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3 CONSIDERATION OF REASONABLE ALTERNATIVES

3.1 INTRODUCTION

Article 5(1)(d) of Directive 2011/92/EU of the European Parliament and of the Council of 13 December 2011 on the assessment of the effects of certain public and private projects on the environment (as amended by Directive 2014/52/EU) requires that an EIAR includes:

“a description of the reasonable alternatives studied by the developer, which are relevant to the project and its specific characteristics, and an indication of the main reasons for the option chosen, taking into account the effects of the project on the environment.”

Article 5(1)(f) of the EIA Directive requires the EIAR to include:

“any additional information specified in Annex IV relevant to the specific characteristics of a particular project or type of project and to the environmental features likely to be affected.”

Annex IV of the EIA Directive specifies that an EIAR should contain:

“a description of the reasonable alternatives (for example in terms of project design, technology, location, size and scale) studied by the developer, which are relevant to the proposed project and its specific characteristics, and an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects”.

This chapter details the need for the Project and provides the background to the development programmes which led to the peat extraction activities at the Application Site which includes Derryhinch, Drumman, Derryarkin, Ballybeg and Toar Bogs. It also outlines the reasonable alternatives considered and provides the main reasons for the final choice, taking into consideration the environmental effects.

As outlined in the *Guidelines on The Information to be Contained in Environmental Impact Assessment Report* (Environmental Protection Agency, 2022), the consideration and presentation of reasonable alternatives constitute a key component of the Environmental Impact Assessment (EIA) process. .

3.1.1 Statement of Authority

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

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3.2 METHODOLOGY

The European Commission published several guidance documents in December 2017 in relation to Environmental Impact Assessment of Projects (Directive 2011/92/EU as amended by 2014/52/EU) including *Guidance on Screening, Guidance on Scoping and Guidance on the preparation of the Environmental Impact Assessment Report*. The EU *Guidance on the Preparation of the EIAR* (EU, 2017) outlines the requirements of the EIA Directive and specifies that, in addressing reasonable alternatives, an EIAR must include:

- A description of the reasonable alternatives studied; and,
- An indication of the main reasons for selecting the chosen option in consideration of the environmental impacts.

There is limited European and National guidance on what constitutes a ‘reasonable alternative’. The EU Guidance Document (EU, 2017) clarifies that:

“reasonable alternatives must be relevant to the proposed project and its specific characteristics, and resources should only be spent assessing these alternatives”.

The guidance also acknowledges that feasibility plays an essential role in determining whether an alternative is reasonable:

“an alternative should not be ruled out simply because it would cause inconvenience or cost to the developer. At the same time, if an alternative is very expensive or technically or legally difficult, it would be unreasonable to consider it to be a feasible alternative”.

The current EPA *Guidelines on the Information to be Contained in Environmental Impact Assessment Reports* (EPA, 2022) states:

“It is generally sufficient to provide a broad description of each main alternative and the key issues associated with each, showing how environmental considerations were taken into account in deciding on the selected option. A detailed assessment (or ‘mini-EIA’) of each alternative is not required.”

Taking into account the relevant legislative context and associated guidance, this chapter examines alternatives under the following headings:

- ‘Do Nothing’ Option;
- Alternative Locations;
- Alternative Industries;
- Alternative Layout;
- Alternative Processes;
- Alternative Control Measures; and,
- Alternative to the Rehabilitation Plan

Each of these alternatives is described and assessed in this chapter, considering relevance, feasibility and the environmental considerations that informed the final section.

3.3 TEMPORAL RANGE

As outlined in Chapter 1, this remedial EIAR assesses activities across three distinct timeframes:

- **Peat Extraction Phase:** peat extraction activities and all ancillary works at the Application Site from July 1988 until the cessation of peat extraction in June 2020.
- **Current Phase:** the management of the Application Site since June 2020 to present day.
- **Remedial Phase:** the activities proposed to be undertaken at the Application Site into the future as part of the remedial works programme.

