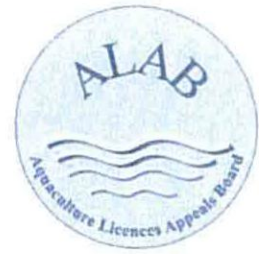


An Bord Achomhairc Um Cheadúnais Dobharshaothraithe
Aquaculture Licences Appeals Board



Observations from Licencee

Wild Atlantic Sea Products Ltd

Received 21 December 2018

Cúirt Choill Mhínsí, Bóthar Bhaile Átha Cliath, Port Laoise, Contae Laoise, R32 DTW5
Kilminchy Court, Dublin Road, Portlaoise, County Laois, R32 DTW5

Guthán/Telephone: 057 8631912 R-phost/Email: info@alab.ie

Láithreán Gréasáin/Website: www.alab.ie



OHara, Mary

From: Sheehans Fishing Co <sheehansfishingco@eircom.net>
Sent: 21 December 2018 10:19
To: Alab, Info
Subject: Wild Atlantic Sea Products
Attachments: IMG_20181221_0003.pdf; IMG_20181221_0001.pdf

Please find attached.

Kind regards
Ed Sheehan



WILD ATLANTIC SEA PRODUCTS LTD

SOUTH ALLIHIES

CASTLETOWNBERE

CO. CORK

To ; The Aquaculture Licences Appeals Board (ALAB)
Kilminchy Court
Dublin Road
Portlaoise
Co. Laois.
R32 DTW5



Date 15th of December 2018.

By registered post and by email to info@alab.ie and cc to mary.ohara@alab.ie ,

Your Reference: AP45/2018

Site No. T5/591A

To the Board of ALAB,

We are writing to you in response to the appeal lodged by Marine Harvest Ireland (MHI), in relation to our application for the cultivation of seaweeds, using long lines, on the foreshore at Bantry Bay, Co. Cork, Site reference T5/591A.

Wild Atlantic Sea Products Ltd, (WASP), wishes to make the following response and observations.

Background:

WILD ATLANTIC SEA PRODUCTS LTD (WASP) was founded in 2014 by Mr Ebbie Sheehan, who has over 40 years experience in the fishing and Marine industry and Mr Tim Reardon, who has over 35 years experience in the chemical supply and manufacturing industry. The company was set up with a view to creating a sustainable, environmentally friendly and commercially viable employment on the Beara Peninsula, in West Cork. We believe that the Seaweed aquaculture industry has the potential to fulfill these requirements.

Regarding the appeal submitted by MHI. Firstly, we would like to make an observation on the cover letter attached to the appeal, which has been signed by MHI's Technical Manager, Catherine McManus.

Catherine McManus, Technical Manager, explicitly stated that MHI Wishes " ***to appeal the proposed granting of Seaweed cultivation sites located between the Existing finfish culture sites on the***

Foreshore of Bantry Bay.". Catherine McManus, MHI, also refers to seaweed "Sites" in relation to this application on two other separate occasions throughout this appeal.

It is disconcerting that MHIs, (Ireland's largest aquaculture operator), technical Manager, does not appear to know the location or is at least confused, about the exact location of T05/591A and the number of sites contained in our application,

For the purposes of clarity, we would point out that Site T/5 591A, is a single site located to the west of the existing MHI site, T05/444D. We acknowledge that MHI attempts to correct this mistake in the main body of the appeal, but MHI also make four further references to "Sites", which, seems to point to, not least, a lack of familiarity with the application, but certainly a level of confusion to the exact location of our proposed site. Please see the attached site layout map, (**Document1**).

It appears that Catherine McManus is making reference, in the cover letter, to another licensed seaweed site, T05/586A, which is located between the Fin Fish culture sites. This site was part of a previous application for two seaweed licences, which was granted by the Minister in mid 2018. It is our understanding that there were no valid appeals in relation to these applications. There is also no relationship of any description, between either of these sites and our application.

In respect to the Grounds of appeal out-lined By MHI:

Consultation with Stake holders

WASP has, at all times, fulfilled its obligations under the Aquaculture legislation in respect of stake holder consultation. We have taken instruction from the Department of Agriculture, Food and the Marine (DAFM), advertising our application in the proscribed local publication and the local Garda stations. The Ministers decision, as per the legislative requirements was published in the local publication. All documentation related to the application and the subsequent consultation, public and statutory, and has been available at all times on the Department web site.

