An Bord Achomhairc Um Cheadúnais Dobharshaothraithe
Aquaculture Licences Appeals Board

Dr. Jeffrey Fisher,
Director of Marine Environment
Marine Institute
Rinville
Oranmore
Co Galway

23 January 2019

Our Ref: AP2/1-14/2015
Site Ref: T5/555 Shot Head, Bantry Bay, Co Cork

Re: Appeal against the decision by the Minister for Agriculture, Food and the Marine to the conditions/grant of Aquaculture and Foreshore Licences to Bradan Fanad Teo t/a Marine Harvest Ireland, Kindrum, Fanad, Letterkenny, Co. Donegal on site Ref: T65/555 *for the cultivation of Atlantic* Salmon: Salmo Salar on a site on the foreshore at Shot Head, Bantry Bay, Co Cork

Dear Dr Fisher,

I refer to the appeals in relation to the above licences. National Parks and Wildlife Service (NPWS) is the responsible authority for *Natura* site designation and species protection and is thus a Competent Authority in respect of marine conservation matters. The following are attached:

- Section 47 Notice dated 3 October 2018 from ALAB to NPWS;
- NPWS response to ALAB dated 16 November 2018; and
- Supplemental EIS dated April 2018 (also sent to you on 29 November 2018)

As you can see in the section 47 Notice dated 3 October 2018, ALAB sought NPWS's current stance on the status of the freshwater pearl mussel *(Margaritifera margaritifera)* population in the Trafrask river system and, taking into consideration more recent survey information, a response from NPWS as to whether it had any new concerns regarding population integrity and the impact of the proposed fish farm at Shot Head on the potential salmonid hosts migrating to and from the Dromogowlane River.

In its response of 16 November 2018, NPWS stated that whether there was an impact of sea-lice on salmonid numbers was a matter for Inland Fisheries Ireland to advise upon. NPWS noted that in the Supplementary EIS at p. 89, it was

"submitted that there is also zero risk that anadromous salmonids will be reduced in numbers in their freshwater phase, as a result of the presence of the Shot Head site, to impact on the availability of vector hosts for FPM glochidia larvae."

NPWS stated that if the Board agreed with this conclusion concerning farm-origin lice impacts on anadromous salmonids, which was not for NPWS to advise upon, then adverse indirect effects on freshwater pearl mussel in the Trafask river system as a consequence of salmonid host decline are unlikely to occur.

In accordance with section 47 (1) (a) of the Act, the ALAB Board now requires the Marine Institute (MI) to provide it with MI's specific observations on the NPWS response, in particular concerning the impact on the status of the Fresh Water Pearl Mussel contained in the NPWS response.

In accordance with the Act, you are required to provide this information within 28 days of receipt of this letter. Please note that if the documents, particulars or other information specified above are not received before the expiration of the period specified above, or such later period as may be agreed by the Board, the Board will, without further reference to you, determine the appeal.

Please also note that a person who refuses or fails to comply with a requirement under Section 47 (i)(a) shall be guilty of an offence.

Yours sincerely

Mary O'Hara

Mary O'Hara
Secretary to the Board

An Bord Achomhairc Um Cheadúnais Dobharshaothraithe
Aquaculture Licences Appeals Board

AP 2/1-14/2015 Shot Head

Marine Institute Section 47 Reply

received 15 February 2019

Cúirt Choill Mhinsí, Bóthar Bhaile Átha Cliath, Port Laoise, Contae Laoise, R32 DTW5
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OHara, Mary

From: Dave Jackson <Dave.Jackson@Marine.ie>
Sent: 15 February 2019 11:22
To: Ohara, Mary (Alab)
Cc: Paul Connolly; Jeffrey Fisher
Subject: AP2/1-14/2015 Shot Head - Section 47 request
Attachments: Marine Istitute response to ALAB Section 47 (1) (a) request to the MI Jan 2019.pdf

Importance: High

Dear Mary,

Please find attached the Marine Institute response to ALAB's section 47 request of 23rd January last.

Please do not hesitate to contact me if you require anything further.

Regards,

Dave

Dr David Jackson
Inspector of Fisheries/Section Manager
Marine Institute
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Marine Institute
Foras na Mara

Marine Institute Response to ALAB Query Ref AP2/1-14/2015

In response to your formal letter of the 23rd of January 2019 last, received at the Marine Institute via e-mail on the same date, in which the Board requested information pursuant to Section 47(1) (a) of the Act please find attached the response on behalf of the Marine Institute.

