

# Appendix 6.1

## Responses from Stakeholders



Your Ref: 229384224  
Our Ref: **G Pre00071/2020**  
(Please quote in all related correspondence)

20 May 2020

Mott MacDonald  
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Via email: Bernard.dee@mottmac.com

**Re: Environmental Impact Assessment Report in relation to applications by Bord na Móna for Substitute Consent for its historic peat extraction activities on 41 individual bog units and future peat extraction activities on selected individual bog units situated across Counties Offaly, Westmeath, Laois, Meath, Kildare and Longford**

A chara

On behalf of the Department of Culture, Heritage and the Gaeltacht, I refer to correspondence received in connection with the above.

Outlined below are nature conservation observations/recommendations of the Department under the stated heading(s).

The Department refers to your letter dated 27<sup>th</sup> April 2020, regarding Bord na Móna's intention to seek Substitute Consent from An Bord Pleanála under Section 177E of the Planning and Development Act 2000, as amended, for the above mentioned activities. The Department understands that leave has been granted by An Bord Pleanála to pursue this application or applications. Your letter indicates that a Remedial Environmental Impact Assessment Report (rEIAR) is currently being prepared which will accompany applications to An Bord Pleanála for Substitute Consent. The Department notes that Mott MacDonald has been commissioned by Bord na Móna to act as lead consultants in relation to these applications for Substitute Consent and as part of the EIAR process are engaging in consultation with prescribed bodies and other organisations seeking observations on the proposed applications and inputs in relation to environmental assessments.

The following observations are made by the Department as the authority with overarching responsibility for nature conservation and the nature directives (i.e. the Birds and Habitats Directives). The observations are not exhaustive and are intended to assist you in



addressing potential impacts in relation to biodiversity and nature conservation in any environmental assessments you are preparing as part of applications for planning consent.

The Department notes the relatively short three week timeframe within which comments were sought. In light of this and given the scale of the application, the observations provided here are made without prejudice to any observations or recommendations that may be made by the Minister in the future.

The Department understands that applications to An Bord Pleanála for Substitute Consent will be made for historic peat extraction and related activities associated with 41 bog units which form part of seven individual EPA IPC licenced bog groups. The bog units are situated in counties Offaly, Westmeath, Laois, Meath, Kildare and Longford. It appears that the rEIAR being prepared will accompany a number of Substitute Consent applications. The Department notes that the rEIAR will also accompany planning applications to a number of planning authorities for consent for continued peat extraction. Therefore, this consultation request relates to a number of development proposals and environmental assessments being submitted to several different planning authorities. Details of historic and proposed future developments at individual bog unit level are not provided in your letter. It is not known what these future developments will entail. The Department would welcome further detailed and timely scoping consultation in relation to individual proposals for future development at these sites. The Department will confine its observations here to matters relating to the Substitute Consent process and environmental assessment of historic activities.

In relation to environmental assessment which may be required both in relation to applications for substitute consent and future proposed development, the Department notes that consideration must be given to potential impacts to European sites. As you will be aware the Planning and Development Act, 2000 (as amended) requires that screening for appropriate assessment and where required, appropriate assessment be undertaken for all development proposals. This is required in order to meet the obligations arising from the provisions of Article 6(3) of the Habitats Directive. These requirements are addressed in more detail below.

In addition, the Department draws your attention to the duties of public authorities in relation to nature conservation as set out in Regulation 27 of the European Communities (Birds and Natural Habitats) Regulations 2011 (as amended). Public authorities are obliged, when exercising their functions, to take appropriate steps to avoid, in European sites, the deterioration of natural habitats and the habitats of species, as well as disturbance of species for which a site has been designated insofar as this disturbance could be significant in relation to the objectives of the Habitats Directive. Public authorities, in the exercise of its functions, must also strive to avoid pollution or deterioration of habitats outside Special Protection Areas in accordance with Regulation 27(4) and Article 4(4) of the Birds Directive.



## Matters relating to the Remedial Environmental Impact Assessment Report:

### Scope of the Project

The Department notes that only a portion of Bord na Móna's landholding of 80,000Ha is to be included in these Substitute Consent applications. Some sites, which have seen active peat extraction as recently as 2019, have been excluded. Clarification in relation to the scope of Substitute Consent applications should be given in the application documentation. It is unclear from the rEIAR what is proposed for the bogs which were omitted. In situations where there has been, or there is ongoing, peat extraction or other development on bogs to which the Substitute Consent applications relate but which are not the subject of these applications, the cumulative impacts of these developments together with the impacts to which the Substitute Consent applications relate, should be assessed.

The Department notes that the Substitute Consent process seeks to regularise historic peat extraction using two different harvesting methods, namely milling and sod moss for horticulture. The Department understands that on many of the bogs, turf cutting by third parties, is also taking place, primarily at the edge of uncut remnant raised bogs, often at the periphery of central peat extraction areas. Such areas are included in the map which accompanied your letter (Substitute Consent Bogs, P1, 27/04/20). The map appears to also include lands in the Minister's ownership at Boora, Co. Offaly. The extent and scope of the developments for which consent is sought must be clearly defined in the rEIAR. Precise mapping of the project area should be included. Where third party turf cutting is not included in the applications to the Board, the cumulative impacts of any such peat extraction together with milling and sod moss production on the same bogs should be assessed.

### Project description

The rEIAR should describe in detail the project activities, including the use of peat resources, which have taken place from 1st February 1990, when the EIA Directive (85/337/EEC) was transposed into Irish law. It is important that spatial and temporal details of peat resource use and drainage operations are included. Your letter states that peat extraction related activities including the drainage of peat extraction areas, peat handling activities and ancillary works associated with peat extraction such as workshops, fuel storage area and canteens will be included in the rEIAR. The rEIAR should also include activities such as drain maintenance, settlement ponds and silt traps, disposal of silt, use and disposal of materials such as plastic sheeting, landscaping, mechanical and chemical clearance and destruction of vegetation. The timing of vegetation clearance operations should be provided to enable the assessment of impacts on habitats, flora and fauna.

It is noted that the rEIAR will include consideration of a number of off-site but related projects including end use projects, such as Edenderry Power Plant, Derrinlough Briquette Factory, and horticultural peat processing factories located at Kilberry, Coolnamona and



Ballivor. The rEIAR should also include an assessment of any other off-site projects linked to the main project by the movement / transport of material to other sites and locations.

In addition the rEIAR should also consider secondary projects, as appropriate. These are projects that arise largely because of the existence of the principal project, though they are usually not carried out by the developer of the principal project. Such projects include recreational land-use projects (e.g. development of walking and cycling facilities), and afforestation of cutaway bog.

The rEIAR should describe baseline environmental conditions as they were on 1<sup>st</sup> February 1990. The description of the baseline environment needs to be sufficiently accurate to provide a reliable reference against which impacts can be assessed. As the bog units have been in Bord na Móna's ownership since the reference date, significant internal sources of information should be available. Sources of external historical baseline information include data from state agencies such as EPA monitoring data, including river and lake water quality monitoring, bird, mammal, butterfly and plant atlases, aerial photography and reports, including raised bog reports available from the National Parks and Wildlife Service on request.

#### Impact Assessment

The rEIAR must contain a statement of the significant effects, if any, on the environment, which have occurred or which are occurring or which can reasonably be expected to occur because the development the subject of the application for substitute consent was carried out<sup>1</sup>. Potential impacts should be identified using the source-pathway-receptor approach. Impacts should be assessed by analysing the effects of each impact on ecological receptors. The ecological significance of such effects should then be reported in relation to each receptor and appropriate mitigation and/or remediation proposed. The rEIAR must identify and describe adequately the direct and indirect significant effects on the environment of the development<sup>2</sup>. Potential impacts which may be significant and which should be assessed include:

1. Habitat loss (both temporary and permanent)<sup>3</sup>
2. Species loss (including loss of typical raised bog flora and fauna)<sup>4</sup>
3. Habitat Fragmentation
4. Hydrological and Hydrogeological impacts
5. Nature Conservation site impacts (e.g. proposed Natural Heritage Areas, Natural Heritage Areas, Nature Reserves etc.)
6. Emissions to air (dust, ammonia) from operations and storage of peat

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<sup>1</sup> Section 177F(1)A(a) of the Planning and Development Act, 2000, as amended

<sup>2</sup> Section 177E(4A)(a) of the Planning and Development Act, 2000, as amended

<sup>3</sup> The loss of habitat in the reference period should be quantified.

<sup>4</sup> Biodiversity loss (including typical raised bog flora and fauna) in the reference period should be quantified



7. Impacts to climate
8. Invasive species impacts
9. Increase in predation of ground nesting birds due to afforestation and habitat degradation
10. Ecological impacts of dumping
11. Disturbance to habitats and species both from operations and other activities (including recreational use)
12. Fires

The rEIAR should identify the extent of peatland habitats and species present during the timeframe of the historic peat extraction within the 41 bog units and it should assess impacts from peat extraction and related works and activities on these habitats and species during that period up to the present date.