We have, as part of our application process, consulted with the DAFM and BIM, to relocate the site from its original position, (See Document 1, Blue outline), to its current location. This new site location was determined by the DAFM Engineering department, in consultation with the Irish Lights and the MSO, with respect to the implementation of a safe navigational system for the east entrance of Berehaven sound. This new location reflects the requirement to move the site within the green line shown on Document 1, as well as complimenting the existing navigational system, that exists between the existing four sequential licensed sites. It can be shown that the distance between T05/591A and MHIs T05/444D is greater than, the distance between the any of the existing sites in the navigational system. It must be noted that MHI made no objection to the location of two other Seaweed Cultivation T05/586A and T05/587A, which would appear to be closer in proximity to their Fin Fish sites.

It is obvious that MHI have issues with the legislative process, over which, WASP has no control. It is disingenuous for MHI, to say that the Southern Star is not widely read on the Beara Peninsula, which consequently affects their ability to comment on our application as a stakeholder. MHI are well aware of the process, they are well aware of that the Department advertises in this publication. If they choose not to purchase the publication, then all the information is freely available on the DAMF web site.

Navigation and Access

MHI make reference to “unencumbered Access for the last 40 years”. As far as we are aware, MHI licence extends to the limits of its site Boundary. Its activities should be carried out safely and completely, within the confines of this site. If unencumbered access was such an important element of running their Bantry Bay operations, why haven't MHI looked, over the past 40 years, to extend their licensed area to accommodate these off site operations?

The location of T05/591A is a consequence of the deliberations of DAFM engineers, Irish Lights and MSO in respect to the implementation of a safe navigational system the lower harbour. The access to the existing Fin Fish site is no more restricted by the T05/591A, than it is by T05/586A, which is a fully licensed aquaculture site. It must also be remembered that the boundaries are not fences. The actual structures, lines and cages, lie well within their respective outer boundary demarcations, providing considerable space within the sites to operate the necessary vessels safely and practically.

There is no doubt that MHI's personnel will have to be aware of the proximity of the T05/591A, this will be facilitated by lighted Marker buoys on each corner of the site.

It is true that MHI will not be in a position to utilise the site for their offsite, unlicensed operations, but there is a large body of accessible water south of the Fin Fish cages which is deeper and safer, and has been, to date, the preferred access route for MHI's larger vessels.

In MHI's extensive description of its fleet of work boats, it makes reference on two occasions to its vessels taking direct routes between its two sites, and implies that T05/591A, will somehow affect these transits. As already explained, T05/591A is to the west of both the MHI sites, and has no bearing on the direct movement of vessels between MHI's sites. Here again, it appears that MHI are totally confused between T05/591A (our application) and the site T05/586A, which obviously does interfere with direct transit between MHI's sites. We can only surmise that the pinch points and the navigational issues outlined in their appeal also refer to site T05/586A, which is an existing, fully licensed Aquaculture site, particularly when T05/591A's final position was determined by the body that oversees safe marine navigation in the Irish state.

It is our opinion that suitably experienced and suitably qualified Mariners, will not have issues navigating their vessels, of any size, due to the presence of T05/591A. In fact the new site positioning, as part of the Berehaven harbour navigation system, enhance the ability to navigate safely in the area.

It must also be noted that the Master of the 'Brudanes' and the 'Christina R', who, according to MHI, is “concerned” for the safety of his vessels, crews, and by extension, his business and livelihood did not make an appeal under section 40(1) of the Fisheries (Amendment Act) 1997(no.23).

Bio-security and Fish health

It is obvious from MHI's description of our “anticipated farming Cycle” that they have a far better understanding of growing salmon than cultivating seaweed. They appear to paint a picture of a production process which is rudimentary and primitive, with haphazard harvesting practices, with no regard for neighbours and the environment or bio-security. The reality is somewhat different.

