

AQUACULTURE LICENCES APPEALS BOARD

BOARD MEETING 16.05

Portlaoise

22 November 2016

Meeting commenced at 5pm and concluded at 21.15 hrs.

Minutes

Present: Imelda Reynolds (Chairperson), Sean Murphy, Jim Power, Michael Sweeney, Dr Owen McIntyre, Brendan Brice (with exception of item 16.05.11)

Apologies: None

In attendance: Mary O'Hara, Board Secretary; Mr. Graham Saunders, Technical Advisor (for item 16.05.11)

16.05.01 - Conflict of Interest

Subject to the matters below, all Board members confirmed that they had no conflict of interest in any of the matters before the Board for consideration at the meeting.

Brendan Brice confirmed he would depart the meeting when the Appeal AP2/2015 is being considered so as to avoid any perception of bias arising.

It was confirmed by the Secretary that no papers had issued to Mr. Brice in relation to the appeal and the draft minutes in circulation and agenda had been redacted for Mr. Brice. It was further confirmed that this would continue for the future in connection with all matters arising in connection with Appeal AP2/2015.

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16.05.11 - AP2 /2015 Shot Head Bantry Bay

Mr. Graham Saunders, Technical Advisor, joined the meeting, for this item.

The Board noted that on foot of decisions taken by the Board at its meeting on 13 September 2016, letters had issued on 6 October 2016 pursuant to section 47(1) (a) of the Fisheries (Amendment) Act, 1997, seeking further information. These requests were issued to the Applicant, to Inland Fisheries, to National Parks and Wildlife Service and to the Marine Institute. Replies were received from the Appellant on 3 November 2016 (letter is dated 2 November 2016), by email dated 19 October 2016 from Inland Fisheries, and by email dated 17 November 2016 from National Parks and Wildlife Service. The Board noted no response had been received by the date of the meeting from the Marine Institute.

Mr. Graham Saunders, technical advisor to the Board commenced his presentation to the Board which took into account the replies received pursuant to the section 47 requests.

The issues raised in the Section 47 letters were:

Issue: Where will the well boat discharges be carried out?

This question had been addressed to the Applicant. The question was that the EIS outlined the Applicant's intention to use a well boat for lice bath treatments, but no indication of the location at which the well boat discharges would take place had been provided and consequently no evaluation of any localised impacts of these discharges was included. The Board had noted the RPS report, supplied as a supplementary submission, provided a modelled assessment of an Alphamax® in-pen treatment regime, presenting it as a "worst-case" scenario, with the implication that discharges from well boat treatments (the most likely treatment method) would be undertaken within the licence area. The Applicant was asked to clarify the intended location for well boat discharges.

The Board noted the response received from the Applicant which confirmed that well boat discharges would be undertaken in the licenced area. The Technical Advisor noted that this had been his assumption and the response confirmed this. The Board discussed the Applicant's response, following which it concluded that if a licence were to be granted, it would be prudent, with regard to this particular issue, to include in any such C) licence a condition along the following lines:

"That well boat discharges shall be within the licensed area; that concentrations of Deltamethrin will remain within EQS limits and that monitoring should be undertaken to ensure this is the case".

On that basis the Technical Advisor advised the Board that he considered this issue to have been resolved, and the Board agreed with this assessment, subject to inclusion of a condition along the lines indicated above.

Issue: Information on the suitability of the cage and mooring system for the Shot Head site.

This information was sought of the Applicant. In its request, the Board noted the Applicant had acknowledged that the Shot Head site is particularly exposed to prevailing winds. While not the most exposed salmon farm site in Ireland, it is among the most exposed and is in a location very close to a downwind rocky shore and cliff coastline, which would allow limited scope for remedial action should the cage system fail or become damaged as a result of a collision event. On that basis the Board asked the Applicant to respond in respect of the following points:

- a. to supply specific details on the cage and mooring system intended to be used ;
- b. to provide evidence of where the proposed system has been successfully deployed elsewhere and in similar conditions; and
- c. to demonstrate that the selected system will be sufficiently robust to cope with a one-in-fifty-year storm event.

The response received from the Applicant indicated that details of the specific cage and mooring system intended to be used is not currently available. The Applicant stated that these details would be agreed with the Engineering Division of DAFM after licence approval, and that DAFM would then impose a specification and grant certification of the installation design. The Applicant in particular referred to the provisions of a "Protocol for Structural Design of Marine Fish Farms" issued by DAFM in April 2016, which states that finfish

farm applications will not reach the point of final specification and certification of the installation to be deployed until sometime after a final licence approval has been granted. The Applicant did nonetheless advise that the system to be used is likely to be similar to that in use in the similarly exposed Clare Island Smolt site. The Board noted that the issue of adequacy to cope with a one-in-fifty year storm event was accordingly not addressed. The Board considered the response received. It agreed that unless the standard licence included a condition requiring the cage and mooring system to be approved, then a condition to this effect.