As further described in Chapter 1, preparation works for peat extraction including drainage and vegetation clearance began in 1950 and industrial peat extraction commenced in 1958 across the Application Site.

Alternatives to peat extraction prior to 1988 have therefore been provided for context, to illustrate how and why, by 1988, peat extraction was so extensively developed at the Application Site, and how previously explored options informed the continuation of peat extraction beyond 1988 until June 2020.

It should be noted that, as the extraction has already taken place and ceased, alternatives to peat extraction itself are no longer feasible and cannot be assessed as practical options. The alternatives considered in this chapter therefore relate to the continuation of the Project after 1988, along with management and remedial activities relevant to the Current and Remedial Phases.

3.4 CONSIDERATIONS OF ALTERNATIVES

3.4.1 '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 remedial EIAR commenced in 1988, a time at which peat extraction was already well-established at the Application Site. In the context of this remedial EIAR, 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 1950.

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

In the event of the cessation of the Project at the Application Site in 1988, other land-use practices may have taken place on the Application Site in the intervening period such as agricultural or commercial forestry, or other commercial or non-commercial uses.

Under the 'Do-Nothing' option, IPC Licence Ref. P0501-01 would not have been granted by the EPA in 2000 and associated decommissioning and rehabilitation would not occur as required under that Licence.

By 1988, land use at the Application Site was well-established as industrial milled peat extraction, there was extensive drainage infrastructure installed on the site, with the Application Site drained close to its maximum extent. It is assumed in the 'do-nothing' scenario that drainage would have remained in-situ. Maintenance works to keep established drainage channels clear would have ceased as of 1988 in the 'do-nothing' scenario. It is likely that these areas would have been subject to natural recolonisation of the bog surface. 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 in 1988. If peat extraction and ancillary activities ceased from 1988 onwards, then the various residual effects, described throughout this remedial EIAR, 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 2020 and the Application Site needs to be considered in the context of regularising (without prejudice) the planning status of the lands to facilitate future development (subject to planning consent as required). The Application Site has and will continue to revegetate, and there will be a change from areas of cutover peatland to revegetated peatland. These are described in the individual chapters of the remedial EIAR.

3.4.2 Alternative Locations

The identification of suitable peat extraction sites within Bord na Móna's landholding began in 1935, when the then established Turf Development Board Ltd. (later Bord na Móna following the commencement of the Turf Development Act 1946) initiated a systematic national survey of Irish bogs. These surveys expanded on earlier assessments undertaken by the Bog Commissioners between 1810 and 1814, which examined the major bogs of Ireland in terms of their suitability for agriculture and provided an initial evidence base for later peat resource evaluations. Between 1935 and 1953, over 600 surveys were undertaken, enabling Bord na Móna to develop a detailed understanding of peat resources nationwide and to select appropriate sites for industrial peat extraction (Clarke, 2010).

The Application Site was selected for peat extraction due to the scale and quality of its peat resource and its strategic proximity to the ESB's 80 MW Rhode Power Station (constructed in 1960) and the Croghan Briquette Factory (constructed in 1961). By 1988, the Application Site benefited from substantial existing infrastructure, including an industrial rail network linking the bogs to both facilities, peat processing buildings, storage and workshop areas, and a locally based trained workforce.

By the baseline assessment year of 1988, the Application Site had become a well-established, large-scale, industrial peat extraction bog. Drainage infrastructure had been fully installed, peat extraction was ongoing, inter-bog connectivity was in place, and a suite of operational facilities supported efficient production. The established nature of these operations supported the continuance and expansion of peat extraction at this location.

Given that peat extraction and ancillary activities were already long established at the Application Site by 1988, selecting an alternative location at that time was not a viable option from an operational or environmental perspective. Extensive surveys had already identified and allocated suitable peatlands within Bord na Móna's landholding, all of which were in active or planned industrial peat production by 1988.

