table 13-6

Table 13-6: Peat Stockpile Removal -Volumes & Destinations

Year	Mode of Transport	Destination	Quantity of Peat (Tonnes)
2018	HGV	Derrinlough Briquette Factory	4,132
		Shannonbridge Power Station	2,900
	Rail	Littleton Briquette Factory	5,306
2019	HGV	Derrinlough Briquette Factory	530
		Shannonbridge Power Station	3,587



Both the Derrinlough Briquette Factory and Shannonbridge Power Station are located in County Offaly, northwest of the Application Site. The number and timing of HGV trips transporting the peat from Littleton to Derrinlough and Shannonbridge was not recorded. Estimates for the associated traffic volumes were therefore made based on the following assumptions:

- Peat was transported by 27t HGV;
- Bord na Móna confirmed that during the Current Phase the Application Site 5 day working week with operational hours from 8am to 5pm. It was assumed that the HGV trips were evenly distributed over a 251 working day year.

The likely route that the HGVs would have travelled by is via the N62 national road which runs from Athlone to Junction 6 of the M8, approximately 5km west of the Application Site. The path from the Application Site to the N62 is via the L4101 local road.

The Derrinlough Briquette factory is situated directly off the N62, between Birr and Cloghan, a 76.2km journey from the Application Site. The Shannonbridge Powerstation is further to the northwest, reached by exiting the N62 at Cloghan and turning west onto the R357, a total journey of approximately 94.1km from the Application Site.

Table 13-7: HGV Traffic Associated with Stockpile Removal (via L4101 local road)

Year	Destination	Number of HGV Trips	Total Annual HGV Trips from Application Site	Daily HGV Traffic Volume associated with Stockpile Transport	Stockpile HGV Traffic as proportion of HGV Traffic	Stockpile HGV Traffic as proportion of AADT
2018	Derrinlough Briquette Factory	153	260	1	1.4%	0.06%
	Shannonbridge Power Station	107				
2019	Derrinlough Briquette Factory	20	152	1	1.4%	0.06%
	Shannonbridge Power Station	133				

The increase in traffic volume would have resulted in a slight negative effect on vulnerable road users throughout the course of The Current Phase. While the increase in traffic volume is only slight, an increase in the volume of light and heavy goods vehicles poses a slight increase in risk to any vulnerable road users that may have been using the roads.

The rural nature of the Application Site and it not being directly served by any public transport informed the assessment that the Application Site had no effect on Public Transport during The Current Phase.



13.2.8.3.4 Significance of Effects

As can be seen in Table 13-5 and Table 13-7, the relative impact of traffic associated with the Current Phase is negligible, the highest relative impact on AADT being 1.1% on the L4101. This is significantly lower than the 10% relative impact at which a detailed Traffic and Transport Assessment would be recommended by TII for a proposed development. The HGV traffic volume associated with the peat stockpile removal is not considered to be significant at less than 2% of the HGV volume on the L4101. It was therefore determined that the Current Phase of works at the Application Site has had a short term imperceptible negative effect on traffic and the surrounding road network.



13.2.8.4 Remedial Phase

The Remedial Phase refers to future proposed Rehabilitation Phase 2 works at the Application Site. No additional rehabilitation works are proposed at Littleton, Longfordpass and Lanespark. Ongoing monitoring measures under Rehabilitation Phase 1 will be ongoing at Littleton, Longfordpass and Lanespark during the Remedial Phase and these measures are discussed in detail in Section 4.8 of Chapter 4 - Description of the Development, Volume 2 - Description of Development, Volume 2. An updated Draft Cutaway Bog Decommissioning and Rehabilitation Plan for Ballybeg, Lanespark and Derryvella Bogs was prepared in 2025 by Bord na Móna and is currently under review by the EPA (See Section 4.9 within Chapter 4 - Description of the Development, Volume 2 for further details).

Bord na Móna has proposed two members of staff to carry out the Remedial Phase works. For the purposes of impact assessment, the conservative assumption was made that all staff would travel to and from the Application Site each day. It was also assumed that each member of staff would travel in their own vehicle (no carsharing) and a worst-case scenario of all staff travelling by each of the three routes to site is presented (as opposed to a distribution of staff across the three).

Table 13-8: Remedial Phase Estimated Traffic Volumes

Destination	Average Daily Traffic (Two-way)	Annual Average Daily Traffic (AADT)	Relative Impact (% increase)
R639 (Urlingford)	4	4,543	0.2%
R639 (Littleton)	4	2,682	0.3%
L4101	4	1,818	0.4%

As the increase in traffic volume is so small, it is assessed that The Remedial Phase will have no appreciable effect on vulnerable road users.

The rural nature of the Application Site and it not being directly served by public transport informed the assessment that the Application Site will have no effect on Public Transport during Remedial Phase.

13.2.8.4.1 Significance of Effects

As can be seen in Table 13-7, the relative impact of traffic associated with the Remedial Phase is negligible, with the highest being 0.4% on the L4101. This is significantly lower than the 10% relative impact at which a detailed Traffic and Transport Assessment would be recommended by TII for a proposed development. It was therefore determined that the Remedial Phase of works at the Application Site would have a long term imperceptible negative effect on traffic and the surrounding road network.

13.2.9 Cumulative and Indirect Effects

The cumulative effects assessed were those associated with developments built or operational during the considered time period. The considered time period being from 1988 to the present, with potential future uses of the application site also considered.



The full list of developments considered for cumulative and in-combination effects is as listed in the Appendices of Chapter 2 - Background, Volume 3. The following developments were considered relevant with respect to Traffic and Transport in particular:

- Littleton Briquette Factory which was granted planning consent by Tipperary County Council in 1977 (planning reference: P34576). The Factory operated between 1988 to 2018.
- Stockpiled peat was transported to Shannonbridge Power Station between 2018-2019¹.
- Stockpiled peat was transported to Derrinlough Briquette Factory between 2018-2019².
- Ballincurry Wind Farm, which was granted planning consent by Tipperary County Council in 2015 (Planning Reference 15600561)
- Gurteen Lower Wind Farm, which was granted planning consent by Tipperary County Council in 2010 (Planning Reference 09801)
- The Site of The Former Littleton Briquette Factory, currently occupied by Trifol Resources Ltd
- Future uses of the Application Site

Littleton Briquette Factory (1988-2018)

The Littleton Briquette Factory is located adjacent to the Application Site, on the L4101 local road. The factory opened in 1982 and operated until 21st of March 2018 when it closed. During its operational lifetime, the factory received the milled peat harvested from the Application Site, which was transported by rail. Milled peat was used in the manufacture of briquettes which were then transported from Littleton Briquette Factory by HGV for national distribution.

