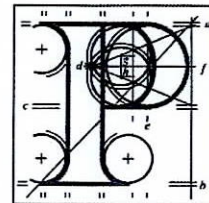


Our Case Number: ABP-316212-23



**An
Bord
Pleanála**

Inland Fisheries Ireland Dublin
c/o Noel McGloin
3044 Lake Drive
Citywest Business Campus
Dublin 24

Date: 06 June 2023

Re: Proposed development of 26 wind turbines and associated works
at the Ballivor Bog Group, County Meath and County Westmeath

Dear Sir / Madam,

An Bord Pleanála has received your submission in relation to the above mentioned proposed development and will take it into consideration in its determination of the matter.

The Board will revert to you in due course in respect of this matter.

Please be advised that copies of all submissions / observations received in relation to the application will be made available for public inspection at the offices of the local authority and at the offices of An Bord Pleanála when they have been processed by the Board.

More detailed information in relation to strategic infrastructure development can be viewed on the Board's website: www.pleanala.ie.

If you have any queries in the meantime please contact the undersigned officer of the Board. Please quote the above mentioned An Bord Pleanála reference number in any correspondence or telephone contact with the Board.

Yours faithfully,

Niamh Thornton
Executive Officer
Direct Line: 01-8737247

PA09

Tel	Tel	(01) 858 8100
Glaó Áitiúil	LoCall	1800 275 175
Facs	Fax	(01) 872 2684
Láithreán Gréasáin	Website	www.pleanala.ie
Ríomhphost	Email	bord@pleanala.ie

64 Sráid Maoilbhríde	64 Marlborough Street
Baile Átha Cliath 1	Dublin 1
D01 V902	D01 V902

Niamh Thornton

From: SIDS
Sent: Thursday 1 June 2023 11:37
To: Niamh Thornton
Subject: FW: Planning Application by MKO for a windfarm at Ballivor Bog, Co. Meath & Westmeath (Ref:PA25M.316212)
Attachments: Ballivor Wind Farm ABP submission (June 2023).pdf

From: Bord <bord@pleanala.ie>
Sent: Thursday 1 June 2023 10:09
To: Appeals2 <appeals@pleanala.ie>
Cc: SIDS <sids@pleanala.ie>
Subject: FW: Planning Application by MKO for a windfarm at Ballivor Bog, Co. Meath & Westmeath (Ref:PA25M.316212)

From: Noel McGloin <Noel.McGloin@fisheriesireland.ie>
Sent: Thursday, June 1, 2023 8:41 AM
To: Bord <bord@pleanala.ie>
Subject: Planning Application by MKO for a windfarm at Ballivor Bog, Co. Meath & Westmeath (Ref:PA25M.316212)

Dear Sir/Madam,

Please find attached our submission regarding the above.

Yours sincerely,

Noel McGloin
Noel McGloin
Senior Fisheries Environmental Officer

✉ Noel.McGloin@fisheriesireland.ie • ☎ +353 (0)1 8842 600 • 🌐 www.fisheriesireland.ie • 🏠 D24 CK66



Iascach Intíre Éireann
Inland Fisheries Ireland



beolíne / hotline
081834 74 24
Oscailte 24 uair an lá / 7 lá in aghaidh na seachtaine
Open 24 hours a day / 7 days a week

Help us protect Ireland's rivers, lakes and coastlines by reporting illegal fishing, water pollution or invasive species. Our confidential phone number is 0818 34 74 24, which is open 24 hours a day / 7 days a week.

To read our Privacy Policy and Email Disclaimer Notice, Please visit www.fisheriesireland.ie

Case reference: PA25M.316212

The Secretary,
An Bord Pleanála,
64 Marlborough Street,
Dublin 1.

2nd June, 2023

Re: Section 37E of the Planning and Development Act 2000, as amended - Planning Application by MKO (Bord na Mona Powerglen Ltd.) to An Bord Pleanála for a Wind Energy Development and Associated Works at the Ballivor Bog Group, County Meath and County Westmeath.

Dear Sir/Madam

Thank you for the opportunity to contribute to the above mentioned planning application. These comments reflect the views of IFI in respect of same.

Background:

This application by MKO is for a proposed wind farm development in the Bord na Mona Ballivor Bog Group, County Westmeath and Meath.

About Inland Fisheries Ireland's Role

Inland Fisheries Ireland is the statutory authority tasked under section 7(1) of the Inland Fisheries Act 2010 (No. 10 of 2010) with responsibility for the protection, management, and conservation, of the inland fisheries resource and recreational sea angling. IFI is mandated to ensure that the fisheries of the State are protected. To protect means to keep safe, defend, to shield from danger, injury or change. "Fisheries" includes all inland fisheries recreational and commercial, sea angling and mollusc fisheries stipulated under the Fisheries Acts, the physical habitat upon which the fishery relies, the facilities and access, the quantity and quality of the water and the plant and animal life on which fish depend for shelter and food and the spawning areas where in fish deposit their eggs.

