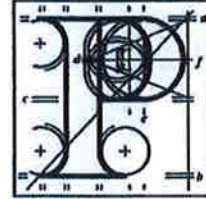


Our Case Number: ABP-313763-22



**An
Bord
Pleanála**

Office of Public Works
C/O Patrick McAlinney
1GQ, Georges Quay
Dublin 2
D02 Y098

Date: 18 August 2022

Re: Proposed Fermoy Weir remedial works and fish bypass on the River Blackwater.
Fermoy Weir (Protected Structure), Fermoy, Co. Cork.

Dear Sir / Madam,

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

Please note that the proposed development shall not be carried out unless the Board has approved it with or without modifications.

If you have any queries in relation to the matter 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,

Doina Chiorescu
Executive Officer
Direct Line: 01-8737133

AA02

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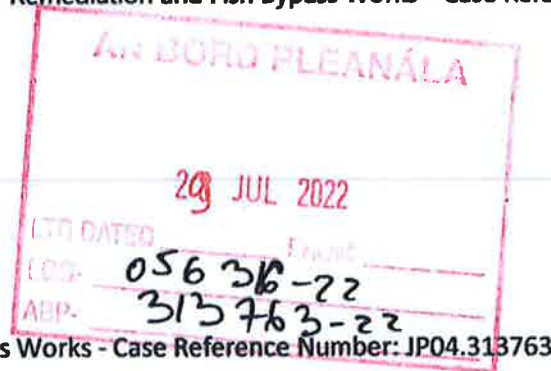
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Doina Chiforescu

From: SIDS
Sent: Wednesday 3 August 2022 08:08
To: Doina Chiforescu
Subject: FW: Proposed Fermoy Weir Remediation and Fish Bypass Works - Case Reference Number: JP04.313763



From: Patrick McAlinney <patrick.mcalinney@opw.ie>
Sent: Friday 29 July 2022 16:27
To: SIDS <sids@pleanala.ie>
Cc: Bord <bord@pleanala.ie>
Subject: Proposed Fermoy Weir Remediation and Fish Bypass Works - Case Reference Number: JP04.313763

Dear Sir / Madam,

I refer to the above project which has been notified to the Commissioners of Public Works by letter, dated June 8th 2022.

While we have not had the opportunity to carry out a comprehensive review of the project documentation, we would like to make a number of comments and draw various issues to your attention as you consider the application for permissions for this development.

River Blackwater (Fermoy North and South) Drainage Scheme (or Flood Relief Scheme)

The Commissioners have constructed a flood relief scheme in Fermoy, providing protection to both Fermoy North and Fermoy South. This scheme has been carried out by the Commissioners under powers given to them in the Arterial Drainage Acts of 1945 and 1995 as amended.

The project Planning Red Line Boundary indicated on the planning drawings for this project includes the locations of a number of features or elements of the flood relief scheme as follows:

1. The River Channel itself.
2. The Floodplain of the river.
3. Flood defence embankment.
4. Flood defence walls.
5. A Pumping Station.
6. Demountable barrier threshold structures
7. Emergency bed stabilisation works.
8. Drainage outfalls.

Any interference with any of these elements of the Flood Relief Scheme requires the consent of the Commissioners under Section 9 of the Arterial Drainage (Amendment) Act of 1995. This is an independent statutory requirement from the need to get planning permission for the project, and a grant of planning permission does not obviate the need to obtain such consent.

Other Statutory Consent

Section 47 of the arterial Drainage Act of 1945, as amended, stipulates that any person who proposes to build or modify a weir is required to have the consent of the Commissioners of Public Works. This consent is an independent statutory requirement from the need to get planning permission for the project, and a grant of planning permission does not obviate the need to obtain such consent. This consent may be applicable in this case.

Planning Drawings submitted

A number of comments arise from a brief review of the drawings submitted for the project. These are as follows:

- A. It is noted that a number of the drawings indicate proposed planting of trees distributed over the width of the floodplain between the proposed fishpass and the flood defence embankment. This could very conceivably have the effect of reducing the flow capacity in the floodplain and thereby increasing flood levels in large floods. (Further comment later).
- B. With regard to the proposed construction of the fish pass and its build up, we would comment that the materials should be carefully selected to remain stable in all flood conditions. Any instability of the material leading to a mobilisation of material in turn could lead to accumulation of material downstream causing a potential reduction of flow capacity in the bridge or the channel downstream. This could have an adverse impact on flood levels in the area, and potentially increase flood risk in the town.
- C. It is welcome that gravel from downstream deposits in the river is to be used in the construction of the fish pass. This will have a positive impact on the channel capacity downstream.
- D. The labelling of two of the cross sections on plan on drawing 19011-TJOC-PL-XX-DR-C-0060, in the area of the bed stabilisation works is not clear. Thus, arguably, it is not clear what the cross sections are showing, because the labels on plan don't match those on drawing 19011-TJOC-PL-XX-DR-C-0063.
- E. The levels indicated on drawing no. 19011-TJOC-PL-XX-DR-C-0063 appear to be up to about 350mm higher than the weir in this location (assumed) prior to collapse. This is a potentially significant matter, and could trigger the need for Section 47 consent as mentioned above.
- F. Drawings 19011-TJOC-PL-XX-DR-C-0084 and 19011-TJOC-PL-XX-DR-C-0085 both indicate potentially significant interferences with the flood plain between the river and the flood defence embankment, spoil heaps, and site accommodation and facilities respectively. These matters could cause significant obstruction to flow and cause an increase in flood levels. It is noted that the site facilities are stated to be above the 1% AEP flood levels. However, this flood level is about 3.5 metres above ground levels in this area. The support structure for these facilities, if placed in the location indicated, could, as said, have a significant adverse impact on flood levels and thus on flood risk.
- G. Similarly, drawing 19011-TJOC-PL-XX-DR-C-0086 indicates that the whole of the floodplain width between the river channel and the flood defence embankment is occupied by 'works' There is no indication what these 'works' might be nor if they might or might not have an obstructive impact (to river flow) on the flood plain, and thus increase flood levels and flood risk. These issues need to be controlled (through the FRA, planning conditions, and the Section 9 consent process) so that an increase in flood risk does not arise, even on a temporary basis as a result of the proposed development.
- H. Further to comment A above, it is noted that drawing number LP-01-PP shows in plan and section a relatively dense amount of vegetation and tree planting distributed over much of the width of the floodplain between the fish pass and the flood defence embankment, labelled as 'riparian enhancement'. This could have adverse impacts on flood levels and flood risk in the town, as per previous comments. We would advise strongly that the floodplain between the flood defence embankment and the river channel in a town where there is a particularly high level of flood risk, and where the State has made very substantial investment in flood protection, is not a suitable location for dense planting of this nature. This should not be permitted as part of the development.

Flood Risk Assessment

It is noted that a Flood Risk Assessment has been prepared and is included in Appendix E of the 'Engineering Technical Report to Accompany Planning Application'. A brief review of the flood risk assessment report prompts the following comments:

- a. The scope of the assessment as outlined in section 1.4 does not include an assessment of the flood relief scheme (and the documentation supporting it), which has been carried out in the town. It is noted that the scheme is referred to in a later section of the report.
- b. Neither is there any reference to the flood relief scheme in the town in Table 3-1.
- c. It is noted that flood levels from CFRAM outputs are referred to in Section 4.2, rather than the flood relief scheme outputs. For example, the 1% AEP flood level with the scheme in place is noted in the 2007 document referred to in Section 5.1 as being 25.38 or so, rather than the 24.82 mentioned in Section 4.2.
- d. In section 5.1 it is noted that there were discrepancies between observed and predicted flood levels in Fermoy and that updated/review work was carried out in 2011. It is also stated that a design memo prepared in 2007 is referred to, to provide flood levels for a variety of purposes in this FRA. It is not stated however, and this is a serious concern, that the flood levels in the 2007 memo were in effect the source of the discrepancies referred to earlier. It is a matter of concern that the levels in this 2007 memo are relied on in the way that they are in this FRA.
- e. The section describing the model calibration (Section 5.3.3) only refers to levels obtained from the 2007 memo. In principle, as these levels are generated from a computer model themselves, they are not suitable for

model calibration in such important work as this FRA, which is intended to support the application for permission for this development in a location which already has a very high level of flood risk. In practice, it is a serious matter of concern that the 2007 memo is relied on in the way that it is for model calibration when it is known that the information in it was the basis of the discrepancies mentioned earlier.

f. Furthermore, on the matter of model calibration, there is an amount of recorded river level data from river level gauges operated by this office, in Fermoy. This data should be used to calibrate the model, not computer generated data that is known to be unreliable.

g. It is not indicated in the flood risk assessment whether any of the items mentioned above under the heading "Planning Drawings submitted", which could have an adverse impact on flood levels and flood risk, have been considered in any way in the flood risk assessment. They should be considered and reported on in detail.

h. In summary, as will be reasonably clear from the foregoing comments, it is felt that the adequacy of this flood risk assessment to support the application for permission for the proposed development, should be questioned. If this office were the deciding authority on this matter, further work on the flood risk assessment would be required, before a decision would be made.

Requirements of OPW

Section 3.4 of the FRA refers to consultation with OPW. The requirements of the OPW might be summarised as follows, for clarification:

- The impact on low and high flood levels as a result of this proposed development needs to be considered adequately, so that an assessment can be carried out as to whether Section 47 consent is required or not.
- Consent under Section 9 as referred to earlier should be applied for and obtained prior to any work proceeding on site.
- There should be no impact on the flood levels that are used to trigger erection of demountable barriers and other actions, in response to rising floods in Fermoy, and their relationship with flow, as a result of this development. This has not been evaluated in the FRA.
- There should be no adverse impact on flood levels in the town that would reduce the effectiveness of the flood defences provided nor the standard of protection provided.
- The restrictions on the contractor to be appointed to carry out the works in terms of interference with the flood plain should be addressed and identified, by the developer and their consultants, in the FRA and specified in the works requirements. They should not be left for the contractor to address.

Please contact this office if you require any further information.

Yours faithfully,

Patrick McAlinney

Patrick McAlinney
Flood Projects Management

Oifig na nOibreacha Poiblí
Office of Public Works

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