The factory produced peat briquettes from milled peat that was harvested from the Application Site and also from other peat harvesting sites. The factory remained operational until 2018, the factory was sold to a third party in 2020. Bord na Móna supplied an average figure of 130,000 tonnes for the output of the factory during its operating life, which spanned the entire Peat Extraction Phase and part of the Current Phase.

130,000 tonnes of briquettes would require 4,815 HGV trips to transport (27t HGV). Assuming a 251 working day year and even distribution of trips this equates to 20 trips per day. The briquettes were distributed nationally from the factory. It is likely that many of the deliveries would have utilised the nearby M8 motorway from the time it was constructed. The motorway section nearest the factory opened in December 2008 with full completion in 2010. Prior to the construction of the M8, it is likely the N8 national road would have been utilised.

The L4101 local road will have joined the Briquette Factory to whichever national roads or motorway was used for distribution. The 20 HGV trips per day calculated above would represent 27.5% of the HGV volume on the L4101 and 1.1% of the overall AADT. This level of HGV traffic is determined to have had a long term moderate negative effect on traffic and transportation in the locality of the Application Site.

¹ The Shannonbridge Power Station, County Offaly, was granted prior to 1986 and the commencement of the digital planning record. From our desktop review, we have identified the following planning reference numbers associated with the site: P0498, 80184, 78652, P2526, 78220, P4583.

² The Derrinlough Briquette Factory, County Offaly, was granted prior to 1986 and the commencement of the digital planning record. From our desktop review, we have identified the following planning reference numbers associated with the site: 849, 80254, 78267, P2201.



Shannonbridge Power Station (2018-2019)

Following the closure of the Littleton Briquette Factory in 2018, remaining peat stockpiles were delivered to Shannonbridge Power Station and Derrinlough Briquette Factory. The Shannonbridge Power Station is located in County Offaly, 94km by road to the northeast of the Application Site. Details of the quantities of peat transported to Shannonbridge Power Station are available in Table 13-6.

The transportation of peat to the power station was carried out by HGVs. The journey from the Application Site to Shannonbridge Power Station is 94km via the N62 national road. The transport of peat stockpiles from the Application Site to the power station were assessed as part of the Current Phase in section 13.2.8.3.3. As Shannonbridge Power Station is located nearly 100km from the Application Site, assessing traffic to the Power Station that was not associated with the Application Site was determined to be outside the scope of this report.

Derrinlough Briquette Factory (2018-2019)

Following the closure of the Littleton Briquette Factory in 2018, remaining peat stockpiles were delivered to Shannonbridge Power Station and Derrinlough Briquette Factory. The Derrinlough Briquette Factory is located in County Offaly, 76.2 km by road to the northeast of the Application site. Details of the quantities of peat transported to Derrinlough Briquette Factory are available in Table 13-6.

The transportation of peat to the Derrinlough Briquette Factory was carried out by HGVs. The journey from the Application Site to Derrinlough Briquette Factory is 76.2 km via the N62 national road. The transport of peat stockpiles associated with the Application Site to the Derrinlough Briquette Factory was assessed as part of the Current Phase in section 13.2.8.3.3. The Derrinlough Briquette Factory being located nearly 80km from the Application Site, assessing traffic to the factory that was not associated with the Application Site was determined to be outside the scope of this report.

Ballincurry Wind Farm Ltd

Ballincurry is a wind farm located approximately 5 km to the southeast of the Application Site. Planning permission for a single turbine was granted in 2014, with permission granted for a second turbine in 2016. The two turbines are now operational, with a combined capacity of 9MW. During construction the wind farm is likely to have had a short term slight negative effect on traffic and transportation. With the windfarm currently in its operational phase, it is assessed to have a cumulative long term imperceptible negative effect on local traffic and transportation.

Gurteen Lower Wind Farm

Gurteen Lower is a small-scale wind farm consisting of a single turbine. It is located approximately 5km to the east of the Application Site and is currently in its operational phase. It is assessed to have had a cumulative short term slight negative effect on traffic and transportation during its construction and a cumulative long term imperceptible negative effect during the current operational phase.

The Site of The Former Littleton Briquette Factory

Trifol Resources Limited is currently operating at The Site of The Former Littleton Briquette Factory. The company recycles plastic waste into waxes, which are then transported from the site by HGV. The first commercial shipment from the works was completed in March 2025, delivering 50 metric tonnes to Shell Chemicals Park, located in The Netherlands. There are no active planning permissions for the expansion of existing operations on the site. The development is assessed to have a cumulative long term imperceptible negative effect on traffic and transport.



Future Uses of The Application Site

It is Bord na Móna's intention to utilise the Application Site for both peatland rehabilitation and wind energy infrastructure to support Ireland's transition to renewable energy and support biodiversity within Bord na Móna's landbank.

Subject to future planning consent, Bord na Móna intend to develop a renewable energy development on the Application Site, referred to as 'Littleton Wind Farm'. The proposed Littleton Wind Farm has been designed such that it does not impact or change the overall goals and outcomes of the proposed rehabilitation plans. As such, it is the intention of the Applicant to integrate the peatland rehabilitation measures with the proposed Littleton Wind Farm.

The future EIAR for the proposed Littleton 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 is 1,177 ha compared to 1,616 ha 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 Littleton Wind Farm development details issues related to potential impacts during wind farm construction.

The proposed Littleton Wind Farm is assessed in a separate EIAR in terms of direct and indirect effects on the Material Assets (Including Traffic & Transportation) and dedicated mitigation measures will be included to avoid any negative effects on material assets and the transport network within and surrounding the site.

The development of a wind farm at the Application Site in the future would likely have a short term moderate negative cumulative effect on traffic and transportation during construction phase. During the operational phase a future wind farm would have a long term imperceptible negative effect on traffic and transportation. Any future development at the Application Site should propose appropriate measures to ensure negative effects associated with that development are mitigated.

13.2.10 Control Measures

The potential effects arising from peat extraction and ancillary activities on traffic and transportation were assessed across the Peat Extraction, Current and Remedial Phases. In relation to control measures, it has been concluded that no additional specific control measures were, are or will be required. The control measures already implemented, currently in place and proposed by Bord na Móna are determined to provide adequate mitigation for the effects and potential effects on traffic and transport. These measures implemented and proposed by Bord na Móna are outlined below.