The protective role of IFI relates to all aspects of the aquatic environment and all factors that influence the biotic communities within waters, which in any way relate to the propagation of fish populations. Ireland has in excess of 70,000 km of rivers and streams and 144,000 ha of lakes, all of which fall under IFI's fisheries management jurisdiction.

Many of these watercourses discharge directly to the sea and support species which utilise the marine environment for parts of their life cycle (e.g. salmon, sea trout, eel, lamprey species).

Aquatic Biological Diversity

Under section 7(3) of the Inland Fisheries Act 2010 Act it is stated that IFI shall in the performance of its functions have regard to (g) the requirements of the European Communities (Natural Habitats) Regulations 1997 (S.I. No. 94 of 1997) and the need for the sustainable development of the inland fisheries resource (including the conservation of fish and other species of fauna and flora habitats and the biodiversity of inland water ecosystems), (h) as far as possible, ensure that its activities are carried out so as to protect the national heritage (within the meaning of the Heritage Act 1995). It is important to highlight that there are many surface waters, which are not formally designated but which support populations of Annex II species designated under the Habitats Directive. Projects such as proposed have the potential to impact on downstream fisheries resources if they are not carried out in an environmentally sensitive manner. The potential impacts of the proposed development on fisheries relate largely to the construction of the turbines and access roads and the laying of cables, etc. When this work is carried out in close proximity to a watercourse, there is a potential for negative impacts on the aquatic habitat.

The EU Water Framework Directive

The EU Water Framework Directive (2000/60/EC) is recognised as a critical regulatory legislative provision. The WFD entered into force in December 2000 and requires the protection of the ecological status of surface and ground waters – this encompasses (among other elements) water quality and requires the conservation of habitats for ecological communities.

One of the primary objectives of the Directive is to establish a framework which prevents further deterioration and protects and enhances the status of aquatic ecosystems. Protection of aquatic ecosystems requires that surface water systems be protected. Protection of aquatic ecosystems requires that surface water systems be protected on a catchment basis - a shared objective between all relevant public authorities.

Article 5 of the 2009 Surface Water Regulations requires that a public authority, in performance of its functions, shall not undertake those functions in a manner that knowingly causes or allows deterioration in the chemical or ecological status of a body of surface water. Article 28(2) of the said regulations states that a surface water body whose status is determined to be less than good shall be restored to at least good status not later than the end of 2015.

The Stonyford River adjacent to this site is currently at moderate/poor (2020), a reduction from moderate in 2018. The River Deel, also adjacent to this site, is currently at good status (2018) an increase from moderate in 2018. The River Boyne also adjacent is currently at moderate status. All three rivers contain stocks of Atlantic salmon, Brown Trout, Eel and Lamprey. The Royal canal is also in close proximity.

The following observations and comments are of necessity of a general nature, as construction proposals and method statements are not as yet available. While they apply to the proposed development in general, the sites for which details have been received are adjacent to and have potential to impact on a wide range of fisheries waters on the Rivers Stonyford, Deel and Boyne including areas designated as SAC's, angling waters, adult holding areas, nursery and spawning waters, etc. forming parts of the Eastern River Basin District. Many proposed turbine sites are to be sited adjacent to a range of smaller watercourses which act primarily as contributories to downstream habitat for juvenile salmonids, lampreys and other species as well as macrophytes, algae and macroinvertebrates which as drift form a significant part of the food supply to the downstream fisheries. All of the waters referred to have, in the context of the proposed development, the potential to convey deleterious matter from those works such as concrete, silt, fuel, paints, thinners and sewage effluent as well as lubricating and hydraulic oils from construction plant and equipment downstream unless proper safeguards are in place. IFI request you have particular regard to the following in the planning stage of the proposed development.

Stream size can be misleading in regard to fish presence. A significant amount of fish rearing occurs in very small channels and seasonal streams. These streams may not be recognised as fish or macroinvertebrate habitat and their importance to fisheries sometimes overlooked.

