



OPW

Oifig na
nOibreacha Poiblí
Office of Public Works

Munster Blackwater River (Fermoy South East) Drainage Scheme – Emergency Works 2020 AA Determination Statement

Introduction

Pursuant to Regulation 42(11) of the European Communities (Birds and Natural Habitats) Regulation 2011 (As amended), The Office of Public Works, as a Public Authority, has prepared this Appropriate Assessment (AA) Determination Statement regarding the proposed emergency works. These works are intended to reinstate the river bed where scour activity has caused erosion and potential destabilisation of the flood defence structures, and protection of this reinstatement with suitable rock, on the south bank of the Blackwater River in Fermoy, Co. Cork. The purpose of this Determination Statement is to allow interested parties to inspect the Public Authority determination. In accordance with Article 6(3) of the EU Habitats Directive (Directive 92/43/EEC) and Regulation 42 of the European Communities (Birds and Natural Habitats) Regulations 2011 as amended, the OPW has undertaken a Natura Impact Statement (NIS) to assess, in view of best scientific knowledge and the conservation objectives of the site, if the project, individually or in combination with other plans or projects is likely to have an adverse effect on a European Site(s). In undertaking this determination, the OPW have had regard to:

- The Natura Impact Statement prepared on behalf of the OPW by DixonBrosnan.
- Impact assessment and mitigation contained therein.
- Submissions made to the OPW by Inland Fisheries Ireland (IFI) and the National Parks and Wildlife Service (NPWS).
- Additional mitigation measures identified following receipt of the above submissions, as described in the Appendix to this statement.

The Plan or Project

Background

A Flood Relief Scheme for Fermoy South East was completed in 2015. The works involved the construction of both permanent and temporary flood defence walls, and embankments on south bank of the river. As part of this project works new flood defences were put in place at O'Neill-Crowley Quay and at Mill Island.

Due to the deterioration of Fermoy Weir which is located alongside this quay and resultant changes in flow pattern, water is now flowing towards this section of the flood defences at higher velocities than was previously the case. A hydrographical survey of the riverbed in Fermoy has indicated that significant scour has occurred in front of a number of the existing flood defence walls. It is evident from the survey that, since the east end

of the original weir collapsed/breached, up to 4m (depth) of scour has occurred in the proximity of the east end of the original weir and adjacent to flood defence walls. It is also evident that a section of the western end of Mill Island has eroded/collapsed into the river. From recent visual inspections, it is clear that the erosion of Mill Island is continuing. As such, there is a requirement for urgent emergency works to the river bed to maintain the stability of walls 19- 21 of the Fermoy South East Drainage Scheme.

In the absence of works to stabilise the situation there is a high probability that there will be high levels of erosion over the winter period which will weaken the flood defences. This may lead to long-term closure of the road at O'Neill-Crowley Quay and in the absence of emergency works, more extensive remedial works are likely to be required in the future with the potential for more significant ecological effects.

The situation is now becoming critical with the risk of large scale ground collapse and erosion over the winter, leading to infrastructural failure, increased risk of flooding in the protected area in Fermoy town, and potential significant effects on qualifying interests and conservation objectives for the Blackwater River SAC from elevated silt levels.

The Project.

The project comprises the emergency works which are necessary to stabilize the situation. The extent of the erosion is shown in the NIS.

The emergency works consist of

- Placement of River gravels or imported clean gravels in the holes created by the scour and erosion activity.
- Capping of this river gravel material with suitable rock armour and rip rap protection designed to resist the scour activity from ongoing high flow velocities in the river.
- Possible use of a temporary dam or barrier to control the flow in the works area. This temporary dam, if required, will be removed from the river by December 20th, 2020 at the latest.
- Construction of a ramp to allow access to the works area in the river from the Mill Island car park, and removal of same when the works are completed.
- Mitigation measures specified in the NIS and the appendix to this statement to mitigate any impacts on the qualifying interest of the European Sites.

A contractor appointed by the OPW under the Arterial Drainage Act (1945) will carry out the project. These works are mostly situated within the Blackwater River (Cork/Waterford) SAC (002170). The works therefore require appropriate assessment.

AA Screening

DixonBrosnan prepared a Screening for Appropriate Assessment for the OPW which determined that the project had the potential to have effects on the qualifying interests for the Blackwater River SAC (Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (Alno-Padion, *Alnus incanae*, *Salix alba*) [91E0], Water courses of plain to montane levels with the *Ranunculus fluitans* and *Callitriche-Batrachium* vegetation [3260], *Alosa fallax fallax* (Twait Shad) [1103], *Margaritifera margaritifera* (Freshwater Pearl Mussel) [1029], *Austropotamobius pallipes* (White-clawed Crayfish) [1092], *Petromyzon marinus* (Sea Lamprey) [1095], *Lampetra planeri* (Brook Lamprey) [1096], *Lampetra fluviatilis* (River Lamprey) [1099] and *Salmo salar* (Salmon) [1106] and *Lutra lutra* (Otter) [1355]. On this basis, a Natura Impact Statement was considered necessary and was prepared by DixonBrosnan for the OPW.