13.2.10.1 Peat Extraction Phase

Formal documentation outlining control measures practiced at the Application Site historically are not available, in particular prior to the IPC Licence being issued in 2001 (with the exception of silt control which from 1974 was subject to a formal management program). However, based on interviews with retired Bord na Móna personnel, the measures listed below were enacted at all Bord na Móna bogs, and thus at the Application Site, as part of daily, monthly, and annual bog management and operations.



Internal Rail Network

The primary control measure for the traffic and transportation impact of the Application Site was the internal rail network. The rail network eliminated the need for transporting harvested peat from the Application Site by HGV on public roads. The rail network allowed for the transportation of the peat harvested during the peat extraction phase in a manner that was more fuel efficient and did not impact traffic on public roads when compared with the alternative of transport by HGV movements.

Refuelling Facilities

Refuelling and maintenance of all vehicles were undertaken at Littleton Works, or at local holding areas in Longfordpass, Littleton and Lanespark bogs. When machinery required refuelling on the Application Site, it was carried out by a mobile (rail or tractor-transported) fuelling unit which travelled out from Littleton Works to the bogs where the machinery was located. Refuelling procedures were upgraded to standard bunding specifications to comply with IPC Licence requirements in 2001 (please refer to Appendix 4-11, Volume 3 for full details).

The following emergency action procedure was implemented at the Application Site prior to IPC licencing (pre-2001) and was recorded as part of the IPC Licence process:

1. When a spill occurred, the General Manager was immediately informed of the incident;
2. The spill was required to be assessed by the General Manager for potential risk to the health and safety of employees and the potential environmental consequences;
3. If there was a risk of explosion, all personnel in the area were required to be evacuated from the area;
4. The spill was sourced, isolated and contained with polystyrene booms or dry peat (moisture content of 10%);
5. All effort was made to prevent the spill from entering a storm drain or nearest outfall;
6. Once the spill had been contained, a suitable absorbent (dry peat) was to be used to soak the spillage;
7. All possible ignition sources such as electrical equipment, naked lights, machinery were removed from the area. Any combustibles in the spill area were removed;
8. Follow up action measures taken includes the implementation of appropriate remedial work to prevent such a spillage recurring in the future; and,
9. In the event of a significant spillage, the General Manager was required to notify the local authority.

Dust Management at Bog Boundaries and Headlands

Tree cover along the fringes of bogs minimised the amount of dust that would travel off-site. In 1976 Bord na Móna established a policy to preserve the vegetation and tree cover on all bog fringes and on any mineral islands. In addition, the following measures were undertaken at a minimum to minimise dust emissions and later expanded under IPC licence.

1. Stockpiles were compacted on either side by large rollers drawn by tractors;
2. Stockpiles were covered with polythene film gauge sheets and secured in position by spreading an even layer of high moisture content milled peat;
3. Peat extraction during windy weather was to be avoided;
4. The headlands were to be kept clean and loose peat removed;
5. Drivers were required to drive slow along dusty headlands; and,
6. All road crossing points were to be maintained clean.



Internal Rail Network Maintenance

Railway tracks and railway locomotives underwent continuous inspection and maintenance to prevent derailments, fires, accidents and fuel leaks. The locomotives were fitted with beam lighting and electric windscreen wipers for both directions of travel.

13.2.10.2 Current Phase

Where applicable control measures undertaken during the Peat Extraction Phase were also taken in the current phase. Current Phase works were carried out fully in accordance with procedures set out in the IPC Licence.

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.

13.2.10.3 Remedial Phase

In addition to continued compliance with the IPC Licence, the following mitigation measures are proposed for the Remedial Phase:

1. All vehicles used on site will undergo regular inspection and maintenance checks.
2. Vehicles used on site will undergo wheel washing as required prior to crossing the local road network to access other bogs or return to the Works for storage.
3. Only personnel holding the appropriate license will operate the vehicles and will undergo regular re-training on safety operations and vehicle maintenance.
4. Machinery crossing points on local roads between bogs will be inspected at the end of each working day.
5. As in the current phase, car sharing by personnel and bike to work schemes will be encouraged.

13.2.11 Residual Effects

13.2.11.1 Peat Extraction Phase

The traffic and transport impact generated by peat extraction and ancillary activities at the Application Site was minimal, as the extracted peat was transported by private rail network to its destination at the Littleton Briquette Factory. The road traffic associated with the Peat Extraction Phase was assessed in section 13.2.5.2 and found to have had a long term slight negative effect.

13.2.11.2 Current Phase

The Current Phase works were assessed to have had a short term imperceptible negative effect on traffic and transportation.

13.2.11.3 Remedial Phase

The Remedial Phase works at the Application Site were assessed to present a long term imperceptible negative effect.



13.2.12 Major Accidents and Disasters

There have not been any recorded major accidents or disasters that would have affected the traffic and transportation network associated with the Application Site.

13.2.13 Conclusions

The effects of Peat Extraction Phase of the Application Site were assessed to have had a long-term slight negative effect on traffic and transportation.

It was determined that the Current Phase of works at the Application Site has had a short term imperceptible negative effect on traffic and transportation.

It was determined that the Remedial Phase of works at the Application Site would have a long term imperceptible negative effect on traffic and transportation.

There are no significant cumulative effects expected on the receiving environment as a result of other existing or currently proposed developments.

Following the assessment of potential effects arising from peat extraction and ancillary activities on traffic and transportation, it was assessed that there were no additional specific control measures required to mitigate the effects on traffic and transportation during the Peat Extraction Phase, Current Phase, or Remedial Phase.

13.3 **Other Material Assets**

13.3.1 Introduction

This section assesses the likely significant effects of Bord na Móna's peat extraction and ancillary activities at the Application Site on material assets other than Traffic and Transportation. The likely impacts on Material Assets were examined separately for each of the three phases (Peat Extraction, Current and Remedial).

13.3.2 Methodology

This assessment of the significance of effects on Material Assets involved a desktop study and review of those material assets other than traffic and transport (assessed in the preceding Section 13.2). This involved a review of available and relevant data and documentation concerning the Application Site in relation to the following material assets:

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



An assessment has been undertaken to evaluate the significance of effects on these material assets as a result of activities at the Application Site during the Peat Extraction Phase, Current Phase and Remedial Phase. This section of the rEIAR has been prepared in line with EPA Guidelines on the information to be contained in Environmental Impact Assessment Reports (May 2022).

13.3.2.1 Annual Environmental Reports

As previously outlined, Bord na Móna was granted an IPC Licence (Reg. No. P0499-01) for the Littleton Bog Group (within which the Application Site is located) in August 2001. Annual Environmental Reports (AERs) are submitted to the EPA which included the amount of energy utilised, waste produced (type, reuse and disposal methods), and emissions for the whole Littleton Group.