Relocating peat extraction to a site that had not yet been subject to drainage or extraction would have necessitated new drainage installation, site clearance, habitat disturbance, rail or road infrastructure development, and mobilisation of additional workforce and equipment. These actions would likely have generated considerably greater environmental effects than the continuation of extraction at a site where such impacts had already occurred. Continuing at the Application Site was therefore the most environmentally efficient and operationally feasible approach to meeting national energy requirements at the time.

3.4.3 Alternative Industries

The nature and makeup of landcover at the Application Site is fundamental to its selection and use in the peat extraction industry. As outlined in Section 3.4.2, the Application Site already benefited from significant onsite infrastructure, including an integrated rail network, peat processing buildings, proximity to other Bord na Móna facilities, and a trained local workforce, making the continuation of peat extraction the only economically and operationally viable option at that time.

Throughout the twentieth century, a range of initiatives were trialled to assess whether alternative industries could be developed on peatlands. These were informed by extensive peat and sub-soil surveys carried out by An Foras Talúntais¹ (AFT) from 1963 to 1969, which aimed to evaluate the suitability of cutaway peatlands for various land uses. The trials and their outcomes are summarised below.

3.4.3.1 Forestry

Forestry trials on peatlands began in the 1940s, including experimental plantings at Lyrecrumpane, Clonsast and Lullymore. In the late 1970s, Bord na Móna participated in a national biomass energy research programme which included planting 120 ha of short-rotation forestry at Clonsast and Boora. These trials produced poor yields and were not economically viable. A similar project at Oweninny, Co. Mayo also failed, leading to its termination in 1984.

In 1987, the Government decided that any cutaway bog areas which were deemed suitable for afforestation would be transferred by lease to the Forestry Service (later Coillte). The subsequent plantations resulted in major challenges including variable peat depths, local microclimatic conditions, and susceptibility to late frosts.

In 1998, a joint venture research project between Bord na Móna, Coillte and the Forestry Service was coordinated by UCD, named the BOGFOR Project. This confirmed that cutaway peatlands have potential for forestry only under carefully selected site conditions and intensive management (Renou-Wilson, 2008). Even then, commercial forestry is technically constrained and financially marginal.

Since the 1990s, Coillte has established conifer plantations on approximately 61 ha of Derryarkin Bog and 87 ha at Drumman Bog, both within the application boundary; however, these represent isolated plantations rather than a viable site-wide industry. Both areas of plantation are included in the application boundary.

¹ AFT was established with the Agriculture (An Foras Talúntais) Act, 1958. The chief function of AFT was 'to review, facilitate, encourage, assist, co-ordinate, promote and undertake agricultural research'.



3.4.3.2 Agriculture

Extensive trials were undertaken from the 1960s to explore agricultural production on cutaway peatlands. Early studies suggested grass crops were the most promising, leading to beef and sheep production trials at Timahoe, Lullymore, Clonsast, Derrygreenagh, and Oweninny. While certain areas achieved acceptable grass yields, severe limitations were encountered including:

- Inconsistent productivity on deep peat;
- Widespread mineral deficiencies requiring supplementation; and
- High livestock morbidity and poor economic performance.

Crop-based trials were also undertaken including cereals, vegetables, oilseed crops, and bamboo, with only limited success for beet and potatoes in specific deep-peat areas. Overall, agricultural experiments demonstrated that yields were significantly below commercially viable thresholds.

3.4.3.3 Horticulture

In 1966, Bord na Móna established a shrub nursery at Lullymore to test the potential for large-scale horticulture on cutaway peatland. Despite expansion and substantial investment in 1970, the nursery consistently struggled to achieve financial viability and was ultimately sold in 1988. The trials indicated that horticulture on cutaway peatland was not commercially sustainable at an industrial scale.

3.4.3.4 Sand and Gravel Extraction

Sand and gravel extraction is carried out at Derryarkin and Drumman Bog through Derryarkin Sand and Gravel DAC, a joint venture between Bord na Móna and Roadstone Ltd. Extraction commenced only after peat resources had been exhausted, with planning permissions granted in 2001 and 2002, followed by an extension permitted in 2019 (Ref. 1925). These extraction areas lie outside the current Substitute Consent boundary and are considered only in terms of cumulative impacts.