We intend to produce a food grade Raw material, as effectively and efficiently as possible. We intend to purchase an 18m Multipurpose, bespoke harvesting vessel, which will be designed for harvesting and deployment of seeded material, as well as site maintenance. The technology has

moved on from dragging roped across small boats and cutting the seaweed by hand. The vessel will have a recessed well, where a conveyer which will lift the seaweed line from under the water, directly to an inboard seaweed separator, which will separate the seaweed from the line. At all times the raw material will be controlled and managed, so as to maximise the biomass. This biomass will then be transferred to 1 tonne storage bags for transport to shore. As these operations occur inboard, on the vessel, it is quite a simple operation to control all production streams and minimise any loss of biomass. Similar systems are being used to harvest Mussels, which are far more prone to losing product during harvesting, with great success and with minimal, if any loss of product.

Once more MHI refer to the closeness of the proposed site to the "Roancarrig Fish pens", when, as already described T05/591A is adjacent to the Ahabeg site, which once more highlights, either carelessness or confusion, in respect of this appeal.

It is our intention to remove all unnecessary structures from the site after harvesting, for the summer months, to facilitate ease of deployment of seeded material in autumn. We will start harvesting in March and finish mid to late May. We note that most of the disease issues associated with salmon production becomes most apparent during the summer months, and for reasons of our bio-security and based on increased levels of salmon mortality and disease, over the last five years, It would be prudent of us, to stop production for these months. There is an inference that a seaweed farm, is some form of reservoir "of Organisms directly pathogenic to salmon", a claim we note MHI has not been substantiated, by reference to any published or peer reviewed articles, which could substantiate the many assumptions and accusations.

In fact, for the summer months, the counter argument is true, where the salmon farms themselves become reservoirs for "organisms directly pathogenic to salmon". This is simply validated by MHI's own mortality information, provided to the Marine Institute. Though we feel that there is a low risk of transfer disease to our biomass, we are ever mindful of the optics surrounding disease and mortality issues associated with salmon production in the summer months, and choose not to produce product for Human consumption at this time.

We are also cognisant that, increase summertime temperature appears to see an increase in the number of disease related incidents, and the obvious increase in pathogenic organisms. We also understand that MHI have developed sophisticated fresh water treatment to counter some of these pathogenic organisms and effects. As this contaminated freshwater is released directly into the sea, post treatment, we would have some concerns to the effects, of these treatments and the associated debris, on our adjacent site. We feel once again, that there would be a low risk, associated with this operation, but have chosen to remove this risk by stopping our production for this period. We will however, with the assistance of the Marine Institute and BIM, instigate a detained scientific evaluation of the water quality on an ongoing basis, as a matter of prudence and insurance, with particular reference to the west boundary, adjacent to MHI's site, T05/444D.

MHI have pointed out that they utilise MV Conamara for cage cleaning operations, as described in their appeal. This process uses rotating cleaning discs mounted on cleaning rigs in various shapes and combinations. Utilizing, high-pressure sea water pumps to drive the cleaning discs. The cleaning process starts with submerging the rig on the inside of the net, using sea water under high pressure. The rigs are then maneuvered to clean the complete surface of the cage net. This process removes fouling and releases it into the water column adjacent to the cage and so, into the tidal stream. Studies have shown (HYDROFOUL project (funded by the Research Council of Norway, project number: 190463) at SINTEF Fisheries and Aquaculture), that a standard cage net could have a maximum hydroid biomass of as much as 6.7 t wet weight on a cage. The cleaning process removes weight from there structure and facilitating better water flow through the cage. But it also releases high volumes of solids and debris directly adjacent to their fish pens.

Give, that there are 10 cage structures on both the MHIs sites, and that, during the summer months, the cages need to be cleaned every 3-4 weeks, due to high growth of Bio-foul, then it is possible that MHI could be releasing upwards of 700 tonnes of bio-fouling and debris into the water column, directly adjacent (less than 2 metres) to their own fish pens. It is obvious that this operation does not impact on the successful husbandry of their farms, yet they fear that structure that would be several hundred metres away, attached to controlled structures could be detrimental to their fish stocks.

It must also be remembered that there fish pens are surrounded by naturally occurring Kelp forests, containing thousands of tonnes of naturally occurring seaweeds. These seaweeds are regularly, by force of nature and storm, dislodged in to the tidal stream, where they die and decompose on the sea bed. This seaweed is free to move within the tidal stream and represents volumes, many hundreds of times greater that our estimated production. As far as we are aware MHI has not reported any instance of mortality due to seaweed related issues, to the Marine Institute, Indeed, we have not been able to identify any instance of such an occurrence in Europe or Norway.

There are of course, some benefits to locating Seaweed farms close to Salmon Farms.