The primary emissions to water associated with peat harvesting are discharges arising from the bog surface water drainage channels. Water can be pumped and gravity fed. Environmental impacts generally relate to the release of suspended solids and ammonia to streams and rivers and to resultant hydromorphological alterations to these watercourses. All such potential impacts must be assessed. For example, there is evidence that high levels of ammonia are being released from peat-extraction activities during the draining process and along with suspended solids, may be causing ecological impacts in receiving water bodies<sup>5</sup>.

It is the Department's understanding that EPA Integrated Pollution Control (IPC) licencing, limits the discharge of suspended solids to 35mg/l for all surface water outfalls from boglands within licenced areas. In addition there are a number of parameters monitored on a quarterly basis such as pH, flow, suspended solids, total solids, total phosphorus, total Ammonia, colour and Chemical Oxygen Demand (COD). It is important that the focus of impact assessment in relation to biodiversity should be on impacts to sensitive ecological receptors and not only on compliance with water quality standards as set down in EPA licences.

Environmental impact assessment should also take account of cumulative impacts which may arise as has been set out above.

#### Remedial measures

The rEIAR must also contain details of any appropriate remedial measures undertaken or proposed to be undertaken by the applicant for substitute consent to remedy any significant adverse effects on the environment and the period of time within which any proposed remedial measures will be carried out by or on behalf of the applicant<sup>6</sup>. The Department

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<sup>5</sup> River Basin Management Plan for Ireland 2018 – 2021

<sup>6</sup> Section 177F(1)(b) of the Planning and Development Act, 2000, as amended



recommends that any such measures should be based on the significant effects identified in the assessment and should be informed by the following:

- The requirements of the Habitats Directive (92/43/EEC), Birds Directive (2009/147/EC), Water Framework Directive (2000/60/EC), Wildlife Act 1976 (as amended) and the European Communities (Birds and Natural Habitats) Regulations, 2011 (as amended). National Peatlands Strategy 2015
- River Basin Management Plan for Ireland 2018 – 2021
- National Biodiversity Action Plan 2017-2021
- Climate Action Plan 2019 and National Climate Policy
- Planning policy at national, regional and local level

Remedial measures should not, however, rely on measures to be undertaken in the above plans but should be specific measures based on a full assessment to the project(s) to which the applications to An Bord Pleanála relate.

The Department notes that Bord na Móna is currently producing rehabilitation plans for all Bord na Móna bogs to stabilise former peat production areas and enhance biodiversity. Should measures included in such plans be included as remedial measures for the purposes of the developments under consideration, they should relate specifically to the significant effects identified in the rEiAR and should provide adequate remediation of these effects.

#### Matters relating to Appropriate Assessment:

As noted above the Department advises that screening for appropriate assessment and if required, appropriate assessment must be undertaken in respect of the peat extraction projects which are the subject of planning applications.

The peat harvesting activities associated with the 41 Bord na Móna bog units have occurred upstream of, downstream of, and adjacent to European sites. Screening for appropriate assessment should focus on the likely significant effects of peat extraction and related activities on European sites noting that impacts to sites via air and water may occur over large distances. The Department is of the view that the preparation of a remedial Natura Impact Statement (rNIS) (see Section 177G of the Planning & Development Act 2000 (as amended)) may be required in relation to these planning applications. You should note the specific requirements for a rNIS as set out in Section 177G(a) of the Planning and Development Act, 2000, as follows:

*“A remedial Natura impact statement shall contain the following:*

- (a) A statement of the significant effects, if any, on the relevant European sites which have occurred or which are occurring or which can reasonably be expected to*



*occur because the development the subject of the application for substitute consent was carried out;”*

It is noted that the scope of any rNIS should include the timeframe from the date of enactment of the European Communities (Natural Habitats) Regulations, 1997 (26<sup>th</sup> February 1997) to the present date.

The rNIS should provide a full description of the development and each bog unit within the development. It is noted that the map provided with your letter outlines 41 bog units in seven groups and that the area covered by these bog units includes areas and activities in addition to the harvesting operations for which it is intended to seek Substitute Consent.

All relevant stages, works and processes associated with site preparation, operation and decommissioning of the peat harvesting activities historically should be taken into account as part of the assessment undertaken subject to the appropriate legislative timeframe. This includes access provision, clearance and stripping of vegetation and overburden, expansion, extraction and processing operations over time, machinery and materials used, surface water and groundwater management, silt and sediment control, discharges and emissions, berms and landscaping, transportation infrastructure, waste storage and management, site restoration, reinstatement and after-use.

Any rNIS (and subsequent appropriate assessment) should examine the implications of the project, individually and in-combination with other plans and projects, for the Qualifying Interests (QIs), or the Special Conservation Interests (SCIs), of the European site(s) concerned, in view of the site’s conservation objectives and in light of the best scientific knowledge in the field. Any assessment cannot have lacunae or gaps, and must contain complete, precise and definitive findings and conclusions. Where appropriate any rNIS must put forward mitigation or remedial measures and demonstrate clearly that these measures are effective in addressing the impacts identified and capable of full implementation. The timeframe during which these remedial or mitigation measures are to be carried out must also be indicated. The rNIS should form the basis for an appropriate assessment to be undertaken by the competent authority. Competent authorities can authorise a project only after having made certain that the project will not adversely affect the integrity of a European site(s). This is so when there is no reasonable scientific doubt as to the absence of such effects.

The Department recommends that any rNIS should consider the historic and current threats and pressures to European sites in its analysis. All impacts that have occurred should be identified and assessed and it should not be assumed that because compliance has occurred with licence conditions during peat harvesting operations (e.g. EPA IPC licence), that no adverse impacts have occurred to European sites. Scientific data available for the time period involved should be utilised including the Article 17 (Habitats Directive)





assessment of conservation status reports (2007, 2013 & 2019) and the Article 12 (Birds Directive) status and trends of Ireland's bird species reports.

Some key impacts on European Sites from historic peat harvesting operations, which should be considered in any rNIS, include:

- Drainage
- Hydrological effects (both surface and ground water)
- Silt/Sediment run off via surface water & drains
- Particulate emissions from operations and storage of peat
- Ammonia emissions from operations
- Disturbance to habitats and species both from operations and other in-combination activities including, for example, recreational use
- Fires
- Invasive species
- Illegal dumping
- Habitat fragmentation
- Pumping of water off sites

The rNIS should focus on source-receptor pathways in identifying the impacts of peat harvesting activities and their effects. The ecological effects of specific impact that have occurred in relation to the habitats and species for which European sites have been designated should be assessed both individually and in-combination with other plans and projects and appropriate mitigation and remedial measures proposed as part of any assessment.

#### Future use

The Department recognises the opportunity for climate change mitigation through the rewetting and restoration of dry, bare cutaway bog, thereby lowering carbon emissions from these sites as well as restoring biodiversity and notes that this is an objective of the National Peatland Strategy 2015 and the Climate Action Plan 2019. Detailed and specific rehabilitation plans for sites will be required to achieve these outcomes. The Department is of the view that any proposed peat extraction or other proposed developments at such sites must be designed taking full account of the detailed and specific requirements of rehabilitation planning at these sites. Rehabilitation plans should inform the peat extraction process so as to optimise the potential of any bog unit to recover after decommissioning, in terms of biodiversity, reductions in carbon emissions and all other ecosystem services.



The above observations/recommendations are based on the papers submitted to this Department on a pre-application basis and are made without prejudice to any observations that the Minister may make in the context of any consultation arising on foot of any development application referred to the Minister, by the planning authority/ies, in her/his role as statutory consultee under the Planning and Development Act, 2000, as amended.

You are requested to send further communications to this Department's Development Applications Unit (DAU) at [manager.dau@chg.gov.ie](mailto:manager.dau@chg.gov.ie) (team monitored); if this is not possible, correspondence may alternatively be sent to:

The Manager  
Development Applications Unit (DAU)  
Department of Culture, Heritage and the Gaeltacht  
Newtown Road  
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Y35 AP90

Is mise, le meas

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Joanne Lyons  
Development Applications Unit

# BUTTERFLY CONSERVATION IRELAND

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Pagestown,  
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May 12th 2020

Your ref: 229384224

Dear Mr Dee,

**Re: EIAR in relation to applications by Bord na Móna for Substitute Consent for peat extraction, historic and future on 41 bog units across Counties Offaly, Westmeath, Laois, Meath, Kildare and Longford**

Thank you for your letter dated 27<sup>th</sup> April 2020 seeking the views of Butterfly Conservation Ireland concerning the matter stated above.

Butterfly Conservation Ireland Limited is a conservation NGO and registered charity formed in 2008 by a group of dedicated naturalists following the alarming decline of most of our butterfly species. This decline has been ongoing since the 1970s and has accelerated in recent years. Butterfly Conservation Ireland is committed to the conservation of butterflies, moths and their habitats.