On that basis the Technical Advisor advised the Board that he considered this issue to have been resolved, and the Board agreed with this assessment, subject to inclusion of a condition regarding DAFM approval of the cage and mooring system, if such provision is not already included.

Issue: The use of Emamectin Benzoate (Slice@) at the site.

This question was addressed to the Applicant. The issue was that the EIS (as confirmed in the supplementary RPS submission) indicated that the use of Emamectin Benzoate (EmBZ) would be severely restricted due to the lack of dispersion during treatment, as it would result in a breach of the statutory EQS. Given that the application of this in-feed pesticide is widely acknowledged to be the most effective of the available lice prevention and removal treatments, the Applicant was asked to provide details of its alternative Shot Head treatment strategy in the event of a lice infestation event beyond the seven-month

post smolt transfer period.

The Applicant's response stated that since its application for the licence in 2011, it had developed an Integrated Pest Management Strategy for controlling sea lice on its farms. It provided the Board with details of its strategy for this Site and for Bantry Bay as a whole in a document entitled Shot Head Integrated Pest Management Plan /Single Bay Management Plan dated 26.10.2016. The Board noted the contents and in particular that the Plan incorporates a rigid monitoring programme, beyond statutory requirements (monthly lice inspection rising to twice-monthly during susceptible period); separation of generations; annual fallowing of sites; strategic application of chemotherapeutants; good fish health management; close co-operation between farms in the Bay; and the use of non-medicinal treatments such as cleaner fish including wrasse and lumpsucker.

The Board further noted that the Integrated Pest Management Strategy further states that:

"MHI shall focus its lice treatment regime around the pre-winter treatment for all fish in Bantry Bay including Shot Head, which will be over-wintered. During the months of January to May, numbers of ovigerous female and total *Lepeophtheirus salmonis* will be maintained as close to zero as possible using appropriate treatments where necessary. Where two sites are stocked in the Bay, treatments will be carried out on both during the same time period and with the same chemical class."

The Technical Advisor stated that in his view, this particular proposal needs to be clarified further with the Applicant, as in the view of the Technical Advisor this cannot be applied where the Shot Head stock is in their second winter. Subject to that however his view was that the Plan was a robust one.

The Technical Advisor noted the Applicant has a good control system in place at the moment and that there is no lice problem at present in Bantry Bay. Given the Integrated Management Strategy provided, the fact there has not been a problem to date, the separation of the sites, and subject to clarification of the proposal for dual treatments, the Technical Advisor stated that his view is that this is an issue which can be dealt with. The Technical Advisor stated that constant monitoring and keeping the Site under control will be key.

The Board having considered the response received and the Plan, and the advice from the Technical Advisor formed the view that this issue is considered to be resolved, subject to (1) clarification of the proposal for dual treatments("on both during the same time period and with the same chemical class") and (2) potentially including a requirement on the Applicant to implement the Shot Head Integrated Pest Management Plan /Single Bay Management Plan dated 26.10.2016 as a condition in a licence, should the Board decide to grant a licence following consideration of all issues. This Board agreed to consider this aspect further as the appeal progresses.

Issue: The Seabed impact in respect of the requested change in the licence conditions to accommodate four additional cages.

This question was addressed to the Applicant. The Board noted a change has been requested by the Applicant in the licence conditions to accommodate an increase in the number of salmon cages at the proposed site from fourteen to eighteen. The Board noted that the change in number and spatial arrangement could be comfortably accommodated within the existing licence area, but required clarification in respect of the modified and enlarged cage array configuration and the resulting impact footprint on the seabed, in the form of an updated assessment of the impact of the revised cage and mooring configuration on the site. In particular, the Board requested details as to the seabed footprint implications of four additional cages.

The Applicant's response stated that the revised layout and position of pens can be varied without impacting on the Maximum Allowable Biomass (MAB) of 2,800 tonnes on Site. The requested increase in pen numbers will not increase the inputs or outputs from this MAB and the Applicant indicated that the resulting waste outputs will be more diffuse in nature and the resulting footprint will be more diffuse and at lower concentrations than described in the EIS and accompanying dispersion model.

