



Councillor
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To Whom It May Concern,

I am very excited to see the latest set of rehabilitation plans that Bord na Móna has created as part of its obligations to comply with its IPC licence commitments. I am particularly interested in the plans for Lodge Bog, as I have become very familiar with this bog in the last few years as I live beside it and spend many hours walking it.

The detail in this plan is an excellent representation of the current state of Lodge Bog, and the proposed actions are easy to understand and well laid out. I wish Bord na Móna every success in their efforts to seek formal approval for the enhanced plan.

Sphagnum mosses can be found throughout drains and bogholes in Lodge Bog, particularly on the surrounding headlands, and I strongly believe that when the hydrology reaches the correct conditions that sphagnum moss will begin to grow and spread with very little other intervention.

I look forward to seeing implementation commence in the short term, and I also look forward to seeing all the environmental improvements the delivery of the plan will bring in the long term.

Thank you,

A handwritten signature in black ink that reads "Brendan". The signature is written in a cursive, flowing style.

Submission on the Updated Rehabilitation Plan for Lodge Bog

Cllr. Brendan Wyse

March 2022

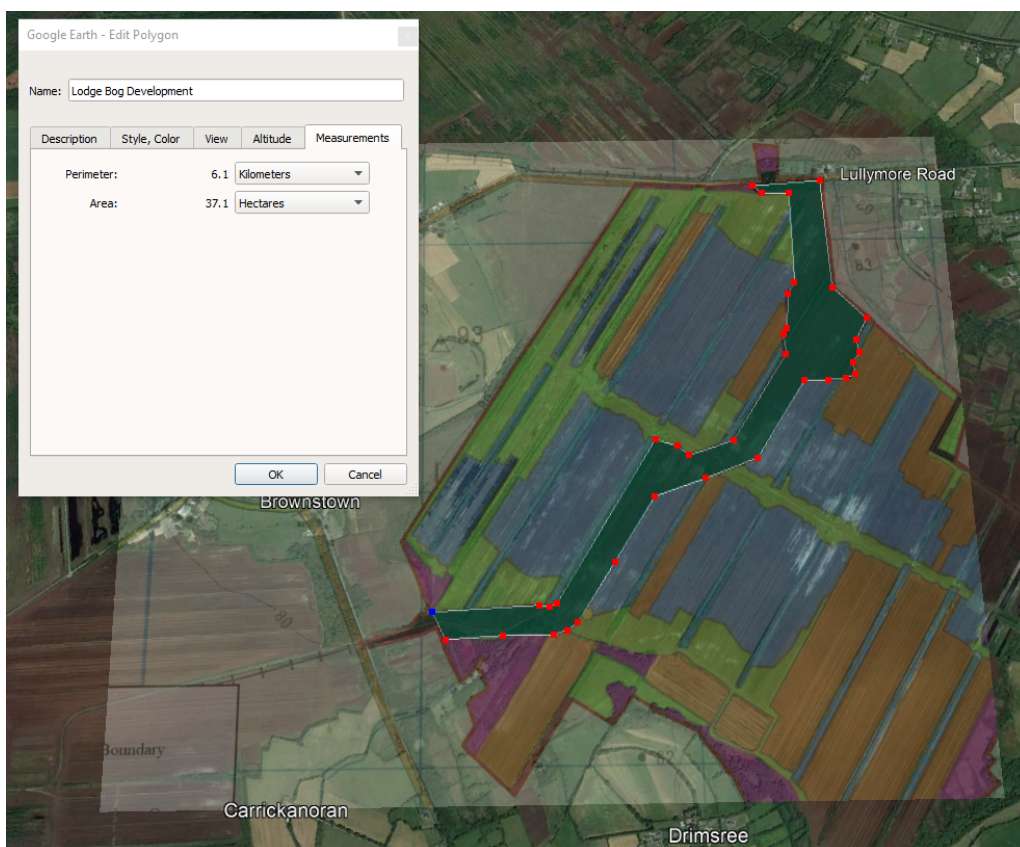
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Size of Constrained Area

An area of Lodge Bog has been marked as a constraint on the maps in the plan. It is stated that this area is intended to be used for access roads and to facilitate connecting the proposed Ballydermot Wind Farm to the national grid, presumably using the existing ESB building on the R414, with a new wind farm substation 600 metres south of the R414.

The northern channel of the constrained area is 140 metres wide, and the southern channel is 100 metres wide. An area of approximately 41.57 hectares has been marked as constrained, according to table 8.1.



Whilst it is acknowledged that this area may be an approximation of the actual area required, the result is that over 10% of the area of Lodge Bog has been marked as constrained due to the wind farm development. It is generally claimed by wind farm developers seeking to build wind farms on peatlands, that such developments do not constrain any more than 5% of the area from rehabilitation.

It is recommended that the area be more precisely defined, and that the channel widths are significantly reduced, to ensure that less than 5% of the area of Lodge Bog is constrained.

The justification for a connecting road running through Lodge Bog, when the R414 already provides an existing transport link, will be considered as part of the planning application for the Ballydermot Wind Farm. The omission of the two turbines that were proposed for Lodge Bog on the initial wind farm plan is noted and welcomed.