13.3.3 Receiving Environment (Baseline 1988)

13.3.3.1 Electrical Infrastructure

Electricity supply to the Application Site was mains electricity from the national electricity grid. Surface water pump stations across the Application Site were powered by mains electricity from the national grid.

13.3.3.2 Gas Supply Infrastructure

Gas Networks Ireland records indicate that there are no current or historic Gas Networks supply lines crossing the Application Site.

13.3.3.3 Water Supply Infrastructure

There is no record of a formal water supply connection directly to the Application Site. There are no known groundwater abstraction wells within the Application Site.

The domestic water needs of the Application Site staff were met at the Littleton Works, located adjacent to the Application Site. The potable water supply at Littleton Works is from a local authority water supply mains located on the L4101. The cumulative impact on Material Assets from the Littleton Works adjacent to the Application Site will be assessed in section 13.3.7.3..

13.3.3.4 Surface Water Infrastructure

As part of the development of the Application Site for peat extraction, parallel surface water drains were created by machines at specific intervals, depending on whether milled or sod peat was being extracted. The strips of bog between these drains were retained to form peat extraction 'fields'. By 1988 milled peat drainage channels, silt ponds, outfalls and pumps were in place at the Application Site.

Longfordpass Bog

Drainage works first commenced in Longfordpass Bog by 1947. The earliest available aerial imagery dates from 1973, it shows drainage inserted to facilitate harvesting of sod peat from Longfordpass Bog. By 1988, there were 3 no. silt ponds installed on Longfordpass Bog, and 1 no. pumps.



Littleton Bog

Drainage works first commenced in Littleton Bog by 1941 according to Bord na Móna Annual Reports. The earliest available aerial imagery dating from 1973 shows sod peat drainage inserted at Littleton Bog. By 1988, there were 12 no. pumps installed on Littleton Bog.

Lanespark Bog

Drainage works first commenced in Lanespark Bog by 1968. The earliest available aerial imagery dating from 1973 shows drainage inserted at the periphery of Lanespark Bog. By 1988 the bog was fully drained for industrial scale peat extraction, and there were 4 no. silt ponds installed on Lanespark Bog. No pumps were operating on the bog in 1988.

Deryvella Bog

Drainage works first commenced in Deryvella Bog by 1968. The earliest available aerial imagery dating from 1973 shows drainage inserted at the periphery of Deryvella Bog. By 1988 the bog was fully drained for industrial scale peat extraction, and there was 1 no. silt pond installed on the bog, no pumps were installed.

13.3.3.5 Wastewater Services & Infrastructure

There is no record of wastewater services being located within the Application Site. Welfare facilities were provided for staff involved in peat extraction; however, these were located at the Littleton Works, outside of the Application Site boundary. Wastewater from the welfare facilities at Littleton Works received primary treatment in one of three septic tanks at the Works, with the effluent discharging to ground via soakpits. The septic tanks are visually inspected and cleaned bi-annually by a licenced waste permit holder to ensure the treatment system is working optimally.

13.3.3.6 Waste Management

Waste records do not exist for the Application Site for 1988. Formal documentation outlining dedicated waste management measures practised on site from 1947 - July 1988 are also not available. However, procedures that that were enacted at all Bord na Móna bogs, and thus the Application Site were recorded from interviews conducted with retired Bord na Móna personnel.

Records of historic Bord na Móna practices state that some general refuse generated by activities associated with the Application site was burned at the Littleton Works adjacent to the Application Site. However, the majority of waste and waste types was transported off the Application Site to the Littleton Works. Waste was stored at the Littleton Works, from where it was collected by licenced contractors as appropriate. The waste management of the Littleton Works will be examined as a cumulative impact under section 13.3.7.3..

13.3.3.7 Telecommunications & Aviation

The nearest significant aeronautical surfaces that existed in 1988 is Kilkenny Airport. The aerodrome was first licensed by the Department of Transport and Power on 30 April 1965. Since 1976 the airport has operated a single grass runway.

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.



13.3.4 Peat Extraction Phase

13.3.4.1 *Electrical Infrastructure*

Identification of Impact

As outlined the electricity supply to the Application Site was powered by mains electricity from the national grid. There are existing medium voltage overhead power lines which cross the Application Site at multiple locations. A high voltage (38kV) overhead line crosses the site along the northside of the L4153 road. A high voltage (38kV) underground line crosses the northern most portion of the site, following the L4115 road on its southern side.

Records of the date this infrastructure was installed is not publicly available. Notwithstanding this, peat extraction and ancillary activities have no impact or interaction with the quality or supply of electricity from overhead power lines. Control measures were also put in place by Bord na Móna to ensure both a safe working environment and that works would not negatively impact any electricity infrastructure.

Control Measures

When working near power lines, the following measures were implement across all Bord na Móna's sites:

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

Residual Effect

Peat extraction and ancillary activities have no impact or interaction with the quality or supply of electricity from overhead power lines. On ESB record drawings the HV underground line following the L4115 is located outside the portion of site from which peat was extracted.

Safety measures have been 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

The above assessment has concluded that Peat Extraction Phase had no significant effect on electricity supply infrastructure.

13.3.4.2 Gas Supply

Identification of Impact

As there is no record of gas infrastructure and there was no direct need for a gas supply to support peat extraction and ancillary activities at the Application Site, it is assessed that the Application Site has had no impact on gas infrastructure.

Control Measures

As there is no known gas infrastructure crossing the Application Site, no site-specific control measures were put in place.

Residual Effect

As there is no known gas infrastructure crossing the Application Site, it is assessed the Peat Extraction Phase had no residual effects on gas infrastructure.

Significance of Effects

As there is no known gas infrastructure crossing the Application Site, it is assessed the Peat Extraction Phase had no significant effects on gas infrastructure.

13.3.4.3 Water Supply Infrastructure

Identification of Impact

Water was not directly required for peat extraction. There are no current or historic known groundwater abstraction wells within the Application Site.

As outlined in the Receiving Environment Section (13.3.3), domestic water consumption needs of the staff at the Application Site were met at the adjacent Littleton Works. Water supply was used for machine washing, and for welfare and canteen facilities at the Littleton Works, which will be cumulatively assessed in section 13.3.7.

Control Measures

No site-specific measures were put in place with regard water supply infrastructure. Control measures were put in place to protect groundwater and control surface water emissions from the Application Site. These measures are covered within this section under the heading of Surface Water.