The Technical Advisor stated that he considered the Applicant's response to be satisfactory and that it resolved the issue. The Board considered this and agreed, save that it may include a condition to the effect that the Applicant would not exceed the stocking density limits. In addition the Board was of the view that if it decides to grant a licence, such licence should state that the condition is Maximum Allowable Biomass of 2,800 tonnes and not 2,800 tonnes. On that basis the Board considered that this issue is resolved.

Issue: The presence of a potentially harvestable population of *Nephrops norvegicus* population within the licence area.

This issue was addressed to the Applicant and to the Marine Institute

In its question to the Applicant the Board noted that the presence of Dublin Bay prawn (*Nephrops norvegicus*) in the Shot Head licence area was reported in the results of the benthic survey provided in the EIS, but it was stated that the density of individuals were low and not of a level that would constitute a commercially exploitable population. In its subsequent submission, the Marine Institute expressed disagreement with this conclusion, stating:

"The video data and the operation of a commercial pot fishery around and in the site would seem to contradict the view in the EIS that the densities of *Nephrops* at the site are not commercial." and;

"The ROV data presented in the EIS is insufficient to say whether the burrow density is too low to support economic exploitation of *Nephrops*."

The Applicant was asked to provide more accurate quantitative information on the occurrence and density of *Nephrops norvegicus* within the licence area.

In its question to the Marine Institute, the Board asked the Institute to indicate whether the Shot Head site is within close proximity to an area in which a commercial pot fishery for Nephrops is undertaken if so, to provide details of same.

The Board noted with disappointment that no response had been received from the Marine Institute in response to its request. The Board also noted that the 1997 Act also provides that if the documents, particulars or other information requested is not received within the period specified in the request, or such later period as may be agreed by the Board, the Board is entitled, without further reference, to determine the appeal.

The response from the Applicant stated that the area is not significant for prawn or shrimp and represents the loss of a very small area of suitable habitat (0.5% of potting resource) and "...constitutes a reasonable sharing of resources". It further noted that no appeals had been received from fishermen; that potentially only one fisherman may be affected; and that potting will be permissible within the licenced area up to the mooring grid as with other farm sites.

The Technical Advisor stated that he considered the Applicant's response to be satisfactory. The Board noted the response received, and on the basis no response had been forthcoming from the Marine Institute, considered the proposed licence would constitute a reasonable sharing of resources. On this basis the Board considered the issue to be resolved, subject to any information which may emanate from the Marine Institute prior to conclusion of this Appeal.

Issue: The presence of salmonids and freshwater pearl mussels in Dromagowlane River.

The questions in relation to the presence of salmonids were addressed to the Applicant and to Inland Fisheries.

The questions in relation to the presence of freshwater pearl mussels were addressed to the Applicant and to National Parks and Wildlife Service (NPWS).

The issue raised by the Board was that the presence of the mouth of the Dromagowlane River, 1.2 km north of the proposed licence area, was not mentioned in either the Environmental Impact Statement (EIS) or the Environmental Impact Assessment submitted as part of the Appeal to the Board. The Board noted that some of the Appellants maintain that this river supports populations of salmonids together with colonies of freshwater pearl mussel.

The Board asked the Applicant and Inland Fisheries to clarify' (1) whether the Dromagowlane River does or does not support populations of salmonids; and (2) if it does support returning salmonid breeding stock, what is the estimated size of that population?

The Board asked the Applicant and NPWS to clarify whether the Dromagowlane River does or does not support colonies of freshwater pearl mussel.

Salmonids

In relation to salmonids, the Applicant stated that the river is not recognised as a National Salmon River so not considered in the EIA for that reason. The river does support small breeding populations of brown trout and salmon. This has been verified by spot electrofishing which suggests healthy breeding population of salmon. In order to respond to the s.47 queries raised by ALAB, the Applicant sought opinions and data from a number of sources. All parties consulted confirmed that the Trafrask River is a very small system, but the system is known to support small breeding populations of both *Salmo trutta* (brown trout if resident and sea trout if migratory) and *Salmo salar*. Of these two species, only *Salmo salar*, and in its juvenile freshwater phase, is protected, as a Habitats Directive Annex II species. However, neither the Trafrask system nor any other river around Bantry Bay has been so designated as a result of the presence of juvenile salmon. Based on the Applicant's enquiries, the Applicant's response indicated that there are possibly two redds for brown C trout, and that angling in the river is thought to be infrequent.

Inland Fisheries Ireland, in its response to the s47 request, confirmed that the Dromagowlane River is not one of the 141 designated salmon rivers so IFI have not carried out any catchment wide electro-fishing on it. Therefore specific information on salmonid densities therein is not available. Michael Mc Partland, Senior Fisheries Environmental Officer, stated however that he had personally spot electro-fished this river approximately 3 years ago associated a school visit from the adjacent national school. He recalled the presence of salmon, sea trout and brown trout but cannot add any further detail.