Such extraction is feasible only where mineral deposits naturally occur and is not viable as a complete alternative industry to peat extraction across the entire Application Site.

3.4.3.5 Renewable Energy

The first large-scale development or industry to be located on a cutover peat site was Bellacorick Wind Farm which was commissioned by BnM on Oweninny bog in Co. Mayo in 1992. This was followed by the adjacent Oweninny Wind Farm (Phase 1), a joint venture with ESB Networks, which was commissioned in 2019.

BnM has since developed numerous renewable energy developments, including Mountlucas Wind Farm, Bruckana Wind Farm, Cloncreen Wind Farm, Oweninny Wind Farm (Phase 2), Derrinlough Wind Farm, and Timahoe North Solar Farm. These developments play an invaluable role in decarbonising electricity production nationally, while providing additional benefits such as employment and the provision of public amenity in the form of walkways and other installations. Local communities also benefit from additional rates paid to the Local Authority which support the provision of local services, community benefit schemes, upgrading of road infrastructure in the vicinity of the developments as required, payment of taxes from the

developments, and dividends from BnM to the State, and indirect employment created through the sub-supply of a wide range of products and services.

Additionally, the permanent footprint of these renewable energy projects is relatively small to the extent of the lands on which they are sited, leaving land available for peatland rehabilitation and enhancement. The experience at BnM's existing wind energy developments has clearly demonstrated that peatland rehabilitation and wind farm development can co-exist successfully. The opportunity to build renewable energy infrastructure on land that can also develop as a carbon sink and enhance wildlife habitats presents a unique opportunity to meet Ireland climate change and biodiversity enhancement commitments.

It has generally been accepted by policy makers at national, regional and local level that the cutaway bogs present potentially ideal locations for renewable energy infrastructure. Of each of the alternative industries examined by BnM in devising plans for peatlands exclusive of peat extraction, renewable energy is the chosen option. The benefits, which include decarbonisation of electricity, employment opportunities, community benefits, and providing for significant rehabilitation and enhancement opportunities of peatlands make renewable energy the logical alternative option to peat extraction.

BnM recognises the Application Site as an important natural asset which has the potential to play a strategic role in meeting national climate action targets. Intact or functioning peatlands are natural carbon sinks which can play a considerable role in mitigating against the impacts of climate change. BnM has transitioned from peat production to renewable energy, sustainable waste management, carbon storage and biodiversity conservation.

The implementation of key elements of the 'Brown-to-Green' Strategy² between 2018 – 2020 resulted in both significant changes and progress in re-focusing and strengthening Bord na Móna's operations to renewable energy generation, recycling and the development of other low carbon enterprises. Bord na Móna formally announcement in January 2021 that all industrial scale peat extraction on lands within its management would permanently cease, representing a historic milestone in the implementation of the 'Brown-to-Green' strategy.

BnM continues to progress its 'Brown-to-Green' Strategy on the basis of 4 core strategic actions:

- Provide Ireland with sustainable energy from renewable sources at scale;
- Effectively rehabilitate our peatlands;
- Deliver world-class waste and resource recovery solutions; and,
- Help Ireland reimagine how it engages with climate action.

In line with Ireland's carbon reduction ambitions BnM intend to utilise, as appropriate, its landbank, including the Application Site, for both renewable energy infrastructure and rehabilitation measures to facilitate environmental stabilisation of the bog group and the optimisation of climate action benefits. The reduction of emissions is a key proponent of the enacted Climate Action and Low Carbon Development (Amendment) Act 2021, which aims to achieve a climate neutral economy by no later than 2050. The establishment of low carbon economies through increased renewable energy generation, including onshore wind, has

² [M15957 BnM Annual Report 2024 Interior Front End V5.indd](#) ('Brown to Green' Strategy is referenced in the Annual Report)

therefore become a time-critical consideration underpinning the current renewable targets for the country.