Impact on Adjacent Land

It is stated that no actions will be taken that would negatively impact adjacent land.

It is submitted that the impact of the ongoing drainage is already having a negative impact on the adjacent land by causing flooding and that the rehabilitation actions should reduce instances of flooding and immediately have a positive impact on these lands.

The entire output flow from the existing Lodge Bog drainage system is into 'The Doon' stream (named Killinagh Upper on the Water Quality map). This stream is a tributary of the Slate River, which is in the Barrow Catchment Area.

With an estimated 638,000 m³ of rainwater falling on the existing drained area (340 hectares) of Lodge Bog in February 2020, the flow into The Doon is substantial in times of heavy rainfall. Drain blocking, which will result in the retention of a good amount of this rainfall within the wetlands, will see instances of flooding in adjacent lands reduced.

Biodiversity

The report in Section 3.3.2 regarding species of conservation interest is very comprehensive.

In addition to the listed butterflies I would have personally observed the Wall Brown.

Closer to the IPCC nature reserve and on the western rewetted area of Lodge Bog I would also have observed Lapwing during breeding season. These have been closely monitored by Birdwatch Ireland Kildare Branch and the Irish Peatland Conservation Council. The groups also monitor Curlew annually on the western edge of Lodge Bog, and should be able to provide records if needed.

Snipe appear to be present all year round, and widespread over Lodge Bog, based on my own personal observations.

Water Bodies At Risk from Peat Extraction

One of the more valuable criteria for measuring the success of the Rehabilitation Plan is how it manages to reduce the pressure from peat production on the local river catchment in accordance with the Water Framework Directive.

The plan refers to Lodge Bog being drained by the Slate River, although the output flow from the existing Lodge Bog drainage system is actually directly into ‘The Doon’ stream (named Killinagh Upper in the plan) just 150 metres upstream from the Slate.

It is reported in the most recent Barrow Catchment Report from August 2021 that the risk of water quality improving in the water bodies surrounding the Bord na Móna cutaway bogs has not improved. This is despite significant drain blocking in Lullybeg and on the western edge of Lodge Bog already.

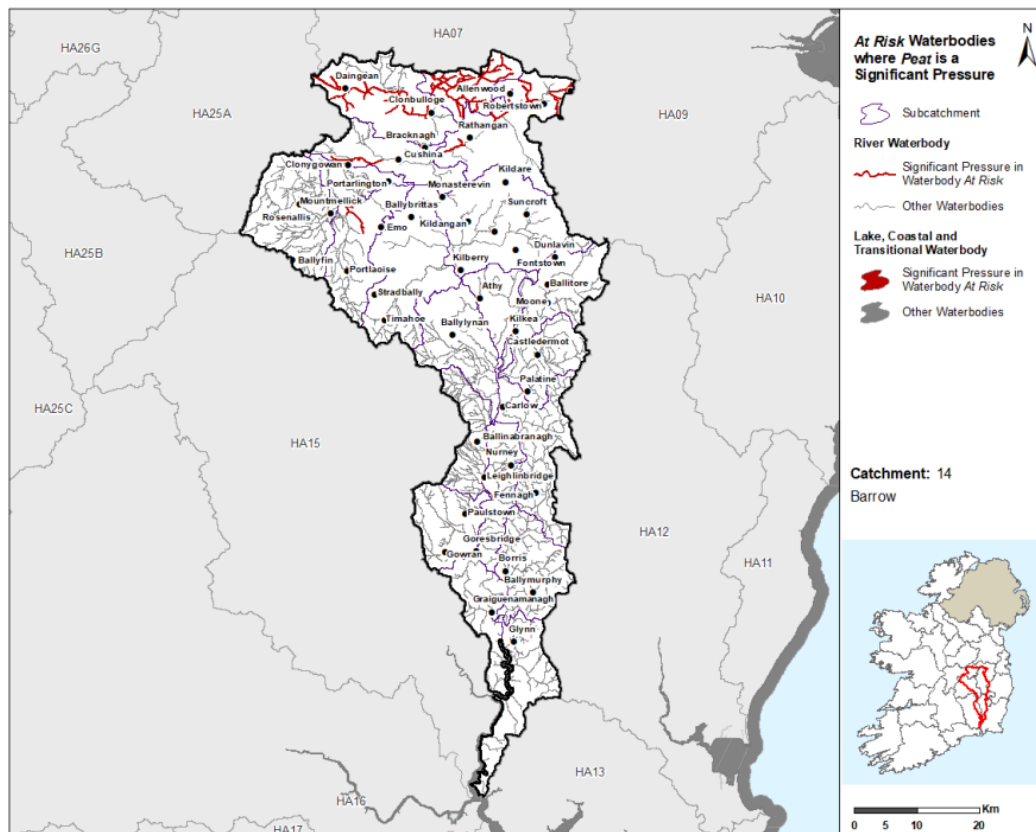


Figure 18: Locations of Waterbodies where Peat is a Significant Pressure

It is hoped that as more extensive drain blocking is carried out that we do see the pressure on water quality due to peat extraction removed and some improvement in the water bodies of West Kildare. Given the relatively large area of Lodge Bog, one would hope that the implementation of the proposed plan will see positive results regarding water quality in the Slate.