The Applicant noted that the fact all three species should be brought to the surface by electro-fishing a single spot would seem to suggest a healthy presence of salmonids in the river. The Applicant submitted that the Shot Head EIS and the RPS dispersion study commissioned by it provide persuasive evidence that the status of the wild salmonid stocks in the Trafrask River system would not be affected by the operation of a salmon farm at Shot Head.

The Board's Technical Advisor noted that the proposed Shot Head fish farm site is located approximately 2.3 km (shortest seaward travel distance) from the mouth of the Dromagowlane River (or Trafrask River), which drains into a sheltered embayment at Trafrask on the north side of Bantry Bay.

While the potential impacts of bi-directional sea lice transfer between wild and farmed salmonids were comprehensively assessed by the Applicant for Bantry Bay's main river systems using hydrological modelling supplemented with real-world data, the Dromagowlane River is not a recognised National Salmon River and was therefore not considered in the sea lice risk evaluation process. Minor rivers and tributaries, including the Trafrask embayment area were, however, included in the assessment of waste and therapeutic chemical discharge impacts, again through the use of hydrological modelling.

There is very little published data on the presence and status of salmonid species in the Dromagowlane/Trafrask River. Information provided by experts from ad hoc surveys subsequent to the production of the Applicant's Environmental Impact Statement indicates that the Dromagowlane/Trafrask River does support small breeding populations of brown- or sea trout (*Salmo trutta*) and Atlantic salmon (*Salmo solar*), but the status and natural stability of these populations remain unknown. There is, however, no statutory protection attributed to either species within this river system.

The Board considered the responses received from the Applicant and from Inland Fisheries and the advice of its own Technical Advisor but made no definitive decision on the points.

Freshwater Pearl Mussel

In respect of the Freshwater Pearl Mussel, *Margaritifera margaritifera*, the Applicant noted that the majority of rivers around inner Bantry Bay contain populations of this species. It pointed out that to date, little has been done by way of "SEA, EIA or other ecological assessment" to thoroughly assess the status of the *Margaritifera* stocks in the Trafrask system. The Applicant quoted the NPWS Ranger for West Cork as stating she had surveyed sections of the river for *Margaritifera* on a present or absent basis in 2002 and found pearl mussels to be present.

The Applicant also quoted Dr Eugene Ross, Lecturer, in Institute of Technology Tralee (ITT) who carried out a rapid assessment survey of *Margaritifera* in a number of Irish Rivers, including the Trafrask, which he surveyed in 2008. His report and supporting information was supplied to the Applicant by NPWS following completion of a Data Request Form. The Applicant advised this data is to be treated as confidential because of the endangered status of the species and its protection under Annex V of the Habitats Directive, which protects against exploitation. The results of this 2008 survey suggest that all the mussels found were situated in large patches along a main River tributary of the Trafrask system, extending over a river stretch of some 1.5km. The Survey indicated no mussels were found in rapid surveys of the Lower Trafrask, or of the Leitrim More tributary or of the tributary draining Lough More, although this does not necessarily confirm their complete absence from these sections of the system.

The survey found the size of the population and its high density notable in the sections surveyed, although it also noted the shell length frequency distribution of a sample of 114 individuals to be in the range of 60 to 120mm, which suggests an absence of juveniles and therefore an absence of recruitment to the population in recent years. The Ross survey indicates a sizeable population of Margaritifera in the Trafrask system for the size of the river but stated that their conservation status is uncertain.

The Applicant noted that the presence of salmonids in freshwater pearl mussel waters is an important consideration because juvenile salmonids act as vector hosts, for both the development and dispersal of mussel Glochidia Larvae. It submitted that the absence of juveniles in the local Margaritifera population is more likely to be associated with ecological conditions in the system than to be due to the absence of salmonid hosts.

The Applicant noted that it is evident from the Ross, 2008 report and elsewhere that there are a number of potential impactors on Pearl Mussel recruitment. These include river sections with high macrophyte and filamentous algae cover, both indicative of elevated nutrients, rough grazing and direct cattle access to river sections with Pearl Mussel, both potential sources of elevated suspended solids and the numerous unsewered houses within the catchment which may also result in some pollution reaching the river.

In its response to the s.47 request NPWS stated the freshwater pearl mussel (*Margaritifera margaritifera*) is known to occur in the Trafrask or Dromagowlane River, Beara Peninsula, Co. Cork. The river was assessed as having a relatively large population of the species and it quoted Ross, 2009. It stated the catchment of the Trafrask River is illustrated as a Margaritifera Sensitive Area Map.