Residual Effect

As there was no direct interaction between peat extraction and ancillary activities and water supply infrastructure, the residual effect on water supply from the Peat Extraction Phase is considered long-term, not significant, and neutral.

Significance of Effects

As there was no direct interaction between peat extraction and ancillary activities and water supply infrastructure, the significance of effect on water supply caused by the Peat Extraction Phase is considered long-term, not significant, and neutral.



13.3.4.4 Surface Water Infrastructure

Identification of Impact

Even prior to 1988 the risks posed by suspended solids emissions in surface water discharge from the Application Site as a result of peat extraction were identified and control measures implemented. Mitigation was in place to limit the emission of suspended solids throughout the period between 1988 and 2001 (i.e. before the IPC Licence took effect at the Application Site).

Vehicle refuelling that occurred on the Application Site presented a risk to surface water. Vehicle refuelling primarily occurred offsite at the Littleton Works where fuel was stored in above ground bunded tanks. Under some circumstances it was not practical to track vehicles back to the works (offsite) for refuelling and refuelling occurred at designated areas within the Application Site. These designated areas were located away from drain and watercourses.

As necessary fuel was transported to the designated areas by mobile refuelling unit (rail or tractor driven). In 2001 refuelling procedures were upgraded to comply with the IPC Licence. Upgrades included the implementation of standard bunding specifications across the site. There was an emergency action place for refuelling from prior to 2001. This emergency plan was recorded as part of the IPC licence process and was outlined in section 13.2.7.

Further potential impacts were identified in the IPC Licence. Monitoring schedules 2 (i) and 2 (ii) within the Licence (Appendix 4-1, Volume 3) set out monitoring measures for emissions to water from the site. The monitoring schedule set out the testing described below, to ensure any impacts on surface water were sufficiently mitigated.

Testing schedules were specified for the below (with regard water emissions from the Application Site):

- Suspended Solids
- pH
- Flow
- Total Phosphorous (as P)
- Ammonia (N)
- Colour
- COD
- Oils, Fats & Grease

Control Measures

Pre-IPC Licence (2001)

As evidenced in the Bord na Móna Silt Committee Interim Report 1976 (Appendix 4-7, Volume 3), silt control measures in the form of silt ponds were in place at Bord na Móna facilities even prior to 1988. Bord na Móna carried out further studies and surveys throughout the 1980s and 1990s to make improvements to how silt ponds operated so that suspended solids emissions in surface run-off were reduced. This included the construction of new ponds to maintain treatment of run-off while cleaning of existing ponds was in progress.



Post-IPC Licence (2001)

In addition to the pre-IPC Licence measures described above, since 2001 when the IPC Licence took effect, the Application Site has been bound by Condition 6 (Emissions to Water) and Condition 9 (Water Protection) of the IPC Licence. The monitoring schedule set out above is the primary control measure to ensure that surface water infrastructure was not being negatively impacted by works associated with the peat extraction phase.

Residual Effect

Peat extraction and ancillary activities did lead to increased levels of suspended solids in surface water discharge from the Application Site. Silt ponds were in place throughout the Peat Extraction Phase to mitigate the impact of peat extraction and ancillary activities on levels of suspended solids in the surface water discharge from Application Site.

Prior to the IPC licence being issued, formal procedures that covered all aspects of the works were not in place to ensure works were carried out to environmental best practice. On this basis it was assessed that peat extraction and ancillary activities had a long-term slight negative residual effect on surface water infrastructure.

Significance of Effects

Procedures and mitigation to limit the effects of suspended solids on surface water infrastructure were in place throughout the Peat Extraction Phase. However, measures were not in place prior to the IPC licence to monitor other characteristics of surface water discharge, such as pH levels or the presence of hydrocarbons.

While there are no monitoring records pre-IPC licence, there were mitigation measures in place to mitigate the risk of pollution by hydrocarbons (refuelling procedures). There were no recorded surface water pollution events at the Application Site. The lack of monitoring and reduced mitigation prior to the IPC Licence issuance inform the assessment that the Peat Extraction Phase had a long-term slight negative effect on surface water infrastructure.

13.3.4.5 Wastewater Services & Infrastructure

Identification of Impact

Wastewater services and infrastructure were not directly required for peat extraction. Facilities requiring domestic wastewater connection such as worker welfare facilities and canteen were located outside of the Application Site at the Littleton Works. The impact of the Littleton Works on Wastewater services and infrastructure will be examined under cumulative impacts (section 13.3.7.3.).

Control Measures

No site-specific measures were put in place with regard wastewater services and infrastructure as these services were not located within the Application Site.

Residual Effect

As there was no direct interaction between peat extraction and ancillary activities and wastewater infrastructure, the residual effect on wastewater infrastructure from the Peat Extraction Phase is considered long-term, not significant, and neutral.

Significance of Effects

As there was no direct interaction between peat extraction and ancillary activities and wastewater infrastructure, the significance of effect on wastewater infrastructure caused by the Peat Extraction Phase is considered long-term, not significant, and neutral.



13.3.4.6 Waste Management

Identification of Impact

Information on waste management prior to the IPC Licence issuance was gathered from interviews with retired Bord na Móna employees. The IPC Licence and management plans produced in response to the IPC Licence set out waste management procedure following its issuance.

Waste generated by peat extraction phase activities at the Application Site was transported to the Littleton Works, where it was sorted, stored for collection by licenced contractor. From interviews with retired staff, historically some burning of workshop and general waste did occur at the Littleton Works. Waste management at the Littleton Works will be considered for potential cumulative impacts in Section 13.3.7.3..

Control Measures

Pre-IPC Licence (2001)

Knowledge of historic waste management procedures at the Application Site prior to the IPC Licence (2001) was gained from interviews with Bord na Móna personnel. Prior to the issuance of the IPC licence the following measures were carried out with respect to management of waste:

1. Waste oils and brake fluids drained from machinery during servicing were collected in drums and emptied to a designated waste oil storage tank;
2. Waste oil storage tank contents transported off-site by a licenced waste disposal contractor;
3. Oil and fuel filters changed at vehicle service intervals;
4. Spent filters collected and disposed of through a waste disposal contractor;
5. Used batteries are collected by battery collection company;
6. Off-washings from the self-contained machine parts washer was collected within a sludge tank at the Works;
7. Ash from the onsite boiler was stored in a skip onsite and collected by a licenced contractor and taken to landfill;
8. Waste polythene removed from stockpiles was collected at the roadside by a plastic recycling company; and,
9. Workshop waste and general refuse from canteens/offices was historically burned on site or disposed into waste disposal areas at the Works. This practice changed to the use of skips which were then collected by licenced contractors.