Conservation Efforts

The kind donation by Bord na Móna of the intact western regions of Lodge Bog to the Irish Peatland Conservation Council is acknowledged and appreciated still to this day. The large rewetted area directly adjacent to this nature reserve complements it and contributes to a larger potential conservation habitat for Curlew and Lapwing.

I would respectfully ask that consideration is given to working very closely with Birdwatch Ireland Kildare Branch, the Irish Peatland Conservation Council and the National Parks and Wildlife Service to further assist with efforts to create a conservation area in Lodge Bog, as part of the larger rehabilitation plan.

I am advised, for example, that if the western rewetted area was kept clear of trees and shrubs then it would improve the chances of survival for Curlew and Lapwing chicks here. The NPWS informs me that breeding habitats for Curlew and Lapwing are of national importance in the present day, and I believe Bord na Móna has the potential to create one of these habitats in Lodge Bog with some additional investment.

Statutory Nature Conservation Designations

It is worth noting that the stream known locally as the Boinne and named on the Water Quality map as Cloncumber Stream is an ecological link to Pollardstown Fen SAC, where it has its source. The Boinne joins the Slate River just south of Lodge Bog and notwithstanding the distance of 7.6km to Pollardstown Fen, it cannot be disregarded that serious pollution or worsening of water quality in the Slate River would not have an impact further upstream in Pollardstown Fen SAC.

Similarly, the Slate River is a tributary of the Figile, which joins the Barrow SAC at Monasterevin. It cannot be disregarded that a serious pollution or water quality event in the Slate would not impact the Barrow SAC, 15.3km away.

Hydrology and Hydrogeology

In Section 3.5 it is proposed to turn off the two pumps on the eastern boundary and to implement a gravity drainage design. The action refers to a Lodge Engineering Report, which is not included as an appendix to the plan. It is requested that this report be uploaded to accompany the files on the PCAS website.

Sphagnum Moss Presence

I would be very optimistic that once drain blocking begins, and the water table level is managed, positive results regarding Sphagnum moss growth will be seen in Lodge Bog quite quickly.

As a frequent walker in all areas of Lodge Bog, I can attest to the presence of Sphagnum moss in many of the headlands surrounding the bog. It would appear that in many areas where the water table meets the right conditions, that Sphagnum moss starts to grow, even in drains that were part of production areas used until recent years.



For example, the bog hole shown above was created in 2020 by a private turf cutting contractor working on Lodge Bog and has filled with Sphagnum moss in just two years despite being over 30 metres away from the nearest headland.

Fertilisation Map

In Section 8, reference is made to drawing number DR_23_21_28 'Targeted fertiliser map', but this is not included in the maps document. If targeted fertilisation is planned, and has been mapped, then please add this to the documents.

Restoration of Sod Moss Area

As mentioned in the plan, the area on the south boundary that was used for sod peat production is somewhat intact and Sphagnum moss grows in pools here.



If the plan could specifically state an action to return the sods currently piled on the area back into the holes from which they were extracted, that would be welcomed.

Preservation of Walking Routes

As an objective of the Kildare County Development Plan for 2023 - 2029, it is proposed to have a peatway from Allenwood to Rathangan, part of which would go through Lodge Bog.

Some of the more elevated dry grassy areas, where the permanent rail lines were located, are ideal for use as walking routes.

At this early stage of the rehabilitation process, if the desire to have walking trails through the bog could be acknowledged and considered where appropriate, that would be appreciated.

Geology and Peat Depths

Section 3.2.1, pertaining to the sub-soil geology makes reference to the lowest lying areas of the site being underlain by two types of material. One is lacustrine clay (below c. 74mOD), but the other at a depth of below c 72.5mOD has been mistakenly omitted.

3.2 Geology and Peat Depths

3.2.1 Sub-soil geology

Published bedrock and Quaternary geological maps only present the shallowest deposits encountered and fail to present in information on the buried peat substrate. Coring carried out by RPS in 2021 across Lodge Bog provided further insight into the deposits underlying the site, particularly when combined with GPR data concerning the elevation of the peat substrate.

Combining the two datasets reveals the lowest lying areas of the site to be underlain by (below c. 72.5mOD) and lacustrine clay (below c. 74mOD), while there are a number of ridges of more elevated material (rising to >77mOD). This has been interpreted as glacial till based on coring identifying gritty clayey material in these locations and based on comparable features present in the surrounding area. The lacustrine deposits encountered would be expected to limit vertical losses to depth in areas where this occurs.

The final version of the plan should provide the name for this material.

Sharing of Data

Many organisations now provide their GIS data to the general public by sharing links to maps or the raw data sources used in the maps. It would be worth considering making the habitat mapping available for use by local authorities and the general public in the interest of biodiversity awareness and education.

Other data which might be of interest would be the results of the coring that was carried out by RPS in 2021. Combined with LIDAR data and other peat depth measurements it would be interesting from a historical perspective to understand the layout of the ground that enabled Lodge Bog to form thousands of years ago.