BnM's preferred option for future development within the Application Site is the development of renewable energy project across Derryarkin, Drumman, Derryhinch and Ballybeg Bog, currently known as Derrygreenagh Wind and Solar Project. The proposed development is currently at the design phase.

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

Any future development within the Application Site will be the subject of separate planning applications and the relevant environmental assessment and consent process, as required. Any future uses of the Application Site will be compatible with Bord na Móna's Draft Cutaway Bog Decommissioning and Rehabilitation Plans as required, which will be implemented irrespective of any future use of the lands, in accordance with EPA requirements under Condition 10 of the IPC Licence (P0501-01).

3.4.4 Alternative Layout

Peat extraction and ancillary activities have been ongoing at the Application Site since 1950. In the context of peat extraction, it is considered that drainage infrastructure is the defining element of the site layout. The orientation, spacing and connectivity of drains dictate how peat fields (production areas) are formed, how machinery can operate, and how peat can be transported for processing.

Drainage infrastructure was first installed on the Application Site in 1950. Although the number and alignment of drains were periodically adjusted to reflect changing local conditions such as peat depth, topography, settlement, or expansion into new production areas, the overall system remained broadly consistent. These adjustments enabled the drainage infrastructure to function efficiently and support ongoing extraction.

The configuration of the Application Site therefore reflected the principle that form follows function. The arrangement of fields, drains, rail alignments, access routes, and ancillary infrastructure was inherently shaped by the functional requirements of industrial peat extraction. Hydrology, gradient, peat depth, settlement behaviour, and safety considerations determined the only feasible layout.

Ancillary infrastructure - such as temporary rail lines, stockpiles, workshops, and haul routes- was positioned in support of this drainage-based arrangement. These features were adapted as needed (for example, relocating temporary rail lines to minimise fuel consumption and transport distances), but such adjustments did not constitute alternative layouts. Rather, they were operational responses within the constraints of the primary functional layout.

Given these technical and environmental constraints, no reasonable alternative layout existed. The layout used at the Application Site throughout the operational period represented the only practical, efficient, and environmentally consistent configuration capable of facilitating industrial peat extraction.

3.4.5 Alternative Processes

The methods used for peat extraction have developed over time, since the onset of peat extraction activities on Bord na Móna land in the 1940s, as outlined in Chapter 4. Over the decades, these processes have been continually improved, utilising the most up-to-date techniques and machinery to make the process as efficient as possible. The organisation of Bord na Móna bogs into bog groups enabled effective local oversight, ensuring that site-specific conditions were addressed in the most efficient manner.

The processes employed were informed by extensive observation, research and development to identify the most effective solutions available. Highly skilled staff working at the Application Site were an invaluable asset and their detailed knowledge of local bog conditions played an important role in determining which machinery was most suitable for tasks and whether modifications (carried out at Derrygreenagh Works) could further improve process efficiency.

Throughout the decades, Bord na Móna consistently updated machinery to reflect the best available technology, ensuring that the Project was operating with maximum efficiency, complied with safety standards and improved environmental performance. For example, the introduction of more modern and powerful tractor engines reduced the number of tractors required for peat extraction activities, thereby reducing fuel consumption and associated emissions.

3.4.5.1 Peat Extraction Processes

Sod peat extraction represented the earliest method used by the Turf Development Board, and subsequently Bord na Móna. Prior to the mechanisation of peat extraction, peat or ‘turf’ was cut manually in sod form using a shovel-type tool known as a ‘sleán’. The progression from hand-cut sod peat to mechanised sod extraction marked a major advancement, significantly increasing extraction speed and improving yields. Machinery known as “Baggers” (described in Chapter 4) produced sods of superior and more consistent quality. This improvement stemmed from the Bagger’s ability to macerate the peat prior to extrusion, blending peat from all strata within the trench to create denser and more uniform sods.

Several advantages of macerated, machine produced sod peat could not be achieved through traditional hand-cutting methods, including:

- Machine-produced sods had a higher calorific value during combustion due to their increased density and uniformity;
- The greater density of machine sods made their transport more efficient and economical;
- Machine sods dried more quickly than hand-won turf; and
- Once dried, machine sods were substantially more resistant to water absorption than hand-won sods.