We operate a nature reserve at Lullybeg, County Kildare in partnership with Bord na Móna. Active conservation techniques are implemented on the 30-hectare site to enhance the habitats for several scarce and endangered species.

Butterfly Conservation Ireland advises and provides information to organisations, the general public and individuals concerning butterfly conservation. We make submissions on developments that would impact negatively on important butterfly areas and on endangered species. We run a programme of events, free to all. Our website is found at <https://butterflyconservation.ie/wp/>.

The submission below was prepared by Mr Jesmond Harding, the author of the award-winning book “Discovering Irish Butterflies & their Habitats” published in 2008. Mr Harding has had articles on lepidoptera published in various periodicals such as “Peatland News”, the Irish Naturalists’ Journal, the online nature magazine Wildlife Extra, Woodland (the magazine of the Native Woodland Trust), Burren Insight (magazine of Burrenbeo Trust), Wings (periodical of Birdwatch Ireland) etc. Mr Harding is a member of the expert group that drew up the red list for Irish butterflies in 2010 (Ireland Red List No. 4). He advises on habitat creation and management, especially for species under threat of extinction and advises the Irish Peatland Conservation Council on the conservation of butterflies on its reserves. His current projects include involvement in three lepidoptera recording programmes, member of the co-ordination committee for the Butterfly Atlas Project 2017-2021, liaising with the Burrenbeo Conservation Volunteers and Burren Life Programme to manage special habitats on limestone, site management of Butterfly Conservation Ireland’s reserve at Lullybeg, County Kildare and manages the Butterfly Conservation Ireland website.

Butterfly Conservation Ireland favours peatland preservation and the restoration of damaged peatlands. These habitats are important for flood control and flood mitigation. While rainfall shows great inter-annual variability, a 30-year mean of the national annual rainfall indicates an increase in average national rainfall of approximately 70mm over the last two decades. All seasons show a small increase in totals over the last few three decades. Flooding is expected to increase as a result of climate change, with Met Eireann predicting that the frequencies of heavy precipitation events show notable increases of approximately 20% during the winter and autumn months by 2050.

Butterfly Conservation Ireland also highlights the highly polluting nature of peat incineration. Burning it for electricity emits more carbon dioxide than coal, and nearly twice as much as natural gas. In 2016, peat generated nearly 8% of Ireland's electricity, but was responsible for 20% of that sector's carbon emissions. The stated goal of Bord na Móna according to Joe Lane, Chief Operating Officer, is to cease cutting peat. The permission being sought is at variance with this claim and the need to reduce CO2 emissions.

Butterfly Conservation Ireland is particularly concerned at the impact of ongoing bog habitat loss on specialist Lepidoptera species. The Large Heath *Coenonympha tullia* rated "Vulnerable" on Ireland Red List No.4: Butterflies 2010 (also rated Vulnerable on the European Red List) is the butterfly most at risk because it is dependent on wet bogs for survival. Thomas 2014 comments on its decline in Ireland: "No-one doubts, however, that the widespread loss of peatlands in Ireland is causing numerous local extinctions in the species' stronghold (Thomas is referring to Ireland's populations in the context of the populations found throughout the British Isles) and is a very great cause for concern". There are a range of Lepidoptera species that depend exclusively or chiefly on wet bogs; examples include Green Hairstreak *Callophrys rubi*, Beautiful Yellow Underwing *Anarta myrtillin* Argent & Sable *Rheumaptera hastata*, (rated Vulnerable) Emperor Moth *Saturnia pavonia* and Dark Tussock *Dicallomera fascelin* (rated Near Threatened). In addition, some species inhabit areas at the edge of bogs, where peat exists but where drier conditions occur. The Marsh Fritillary *Euphydryas aurinia* (rated Vulnerable) is one example.

Accordingly, Butterfly Conservation Ireland would like to see these peatlands restored and preserved, not cut for peat.

Yours sincerely,

Mr. Jesmond Harding,  
Secretary,  
**Butterfly Conservation Ireland.**

Directors: Michael Jacob [Chairman] Jesmond Harding, Kieran Buckley, Joseph Harding.

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Bernard Dee  
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18 May 2020

**Environmental Impact Assessment Report in relation to applications by Bord na Mona for Substitute Consent for its historic peat extraction activities on 41 individual bog units and future peat extraction activities on selected individual bog units situated across Counties Offaly, Westmeath, Laois, Meath, Kildare and Longford.**

Dear Bernard,

As you are aware, IFI is charged with the protection, conservation and promotion of fisheries within our functional area. Board policy is aimed at maintaining a sustainable fisheries resource through preserving the productive capacity of fish habitat by avoiding habitat loss, or mitigating harmful alteration to habitat.

With reference to the maps supplied, the highlighted peatlands fall within the catchments of the Barrow, Shannon, Boyne, Nore and Liffey Rivers.

The Barrow River is an important Spring Salmon & trout fishery and supports several species listed in Annex II of the Directive including Salmon, River Lamprey, Brook Lamprey, Sea Lamprey, Freshwater Pearl Mussel and Otter. Much of the main channel of the Barrow River and many tributaries are candidate Special Areas for Conservation (SAC) under the European Habitats Directive.

Within the Barrow catchment, the majority of highlighted peatland sites fall within the catchment of the Black River, which is composed of four tributaries, the Figile, Philipstown/Daingean, Slate and Cushina. The Black River is by far the largest tributary of the Barrow system draining, 622km<sup>2</sup> and represents 21% of the entire Barrow catchment. Other Barrow waters draining from Bord na Mona peatlands on the supplied map include the Barrow main channel, Owenass River, Finney River and the Athy Stream.

The Shannon is Ireland's largest River and Shannon tributaries draining the Bord na Mona peatlands include the Inny, Brosna, Little Brosna, Kilcormac and Camcor Rivers.

The Inny River rises near Oldcastle, Co Meath, and connects several important midland lakes, including Lough Sheelin, Lough Kinale and Lough Derravaragh flowing to Lough Ree. The River Inny and its tributaries hold good stocks of brown trout and has good salmonid habitat. River Inny trout are a key component of the Lough Ree trout populations, it also supports coarse fish populations. Crayfish and lamprey are also present. The River Inny is an important spawning artery for Lough Sheelin trout. Lough

Sheelin is of international importance as a lake capable of supporting substantial stocks of large wild brown trout.

Lough Kinale and Derragh Lough (SPA) holds good stocks of coarse fish, with brown trout present and are a vital spawning route for Lough Sheelin trout to run up the Glere River system. Crayfish are present also. Lough Derravaragh (SPA) has good stocks of brown trout, European eel and coarse fish. A substantial investment has been made over the last 30 years to enhance and rehabilitate the spawning and nursery habitat of the River Inny, Lough Sheelin and Lough Derravaragh's tributary streams by IFI in conjunction with local Angling groups and stakeholders.

The waters draining the Boora complex and associated peatlands feed into the Little Brosna and Kilcormac River systems, and represent important nursery and rearing habitat for salmonids. The Little Brosna and Camcor systems also hold stocks of the unique, genetically distinct migratory brown trout, the Croneen. The trout spawns in these tributary streams before migrating to Lough Derg to feed. The water quality in these reaches achieves Q4 and Q4-5 in many sites and against a background of a general decline in river water quality; it is of utmost importance to prevent any deterioration that would jeopardize the future survival of Croneen.

The Shannon Salmon Restoration Project, launched in 2010 by the Shannon Regional Fisheries Board is committed to the restoration of sustainable stocks of salmon throughout the Shannon Catchment. The River Shannon, River Inny and Brosna are central to this plan. To support the project and in the interests of sustainability it is imperative that the development is cognisant of the River Shannon's ability to support salmon, allow for full passage and optimum survival of this species and do not impact on this plan in any negative way.

The River Boyne is an important Spring Salmon, grilse, sea trout and Brown Trout fishery. It supports several species listed in Annex II of the Directive including Salmon, River Lamprey, Brook Lamprey, Sea Lamprey, White-Clawed Crayfish, and Otter. It also supports the Kingfisher, which is included in Annex 1 of the Birds Directive. Much of the main channel of the River Boyne and many tributaries are Special Areas for Conservation (SAC) under the European Habitats Directive.

Within the Boyne catchment, the majority of highlighted peatland sites fall within the Bracklin, Carranstown, Ballivor and Kinnegad sections of the Derrygreenagh Group of Bord na Mona. The Bracklin section lies within the sub-catchment of the River Deel. The Carranstown and Ballivor sections lie within the Stonyford River sub-catchment and the Kinnegad section lies within the Kinnegad River sub-catchment. All of these are notable salmonid nursery waters and generally of pristine water quality in the upper reaches.

The Nore River is a large and important Spring Salmon & trout fishery and supports several species listed in Annex II of the Directive including Salmon, River Lamprey, Brook Lamprey, Sea Lamprey, Freshwater Pearl Mussel and Otter. Much of the main channel of the Nore River and many tributaries are candidate Special Areas for Conservation (SAC) under the European Habitats Directive.