Potential Impacts

The NIS assessment was based on detailed background surveys which had already been completed in respect of a separate project at this location, namely the proposed remediation of the Fermoy Weir. Surveys in relation to this project which were also applicable to this project included surveys for white clawed crayfish, Freshwater Pearl Mussel, River, Brook and Sea Lamprey, Atlantic Salmon the habitats Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (Alno-Padion, Alnion incanae, Salicion albae) [91E0], Water courses of plain to montane levels with the *Ranunculus fluitantis* and Callitricho-Batrachion vegetation [3260].

The NIS identified the following potential effects which could arise in relation to qualifying species and habitats which had not been screened out by the AA screening process.

- Effects on water quality
- Spread of Invasive Species and Biosecurity Risks
- Impacts on fish migration and spawning
- Loss of habitat
- Direct effects on qualifying species
- Prevention of ongoing erosion, damage to flood relief walls and siltation effects
- In combination effects

Mitigation measures

A range of measures to mitigate any potential impact on European Sites and their conservation objectives, were specified within the NIS based on construction best practice guidelines and site-specific mitigation measures were also specified in relation to the following:

- General guidelines.
- Construction Works – Hydrocarbons and Waste Management
- Silt Control
- Mitigation related to species and habitats
- White Clawed Crayfish.
- Invasive Species
- Biosecurity
- Habitats
- Otter
- Noise

Consultation

The Natura Impact Statement was issued to the NPWS and IFI for consultation on September 30th 2020. Submissions were received from these bodies which have been considered and accounted for. These submissions led to the adoption of additional mitigation measures, which are described in the Appendix to this Statement.

Reasons for Determination and Final Determination

The NIS assessed the potential direct and indirect impacts of the proposed works upon relevant Natura 2000 sites and assessed the potential impacts for significance alone and in-combination with other plans and projects. This process takes into consideration the nature of the proposed works and the structure, function and conservation objectives of the relevant Natura 2000 sites.

Potential sources of impact from the proposed works and their pathways were assessed against attributes and targets of the qualifying interests for each Natura 2000 site. The detail of the assessment ensures that no reasonable scientific doubt remains as to any potential impacts.

This Appropriate Assessment takes into account detailed feedback from IFI and NPWS and specific measures to avoid and reduce potential impacts are documented in the NIS report mitigation measures section and in Appendix 1 of this Determination Statement.

Based on the above the Commissioners of Public Works, as competent authority, is satisfied that with the measures identified in the NIS and Appendix 1 of this report, this proposed project on its own or in combination with other plans or projects, will not adversely affect the integrity of any European Natura 2000 site.

Appendix 1

Mitigation measures that will be included in construction of the project.

All mitigation measures identified within the NIS will be implemented;

Silt control

Further to the Mitigation measures specified in the NIS, on the issue of mitigation of impacts arising from generation of silt in the river during the works, the following measures are to be adopted.

- Sampling of the Blackwater river to establish a suitable baseline for Suspended Solids and Turbidity
- Determining a relationship between Suspended solids and Turbidity. This is to allow monitoring of Suspended Solids levels by monitoring Turbidity levels
- Specification of suitable trigger levels for Suspended Solids and equivalent Turbidity levels, for a traffic light system (green/continue, amber/caution, red/stop), in response to monitoring of Turbidity levels during the works.
- Monitoring of Suspended solids or turbidity during the works, including monitoring of Natural Turbidity levels prior to start of works each day, so that comparison each day can be related to Naturally occurring levels on the day, rather than a possibly exceptionally low baseline.
- Ensure temporary suspension of the works, if silt levels are excessive (above the predetermined thresholds), or if the silt curtains rupture or otherwise fail.
- Provision for further measures that may be implemented, as appropriate, if silt levels increase above threshold levels, such as, changing the work that is ongoing at the time, implementing additional silt control measures such as straw bales, suspending the work for a period to allow the river run clear.
- Modification of silt curtain location as the works vary, to suit the works
- Employ a specialist for guidance on the use of silt curtains.
- Provide for ongoing engagement with IFI on the issue of construction methodologies, silt control and threshold levels,

Use of Temporary Dam.

Should a temporary dam be required it shall be only be used for as short a period as possible and will be removed from the river as soon as possible.

Any temporary dam used will be removed by the 20th December 2020 at the latest.