The Marine Institute would concur with the NPWS assessment that a decline in salmonid hosts for pearl mussel larvae is unlikely to occur particularly as the salmonid hosts in the Dromagowlane/Trafrask River are predominantly non-migratory brown trout.

Since 2007 Ireland has operated a comprehensive salmon stock assessment and conservation programme based on an annual assessment of individual catchments. The report of the Independent Salmon Group and the subsequent annual reports of the Standing Scientific Committee on salmon do not identify the Dromagowlane/Trafrask River as a salmon river. McGinnity *et al.* 2003, carried out a comprehensive and in depth inventory to identify those river systems that were considered to hold biologically significant salmon and/or sea trout. The Dromagowlane/Trafrask River is not listed among the 261 fishery systems designated as holding salmon and sea trout or sea trout only. There is however evidence of brown trout populations in the river system. These non-migratory salmonids will not be exposed to sea lice and therefore there is no mechanism for impacts from the proposed salmon farm.

The risks to wild salmon from sea lice infestation have been quantified by Marine Institute research (Jackson *et al.*, 2013). This has shown that lice induced mortality in wild salmon post-smolts is in the order of 1% (ICES CM 2016/ACOM:42). The studies on the impacts of lice infestation on smolts suggest that while sea lice induced mortality on outwardly migrating smolts can be significant, it is a minor and irregular component of marine mortality in the stocks studied and is unlikely to be a significant factor influencing conservation status of salmon stocks. Studies in Norway have reported similar results (Skilbrei *et al.* 2013). This conclusion is further supported by the findings that in fact, the rivers in the River Basin Districts with salmon farms have performed best in terms of meeting their Conservation Limits, in terms of ability to support a commercial catch by way of a commercial draft net fishery and that there was no correlation between the presence of aquaculture and the performance of adjacent wild salmon stocks (Jackson *et al.*, 2013). Furthermore recent research (Milner *et al.*, 2016) has found that the growth and survival of sea trout (anadromous trout) in the southwest region is higher than other areas on the South and East coast of Ireland.

In respect of the freshwater pearl mussel (*Margaritifera margaritifera*) the loss of host fish for the glochidial larvae is the only mechanism through which the proposed salmon farm may impact on this species. The Freshwater Pearl Mussel Sub-Basin Management Plans (Anon. 2009) identify the catchments of the specified pearl mussel populations. The conclusions of the Freshwater Pearl Mussel Sub-Basin Management Plans (Anon. 2009) and the North South II project Report (Moorkens, 2010) was that juvenile salmon were found in all 26 catchments surveyed, juvenile trout were present in 25 of the 26 catchments surveyed and that glochidial attachment to fish was detected in 12 catchments. Consequently there is no evidence that changes in salmonid populations have contributed to the current unfavourable status of the freshwater peal mussel in Ireland. In contrast the evidence from these and previous studies carried out by the National Parks and Wildlife Service (NPWS) provide overwhelming evidence that declines were caused by sedimentation and eutrophication of juvenile and adult mussel habitats (*pers. comm.* NPWS).

In the case of the Dromagowlane/Trafrask river it is the juvenile brown trout (0+ and 1+ year classes predominantly) which act as hosts for their glochidia larva. These non-migratory trout are not subject to any interactions with marine salmon farms and any potential for adverse impact on their population status from this source can safely be screened out.

References

Anon. 2009. The Freshwater Pearl Mussel; Sub-Basin Management Plans. SEA Scoping Document. *Dept. Environment, Heritage & Local Government*, Ireland.

Anon. 2013. 1106 Atlantic Salmon Article 17 Assessment 2013. National Parks and Wildlife Service, *Dept. of Arts, Heritage and the Gealtacht*. 8pp.

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Jackson, D., 2011. Ireland: the development of sea lice management methods. In: *Salmon Lice: An Integrated Approach to Understanding Parasite Abundance and Distribution* (Ed. by S Jones & R. Beamish), pp 177-203 Wiley-Blackwell, Oxford, UK.

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Dr. D. Jackson,

Inspector of Fisheries

6th February 2019