

The Office of Public Works,  
Engineering Services,  
52, St. Stephen's Green,  
Dublin 2.

Sent by email to: brendan.mcdermott@opw.ie; info@opw.ie

9<sup>th</sup> July 2019

**Re: River Slaney (Enniscorthy) Drainage Scheme  
Arterial Drainage Acts 1945 and 1995**

Dear Madam/Sir,

Thank you for referring the above application to An Taisce. We would like to make the following comments in regard to this application.

**1. Freshwater Pearl Mussel**

**1.1 Legislation protecting FPM**

An Taisce have serious concerns regarding the potential impacts on the Freshwater Pearl Mussel (FPM) in the project area. The Freshwater Pearl Mussel *Margaritifera margaritifera* is listed on Annexes II and V of the EU Habitats Directive (1992). Annex II of the Habitats Directive requires that listed species be '*maintained or, where appropriate, restored at a favourable conservation status in their natural range*'.

This species is also listed as endangered on the IUCN Red List, and is one of the 365 most endangered species in the world. Further, nationally the freshwater pearl mussel is identified as being a highly threatened animal, categorised as critically endangered in Ireland (Byrne et al., 2009)<sup>1</sup>

Further measures for the protection of FPM are set out in the European Communities Environmental Objectives (Freshwater Pearl Mussel) Regulations (S.I. 296 of 2009). This

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<sup>1</sup> Byrne, A., Moorkens, E.A., Anderson, R., Killeen, I.J. & Regan, E.C. (2009) Ireland Red List No. 2: Non-Marine Molluscs. National Parks and Wildlife Service, Department of the Environment, Heritage and Local Government, Dublin.

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Charles Stanley-Smith (Secretary, British), John Sweeney

legislation sets environmental quality objectives for the habitats of the FPM populations designated as SACs under the European Communities (Natural Habitats) Regulations, 1997 (S.I. No. 94/1997).

As such, the FPM is protected under several tiers of national and international legislation:

- The Wildlife Act, 1976 and Wildlife (Amendment) Act, 2000 (The pearl mussel was given protected faunal species status under The Wildlife Act, 1976 (Protection of Wild Animals) Regulations, 1990, S.I. No. 112, 1990)
- The Habitats Directive (Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora) as transposed by the European Communities (Natural Habitats) Regulations, S.I. 94/1997, as amended by S.I. 233/1998 and S.I. 378/2005. The pearl mussel is listed on Annex II and Annex V to the Directive,
- Bern Convention Appendix 3

And is also on the following red data lists:

- IUCN Red Data List as Endangered (IUCN, 1996)
- Red Data (Ireland) as Critically Endangered (Byrne, 2009)

## **1.2 Translocation**

Translocation is deemed to be the mitigation measure of choice, but pertinently the NIS outlines:

*'There is strong potential for failure to occur due to circumstances linked to the effects of chronic stress during translocation and establishment phase'*

As outlined above, FPM are a highly protected and critically endangered species in Ireland and Europe. Standard translocation of adult mussels, whether temporary or permanent, is an extremely damaging approach, and would be subjecting those mussels to likely total death. Natural England have carried out a thorough study on the translocation of FPM <sup>2</sup> and found:

*"The translocation of adult mussels should be treated as a last resort action, where donor catchment level improvements are unlikely to return Margaritifera habitat into a*

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<sup>2</sup> Natural England (2016) The translocation of freshwater pearl mussels: a review of reasons, methods and success and a new protocol for England

*condition that is conducive to juvenile survival within the lifetime of the remaining population. The direct movement of adult mussels has been demonstrated to be a high risk activity in many instances, thus interactions that increase the number of mussels with a new generation of juveniles and thus lower the risk of translocation are more desirable than moving adult mussels alone."*

Expert Irish advice for situations like this would be that where mussels are in a depleted state, it would be preferable to captive breed from the mussels that require translocation and use the resulting juveniles to establish mussel beds in the best possible locations. Section 6.1.1.2 of the NIS outlines that:

*'If the female cohort of these mussels are brooding, then the number of individuals introduced will greatly exceed the number removed from the system.'*

Given the scientific studies examining the success of FPM translocation, An Taisce would seriously call this statement in to question. The likelihood is that the majority of adults translocated would likely die, and there would be no such positive effect.

