

An Bord Achomhairc Um Cheadúnais Dobharshaothraithe
Aquaculture Licences Appeals Board



Marine Harvest Ireland

Site T5/ 591

Appeal

The Aquaculture Licence Appeals Board
 Kilminchy Court
 Dublin Road
 Portlaoise
 Co. Laois



13.11.2018

RINMORE

Notice of Appeal in accordance with Section 40 & Section 41 of the Fisheries (Amendment) Act.

Site reference number T5/591A for the cultivation of seaweeds using longlines sites on the foreshore at BANTRY BAY, CO. CORK.

Dear Ms O'Hara,

Marine Harvest Ireland wishes appeal the proposed granting of seaweed cultivation sites located between existing finfish culture sites on the foreshore of Bantry Bay, Co. Cork. Thus please find enclosed the following documents;

1. Completed Notice of Appeal Form
2. Cheque for the sum of €152.37

With Regards

Catherine McManus

Catherine McManus

TECHNICAL MANAGER

• Marine Harvest Ireland

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NOTICE OF APPEAL UNDER SECTION 40(1) OF FISHERIES (AMENDMENT) ACT 1997 (NO. 23)

Name and address of appellant:

**Marine Harvest Ireland
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Telephone: 074 9192101 Fax: N/A

Mobile Tel: E-mail address:

Subject matter of the appeal:

The site which is the subject of this appeal is a seaweed cultivation site, Site Numbers T05/591A as advertised in the Southern Star Newspaper October 20th, 2018 in the name of Wild Atlantic Sea Products Ltd.

Site Reference Number: - T5/591A

(as allocated by the Department of Agriculture, Food and the Marine)

Appellant's particular interest in the outcome of the appeal:

The Minister for the Agriculture, Food and Marine issued licences for applications for two seaweed farming sites, T05/591A in Bantry Bay.

This site is in extremely close to existing salmon farming operations at Roanarraig in Bantry Bay, site number T05/444D, which has been in continuous operation for many years, and is now licensed, operated and owned by Marine Harvest Ireland (MHI).

The Company submits that the licensing assessment process in this case has not paid due regard to the existing business of MHI in Bantry Bay and, as a result, has issued licences for a seaweed site, the location of which threaten MHI's business in two specific ways.

Salmon farms as large as that at Roanarraig requires ample navigational room for the operation of the large vessels now used in salmon farming. These have historically utilised the space around their licensed site areas, with unencumbered access to their pens. In the case of the Roanarraig site, this has been the accepted practice for 40 years. The size and location of the proposed seaweed farm completely obstructs this essential navigational access route, west of and around the salmon farm site T5/444D, by reducing the navigational passage to a narrow shallow channel, where navigational Pinch Points are regarded as too narrow and too shallow in parts to enable safe passage. The need to operate at night and inclement weather further greatly increases the risks involved in using these marginal access routes.

Risks also arise, of contamination by the drift of loose seaweed and biofouling from the proposed seaweed sites into the long existing, neighbouring salmon farms sites. Such contamination threatens the health and biosecurity of MHI's salmon farming operations.

MHI submits that this combination of navigational obstruction and biosecurity threats will prevent them from the rightful pursuit of their long-established business in Bantry Bay and will also threaten the clinical health of their stock in trade.

On these grounds, MHI requests that ALAB revoke the Minster's licence determination on seaweed site T05/591A.

Outline the grounds of appeal (and, if necessary, on additional page(s) give full grounds of the appeal and the reasons, considerations and arguments on which they are based):

1. Background.

This seaweed site lies immediately west of the Roancarraig farm site with little more than 150m spacing at the narrowest points of these sites. The Aquaculture and Foreshore Licences relating to the Roancarrig site was reassigned to the most recent previous owner, Silver King Seafoods Ltd., and new 10-year Aquaculture and Foreshore Licences was issued in the name of Silver King Seafoods, on 1st November 2005, under Licence Number AQ484, in which the sites were numbered as T05/444D (Roancarrig) and T05/444E (Ahabeg).

Silverking Seafoods was subsequently acquired by Comhlucht Iascaireachta Fanad Teoranta, t/a Marine Harvest Ireland (MHI) on 28th October 2015 and are operated as a single salmon aquaculture unit by MHI.

This aquaculture unit, Licence Number AQ484, represents a very considerable investment by MHI, which operates it as one of its four main production areas for organic salmon in the country. MHI is the global pioneer in organic salmon farming and operates a successful business based on this product. MHI is the largest seafood producer and aquaculture employer in the country, with a total of some 270 employees. As a result, MHI is a very considerable contributor, not just to the local economy of Beara but to the economies of many rural coastal areas, from West Cork to North Donegal.