The Board's Technical Advisor noted that freshwater pearl mussel is vulnerable to decline in water quality and at risk from cattle effluent contamination and unsewered domestic inputs. While there are no contamination impacts expected from the Shot Head site there may be a risk to host population — existing recruitment issues. He noted that some of the Appellants had suggested that the Dromagowlane/Trafrask River supports established populations of freshwater pearl mussel (*Margaritifera margaritifera*). While freshwater pearl mussels are known to occur in some Bantry Bay river systems, information on current status is sparse and conservation protection through site designation for this species has not been applied in the Bantry Bay catchment. Confidential information (necessary due to the endangered status of the species) does, however, confirm the presence of freshwater pearl mussel populations at multiple locations in the upper tributaries of the river system.

The Technical Advisor indicated to the Board that the freshwater pearl mussel is an endangered species listed under Annex II and V of the EU Habitats Directive and protected under the Convention on the Conservation of European Wildlife and Natural Habitats. It is listed on the IUCN Red List as internationally endangered. It is legally protected in Ireland under Schedule 1 of the Wildlife Act, 1976 (as amended) and the European Communities (Birds and Natural Habitats) Regulations (S.I. No. 477, 2011) (as amended). As such, any plans developments or activities that may cause undesirable impacts on populations must be fully evaluated.

The decline of freshwater pearl mussel was historically due to collection for its pearls, but, with a universal ban on collection in place, continuing declines have been attributed to river water quality, largely due to discharges or contamination from domestic or agricultural sources. At this juncture, it is considered highly unlikely that waste discharges from the proposed Shot Head fish farm will have an impact on any freshwater pearl mussels established in the Dromagowlane/Trafrask river system.

The life cycle of freshwater pearl mussel, individuals of which are known to live for over 100 years, includes attachment of the larval stage to a fish host, through which the species is dispersed and recruited into established colonies. The most common dispersal agents are salmonids, so in this respect the continuing survival of the freshwater pearl mussel in the Dromagowlane/Trafrask River system is likely to be dependent on the maintenance of a healthy breeding population of salmonids. The proximity of the proposed Shot Head salmon farm to the Trafrask embayment entrance might arguably constitute an enhanced sea lice risk, in which a significant infestation event may substantially

affect the viability of the river's salmonid population. The key issue for consideration by the Board is therefore whether the Applicant's recently submitted Integrated Pest Management Plan is sufficient to mitigate any future fish farm-derived impact on salmonid populations within the Dromagowlane/Trafrask River.

The Board considered this but at this juncture does not believe it has sufficient information to hand to be able to form a conclusion.

Oral Hearing

The Board considered whether, at this juncture, it was in a position to form a view as to whether an oral hearing was required. Having done so, the Board concluded that it would hold an oral hearing. The reason for the Oral Hearing is to seek to establish clarity on the following points:

1. The nature of and the risks to salmonids in the Dromagowlane/Trafrask River;
2. The associated impact on the pearl water mussel ; and
3. The robustness of the Applicant's Integrated Pest Management Plan /Single Bay Management Plan dated 26.10.2016.

Owen McIntyre was asked by the Chairperson if he would consider chairing the Oral Hearing and he agreed to do so. It was proposed that the fee would be payable at the same rate as for the Killary Oral Hearing and this was agreed. It was suggested that the Oral Hearing would be held in the Bantry area, possibly in early February 2017, with notice to issue as soon as possible to allow for time for all parties to prepare. It was

noted that a separate independent technical advisor will be required to assist the Chair of the Oral Hearing, and a stenographer will also be required.

Appropriate letters will need to issue to NPWS regarding the Freshwater Pearl Mussel and Inland Fisheries Ireland regarding salmonids, explaining the nature of the Boards concerns given the presence of the Freshwater Pearl Mussel.

The Board noted that a letter had issued to all parties, with Board Approval, extending the time for determination of this Appeal to May 2017. The board noted that a reply to this had been received from SalmonWatch complaining about the length of time the appeal is taking to be determined, and noting that no reasons for the extension had been given. The Board noted that under the Act, the Board is required to give reasons as to why the time is being extended. The Board agreed the reasons should be referred to in the letter notifying parties of the holding of an oral hearing.

The Secretary is to prepare draft letter to issue to all parties for approval and it was agreed these would be circulated to the Board for approval before issuing.

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Dated the 10 day of January 2017
Imelda Reynolds

Imelda Reynolds

CHAIRPERSON