Post-IPC Licence (2001)

Condition 7 of the IPC Licence sets out control measures for waste management. These procedures were adhered to from 2001 onwards.

7.1 Disposal or recovery of waste shall take place only as specified in Schedule 3(i) Hazardous Wastes for Disposal/Recovery and Schedule 3(ii) Other Wastes for Disposal/Recovery of this licence and in accordance with the appropriate National and European legislation and protocols. No other waste shall be disposed of/recovered either on-site or off-site without prior notice to, and prior written agreement of, the Agency.



7.2 Waste sent off-site for recovery or disposal shall only be conveyed to a waste contractor, as agreed by the Agency, and only transported from the site of the activity to the site of recovery/disposal in a manner which will not adversely affect the environment. 7.3 A full record, which shall be open to inspection by authorised persons of the Agency at all times, shall be kept by the licensee on matters relating to the waste management operations and practices at this site. This record shall as a minimum contain details of the following:

- 7.3.1. The names of the agent and transporter of the waste.
- 7.3.2. The name of the persons responsible for the ultimate disposal/recovery of the waste.
- 7.3.3. The ultimate destination of the waste.
- 7.3.4. Written confirmation of the acceptance and disposal/recovery of any hazardous waste consignments sent off-site.
- 7.3.5. The tonnages and EWC Code for the waste materials listed in Schedule 3(i) Hazardous Wastes for Disposal/Recovery and Schedule 3(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 six 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.

Schedule 3(i) Hazardous Wastes for Disposal/Recovery

Waste Materials	Method of Disposal/Recovery ^{Notes 1,2,3}
Engine, gear & lube oil	Agreed hazardous waste recycling contractor.
Hydraulic Oils	Agreed hazardous waste recycling contractor.
Oil Filters	Agreed hazardous waste recycling/disposal contractor.
Used Batteries	Agreed hazardous waste recycling/disposal contractor.
Fluorescent Lights	Agreed hazardous waste disposal contractor.
Empty Paint Cans	Agreed hazardous waste disposal contractor.
Anti-freeze liquid	Agreed hazardous waste disposal contractor.
Other ^{Note 3}	See Note 3

Note 1: The licensee may treat, reuse, recycle or recover waste subject to the prior written agreement of the Agency.



Note 2: Any variation from those contractors named in the IPC Licence application, or subsequent agreements, must have the prior written agreement of the Agency. In cases where a previously agreed waste contractor is considered by the Agency not to exercise due care in respect of the transport and disposal of the licensee's waste, the Agency may at any time instruct the licensee to stop using this contractor.

Note 3: No other waste shall be disposed of/recovered on or off-site without prior notice to, and prior written agreement of the Agency.

Schedule 3(ii) Other Wastes for Disposal/Recovery

Waste Materials	Method of Disposal/Recovery ^{Notes 1,2,3,4}
Scrap Metal	Agreed waste recovery contractor.
Ash/Cinders	Agreed waste disposal contractor.
Settlement pond silt	Returned to bog.
Polythene covering	Agreed recycling disposal contractor.
Workshop & General domestic waste	Agreed waste disposal contractor.
Empty silicone sealant tubes	Agreed waste disposal contractor.
Empty Drums	On and off site reuse.
Used tyres	Agreed waste disposal contractor.
Septic tank sludge	Landspreading contractor to be agreed.
Lagoon sediments	Used for on site landscaping.
Drains pond sediments	Used for on site landscaping.
Peat screenings	On site disposal.
Timber/Pallets	Agreed waste disposal contractor.
Other ^{Note 4}	See Note 4

Note 1: The licensee may treat, reuse, recycle or recover waste subject to the prior written agreement of the Agency.

Note 2: Any variation from those contractors named in the IPC Licence application, or subsequent agreements, must have the prior written agreement of the Agency. In cases where a previously agreed waste contractor is considered by the Agency not to exercise due care in respect of the transport and disposal of the licensee's waste, the Agency may at any time instruct a licensee to stop using this contractor.

Note 3: Other method to be agreed with the Agency.



Note 4: No other waste shall be disposed of/recovered on or off-site without prior notice to, and prior written agreement of the Agency.

Residual Effect

The residual effect of the Peat Extraction Phase on waste management is considered to have had a long term slight negative effect.

Significance of Effects

This lack of monitoring and insufficient mitigation measures in place prior to IPC Licence issuance are considered to have had a negative effect on waste management. It is considered that the Peat Extraction Phase had a long-term slight negative effect on waste management.

13.3.4.7 Telecommunications & Aviation

Identification of Impact

Peat extraction and related activities did not interact with telecommunications and aviation operations. The historical peat extraction at the Application Site has not caused any interference with aviation or nearby structures.

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.

13.3.5 Current Phase

13.3.5.1 Electrical Infrastructure

Identification of Impact

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

Control Measures

The Current Phase works had no direction interaction with electrical infrastructure. 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.



13.3.5.2 Gas Supply

Identification of Impact

As there is no record of gas infrastructure and there was no direct need for a gas supply to support activities at the Application Site, it is assessed that the Application Site has had no impact on gas infrastructure.

Control Measures

As there is no known gas infrastructure crossing the Application Site, no site-specific control measures were put in place. The Current Phase works had no direction interaction with gas infrastructure. Since 2005, all the Applicant's operations are in full accordance with The Safety, Health and Welfare Act 2005.

Residual Effect

As there is no known gas infrastructure crossing the Application Site, it is assessed that Current Phase works has had no residual effects on gas infrastructure.

Significance of Effects

As there is no known gas infrastructure crossing the Application Site, it is assessed the Current Phase had no significant effects on gas infrastructure.

13.3.5.3 Water Supply Infrastructure

Identification of Impact

Water was not directly required for Current Phase activities . Water supply was used for machine washing, and for welfare and canteen facilities.

Control Measures

The Application Site was compliant with all measures set out in the IPC Licence throughout the Current Phase.

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 Current Phase.

13.3.5.4 Surface Water Infrastructure

Identification of Impact

Surface Water Infrastructure had all been upgraded to comply with conditions set out in the IPC Licence by the time the Current Phase commenced. The monitoring schedule set out in the IPC Licence was followed throughout the Current Phase to monitor potential impacts on surface water.

Control Measures

All control measures and monitoring schedules set out in the IPC Licence were implemented and complied with throughout the Current Phase.