The Roancarrig site started operations in 1978 and the Ahabeg site in about 2003. Total approximate site investment cost to MHI to date is €6.9 Million and potential stock sales value at peak standing stock is approximately €20 Million. The number of full time, directly dependant employees is 17, with an annual wage budget of approximately €574,000, much of which enters the local economy.

As is the case for all salmon farm sites, maintenance of fish health with minimal medicinal intervention, as well as fish quality, are paramount. Therefore, any potential threats to the biosecurity and the general security of the operation of its sites are taken very seriously by the company.

Marine Harvest Ireland wishes to appeal the granting of the licence for Site Number T05/591A because the company earnestly believes that it poses such threats. The issues on which the licences are being appealed are set out below.

2. Consultation with Stakeholders.

MHI wishes to make observations on several the stages of the application process, which has provided neither an effective nor enough basis on which this licence application can be adjudicated.

As far as can be ascertained, the licence was received by AFMD in April 2017. As required, progress steps in the licence have been advertised in the Southern Star, a local newspaper paper for the West Cork area, including the Beara Peninsula. However, MHI argues that the Southern Star is not that widely read in Berehaven. At no stage has any public announcement in the Southern Star been seen by or brought to the attention of MHI. Consequently, the company has been unaware of the progressing of this application. Bearing in mind that the minimum distance between the boundaries of the licence applied for and the existing MHI Roancarrig site, it seems perverse that neither the Applicant nor, for that matter, even the Department or its executive Agencies have contacted MHI to make sure that they were aware of these applications.

As a result, the public and stakeholder right to participate in the consultation and appeals processes has effectively been denied. Given that consideration of this licences involves environmental issues, this could be regarded at least as outside the spirit of the requirements of the 1998 Aarhus Convention or even in contravention of it. Ireland ratified the convention on 20th June 2012, with an announcement by the then Minister for the Environment, Community and Local Government at the Rio +20 United Nations Conference on Sustainable Development, on 21st June 2012 that

“.....the new Irish Government appointed last year assigned a high priority to early ratification of this Convention, recognising its role in laying down a set of basic rules to promote citizen's involvement in environmental matters.....”.

Clearly in this case, this has not been achieved.

3. Navigation and access.

The Roancarrig salmon farm site has now been in operation under various ownerships for forty years. MHI has operated this site under Aquaculture Licence Number AQ484 since 2008. Vessel operations and movements around the site have been completely unencumbered by other activities for their entire history. Unencumbered access has constituted an essential element of the smooth, safe and economic running of MHI's entire Bantry Bay operation, as it has for all their other operations around Ireland.

The hydrography in the Roancarrig area is complex, due primarily to the influence of Bear Island. Currents throughout Bantry Bay are relatively slow, due in part to a tidal confluence at its entrance. Mean current speed in the bay is about 0.03msec^{-1} . Even at spring tide, still-weather currents around the Roancarrig and Ahabeg sites are in the range of only 0.02 to 0.2msec^{-1} , (mean 0.05msec^{-1}). Wind, which is an almost weekly feature of local weather, even in the summer months, induces more rapid currents, especially in surface waters (0m-5m maximum) and promotes unidirectional flow. In winds from the prevailing westerly direction, from the Atlantic fetch, currents run easterly through both sites whilst winds from the east along the longest local fetch, in the axis of the bay, cause currents to flow west. Such winds blow over Bantry Bay at >Force 4 from all directions for 50% of the time and from S to W only, at Force 4-6, for 33% of the time.

Wind-induced directional currents, which are frequent, can influence the direction of vessel approach direction to the sites, for large vessels which are generally safer to pilot through confined areas when heading upwind, as further examined below.

The wave climate in the Bantry Bay is also driven mainly by winds from the prevailing direction, from between roughly 210° (SSW) to 270° (SW). Since the Roancarrig site lies within the lea of Bear Island relative to this sector, average annual storm wave climate across the sites is generally mild (significant wave height $<2.0\text{m}$). However, wave climate worsens quite rapidly once the southern boundaries of the sites are cleared, due to loss of the shelter of Bear Island. Storm waves approaching along the local fetch from the head of the bay are similar in significant wave height through the sites as those originating in the Atlantic, but wave climate remains much the same to the south of the sites rather than worsening.

Large scale finfish aquaculture of the type conducted by MHI in Bantry Bay requires a considerable fleet of vessels with a range of different functions and purposes. These are illustrated and described in this section, from the smallest to the largest, along with their functions, to give an understanding of their scale and navigational requirements. Outline specifications of larger vessels are given in Table 2.