The potential use of milled peat for energy generation was later explored between Bord na Móna and the Electricity Supply Board (ESB) in the early 1950s, as outlined in Chapter 4, during the initial years of the Second Development Programme.

Milled peat extraction was originally developed to support the production of manufactured peat briquettes. Over time, however, several key advantages emerged that made milled peat more suitable than sod peat for electricity generation, particularly at large-scale power plants.

- **Improved Consistency of Peat:** Milled peat consists of fine particles that are spread and dried on the bog surface before harvesting. Compared with sod peat, milled peat has a more consistent moisture content and particle size. This level of consistency is particularly important for large-scale power stations, as it enables more stable combustion processes and consequently, more efficient energy generation than is achievable with sod peat.
- **Increased Yields:** Milled peat extraction generally enabled higher yields from the same bog area. This advantage was partly attributable to its faster drying time. While both sod peat and milled peat were spread on the bog surface for drying, the smaller particle size of milled peat allowed it to dry significantly faster than sod peat, improving overall production efficiency.
- **Suitability for Large-Scale Power Generation:** The higher yields associated with milled peat ensured that larger volumes of fuel could be secured to support major electricity generation facilities. The consistent composition of milled peat also allowed for more efficient and controlled combustion in power station boilers. Furthermore, milled peat could be continuously fed into boiler systems, a process not feasible with sod peat, thereby supporting the operational requirements of large-scale generators.

By the time peat extraction activities commenced at the Application Site, milled peat extraction was considered the optimal method available, and as such it was the peat extraction method chosen for the Application Site. This milled peat supplied the milled peat-fired Rhode Power Station and Croghan Briquette Factory.

3.4.6 Alternative Control Measures

From 1988, and prior to the implementation of IPC Licence Ref. P0501-01 in 2000, a range of environmental and operational control measures were implemented across the Application Site, as outlined in Chapter 4. Silt management has long been a key environmental consideration. The 1991 Harkins Report (Appendix 4-7) demonstrates that silt control measures, including the use of silt ponds, were already in place prior to 1988. Throughout the 1980s and 1990s, Bord na Móna undertook additional studies and surveys to enhance the performance of these ponds. This included the construction of new silt ponds to allow for the continued treatment of surface water run-off while existing ponds were being cleaned or maintained. These measures were designed to reduce suspended soils and improve the quality of site run-off.

During the 1980s, following the discovery and preservation of wooden trackways at Corlea Bog, Co. Longford, Bord na Móna initiated a dedicated peatland archaeology programme. An annual archaeological survey campaign commenced in 1991, initially funded by the National Monuments Service, with survey results submitted for inclusion in the Sites and Monuments Record.

The introduction of the *Turf Development Act 1998* formalised Bord na Móna's statutory duty to ensure that its activities afforded appropriate protection to both the environment and the archaeological heritage (Section 56) of the Act. In parallel, *Agreed Principles for the Protection of Wetlands Archaeology in Bord na Móna Bogs* (1998) were developed jointly by the Minister

for Arts, Heritage and the Gaeltacht, the National Museum of Ireland, and Bord na Móna. These principles established ten standards governing archaeological management across peatland operations. Five Archaeological Liaison Officers were appointed across the company's bog groups and trained to identify, manage, and report archaeological finds. From 1998 onwards, all archaeological surveys were funded directly by Bord na Móna, supported by selective excavation programmes and paleo-environmental analyses. By 2013, approximately 64,000 ha of Bord na Móna's c. 80,000 ha estate had been subject to archaeological survey.

In 2012, a *Code of Practice*³ between the Department of Arts, Heritage and the Gaeltacht, the National Museum of Ireland and Bord na Móna superseded the earlier Agreed Principles. This Code established a structured framework within existing legislation and policy to ensure that peat extraction and associated activities could continue while maintaining appropriate archaeological protection and oversight.