The Environmental and Operational Procedures for the Protection of Surface Water is a document prepared by Bord na Móna as part of the response to the IPC Licence. It sets out in detail procedures followed at the Application Site during the Current Phase, including bund maintenance and integrity procedure, assessments of current silt pond adequacy and staff training procedures.

Residual Effect

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

Significance of Effects

Based on the above assessment, no significant effects on surface water were identified during the Current Phase.

13.3.5.5 Wastewater Services & Infrastructure

Identification of Impact

Wastewater services and infrastructure were not directly required for Current Phase activities at the Application Site. Facilities requiring domestic wastewater connection such as worker welfare facilities and canteen were located outside of the Application Site at the Littleton Works. The impact of the Littleton Works on Wastewater services and infrastructure will be examined under cumulative impacts (section 13.3.7).

Control Measures

No site-specific measures were put in place with regard wastewater services and infrastructure as these services were not located within the Application Site.

Residual Effect

As there was no direct interaction between Current Phase activities and wastewater infrastructure, the residual effect on wastewater infrastructure from the Current Phase is considered short-term, not significant, and neutral.

Significance of Effects

As there was no direct interaction between Current Phase activities and wastewater infrastructure, the significance of effect on wastewater infrastructure from the Current Phase is considered short-term, not significant, and neutral.

13.3.5.6 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 2001. All waste materials are recorded, weighed, recycled or reused where possible, and removed from the Application 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 negative effect on Waste Management.

13.3.5.7 Telecommunications & Aviation

Identification of Impact

Current Phase activities have not caused any interference with aviation or telecommunication features.

Control Measures

No control measures for telecommunication or aviation interference were necessary during the Current Phase.

Residual Effect

The Current 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 Current Phase.

13.3.6 Remedial Phase

13.3.6.1 Electrical Infrastructure

Identification of Impact

The grid infrastructure in place during the Current Phase remains in place for the future Remedial Phase. It is not anticipated that the Remedial Phase works will interact with this infrastructure.

Control Measures

The proposed Remedial Phase works won't interact directly with electrical infrastructure. Since 2005, all the Applicant's operations are in full accordance with The Safety, Health and Welfare Act 2005.

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.

13.3.6.2 Gas Supply

Identification of Impact

There is no known gas infrastructure within the Application Site, it is therefore not anticipated that the future Remedial Phase will interact with any gas infrastructure



Control Measures

As there is no known gas infrastructure crossing the Application Site, no site-specific control measures were put in place. The Remedial Phase works had no direction interaction with gas infrastructure. Since 2005, all the Applicant's operations are in full accordance with The Safety, Health and Welfare Act 2005.

Residual Effect

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

Significance of Effects

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

13.3.6.3 Water Supply Infrastructure

Identification of Impact

Water will not be directly required for Remedial Phase activities. Water supply will be used for machine washing, and for welfare facilities.

Control Measures

Measures set out in the IPC Licence along with any revised control or mitigation measures will still be followed throughout the future Remedial Phase.

Residual Effect

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

Significance of Effects

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

13.3.6.4 Surface Water Infrastructure

Identification of Impact

The monitoring schedule set out in the IPC Licence will be followed throughout the Remedial Phase to monitor potential impacts on surface water.

Control Measures

Measures set out in the IPC Licence along with any revised control or mitigation measures will still be followed throughout the future Remedial Phase.

Residual Effect

There will be no residual effect from the Remedial Phase on surface water infrastructure.

Significance of Effects

There will be no significant effect on surface water infrastructure throughout the Remedial Phase.



13.3.6.5 Wastewater Services & Infrastructure

Identification of Impact

Wastewater services and infrastructure will not be directly required for Remedial Phase activities at the Application Site.

Control Measures

Measures set out in the IPC Licence along with any revised control or mitigation measures will be followed throughout the Remedial Phase.

Residual Effect

There will be no residual effect from the Remedial Phase on wastewater infrastructure

Significance of Effects

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

13.3.6.6 Waste Management

Identification of Impact

Waste generated during the Remedial Phase will be minimal, due to the nature of the works and the reduced number of staff on site relative to Peat Extraction and Current Phase (there will be two members of staff on site during the Remedial Phase). Waste management procedures set out in IPC along with any revisions will still be followed.

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 likely residual effect of the Remedial Phase activities on waste management is considered to be a short term slight negative effect.

Significance of Effects

The Remedial Phase is considered likely to have a slight negative effect on Waste Management.

13.3.6.7 Telecommunications & Aviation

Identification of Impact

Remedial Phase activities will not interact with telecommunication links and the Remedial Phase activities will not cause any interference with aviation or nearby structures.

Control Measures

No control measures for telecommunication or aviation interference are proposed for the Remedial Phase.

Residual Effect

The Remedial Phase is considered to have no likely residual effects on telecommunications and aviation.



Significance of Effects

The Remedial Phase is considered to have no likely significant effects on telecommunications and aviation.

13.3.7 Cumulative and In-Combination Effects

The full list of developments considered for cumulative and in-combination effects is as listed in the Appendix 2-2, Volume 3. The following developments were considered relevant with respect to Material Assets in particular:

- Littleton Briquette Factory (1988-2018);
- Ballincurry Wind Farm Ltd (Planning Reference 15600561);
- Gurteen Lower Wind Farm (Planning Reference 09801);
- Site of The Former Littleton Briquette Factory;
- Future uses of the Application Site.

13.3.7.1 Peat Extraction Phase

The Littleton Briquette Factory and associated Littleton Works are assessed to have had potential cumulative effects on material assets during the Peat Extraction Phase. The Briquette Factory and associated works are located adjacent to the Application Site and are connected by private rail network. The Briquette Factory was open from 1982 to 2018, so was operational throughout the entire Peat Extraction Phase considered within this rEIAR. Notably the Littleton Briquette Factory and associated works were both incorporated into the same IPC Licence as the Application Site. Therefore, the monitoring and control measures referenced above and in the full licence (Appendix 4-1, Volume 3) also applied to the Briquette Factory and Works.

Electrical Infrastructure

Electricity demand from the Littleton Briquette Factory would have been substantial compared to the Application Site. The factory itself as well as worker welfare facilities and workshops would have represented a significant electricity demand relative to the surface water pumps located within the Application Site.

Aside from creating additional demand on the local electricity grid, the activities at the Littleton Briquette Factory and associated Littleton Works are not considered to have affected the local electricity infrastructure during the Peat Extraction Phase.

Gas Supply

Peat extraction and ancillary activities at the Application Site had no impact or interactions on the quality or supply of gas. Therefore, there was no cumulative or in combination effects on the assets.