3.1 General work and service craft

General site duties are carried out using Polar Cirkel type workboats. These are generally of rigid HDPE construction and of maximum length 8m. They are shallow draught and powered by 50hp outboard engines. Such workboats are used to carry site staff from Bank Harbour (see Figure 1) to the sites and for manual service duties around the sites. Polar Cirkels frequently travel between the two sites, taking the most direct route, of some 800m between neighbouring salmon farm site boundaries, sheltered from the frequent wave swell, which increases seawards of the site areas.

The SW fleet has a number of medium-sized service vessels, including the MV Conamara, a 13.9m x 4.6m x 1.8m draft, steel-built, stern-driven vessel, with forward wheelhouse and gib and winch, used mainly for net cleaning attendance and other general site duties. The twin-220hp-engine steel-built multicat MV Orchid is a recent addition to the fleet. This is equipped with raised wheelhouse, forward-mounted 17-tonne metre crane, raised gunnels and a pusher bow. The Orchid measures 15.5m x 6.7m x 1m draft. It has a 35-tonne capacity and large deck. It is used for transportation of feed and other freight as well as for general site duties, including pen and mooring maintenance and net changing; see Figure 3. These vessels are used all around both Roancarrig on a daily basis, taking the most direct route between the two sites as required.

3.2 Well boats.

Well boats carry out a wide variety of functions on salmon farm sites, including fresh water transportation for treatment, fish grading, fish counting, fish harvesting, fish transportation, including smolt delivery. For operational reasons, well boats are often used on-site around the clock and must therefore be able to safely navigate in dark conditions.

The largest well boat currently used in Bantry Bay is the Grip Transporter. This vessel is 60.4m in length, with an 11m beam and a draught of 4.45m. It is powered by a reduced 969KW Caterpillar main engine, with a 93KW Caterpillar auxiliary engine, as well as one bow thruster and two aft thrusters. It has a total well tank capacity of 1,250m³, six circulation pumps, substantial water chilling capacity and a 4-channel, 50kg per hour oxygen / ozone generation system.

The vessel is equipped with two, 5,000 litre vacuum pumps, two fish counters with a capacity 200 to 300 tonnes of fish per hour, a 100-300,000 smolt per hour smolt counter plus a ten track, three-way grader with separate counters, capable of grading and counting up to 60 tonnes of fish per hour. It is also fitted with six deck cranes of up to 24 tonne-metre lift. This is an extremely large, albeit manoeuvrable vessel, which, like the other well boats that operate in Bantry Bay must have full access, right around the Roancarrig and Ahabeg site areas in order that it can come alongside any selected pen to carry out its functions, in any wind and weather conditions.

The other three well boats that operate on the sites are of lower capacity than the Grip Transporter, but carry out the same range of on-site and off-site duties, as required. The outline specifications of these vessels are given in Table 1. The MV Brudanes and MV Christina R are shown in Figures 5 and 6. Note that unlike the Grip Transporter, which has fore and aft thrusters for manoeuvrability, these three older well boats only have single screw, stern propulsion.

3.3. Other vessels.

The MV Rem Fortress is not a frequent visitor but has been leased for treatment water delivery to Bantry Bay. However, the latest generation of well boats now in use in Norway and Scotland are approaching this size and there is no doubt that they will come into service on MHI salmon farm sites in due course. In addition, large vessels are expected to be used for the delivery of salmon feed direct to onsite feed barges from feed manufacturers in due course. This is by far the most economic means of feed delivery, but this service has yet to be introduced into Ireland. The main purpose in illustrating these vessels in this appeal is to show the sheer scale of the vessels that are now in common use in large salmon farm businesses, where thousands of tonnes of salmon are to be economically maintained and harvested.



Figure 3.
MV Orchid multicat
Service vessel



Figure 4.
Wellboat MV Grip Transporter

Figure 5.
Wellboat MV Brudanes, Berehaven



Figure 6.
Wellboat MV Christina R., Castletownbere





Whilst slow passage through the Pinch Points may not be impossible in fine, still weather conditions and by exercising great care, there would still be too much risk involved and absolutely no room for any contingency that may arise due, for example to deteriorating weather, breakdown, rope or chain snagging etc. Navigating these routes during night work on the sites, which is often required, would be out of the question.

The Master of the Brudanes and the Christina R, whilst operating smaller vessels than the Grip Transporter, is concerned that single screw, stern-propelled vessels such as these will not have the manoeuvrability to negotiate the Pinch Points, as required to avoid the obstructions caused by both seaweed sites. He is also concerned regarding any breakdown or other eventuality requiring the attendance of a tug to remove vessels from the salmon farm site areas. The very high risks to both vessels and site equipment in such circumstances would render such contingency actions extremely hazardous

Poor or rapidly changing sea conditions are a common feature in the site area and it is generally agreed that this increases the risk of such manoeuvres exponentially.