The River Liffey represents a highly significant salmonid catchment. The River Liffey and several of its tributaries are exceptional in the area in supporting Atlantic salmon (*Salmo salar*, listed under Annex II and V of the EU Habitats Directive) and Sea trout (*Salmo trutta*) in addition to resident Brown trout (*Salmo trutta*) populations (in addition to several other fish species). This highlights the sensitivity of local watercourses and the Liffey catchment in general. Most, if not all tributaries in the Kildare area also

support populations of the Freshwater Crayfish (*Austropotamobius pallipes*) and Lamprey species (species listed under Annex II of the EU Habitats Directive).

The Barrow, Nore, Shannon and Boyne are large salmonid systems and their importance to populations of species and habitat types listed in the European Habitats Directive is recognized by the fact that much of the main channel and many tributaries of these large systems have been designated as candidate Special Areas for Conservation (SAC) under the European Habitats Directive.

Adult salmon spawn in shallow waters during the Winter months and the adult salmon that spawn in systems such as the Black (Barrow catchment) will have resided in deeper sections of the Barrow main channel prior to entering the Black system to spawn. Conversely the progeny of the salmon that spawn in the Black system as they grow older and larger will travel downstream to the deeper waters of the Barrow main channel, before smoltifying and migrating to sea. IFI would like to stress that the populations of salmon (and other Habitats Directive species) in these systems are an important/integral component of the salmon populations of these SACs even though the impacted waters may not be SAC designated.

IFI have reviewed the maps supplied and we note that huge areas of Bord na Mona owned peatlands have not been included. Our understanding is that this EIAR relates only to 41 sites where Bord na Mona proposes continuing the harvesting of peat.

Our knowledge of a number of the Bord na Mona sites which have not been included, is that maintenance of the drainage systems of these peat extraction areas is still undertaken. These drainage maintenance schemes involve the regular excavation of significant quantities of peat and we ask why these sites were not included as part of this EIAR.

IFI concerns relating to water quality issues include:

- The WFD Ecological Status/Potential for numerous waters draining these Bord na Mona peatland areas is “Poor”, while for many the WFD Risk calculation is that they are “At Risk”.
- The WFD Characterization Reports for numerous waters draining these Bord na Mona peatland areas identifies peat extraction as a significant pressure, with organic pollution the main impact associated with peat extraction.
- To facilitate peat harvesting deep drainage channels were constructed throughout these sites. Deepening of fisheries water-courses adjacent to and downstream of peatlands was also undertaken to facilitate this peat harvesting. These significant alterations lowered the water table within surrounding peat-lands and result in the associated peat being exposed to air, facilitating the rapid breakdown of this organic matter, releasing nutrients, principally ammonia to waters.
- The drying out of the peats exacerbates the washout of peat solids to surface waters. The potential for peat particles to become windblown is exacerbated by drying out also.
- Silt settlement ponds are used extensively on Bord na Mona properties, but are likely to retain heavier suspended solids only, with limited retention of dissolved nutrients. The ability of a silt settlement pond to retain fine particles depends upon regular maintenance, as it relates to residence time within the pond and as suspended solids settle out in the pond the retention time for water within that cell and the efficiency of the system reduces significantly. The efficiencies of these ponds in relation to their retention time needs to be considered, with a specific focus upon periods of high precipitation.

- Suspended solids pollution of surface waters from working peatland areas is not limited to carry-over from silt settlement ponds, but may occur as a result of direct run-off from haul roads and stockpiles of peat. Wind-blown peat is another significant source. The potential for suspended solids generation from excavations in subsoils below peat deposits should also be considered.
- To date the main water protection/mitigation measure employed by Bord na Mona at peatland sites is the use of silt ponds. Silt ponds do not address the threat of ammonia pollution from working/cut-over peatland areas.
- Peat extraction requires the drainage/pumping of waters from relatively shallow peat deposits. Of concern to IFI is the potential that the temperatures of this drainage water may (at certain times of the year) be significantly elevated when compared to typical groundwater recharge and/or the surface waters to which it is being discharged.
- Following on from the above point, this drainage water is likely to be pumped/flow through a large drainage system which may include multiple, large surface area silt settlement ponds. Given the relatively shallow depth of the silt ponds and potential for full sunlight penetration, IFI have concerns that there is potential for a significant increase in temperatures of this drainage water prior to discharge to surface waters.
- Given the important link between water temperature and biological/biochemical reactions, the temperature of drainage waters being discharged to fisheries streams/rivers is critical in that some key constituents of water, either change their form (ionization of ammonia) or alter their concentration, as with dissolved oxygen. Considering that ammonia losses from drained peatland are the principal water quality issue it is important that this issue be adequately addressed.
- These operations involve significant machinery/plant/light rail infrastructure, throughout. Fuels/hydraulic oils/lubricants etc. have potential to pollute both surface and ground waters. IFI ask that this EIAR address the potential for surface/ground water pollution at machinery storage/repair-maintenance/refueling locations.
- The Dept. of Agriculture and the Marine document, "Land Types for Afforestation" Working Document 2016, includes former and existing industrial cutaway peatlands as an example of lands unsuitable for afforestation. Commercial afforestation on such peat deposits poses a significant environmental threat to water quality. In addition such afforestation is likely to require the bog drainage system is maintained, leading to continued ammonia run-off to surface water. A significant threat comes from forest harvesting on such sites, especially where such plantations, which are now maturing, have been established prior to the implementation of the Forest Service guidelines. IFI ask if such sites have been included in the maps relating to the 41 bog units supplied and we ask that this EIAR consider commercial afforestation on all Bord na Mona peatland sites.
- We note that a number of the sites relate to the production of peat and the processing of peat for use in horticulture. Certain aspects of this production are likely to include the addition of nutrient/minerals and other materials to peat. IFI request that the potential for contamination of ground and surface waters by such nutrients/minerals at these facilities be addressed.
- Thermal pollution from the Edenderry Power Plant is of concern to IFI. Given the important link between water temperature and biological/biochemical reactions, the temperature of cooling waters being discharged to fisheries rivers is critical in that some key constituents of water either change their form (ionization of ammonia) or alter their concentration, as with dissolved oxygen. Considering that the ammonia losses from drained peatland are the principal water quality issue and the extensive peat workings on both sides of the Figile River for some considerable distance upstream, it is important that this issue be adequately addressed.



- Relating to the above point the section of the Cushaling River (upstream of Edenderry Power Plant) in County Kildare represents some of the best salmonid habitat within the Figile catchment. This potential was underutilized because of a number of water quality issues, including run-off from peat-lands. IFI do however hope that fish stocks in this section of channel will improve significantly as a result of improvements/upgrading of Derrinturn WWTP and significant upgrades at a large industrial site, both of which were contributing to the unsatisfactory biological conditions. IFI believe that the improvements in water quality referred to above will lead to the restoration of salmon spawning in the Cushaling River, and that when this happens, these Cushaling salmon will be an important/integral component of the salmon populations of the Barrow SAC.
- The addition of biocides to cooling waters at power generation plants to prevent biofouling of their cooling systems is a widespread practice internationally. With reference to the Edenderry Power Plant IFI request that this EIA address if such practices are undertaken at this facility.
- In relation to the above point, trihalomethanes (THMs), a large group of organic compounds are formed when organic material reacts with chlorine. Given the high organic content of the Figile River water (from which the Edenderry power plant abstracts cooling water) linked to extensive Bord na Mona peatlands through which the Figile and its tributaries flow, IFI have concerns regarding the potential for significant discharges of THMs to the Figile River. IFI request that the potential for negative impacts upon the aquatic biota of the Figile River by discharges of THMs be addressed in this EIA.
- The potential for large scale fires on cut-over/"peatlands being worked" is significantly greater compared to sites that have not been subject to drainage/drying out or sites that have been re-wetted. IFI request that the potential for run-off of significant quantities of deleterious matter to surface waters following a large scale fire on cut-over peatland, and the likely makeup of the run-off be considered.
- The use of borrow pits/quarrying on Bord na Mona peatland sites may lower water levels within surrounding peats and act to exacerbate drying out of such peats, with an increase in release of ammonia to surface waters. Quarrying operations also represent a potential source of suspended solids pollution of surface waters.

IFI concerns relating to habitat/hydro-morphology include:

- An examination of OSI 6 & 25 inch sheets highlight significant modifications to watercourses flowing through, adjacent to and downstream of these peatland sites. The modifications noted (through both desktop checks and on-site visits) included:
  - Realignment/Straightening
  - Deepening
  - Widening
  - Culverting/piping of waters
  - Construction of on-line silt ponds to facilitate commercial peat extraction.
  - Differences in height where waters are lifted to facilitate drainage
- Realignment/straightening of watercourses is problematic for a number of reasons including the fact that it results in a net loss of habitat. Realignment of channels often results in a highly degraded hydro-morphology with the loss of natural sinuosity and natural instream variation

characterized by the pool/glide/riffle sequence. Realignment may also negatively impact upon gravel recruitment at the realigned site and in waters downstream.