All natural watercourses which have to be traversed during site development and road construction works should be effectively bridged prior to commencement. The crossing of watercourses at fords is unacceptable because of the amount of uncontrolled sedimentation that can be generated by their use. If temporary crossing structures are required, IFI approval will be necessary as regards specification and timing of installation. There is sometimes a serious misconception that in installing temporary crossing structures, the only issue is keeping water flowing from above a temporary crossing to below it. Design and choice of temporary crossing structures must provide for passage of fish and macroinvertebrates, the requirement to protect important fish habitats e.g. spawning and over wintering areas, as well as preventing erosion and sedimentation. In certain circumstances, access for angling or commercial fishing purposes may also be required. No temporary crossing on any watercourse shall be installed without the approval of IFI as regards sizing, location, duration and timing. The preferred option is for clear span 'bridge type' structures on fisheries waters. The crossing of watercourses at natural fords is not permitted because of the amount of uncontrolled sedimentation that can be generated. The creation of fords on streams and rivers through the introduction of stone is prohibited.

Where circumstances such as space or access difficulties preclude use of clear span structures, temporary crossings structures shall:

- Comprise one or more metal or concrete pipes, prefabricated culverts or such other material as IFI may permit of minimum diameter 900 mm. Pipes or culverts may be vertically stacked.
- Be laid in such manner as to maintain the existing stream profile.
- Ensure no significant alteration in current speed or hydraulic characteristics, in particular not resulting in scouring, deposition or erosion upstream or downstream the temporary crossing location.
- Have capacity to convey the full range of flows including flood flows likely to be encountered without the crossing being overtopped.
- Be covered with clean inert material such as to allow for the safe crossing of the widest items of plant and equipment without cover material being dislodged and entering waters.

The approach and departure routes to temporary crossing structures should be designed and installed so that drainage will fall away from the watercourse being crossed. In the event that the fall of ground does not permit sufficient control on drainage, additional earthworks settlement areas shall be provided. Temporary crossing structures should be fenced with terram or similar material to prevent wind blow carrying dusts and other potentially polluting matter to waters. Side armour (e.g. reinforced concrete traffic barriers) should be provided on temporary crossing structures to ensure machinery cannot drive over its edge, or force the discharge of material from the bridge deck to waters. IFI wish to emphasise that site selection for temporary crossings should have regard to all access and construction needs ranging from those of fencing contractor's vehicles to the longest wheelbase of multi-axle cranes. It is not permissible, except in exceptional circumstances, to reposition temporary crossing structures where these are not of a clear span type.

Where connection from the proposed wind farm is to be made to the national grid the crossing of important fisheries waters may be an issue where our specific approval will be required.

Permanent crossing structures should not damage fish habitat or create blockages to fish and macroinvertebrate passage. As in the case of temporary crossing structures, design and choice of structure should be based on its technical and economic feasibility to pass fish and macroinvertebrates, the requirement to protect important fish habitats e.g. spawning and over-wintering areas, provision in certain areas of angling and commercial fishing access including boat access and prevention of erosion and sedimentation. Culverts are the most frequently used river/stream crossing structures and are associated with some of the most common fish passage problems. The culverting of long stretches of fisheries water is extremely undesirable and can result in significant loss of valuable habitat.

In the case of crossing structures over fishery waters, the preferred position is for clear span structures (bridges), so as not to interfere in any way with the bed or bank of the watercourses in question. Bridge foundations should be designed and positioned at least 2.5 metres from the river bank so as not to impact on the riparian habitat. Generally, bridges and bottomless culverts are the best option for maintaining natural stream channel characteristics and have the least impact on habitat. However, because of design and load bearing considerations, bottomless culverts may not always be suitable for installation particularly on narrow river channels, as foundations may encroach on the channel itself and possibly result in future scouring or erosion.

Taking account of recent advances and investigations in the area of climate change and flood studies, designs should be such as to verifiably have carrying capacity for a 1 in 100 year fluvial flood flow whilst maintaining a minimum freeboard of 300 mm. The Office of Public Works (OPW) is the lead agency for flood risk management in the Republic of Ireland. Design and capacity of structures must also be in accordance with their requirements. IFI strongly recommends that contact be made with OPW at the earliest stage in the planning and design process. (www.opw.ie). Clear span designs maintain channel profile, do not alter gradients, readily pass sediment and debris and provide unrestricted passage for all size classes of fish by retaining the natural stream bed and gradient. Water velocity is not changed and they can be designed to maintain the normal stream width. Foundations should be positioned at least 2.5 metres from waters.

Embedded box and pipe culverts are less preferable to bridges and bottomless culverts. Embedded culverts must maintain the natural channel gradient, width and substrate configuration. They should be buried to a minimum of 500 mm. below the stream bed at the natural gradient. Box and pipe culverts must be sized to maintain the natural stream channel width. The gradient should not exceed 3%.

The availability of suitably sized material (depending on hydraulic conditions) to initiate "simulation" of the stream bed is the most preferable approach to establish fish and faunal passage through culverts. Culverts should be positioned where the watercourse is straightest and aligned with its bed.