The NIS also states that:

*'If some of the female or male cohort of these mussels are no longer reproductively viable, then they are no longer contributing to the non-SAC population, and have no potential to contribute to the Derreen SAC population and thus the loss of these surviving numbers would not affect the conservation objectives of the SAC for Margaritifera.'*

However, An Taisce would highlight that the licensing body should be aware that as long as FPM are listed as a Qualifying Interest (QI) of an SAC the legislative protections apply to them, irrespective of their reproductive potential.

Further, it is stated in Section 6.1.1.2 of the NIS that:

*'the only potential for negatively affecting the Derreen River sub-population designated for this SAC would be in decreasing the potential for movement of host salmonid fish travelling upstream to the Derreen River and providing genetic exchange'*

And that:

*'This would result in a net benefit to the size and condition of the population in the Lower Slaney Valley'*

An Taisce submit that this is clearly not the case, given that the translocated mussels themselves are very likely to die, and the population of FPM is already critically endangered. Any reduction in the numbers of animals would further weaken this already critically endangered species.

### 1.3 Appropriate Assessment

As per European Commission (2001) and Department of the Environment, Heritage and Local Government (2009) guidance, Appropriate Assessments (AA) for FPM are to "assess whether there will be adverse effects on the integrity of the site as defined by the conservation objectives and status of the site". Important indicators of freshwater pearl mussel integrity include:

- will the plan or project cause delays in progress towards achieving the conservation objectives of the site?
- will the plan or project interrupt progress towards achieving the conservation objectives?

Further, the NPWS guidance<sup>3</sup> outlines that:

*AA must consider the current unfavourable condition of populations and their habitat, particularly whether the plan or project could:*

1. *Prolong the poor condition of the freshwater pearl mussel habitat*
2. *Result in further deterioration in freshwater pearl mussel habitat condition*
3. *Increase the area of freshwater pearl mussel habitat negatively effected*

*And in so doing:*

1. *Prevent juvenile recruitment, owing to unsuitable juvenile habitat condition*
2. *Cause **stress to adult mussels resulting in reproductive failures***
3. *Cause **mortalities of adult mussels**, impacting population size*
4. *Result in an extended 'gap' in the population's age profile, impacting population size and future reproductive potential*
5. *Increase **the patchiness of mussel distribution**, impacting future reproductive potential. [An Taisce emphasis]*

Although the specific conservation objectives for FPM in this SAC are under review, these points should be covered as standard. It is unclear to An Taisce how a highly risky adult translocation programme could not result in some of the above emboldened impacts. We submit that to state that the impacts of this work for FPM only relate to salmonid movement

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<sup>3</sup>

<https://www.npws.ie/research-projects/animal-species/invertebrates/freshwater-pearl-mussel/appropriate-assessment-and>

does not reflect the true, and serious, threat posed by these works. In our considered opinion, this work would further decimate this already fragile community.

The NIS outlines that:

*'Translocation is a last resort method of mitigation that has a high risk of failure but is the only option for the mussels in these locations.'*

The licensing authority need to be able to conclude beyond reasonable doubt that the QI communities will not be disturbed, as outlined in the ECJ ruling for C-404/09 [Commission v Spain] which held that "[a]n assessment made under Article 6(3) of the Habitats Directive cannot be regarded as appropriate if it contains gaps and lacks complete, precise and definitive findings and conclusions **capable of removing all reasonable scientific doubt as to the effects of the works proposed on the SPA concerned.**" [An Taisce emphasis]

Similarly, the court held in the case of the Commission v Italy that "assessment must be organised in such a manner that the competent national authorities can be certain that a plan or project will not have adverse effects on the integrity of the site concerned, given that, **where doubt remains as to the absence of such effects, the competent authority will have to refuse permission.**" (C304/05. Para 58) [An Taisce emphasis]

Failing the ability of the relevant authority to definitively reach this conclusion of absence of adverse effects, An Taisce would highlight in the strongest possible terms, for these works to proceed in compliance with the Habitats Directive it is imperative that this proceeds to Stage 4 Appropriate Assessment, with the requirement of proof of IROPI before work can proceed. There is a precedent of this in Ireland in regard to a water treatment plant for Lough Talt, in County Sligo (planning ref PL 18/210), in regard to protection of the *Vertigo geyeri* whorl snail.