- The deepening of watercourses in, or adjacent to peatland sites, (in addition to the release of ammonia and suspended solids to surface waters) may result in the removal of all/most gravels from long stretches of fisheries waters where the excavation depth extends down to the subsoils beneath the watercourse. In such cases the potential for natural restoration in waters flowing through peatland areas is usually limited, given the relatively low gradient and other hydro-morphological issues referred to in the above point. Human intervention is likely to be necessary to facilitate recovery of the fisheries habitat on long stretches of watercourses draining peatland areas.
- The widening of watercourses, (regularly associated with realignment and deepening) often results in a highly degraded hydro-morphology with the loss of natural sinuosity and natural instream variation characterized by the pool/glide/riffle sequence. In shallow waters a braided channel with limited depth for fish to reside is often the result, while in deeper waters an over-abundance of aquatic plants clogging the channel is regularly encountered.
- Culverting is potentially damaging to fisheries waters as it may (1) block/impede the free passage of fish, (2) result in a loss of fisheries habitat and (3) hinder the detection of pollution. Our experience is that many of the culverts on Bord na Mona peatlands to facilitate the industrial light rail system are very long. The depth at which such culverts were installed also acts as a control re drying out of peats, as all peats upstream of the culvert at a higher elevation will be subject to drying out.
- Construction of on-line silt ponds results in a loss/degradation of fisheries habitat. The efficacy of any silt pond relates to residence time in the pond and as peat settles out in the pond the ability for the pond to retain peat is reduced. Because of this, these ponds are subject to regular maintenance whereby accumulated peat deposits are removed.
- Pumping operations and flow control weirs have potential to impact on both upstream and downstream fish passage, watercourse base flows and water quality. We request that this AIER address these issues.
- IFI have noted significant gradient differences on watercourses on peatland sites where water is lifted from one to the other using archimidean screws. Such practices represent a barrier to the free passage of fish.
- With reference to the Edenderry Power Plant and any other Bord na Mona industrial facility IFI request that any abstractions from surface waters and/or groundwater be considered with a focus upon potential impacts on flow rates in associated surface waters and also recharge of groundwater to surface water bodies.
- With reference to the Edenderry Power Plant and any other Bord na Mona industrial facility that includes an abstraction from surface waters, the issue of screening to prevent fish and other aquatic animals becoming entrained within the abstracted water and/or impinged upon screens should be addressed. Of particular concern is the potential for significant mortalities, where fish become trapped on screens and/or enter cooling water systems. Numerous factors influence the likelihood of fish mortality at/in such sites including, but not limited to:
  - Flow velocity in the vicinity of screen
  - Rate of abstraction relative to total flow in river/flow attraction
  - Screen spacing
  - Size of fish resident and migrating through the location
  - Potential for screens to become clogged which is likely to increase flow velocities in the vicinity of screen

- Angle of the screen
- Surface area of the screen
- IFI consider that any abstraction should protect all age classes of all fish species resident within the area of the abstraction or likely to migrate through that section of watercourse.

IFI is keen to build on recent water quality improvements in the Black River, which drains 21% of the Barrow River catchment and to restore and increase populations of salmon over large sections of this system while the Shannon Salmon Restoration Project is a key IFI project is committed to the restoration of sustainable stocks of salmon throughout the Shannon Catchment. Large areas of the catchments of the above named rivers are dominated by Bord na Mona peatlands.

Habitat restoration in rivers such as Inny, Brosna, Figile and Philipstown Rivers will be central to these plans.

Many of the watercourses draining directly from Bord na Mona peatland sites have small catchment areas with limited flows, and should be regarded as highly sensitive to anthropogenic inputs/alteration. Other larger and important fisheries watercourses flow through, adjacent to and downstream of the Bord na Mona sites and while many of these represent excellent fisheries habitat, in many cases the habitat of these watercourses has been degraded by deepening/widening, realignment and silt deposition.

IFI request that this EIAR examine the hydro-morphological damage to watercourses outside the boundary of the boundary of the Bord na Mona sites.

We request that the applicant address the root causes of the elevated ammonia concentrations in surface waters/pumped waters from their peatland sites.

IFI welcome the Bord na Mona, Biodiversity Action Plan 2016-2021 statement that *“the main aim of rehabilitation will be to re-wet former production areas as much as possible to maximize the benefits for biodiversity and carbon”*.

Yours sincerely,

Donnachadh Byrne  
Senior Fisheries Environmental Officer

**Please note that any further correspondence regarding this matter should be addressed to Mr. Donnachadh Byrne, Senior Fisheries Environmental Officer, Inland Fisheries Ireland, 3044 Lake Drive, Citywest Business Campus, Dublin 24**



# IRISH PEATLAND CONSERVATION COUNCIL

COMHAIRLE CHAOMHNATHE PHORTAIGH NA HÉIREANN

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12th May 2020

**Ref: 229384224**

**RE: Environmental Impact Assessment Report in relation to applications by Bord na Móna for substitute consent for its historic peat extraction activities on 41 individual bog units and future peat extraction activities on selected individual bog units situated across Counties Offaly, Westmeath, Laois, Meath, Kildare and Longford.**

Dear Mr Dee

Thank you for your letter of the 27th April and for discussions held in relation to the above consultation on the phone on the 5th May 2020. IPCC would like to make the following observation on this issue which I hope will provide some guidance for your application on behalf of Bord na Móna.

IPCC have red line issues with regard to this assessment which are summarized in section 1 parts A-C below. Following this IPCC provide in section 2 accounts of specific issues and case studies relevant to this investigation.

## **Section 1 Red Line Issues**

### **1A) Bord na Móna Mandate**

From the very beginning in 1946 Bord na Móna were mandated to develop the peat bogs of Ireland and to provide an economy in the counties where their industry was located. It is true that the company, have been successful in their endeavours, but the environmental cost has been high as the business of peat harvesting is not compatible with peatland conservation or valuing the ecosystem services that peatlands provide such as biodiversity, archaeology, carbon storage and water regulation besides their use as a source of fuel. Instead we are left with a suite of disservices - carbon losses to air and water, siltation of rivers, ammonia run-off, reduced water quality generally, noise and dust emissions and loss of the flood regulatory mechanisms of the former active raised bogs.

### **1B) Inadequately regulated Loss of Valuable Habitat**

To lose 24% (almost 75,000ha) of the raised bog habitat of Ireland, the European headquarters for this habitat type, over the space of several decades is the evidence of the development spearheaded

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Governance Code Statement of Compliance: IPCC confirm that our organisation complies with The Governance Code for the Community, Voluntary and Charitable Sector in Ireland.

Company Secretary/*Rúnaí Comhlacht*: Rachel Kavanagh

Directors/*Stiúrthóirí*: Martin Kelly, Catherine O'Connell, Rachel Kavanagh, Miriam Mooney, Kate Macnamara, Seán Ó Fearghail.

Patrons/*Pátrúnaí*: Pauline Bewick, Don Conroy, HRH Princess Irene of the Netherlands, Eanna Ní Lamhna, Matthijs Schouten,

His Excellency Drs Adriaan Palm - Netherlands Ambassador to Ireland.

by Bord na Móna without proper regulation as we have learned from your letter and this needs to be fully taken into account and mitigated for in your assessment. It is only in the last decade that Bord na Móna have moderated their values somewhat and have begun to actively engage in their own Peatland Restoration Programme with the intention of managing up to 4000ha or more of their restorable raised bog resource for conservation (see Section 2E below) including the designation of two site complexes as Special Areas of Conservation and up to seven other sites as Natural Heritage Areas. This comes at a time when raised bog habitats are facing extinction across the country and it is a very small contribution to the loss of biodiversity which the commercial activities of Bord na Móna have caused. However IPCC have found from bitter experience that commitments made by this company can easily be forgotten by those working on the ground (see Clonrook Little Case Study; and the on-going National Parks and Wildlife Service case against the cutting at Mostrim Bog in March 2018) and therefore it is important that any commitments made as part of the Bord na Móna biodiversity plan are recognized and upheld in your assessment.

### **1C) No to any future continued or new peat extraction**

IPCC cannot support in any way the intention of Bord na Móna to continue peat extraction on any of their sites. There was much publicity last year about the company moving away from the supply of energy peat to generate electricity and the closure of the bogs and job losses resulting. IPCC recently made a submission to the Peatlands Council Review on peat in horticulture (see Appendix 1), which states our position on this issue very clearly. We cannot see how it is sustainable to exploit peatlands for horticulture to provide short-term jobs using a finite product, for which alternatives exist. The impact on climate change of continuing to extract peat from bogs contravenes all other Government Policies and flies in the face of public sentiment. New revenue and employment streams are being explored successfully by Bord na Móna which should provide more long-term, carbon neutral employment including the restoration of Raised Bog SACs (see Section 2E), wind farm and solar farm development, biodiversity, medicinal plant growing, woodland, fish farming and waste management to name but a few. It is very important that these activities of the company are also taken into account in your assessment and subject to the type of scrutiny that would be normal for any new land use project development.