In the case of bridges and bottomless culverts, structures should be designed and installed so as to:

- Allow for the maintenance of channel profile and existing gradient.
- Be capable of passing such debris as might arise during flood flow conditions.
- Ensure adequate light penetration to minimise loss in primary productivity.
- Not result in damage to the riparian habitat or necessitate construction within 2.5 metres of waters.
- Provide at locations specified by IFI, angling access and/or access for commercial fishing purposes.

- While the preferred option is for bottomless culverts, IFI is prepared in certain circumstances to consider proposals for the installation of box or pipe culverts on fisheries waters. These may be installed subject to structures being sized so as to meet the above requirements in terms of channel profile, gradient, flood debris capacity, light, access and:
- Be positioned such that both the upstream and downstream invert shall be 500 mm. below the upstream and downstream river bed invert levels respectively.
- Never exceed a slope of 5%, in which circumstances baffles generally are required, and preferably not exceed a slope of 3%.
- As baffles can reduce the hydraulic efficiency of culverts, appropriate capacity
- provision must be included in the overall design.
- In the case of box culverts on angling waters, be 3 meters in height.

Pipe culverts are not generally considered acceptable on fisheries waters. They are normally only appropriate for use on minor watercourses and drainage ditches where these can be demonstrated as not being significant in terms of fisheries habitat.

Bank protection works are often required upstream and downstream of new structures, to ensure no undercutting or destabilisation of either the structure or riparian bank areas occurs. In carrying out bank protection works, it is essential that large enough boulders are selected and strategically positioned, to ensure they cannot be undercut. Normally this entails part burying boulders up to one third of their depth below stream bed level and securing them into their final position. In areas of high water energy, to ensure stability, boulders size should be a minimum of 0.5 ton. To facilitate revegetation, each course of boulders laid should be back filled with a layer of top soil. Selection of boulders in terms of shape to facilitate their placement and stability is a major consideration. Irregularly shaped boulders are very difficult to work with in terms of building multiple stable courses.

The height to which rock armour is built must take account not only of the riparian zone requiring protection, but also in certain circumstances of the need to protect e.g. kingfisher and sand martin habitat. In many instances, one or two layers of armour will be sufficient to protect and stabilise the toe of embankments while allowing nesting.

Gabions are not a preferred option when it comes to bank protection. They can easily be vandalised and once the mesh is cut or broken, baskets can collapse. Gabion baskets can be unsightly and it is difficult to successfully establish and maintain vegetation on side walls. Gabion baskets are normally only acceptable at locations where due to access constraints it is not possible to install rock armour.

There are significant variations in the timing and duration of spawning activity throughout the Republic of Ireland. To minimise adverse impacts on the fisheries resource works in rivers, streams and watercourses should normally (except in exceptional circumstances and with the agreement of IFI) be carried out during the period **July-September**. The appropriate 'window' for instream works can vary depending on the nature of the fishery resource concerned and the existence of other factors such as catchment or sub catchment specific Bye Laws and

Regulations.

In terms of stability both during the construction and operational phases, it is essential that you assess and critically review the soil type and structure at the proposed turbine locations, and along the route of any proposed access track(s)/road(s) including areas where temporary or permanent stock piling of excavated material takes place. This is particularly important if the areas concerned contain peat soils.

One of the potential impacts of the proposed development is the discharge of silt-laden waters to fisheries streams from newly developed sites at which earth moving and excavation works are on-going. Silt can clog salmonid spawning beds, and juvenile salmonids are particularly sensitive to siltation of gill structures. Similarly, plant and macroinvertebrate communities can literally be blanketed over, and this can lead to loss or degradation of valuable habitat. It is important to incorporate best practices into construction methods and strategies to minimise discharges of silt/suspended solids to waters.

The potential for soil erosion/ suspended solids generation is higher, during / after periods of prolonged rainfall. Systems should be put in place to ensure that there shall be no discharge of suspended solids or any other deleterious matter to watercourses during the construction / operational phase and during any landscaping works. Stockpiles of sand and other materials to be used in the works should be covered with sheeting when not in use to prevent washout of fines during rainfall. Stockpiles of topsoil and associated materials arising during site development such as turbine base excavations and installation of site road networks should be similarly protected. Silt traps should be constructed at locations that will intercept run-off to the drainage network. Traps should not be constructed immediately adjacent to natural watercourses. In designing silt traps account must be taken of the anticipated particle size(s) and the volumes of water likely to be focused through the trap(s). Retention time to allow appropriate settlement is a critical factor. A buffer zone should remain between silt trap(s) and watercourses with natural vegetation left intact so as to assist silt interception. Consideration should be given to the judicious positioning of silt fences. A comprehensive plan should be drawn up at the planning stage with specific measures to address the high potential for silt pollution of nearby watercourses during works on site.