Water Supply Infrastructure

Peat extraction ancillary activities at the Application Site had no impact or interactions on the quality or supply of water. Therefore, there was no cumulative or in combination effects on the assets.

The workers on the Application Site would have made use of the potable water supply at the Littleton Works. This potable water supply came from a local authority water main located on the L4101. Water supply to the Briquette Factory sited at the Works was from the River Breaghagh, located south of the Works and outside the Application Site boundary. Water from the river was supplied to the Briquette Factory via a pump house.



Surface Water Infrastructure

The Littleton Briquette Factory and Littleton Works are considered to have had a long term slight negative effect on surface water infrastructure during the Peat Extraction Phase. Similarly to the Application Site, from 2001 onwards procedures at the Works and Factory were governed by the IPC Licence, however prior to 2001 control measures may not have been adequate to prevent pollution of surface water by activities at the Briquette Factory and associated works.

Wastewater Services and Infrastructure

Peat extraction ancillary activities at the Application Site had no impact or interactions on wastewater services. Therefore, there was no cumulative or in combination effects on the assets.

The workers on the Application Site would have made use of the wastewater services at the Littleton Works. Wastewater from the welfare facilities at Littleton Works received primary treatment in one of three septic tanks at the Works, with the effluent discharging to ground via soakpits. The septic tanks are visually inspected and cleaned bi-annually by a licenced waste permit holder to ensure the treatment system is working optimally

Waste Management

Waste Management Practices at the Littleton Briquette Factory and associated works were referenced in section 13.3.4.6, as the developments were incorporated under the same IPC Licence as the Application Site. Activities at the Briquette Factory and Works would have contributed additional volumes of waste and hazardous waste to what was generated by activities at the Application Site. Additionally, at the start of the Peat Extraction Phase some waste management procedures may not have been in line with best practice (prior to the IPC Licence).

The Littleton Briquette Factory and associated Littleton Works are therefore assessed to have had a long-term, slight negative cumulative effect on waste management during the Peat Extraction Phase.

Telecommunications & Aviation

Peat extraction and ancillary activities at the Application Site had no impact or interactions on telecommunications and aviation. Therefore, there was no cumulative or in combination effects on the assets.

13.3.7.2 Current Phase

Electrical Infrastructure

Trifol Resources Ltd set up a facility at The Site of The Former Littleton Briquette Factory. Aside from creating some additional demand on the local electricity grid, the activities at the Trifol Facility are not considered to have contributed significantly to a cumulative impact on electricity infrastructure during the Current Phase.

Gas Supply

Current Phase activities at the Application Site have had no impact on or interactions with the quality or supply of gas. Therefore, there was no cumulative or in combination effects on the assets.

Water Supply Infrastructure

Current Phase activities at the Application Site have had no impact on or interactions with the quality or supply of water. Therefore, there was no cumulative or in combination effects on the assets.



Surface Water Infrastructure

The Littleton Briquette Factory ceased operations in 2018, one year into the Current Phase activities at the Application Site. The Current Phase has had no impact on or interactions with the quality or supply of water. Therefore, there was no cumulative or in combination effects on the assets.

Wastewater Services and Infrastructure

Current Phase activities at the Application Site had no impact or interactions on wastewater services. Therefore, there was no cumulative or in combination effects on the assets.

The workers on the Application Site would have made use of the wastewater services at the Littleton Works. Wastewater connections from the Littleton Works ran to a septic tank.

Waste Management

The Littleton Briquette Factory was still in operation for the first year of the Current Phase as assessed. The Littleton Briquette Factory and associated Littleton works are assessed to have had a short term slight negative cumulative impact on waste management during the Current Phase.

Telecommunications & Aviation

Current Phase activities at the Application Site had no impact or interactions on telecommunications and aviation. Therefore, there was no cumulative or in combination effects on the assets.

13.3.7.3 Remedial Phase

Electrical Infrastructure

Potential future applications of the Application Site include wind energy generation. Should a wind farm be consented at the Application Site in the future it would result in the installation of additional grid infrastructure on site. This infrastructure should be designed in such a way as to not interfere with rehabilitation works at the Application Site.

Should a windfarm and associated electrical infrastructure be development at the Application Site in the future this would present a long-term positive effect on Irish national grid infrastructure.

Gas Supply

Remedial Phase activities at the Application Site will have no impact or interactions on the quality or supply of gas. Therefore, there will be no cumulative or in combination effects on the assets.

Water Supply Infrastructure

Remedial Phase activities at the Application Site will have no impact or interactions on the quality or supply of water. Therefore, there will be no cumulative or in combination effects on the assets.

Surface Water Infrastructure

As with electrical infrastructure, any future developments at the Application Site should be designed so as to create a net-positive impact on the surface water infrastructure at the Application Site. Any future developments and their associated surface water design should not interfere with the rehabilitation works ongoing at the Application Site.



Wastewater Services and Infrastructure

Remedial Phase activities at the Application Site will have no impact on wastewater services or infrastructure. Therefore, there will be no cumulative or in combination effects on the assets.

Waste Management

The potential future development of the Application Site may have a negative cumulative effect on waste management, depending on the nature of the development. The size and scale of the development would determine whether there are a negative cumulative effect and the magnitude of that effect. Any future development should have a detailed waste management plan to mitigate any effect, particularly during construction phase.

Telecommunications & Aviation

Remedial Phase activities at the Application Site had no impact or interactions on telecommunications and aviation. Therefore, there will be no cumulative or in combination effects on the assets.

13.3.8 Major Accidents and Disasters

There have not been any recorded major accidents or disasters that would have affected the material assets associated with the Application Site.

13.3.9 Conclusions

Of the three phases of works at the Application Site the Peat Extraction Phase was assessed to have had the largest effect on Material Assets (separate to traffic and transportation). This was due in part to the scale of the works, with the Peat Extraction Phase works being of a larger scale and more intensive than the Current or proposed Remedial Phase works.

The material assets most effected by works at the Application Site were surface water infrastructure and waste management. This was due to the nature of the works, with the emission of suspended solids in surface water and the creation of waste inherent to the peat extraction process. Control Measures were put in place prior to issuance of the IPC Licence and were subsequently upgraded with more stringent procedures, employee training programmes and surface water monitoring programmes introduced. The timing of the IPC Licence Issuance (2001) meant that improved control measures were in place for the latter part of the Peat Extraction Phase and have remained in place for the Current Phase and future Remedial Phase.

It was determined that there are no significant cumulative or in-combination effects from other developments surrounding the Application Site.



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