## **Section 2 Specific Issues and Case Studies**

### **2A - Loss of Peatland Habitat in Ireland due to Commercial Peat Extraction**

The pie charts attached in Figures 1 and 2 show the utilisation of raised and blanket bog habitat in Ireland since these ecosystems reached their maximum development by 1600AD. 24% of the raised bog habitat and 1% of blanket bog habitats have been drained and developed by Bord na Móna. The speed with which Bord na Móna have developed the raised and blanket bog resources (from 1946 to the present) as part of a Government Mandate set against the lack of a strong peatland conservation and protection policy led to the formation of the Irish Peatland Conservation Council. Since our formation in 1982 we have been campaigning for a balanced and wise-use approach to the conservation and utilisation of peatland resources. The campaign work has been difficult and it is unfortunate, that today we are witnessing the almost total extinction of raised bog habitat because of the lack of an holistic approach by successive Governments to managing and using this resource sustainably. According to the Raised Bog SAC Management Plan (2017) only 3,600ha of raised bog habitats (1% of the original area) are actively producing peat and to maintain this function requires significant intervention and costly restoration. However the work is necessary in terms of biodiversity, carbon storage and sequestration, water regulation and community well-being.

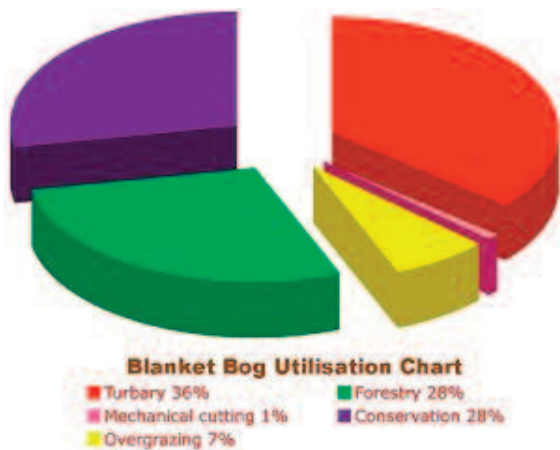


Figure 1: Utilisation of blanket bog habitat in the Republic of Ireland. The original area of blanket bog was 908,117ha according to Hammond 1979 and the pie chart is taken from Malone and O'Connell 2009.

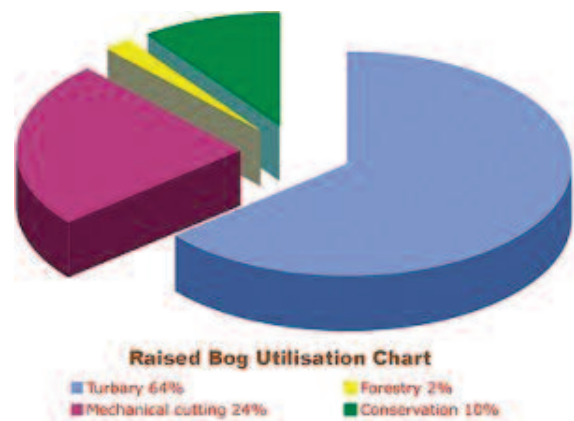


Figure 2: Utilisation of raised bog habitat in the Republic of Ireland. The original area of raised bog was 308,742ha according to Hammond 1979 and the pie chart is taken from Malone and O'Connell 2009. Although the pie chart indicates that 10% of the habitat is of conservation importance, only 1% of the habitat is actively forming peat.

## 2B - Peatland policy of the Irish Peatland Conservation Council

The Irish Peatland Conservation Council's mission is to conserve a representative sample of the peatlands of Ireland for people to enjoy now and in the future. We are an environmental NGO formed in 1982 in response to the rapid destruction of peatland habitat due to industrialization. Our actions and policies are fully outlined in our sixth peatland action plan entitled *Ireland's Peatland Conservation Action Plan 2020 – Halting the loss of biodiversity* (which can be downloaded from <https://drive.google.com/open?id=1ZgENE7uP0VPiQSbCI171w17vOeoXWF3->). The legal basis for the IPCC's work is a collective responsibility to avoid the deterioration of natural habitats and species protected under the Birds and Habitats Directives. IPCC are a stakeholder on the Peatlands Council which was established by Government on the 7th April 2011. We have contributed to the development of the *National Peatlands Strategy 2015*, the *Raised Bog SAC Management Plan 2017*, a *review of the use of peat in the horticulture industry (2020)* and the *Manual on Best Practice in relation to the restoration of raised bog habitats (2017)* as part of our work with this body. We also work with the peatland industry through our representation on the International Peatland Society and the National Branch of this organization - the Irish Peatland Society. We contributed to the development of the *Strategy for Responsible Peatland Management (2010 and 2019)* developed by this group for its members.

## 2C - Case Studies: Peatland Conservation and the Bord na Móna Peat Industry

### 2C.1 Pollagh Bog

The first direct conflict between conservation interests and Bord na Móna was raised by Prof John J. Moore S.J. in 1955 and concerned the proposed development of Pollagh Bog, Co. Offaly which was the only known location for the Rannoch Rush *Scheuchzeria palustris*. The plant was growing in an extensive and unique internal drainage soak feature of the bog. While Prof Moore made a case for the preservation of Pollagh Bog and this rare plant, his concerns were ignored and the bog was developed. Today it is the site of Lough Boora Parklands. An attempt to transfer the rush to Clara Bog soak failed.

### 2C.2 Clara Bog

Another conflict arose in the 1980's concerning Clara Bog, Co. Offaly. Over 400ha of this site was owned by Bord na Móna and the site was scheduled for development. While discussions were underway between nature conservation agencies and Bord na Móna, the machines were sent onto the Lough Roe soak side of the bog (Clara East) to install a network of drains. Subsequently the site was purchased from Bord na Móna by the National Parks and Wildlife Service. It was many years before drains were blocked and the soak natural drainage feature of the site has been irreparably damaged. This conflict brought the famous naturalist David Bellamy to Ireland who addressed public meetings on the dangers of losing this wonderful site and other peatland heritage.

### 2C.3 Cadamstown East and West (Derrinboy Bog)

Another site complex Cadamstown East and West also known as Derrinboy in Co. Offaly was surveyed by the National Parks and Wildlife Service in 1984 and found to be of scientific and conservation interest. This site was on the Bord na Móna agenda for development as an important moss peat/horticultural resource and it was subsequently developed in 1992 despite its scientific importance having been established 8 years previously (Foss and O'Connell 1996).

### 2C.4 Raised Bog 1990 Conservation Agreement

Another public conflict arose in 1990 from concern across Britain and Ireland about the use of moss peat in gardening. The gardening public were informed of the environmental impact and the destruction of raised bog habitat that the production of moss peat for gardening was having on wildlife, biodiversity, habitat and greenhouse gas emissions. This campaign run by the Peat Consortium (of which IPCC was a member together with other NGO's across the UK) had a significant impact on the sale of moss peat products produced by Bord na Móna in the UK. Bord na Móna could not prove that their horticultural product was coming from sites already in production when they owned a series of intact raised bogs that were designated for conservation (Areas of Scientific Interest) by the National Parks and Wildlife Service and which would very likely have been developed by this company. To save the value of their horticultural exports and to alleviate cash flow problems the company were experiencing at the time an agreement was reached between Bord na Móna, the National Parks and Wildlife Service and the European Union on the conservation of raised bogs in the ownership of Bord na Móna. The package involved the purchase from Bord na Móna of 2,518ha of lands in 20 sites across the country at a cost of €4 million (IR£3.1 million) and their transfer to the National Parks and Wildlife Service. The EU provided 75% of the purchase cost of the sites under Habitats Directive financial instruments in place at the time (Foss and O'Connell 1996). The sites involved are presented in Table 1.

**Table 1: Peatlands transferred to the National Parks and Wildlife Service by Bord na Móna under the 1990 Conservation Agreement for which Bord na Móna received €4 million (IR£3.1 million).**

Site Name	County	Area (ha)
All Saints	OY	112
Bellanagare	RN	400
Camderry/Boggauns	G	89
Carrowbehy	RN	184
Carrownagappal	G	200
Castlefrench	G	35
Clooncullaun	G	53
Cloonkieran	RN	35
Corbo	RN	222
Crosswood	WH	33
Curraghlehanagh	G	160
Easkey/Gowlan	SO	500
Funshin	G	8
Keelagues/Lisnageeragh	G	179
Kilsallagh	G	12
Lough Lurgeen	G	31
Moorfield	G	25
Moyclare	OY	76
Shankill West	G	120
Trien	RN	44
<b>Total</b>	<b>20 sites</b>	<b>2,518ha</b>

### 2C.5 Cloonroosk Little and Mostrim Bog Ditching and Drainage

Between 2013 and 2018 three further sites were ditched and drained by Bord na Móna despite the company making commitments in the *National Peatland Strategy (2015)* concerning their intention *not to open up any undrained bogs for peat production* and their *commitment as managers of significant tracts of peatlands on behalf of the Irish people to show leadership in responsible management, rehabilitation and restoration of peatlands*. Table 5 shows the sites drained and ditched by Bord na



Figure 3: Cloonroosk Bog County Kildare and Offaly - raised bog of conservation interest and the only site in County Kildare for *Sphagnum pulchrum*.