The Conditions of IPC Licence Ref. P0501-01 were implemented across the Application Site from April 2000, as outlined in Chapter 4. The IPC Licence contains 14 conditions which govern the management of emissions and environmental risks associated with peat extraction activities. has adhered to these mitigation and control measures since the licence was granted and will continue applying the relevant measures following site decommissioning.

Overall, Bord na Móna has consistently implemented a suite of environmental, hydrological, and archaeological control measures, many of which were adopted voluntarily and ahead of statutory or licensing requirements. These measures were developed in consultation with relevant expert stakeholders and were proportionate to the scale, nature, and timing of the activities undertaken. It is concluded that the controls applied across the Application Site from 1988 to the present represented the optimum practicable measures available in the context of the technologies, regulatory frameworks, and industry standards of the time.

3.4.7 Alternative to Rehabilitation Plans

Under Condition 10 of the EPA Licence Ref. P0501-01, Bord na Móna is statutorily required to rehabilitate the peatlands of the Derrygreenagh Bog Group, including the Application Site, following site decommissioning.

Draft Cutaway Bog Decommissioning and Rehabilitation Plans have been prepared for much of the Application Site. In accordance with EPA requirements, final Rehabilitation Plans will be completed and implemented once decommissioning is concluded and following agreement with the EPA. The Cutaway Bog Decommissioning and Rehabilitation Plans are provided in Appendix 4-3, and the EPA licence decommissioning requirements are set out in Appendix 4-1.

A theoretical alternative would be to not implement any rehabilitation plan. However, this is not a viable option, as the implementation of rehabilitation works is a mandatory requirement of the EPA licence, independent of this application for Substitute Consent. Accordingly, rehabilitation will proceed irrespective of the outcome of this planning process and will be delivered in compliance with Condition 10 and all associated EPA guidance and approvals.

³ 2012 Code of Practice between the Department of Arts, Heritage and the Gaeltacht, the National Museum of Ireland and Bord na Móna

<https://www.archaeology.ie/sites/default/files/media/publications/cop-bord-na-mona-en.pdf>



The discharge of Condition 10 will enable the permanent rehabilitation of the Application Site in a manner that is compatible with potential future end-uses, including the development of renewable energy infrastructure. As outlined in the Cutaway Bog Decommissioning and Rehabilitation Plans, the implementation of the agreed rehabilitation measures is expected to remediate significant environmental effects associated with peat extraction activities.

3.5 CONCLUSION

The location, characteristics, landcover and overall scale of the Application Site were the determining factors in its original selection by Bord na Móna, under the statutory powers of the *Turf Development Act 1946*, as a strategically important national resource to produce peat-based fuel for the state. In 1988, no alternative industries or land uses were feasible at this location, and any alternative sites capable of supporting comparable industrial peat extraction would necessarily have been other extensive peatland areas already acquired and developed by the State for this specific purpose. As such, no reasonable or realistic alternative locations or industries existed at that time.

Similarly, because peat extraction was already established at the Application Site by 1988 and continued until its permanent cessation in June 2020, a 'Do-Nothing' scenario is not credible, as the Project has already occurred. Building on the operational success achieved between 1958 to 1988, peat extraction and ancillary works were expanded from 1988 onwards through the enlargement of the actively worked areas within the Application Site.

Following the adoption of Bord na Móna's *Brown-to-Green Strategy* and the cessation of peat extraction in June 2020, Bord na Móna (BnM) recognises the potential to transition the site from historical peat production to a sustainable, clean and renewable energy asset. This transition can occur alongside ongoing peatland rehabilitation, the enhancement of ecological value, and the creation of opportunities for amenity, tourism and employment.

Accordingly, the preferred future use for the Application Site includes the potential development of Derrygreenagh Wind and Solar Project. This future use will be compatible with, and can be delivered in parallel with, the statutory peatland rehabilitation obligations set out under Condition 10 of the site's IPC Licence. Any such future development will be the subject of a separate planning application and environmental assessment, as required.