While we recognise the need for a solution to the flooding in Enniscorthy, and recognise that the town inhabitants and business interests should not have to continue facing such serious flood risks, the Habitats Directive, transposed as The European Communities (Birds and Natural Habitats Regulations 2011 (S. I. No. 477 of 2011), is a legally binding instrument, and in order to proceed with this project the full application of the appropriate assessment process, specifically stage 4, is legally necessary. An Taisce submit that to permit this drainage scheme to proceed based on the information provided in the NIS, with the corresponding mitigation measures, would be in contravention of the Habitats Directive. An Taisce would highlight this in the strongest possible terms.

## **2. Lamprey**

Appendix I of the NIS outlined that:

*'there are significant numbers of juvenile lampreys present and extensive River Lamprey spawning activity was recorded within the footprint of the proposed scheme.'*

Potential impacts are highlighted throughout the NIS, but the mitigation would appear to depend on the small footprint of the works:

*'the footprint of the scheme is a very minor percentage of the entire SAC; therefore, the extent of spawning habitat loss will be minor and will not affect the integrity of the SAC population.'*

However, from An Taisce's review of the relevant documentation, the percentage of the spawning habitat within the footprint is not outlined, nor is the value of the spawning grounds compared with other spawning grounds within the SAC. An Taisce would consider this to be a lacunae in the data. In Case C-258/11, Sweetman & Ors. V An Bord Pleanála & Ors., paragraph 44, it was held that

*"So far as concerns the assessment carried out under Article 6(3) of the Habitats Directive, it should be pointed out that it cannot have lacunae and must contain complete, precise and definitive findings and conclusions capable of removing all reasonable scientific doubt as to the effects of the works proposed on the protected site concerned (see, to this effect, Case C 404/09 Commission v Spain, paragraph 100 and the case-law cited). .."*

An Taisce would highlight that this statement is not backed up by specific data or percentages, and as such it makes it difficult to verify this.

Further, the NIS outlines that:

*'The potential barrier effect **will be unlikely** to affect Brook lampreys'* [An Taisce emphasis]

Again, the judgement outlined above clearly outlines the need for definitive findings, and Section 1 outlined the absolute requirement to remove all reasonable doubt. An Taisce would again highlight that the data underpinning this conclusion is absent from the provided documentation.

In Section 5.1.1.1 the timing of the works is outlined as being:

*'Year 1: Instream works will be undertaken upstream of the Seamus Rafter Bridge on the east side from July to August and on the west side from September to October'*

and in Section 5.1.10.2

*'instream works carried out over a 4month period (July-October) in year 1 and year 2 of the construction phase.'*

However, in Section 6.1.3.1 the sensitive time for lamprey is identified as:

*'Instream works will not be undertaken during the times when fish are spawning. The most sensitive period for River/Brook lamprey is the period **October** to March when they are migrating, and April to June when they are spawning/ova are developing' [An Taisce emphasis]*

An Taisce would highlight that if the work does continue in to October it will coincide with the sensitive time for the lamprey migration, and this should be avoided.

#### **4. Water quality**

The objectives of the Water Framework Directive (WFD) (2000/60/EC) are to protect all high status waters, prevent further deterioration of all waters and to restore degraded surface and ground waters to good status by 2021. Specifically, where there is bad or moderate water quality there is the legal imperative to bring that water body up to good status by 2021. The licensing authority should satisfy themselves that the measures proposed for the protection of water quality are sufficient for ensuring that WFD objectives are not compromised by the works.

Please acknowledge our submission and advise us on any decision made.

Is mise le meas,

Elaine McGoff

A handwritten signature in black ink, appearing to read 'Elaine McGoff', written in a cursive style.

Natural Environment Officer

An Taisce – The National Trust for Ireland