Figure 4: Air photograph of Cloonroosk bog showing drainage undertaken over the winter of 2013-2014.



Figure 5: Surface view of Cloonroosk bog showing drain and the disruption to the bog surface through the spraying of material from the drain onto the living peat forming moss layer.

Móna and discovered and brought to light by the Irish Peatland Conservation Council, An Taisce and the National Parks and Wildlife Service. The Cloonroosk Little Site already had a draft Rehabilitation Plan lodged with the EPA as part of the IPPC licensing process (Licence Ref. 502 of 2013) and the site being intact was in discussion in a National Parks and Wildlife Service review of Raised Bog Habitat in the country. As the development here exceeded 30ha, planning permission should surely have been required. The images presented in Figures 3, 4 and 5 show the damage done to this site. The ditching and drainage of Mostrim Bog carried out the first time in 2016 was discovered by An Taisce and was taken to court. The second time in 2018 the ditching was in contravention of the Wildlife Act which makes it illegal to remove habitat of nesting birds within the breeding season (1 March to 31 August) and our latest information from the Wildlife Ranger for the area indicates that this case is due in court.

After discovery and publicity on all sites drain blocking was voluntarily undertaken by Bord na Móna as a mitigation for the damage to the natural hydrology of the raised bog sites and the damage to the peat forming species and habitats present within them and to birds of conservation concern including Curlew.

**Table 5: Sites ditched and drained by Bord na Móna (and subcontractors) from 2013 to 2018. These sites have since been restored following discovery and investigation.**

Site Name, County	Area (ha)	Year of Damage	Notes
Cloonroosk Little Bog, Cos. Offaly/Kildare	50	2013/2014	Only station for <i>Sphagnum pulchrum</i> in Kildare
Mostrim/Coolamber/Cloonshannagh Bog, Co. Longford	41	2016	Breeding Curlew Site
Mostrim Bog, Co. Longford	11	2018	Breeding Curlew site

### 2D – Post industrial Rehabilitation of Cutaway Bogs

While IPCC agree with the list of peat extraction activities you document in your letter we would also add that a key element of the extraction which you have omitted and which is a requirement of EPA license is the rehabilitation of sites following the removal of the commercially viable peat from the individual bog units. In the company's Biodiversity Action Plan 2016-2021, it states that 15% of their estate area has been rehabilitated or restored. This activity needs to be included in your assessment



of Bord na Móna activities.

In relation to Rehabilitation IPCC take a strong interest as we are consulted by Bord na Móna on their draft Rehabilitation Plans developed under license for sites coming out of production. For example from 2018 to 2019 we have been consulted by the Bord on the rehabilitation plans for the following sites:

Attymon and Clonkeen Bogs, Co. Galway  
Edera Bog, Longford  
Newtown/Loughgore, Co. Galway

Ballysorrell Bog, Co. Tipperary  
Littleton Bog Complex, Co. Tipperary

We made detailed submissions to all of these documents (available on request) on the following issues:

- proposed protection and management of deep peat bog remnants remaining within the rehabilitation sites
- the need for landscaping and profiling of sites following industrial abandonment so that drain blocking can substantially rewet the remaining peat area to prevent emissions of greenhouse gases from bare dry peat (currently the maximum level of rewetting that Bord na Móna can achieve is  $\leq 20\%$  of a bog unit area with very little intervention). It is the view of the IPCC, that Bord na Móna are too reliant on natural recolonisation of Scrub Birch Woodland and Rushes to stabilise their peat.
- the need to practice targeted management for biodiversity re-establishing on these sites
- the need to provide capital from the company's profits to fund rehabilitation works
- the need to undertake monitoring of successes and failures
- the need to publish for peer review the rehabilitation methods being used on industrial cutaway bogs.

In light of the current review IPCC would like to see rehabilitation actions proposed for industrial sites being brought under planning control. In this regard we attended a joint meeting of the EPA, Bord na Móna and the National Parks and Wildlife Service in Abbeylisk in February 2019 to begin the process of developing guidelines for the rehabilitation of industrial cutaway bog and we made a review of the first draft document released by the EPA on this issue later in 2019. We believe that this material is very relevant to your assessment on behalf of Bord na Móna. However, since the meeting in February 2019 there has been little or no engagement with IPCC on rehabilitation plans.

### **Funding for Rehabilitation**

As rehabilitation is such an integral part of the exploitation of peatlands and as the outcomes have such an importance in terms of the climate crisis and public health and well-being, IPCC would propose that an independent Rehabilitation Project Group should be set up to oversee all aspects of the rehabilitation process including, funding, planning, implementation, setting targets and delivering, monitoring and reporting. This is very important to provide transparency going forward particularly when the source of funding proposed to date is the PSO Levy carried on every energy bill.

### **2E – Bord na Móna Raised Bog Restoration Programme**

IPCC have also been engaging with the Bord na Móna raised bog restoration programme (2009 to the present) which involves management of a number of sites across the Bord na Móna estate for nature conservation (see Figure 6 sourced from a talk given by Barry O'Loughlin 2018 for examples). The sites include two complexes earmarked for designation as Special Areas of Conservation and up to 7 other sites to be designated as Natural Heritage Areas. These sites were proposed for conservation following extensive baseline surveys by the company ecology team between 2009 and 2012. These sites although partially drained in the 1980's were identified by the company as having high ecological and conservation value as well as significant restoration potential. Other sites ditched and drained by the Bord have also been included in the programme such as Mostrim Bog in Co. Long-

**Figure 6: Table of sites involved in the Bord na Móna raised bog restoration programme. This information was sourced from O’Loughlin 2018 at <http://www.bordnamona.ie/wp-content/uploads/2018/05/Barry-OLoughlin-Bog-Restoration-and-Curlew-Projects.pdf> By 2018 1597ha of land has been restored and it is expected to add another 2317ha to that going forward as shown in this table. Please note some sites that have been restored are not presented in this table notably Clonroosk Little, Cos. Kildare and Offlay.**

Year of Restoration	Bog Name	County	High Bog Area (ha)	Total Site Area (ha)
2009	Abbeyleix Bog	Laois	104	190
2011	Cuckoo Hill Bog	Roscommon	60	145
2012	Moyarwood Bog	Galway	171	197
2013	Ballydangan Bog	Roscommon	215	240
2014	Lenareagh Bog	Galway	90	112
2014	Paul’s Lough Bog	Galway	118	132
2014	Cloonshannagh Bog	Roscommon	36	36
2015	Mostrim Bog (Phase 1)	Longford	41	41
2015	Cranberry Lough Bog	Roscommon	76	98
2015	Knock Bog	Roscommon	129	187
2016	Bunahinly remnant	Westmeath	28	393
2016	Clera Island	Roscommon	157	179
2016	*Bracklin remnant	Westmeath	19	755*
2016	Clynan Bog (Phase 1)	Westmeath	10	10
2017	*Lough Bannow remnant	Longford	33	758*
2017	*Clongawny More remnant	Offaly	27	1021*
2017	*Daingean-Rathdrum remnant	Offaly	26	368*
2017	Coolnagun remnant	Westmeath	90	670
2018	Ballysorrel	Tipperary	167	196
	<b>Total Area</b>		<b>1597</b>	<b>5728</b>
	<b>Total restored to date</b>		<b>1597</b>	
<b>started</b>				
<b>2016 +</b>	<b>Killeglan Bog cluster</b>	<b>Roscommon</b>	<b>334</b>	<b>440</b>
	<b>Mostrim Bog (Phase 2)**</b>	<b>Longford/Westmeath</b>	<b>358</b>	<b>398</b>
	<b>Clynan Bog (Phase 2)**</b>	<b>Longford/Westmeath</b>	<b>63</b>	<b>63</b>
	<b>Clonwhelan Bog</b>	<b>Longford/Westmeath</b>	<b>132</b>	<b>162</b>
	<b>Glenlough Bog**</b>	<b>Longford/Westmeath</b>	<b>262</b>	<b>329</b>
	<b>Knockahaw Bog</b>	<b>Tipperary/Kilkenny</b>	<b>312</b>	<b>372</b>
	<b>*Cornaveagh remnant</b>	<b>Roscommon</b>	<b>21</b>	<b>91</b>
	<b>*Glashabaun North remnant</b>	<b>Offaly</b>	<b>16</b>	<b>508</b>
	<b>Tirur-Derrymore Bog Cluster</b>	<b>Galway</b>	<b>245</b>	<b>445</b>
	<b>*Lismanny remnant</b>	<b>Galway</b>	<b>15</b>	<b>15</b>
	<b>Newtown-Loughgore</b>	<b>Galway</b>	<b>340</b>	<b>454</b>
	<b>Lisclougher West Bog</b>	<b>Westmeath</b>	<b>164</b>	<b>239</b>
	<b>Kellysgrove Bog</b>	<b>Galway</b>	<b>118</b>	<b>192</b>
	<b>Total Area</b>		<b>2317</b>	<b>3645</b>
	<b>Total (overall)</b>		<b>3914 ha</b>	<b>9436 ha *</b>