During the construction process and operational phase, natural flow paths should not be interrupted or diverted to give rise to or create potential for erosion. Furthermore, excavation and installation of road(s)/access track(s) should be undertaken so as not to result in the creation of preferential flow paths that may result in erosion or which might otherwise interrupt the natural movement of waters for instance in peat bog areas. Where imported materials are used in road construction, these should be such as not to be liable to become crushed by vehicular movement, and lead to discharge of fine particulates to downstream receiving waters.

Uncured concrete can kill fish and macroinvertebrates by altering the pH of the water. Pre-cast concrete should be used whenever possible, to eliminate the risk to all forms of aquatic life. When cast-in-place concrete is required, all work must be done in the dry and effectively isolated from any water that may enter the drainage network for a period sufficient to cure the concrete. Concrete delivery vehicles should be precluded from washing out at locations which would result in a discharge to surface waters. Specific controlled and environmentally safe vehicle washout areas must be provided. If cement is stored on site during construction work, it should be held in a dry secure area when not in use.

All oils and fuels should be stored in secure bunded areas, and particular care and attention should be taken during refuelling and maintenance operations on plant and equipment. Bunding should be to a volume not less than the greater of the following; 110% of the capacity of the largest tank or drum within the bunded area, or 25% of the total volume of substance

that could be stored within the bunded area. All plant and equipment should carry oil/fuel spill kits. Where temporary diesel or petrol driven pumps are required, they should be sited within portable temporary bunded units. Where site works involve the discharges of drainage water to receiving rivers and streams, temporary oil interceptor facilities should be installed and maintained. Waste oils, empty oil containers and other hazardous wastes should be disposed of in accordance with the requirements of the Waste Management Act, 1996.

Biosecurity The employment of effective bio-security measures during the construction phase are an important mitigation against the introduction and spread of invasive species. Notable invasive aquatic and riparian plant species can be introduced during the construction phase via contaminated machinery and topsoils. Taking further note that the development location is near the headwaters of a number of tributary catchments, any such introduction would have particular potential to allow the spread of an invasive downstream and affect the greater river catchment.

No instream works shall be carried out without the written approval of Inland Fisheries Ireland.

In the event of the project proceeding, it is the responsibility of the developer and the contractors to ensure that works will not give rise to a discharge of deleterious or polluting matter to waters.

At all times the precautionary principle should be applied throughout for the entire development. Particular attention should be paid to the various environmental directives including the Water Framework Directive, the Habitat and Birds Directives, the Fisheries Acts in particular and the Local Government (Water Pollution) Acts. Other environmental legislation should be considered as appropriate.

Concluding Remarks

The long-term environmental sustainability of any activity that may impact on the status of fish species, their habitats, fisheries and/or the recreational angling or related commercial activities that may utilise these resources is of primary concern to IFI. IFI is among the public bodies that have a role in making policies, plans or programmes relevant to surface waters in Ireland. Critical and sensitive habitats and species (both designated and otherwise) must be protected. A number of fish species and associated habitats are protected under European Directives in Ireland. From an IFI perspective, all fish species and associated habitats within its remit require protection and management for conservation and development. IFI advocates application of the precautionary principle when considering the fisheries resource / aquatic ecology in the current process. In addition, it must be highlighted that all available consideration and support should be afforded to the national 'Blue Dots Catchment Programme' which focuses on the protection or restoration of high ecological status water bodies – a vital component in fisheries ecology, freshwater ecosystems and in Ireland's aquatic biological diversity more generally.

All works should also be carried out as per Guidelines:

- IFI's Guideline documents on protection of fisheries during construction work in and adjacent to waters <http://www.fisheriesireland.ie/fisheries-and-construction-works>.
- Urban Watercourse Riparian Zone guideline document.
<https://www.fisheriesireland.ie/documents/86-planning-for-watercourses-in-the-urban-environment-1/file.html>

Please do not hesitate to contact me should you have any queries.

IFI are grateful for the opportunity to have these views considered and incorporated as a component of the proposed windfarm application.

Yours sincerely

Noel McGloin

Noel McGloin
SFEO, IFI Dublin

Please note that any and all correspondence regarding this matter should be addressed to Mr. Noel McGloin, Senior Fisheries Environmental Officer, IFI Dublin, 3044 Lake Drive, Citywest Business Campus, Dublin 24. Email noel.mcgloin@fisheriesireland.ie