4. Biosecurity and Fish Health

The water current regime in the Roancarrig area is considered important in the veterinary context of this appeal because of the risks of drift of wastes and debris between the proposed seaweed site and the existing salmon farm sites. The current regime between the Roancarrig and Ahabeg salmon farm sites is complex, due largely to the presence of

Bear Island to their Southwest. Much the same pattern applies during the neap tide cycle, although the currents may be slightly slower.

The anticipated seaweed farming cycle to be used, will comprise the attachment of seeded string to longlines in about October, followed by growth until April or May, at which point it is necessary to harvest the lines. By this time seaweed will hang down by up to 2m from the longlines. Harvesting is necessary at this point because the fronds can become bleached and frayed in summer conditions (close to surface) and may detach from the lines. Since the proposed site is so close to Roancarrig fish pens, this could impact directly on the water exchange through pens due to net smothering and also add to BOD in the water column.

The seaweed harvesting process usually involves running each longline in turn across a shallow harvest vessel, using a net hauler or similar. The weed may then be hand-cut from the line or run through an eye, or another method may be used to remove the weed from the line. The main source of debris entering the water column during this process is weed and biofouling that strips from the longlines as they are hauled into the harvest vessel. Potentially harmful debris may also be released during any other activity which involves lifting the lines from the water, including decommissioning of the site prior to fallowing.

Once harvesting is complete, the lines, along with grids and other infrastructure present, plus anchor ropes, can either be left in situ on the fallow site or removed until the new seeded strings are put out the following October. It is almost certainly essential that all site infrastructures are removed because biofouling of all site structures will reach its maximum during the summer months.

Fouling will also be maximised by the fact that the bulk of the lines on a seaweed site are within 3m of the water surface, where solar penetration and temperature are at their peak. Well-established fouling can include a wide range of organisms, including algae, hydroids, tunicates and mussel spat, which, with increasing biomass, can cause the lines to sink if not attended to. In all events, MHI regard the coordinated fallowing of seaweed site and salmon farm sites essential, to prevent the potential development of pathogen reservoirs on neighbouring sites.

If the salmon farm sites are operated on an S0 cycle, as is presently the case in Bantry Bay, the normal harvesting cycle is biennial, between transfer of smolt to site in November of Year 0 and their harvest over the period March to August of Year 2, with the site then left fallow between September and October, before a new input of smolts in November latest. Thus, the growth cycle is a maximum of 22 months followed by 2 months fallowing. Fallowing may be longer if the harvest from the site, even to a harvest holding site, is completed earlier. Thus, there is scope for the coordination of fallowing

of fish sites and seaweed sites every two years if a S0 salmon farm recycle is employed.

It is drift of seaweed and biofouling debris that is the greatest biological concern in the Bantry Bay case. The principle risks arise from the fact that the period for harvesting seaweed (March to May) coincides with peak stocking densities in the S0 salmon farming cycle and early in the salmon harvest period. This is also the time of warm, early summer conditions, when salmon can already be prone to a range of seasonal health issues. Consequently, drift of debris is highly likely either to prompt secondary health issues for the salmon stocks or add to existing health issues, already under active management by the company.

The specific risks that are known to arise from longline debris release are from gill damage due to plumes of dactylozooids (stinger cells) ejected by a range of biofouling organisms, which injure fish gills. There are also strong possibilities, still under investigation, that reservoirs of organisms directly pathogenic to salmon may also be harboured seaweed farms.

Under these circumstances MHI submits that simply granting licences for sites as close as those proposed to its Bantry Bay salmon farming operations is an unacceptable threat on veterinary grounds alone to their long-standing business in the area.

Fee enclosed: €152.37

(payable to the Aquaculture Licences Appeals Board in accordance with the Aquaculture Licensing Appeals (Fees) Regulations, 1998 (S.I. No. 449 of 1998))(See Note 2)

Signed by appellant: *Catherine McNamee* Date: 13/11/2018

Note 1: This notice should be completed under each heading and duly signed by the appellant and be accompanied by such documents, particulars or information relating to the appeal as the appellant considers necessary or appropriate and specifies in the Notice.

Note 2: The fees payable are as follows:

Appeal by licence applicant.....	€380.92
Appeal by any other individual or organisation	€152.37
Request for an Oral Hearing (fee payable in addition to appeal fee)	€76.18

In the event that the Board decides not to hold an Oral Hearing the fee will not be refunded.