**Bord na Móna Sites proposed for SAC designation**

Clonboley Complex (including Ballydangan Bog) Roscommon  
 Killeglan Bog Cluster Roscommon

**Bord na Móna Sites proposed for NHA designation (7 or more sites have been proposed but IPCC do not have details)**

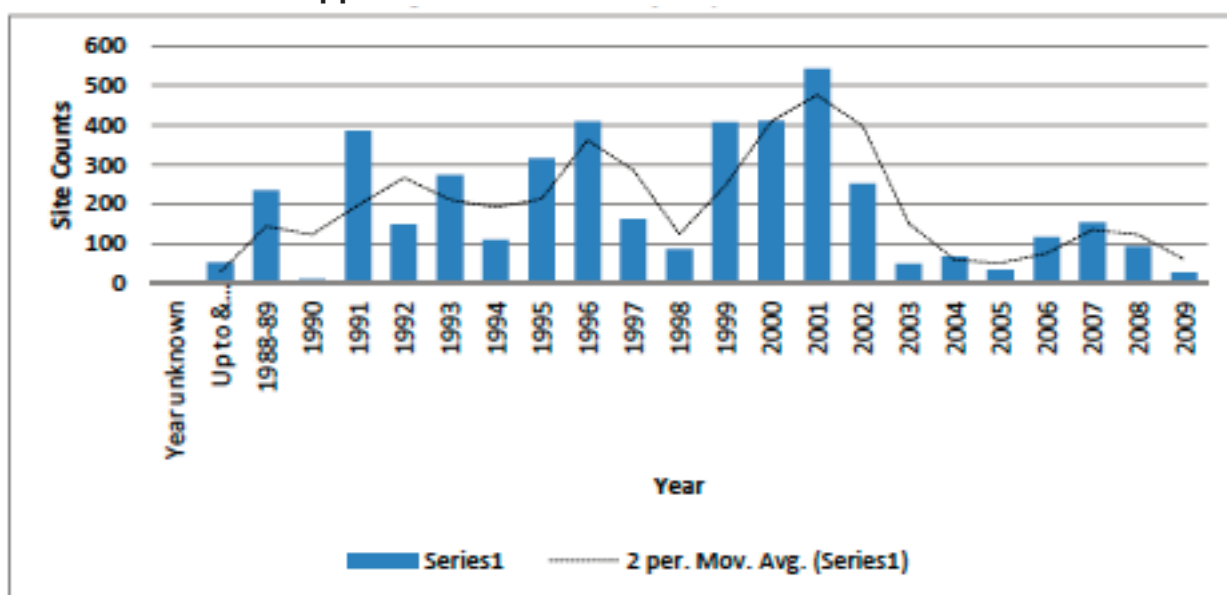
Glenlough Bog Longford/Westmeath  
 Clonwhelan Bog Longford/Westmeath  
 Knockahaw Bog Tipperary/Kilkenny  
 Ballysorrell Tipperary

ford. The target area for this programme is between 2000 and 4000ha (see Figure 6). This work is one strand of the company’s Biodiversity Action Plan 2016-2021. Such sites are generally regarded as surplus to peat production requirements and lie outside the active industrial peat production areas. The restoration works carried out by Bord na Móna has led to a strong consultancy business within the company who have been involved in blocking drains on conservation-worthy sites owned by the National Parks and Wildlife Service. The company won a contract in 2020 to the value of €5 million from the Department of Culture, Heritage and the Gaeltacht to carry out restoration works on a selection of the country’s network of raised bogs of conservation value (including SAC- and NHA-designated sites). Any gain or profit from such work should be ring-fenced for rehabilitation and restoration within Bord na Móna sites.

## 2f – Bord na Móna and the National Monuments Service on sites of archaeological interest

Across the years of peatland exploitation carried out by Bord na Móna, a wealth of archeological sites of interest in terms of the history of Ireland have been exposed. The policy in relation to such sites is to bring in experts to document and excavate them so that the information learned can be added to our knowledge and understanding of our past. A report commissioned by the National Monuments Service on this area in 2013 listed 4358 sites up to 2009 which were identified in Bord na Móna’s land bank (see Figure 7). The report is presented in Appendix 2. The opinion of experts and the mitigation policy presented in this document should be included in your assessment. IPCC would also question what changes brought about the pronounced decrease in Archaeological Finds reported from 2003 onwards. In addition we are not aware of a site conservation and interpretation programme in relation to archaeological finds that is in proportion to the number of sites investigated other than Corlea Trackway Visitor Centre in Co. Longford. We believe that this represents another significant loss of heritage associated with the industrial exploitation of raised bogs.

**Figure 7: Number of archaeological sites discovered in Bord na Móna peat production areas. Source: Review of Archaeological Survey and Mitigation Policy relating to Bord na Móna Peatlands since 1990. See Appendix 2.**



Please acknowledge receipt of this submission from the IPCC.

Yours sincerely

*Catherine O'Connell*

Dr Catherine O'Connell,  
Chief Executive Officer, IPCC

*T. Whyte*

Mr Tristram Whyte B. Sc.  
Conservation Policy Officer

## References

Malone S and O'Connell 2009 *Ireland's Peatland Conservation Action Plan 2020*, IPCC, Kildare  
Foss, P J and O'Connell 1996 *Irish Peatland Conservation Plan 2000*, IPCC, Dublin

## Appendix 1

### Irish Peatland Conservation Council submission on Peat in the Horticultural Industry Review



Irish Peatland Conservation Council  
A Review of the Use of Peat in the Horticultural  
Industry: Key Issues Consultation Paper  
January 2020

See <http://www.ipcc.ie/wp/wp-content/uploads/2017/08/IPCC-Peat-in-the-Horticultural-Industry-Review-2020.pdf>



Sod Moss Production Site, Lullymore, Co. Kildare June 2018, Photo: Tristram Whyte

**Appendix 2**  
**REVIEW OF ARCHAEOLOGICAL SURVEY AND MITIGATION POLICY**  
**RELATING TO BORD NA MÓNA PEATLANDS SINCE 1990**

See <https://www.archaeology.ie/sites/default/files/media/pdf/bnm-peatland-review-final-report-20-06-2013.pdf>

Hi Bernard,

Longford County Council - Planning Authority acknowledges receipt of the EIAR Scoping Request. Having had a preliminary look at the proposed sites located within Longford in relation to the Longford County Development Plan the two bogs are currently working/worked bogs, where no issues have arisen or complaints have been made, are not located in protected areas or broad zones and are relatively small in the overall scheme of the development.

In relation to the contents of the EIAR the applicant should satisfy themselves that all requirements as outlined in the EPA Guidelines on the information to be contained in Environmental Impact Assessment Reports (EIAR) have been met. The Planning Authority would also ask that specific attention would be given to the proposed developments proximity to the River Inny, Lough Kinale and Lough Gowna. The River Inny runs right through the middle of these bogs on its way to our water treatment plant in Abbeysrule and Lough Ree. It is a prime fishing and particularly trout fish river as stated by IFI. It is also a direct source pathway from the proposed development to the Natura 2000 Site of Lough Ree SAC & SPA. Any effects either individually or cumulatively in resulting from the proposed development and any negative environmental effects on the River Inny and subsequently Lough Ree will need to be very carefully considered, assessed and mitigated for.

Additionally, it should be noted that any submitted EIAR will be assessed on its merits when officially submitted as part of a planning application.

Regards,  
Rita Connaughton  
Planner  
Longford County Council

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*Tá an t-eolais san ríomhphost seo, agus in aon ceanglán leis, faoi phribhléid agus faoi rún agus le h-aghaidh an seolaí amháin. D'fhéadfadh ábhar an seoladh seo bheith faoi phribhléid profisiúnta nó dlíthiúil. Mura tusa an seolaí a bhí beartaithe leis an ríomhphost seo a fháil, tá cosc air, nó aon chuid de, a úsáid, a chóipeál, nó a scaoileadh. Má tháinig sé chugat de bharr dearmad, téigh i dteagmháil leis an seoltóir agus scríos an t-ábhar ó do ríomhaire le do thoil.*