Fact – For every 1 tonne of Whole salmon produced, 397 kg of Carbon, 50Kgs of Nitrogen and 9.3 kg of phosphates are also produced. (Wang et al, 2012)

From an available nutrient perspective, a 3000 tonne salmon farm, equates to producing 150 tonnes of nitrogen and 28, tonnes of phosphates, per annum. This would be equivalent to approximately 7 articulated Lorries of Agricultural fertilizer. Two or three of these salmon farms would have a simple multiplying effect. Bottom line is that T05/591A will have a high availability of Nutrients which will provide optimum growth conditions for our seaweed. The seaweed farm will also help in mitigating some of the environmental impact related to this continuous nutrient release, positively affecting the local environment and ecology. This is a main pillar in the principle of Integrated Multi Trophic Aquaculture.

We also note that MHI have made no reference Integrated Multi Trophic Aquaculture (IMTA), which has become, of late, a means to acquiring further sustainable salmon production licences in Norway and Canada. It is strange that MHI, a Norwegian owned company, does not seem to embrace, the principles of IMTA and its obvious effects on nutrient mitigation, even though it is accepted, even by Nofima (Norwegian Institute for the Research and Development for Aquaculture, fisheries and food.) as a more responsible and environmentally acceptable model, when compared to monoculture production.

There is no evidential proof that supports the co-ordinated following of adjacent seaweed and salmon farms. Given the rigorous application process, we would have felt that the statutory consultees would have highlighted this, if it was thought to be necessary. It must also be noted that the other two other Seaweed Farms adjacent to MHIs finfish sites do not have this, as a pre-condition to their licences, and such a requirement would put us, at a commercial disadvantage while affecting our ability to enhance the local economy on the Beara Peninsula.

HMI state the following *“that granting licences for these 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”*

Apart from, once more, MHI making confused references to multiple sites, they also reference an "unacceptable threat on veterinary Grounds". As far as we are aware MHI work with highly respected Veterinary consultants. We understand, that these Consultants would be highly respected, in the International aquaculture Industry and particularly in the area of salmon health and welfare.

On the 13th of April 2018, The INTEGRATE Project,(an EU Interreg funded project facilitating the industrial transition towards Integrated Multi-Trophic Aquaculture (IMTA) in the European Atlantic Area) held an Irish workshop in NUIG.

One of the presentations was carried out by a highly respected member of the **Fish Vet Group Ireland**.

The presentation was given on "**IMTA - from a Pathogen transfer perspective**" This was a highly insightful and informative presentation, outlining the pros and cons of IMTA, from a pathogen transfer perspective. As part of the presentation, this eminent qualified Fish Veterinarian analysed the potential risks associated with the IMTA. One of these slides (document 2) is Titled "Risks of IMTA", this slide Contains a sub heading "Direct Risk". Here, there is reference made to Freshwater Mussels and Blue Mussels, but surprisingly no mention of the "**unacceptable threat**" of seaweeds.

Further on, in the presentation, there was a breakdown of the various species and possible issues related to IMTA in very close proximity (within the same site) to Salmon farming. The species heading were Bivalves, Deposit feeders and Seaweeds. (Please see attached Document 3). Given that all species could create some level of risk, small as it might be, we would like to point to the heading "Possible Risks".

Firstly this does not say "Probable Risks" or "High Risks" or "Scientifically validated Risks" the word is "possible", which in its self indicates a low probability. We would also like to draw your attention to the last line of the slide, which is a bullet point on "introduction of diseases", which is followed by a "?".

Again there is no list of validated, evidential research, there are no documented examples of disease transfer in fact there is only a question mark, that suggests that the presenter, who is an eminently qualified Fish Vet, working for a very highly regarded International company, does not know, or at least cannot substantiate any disease transfer between Seaweed and Salmon.

As far as we are aware MHI, utilise the services of a veterinary consultancy company **Fish Vet Group Ireland**, who's Home page for the international website states that "**Together, we support aquaculture producers around the world achieve sustainable, healthy and profitable farming by providing evidence-based veterinary consultancy and diagnostic technologies**".

It appears that the information, that was provided by Fish Vet Group, at the project workshop, which is surly evidence-based, seem to be completely at odds to the unsubstantiated opinion of MHI, as outlined in this appeal.

Conclusion

In conclusion, in the final paragraph of the objection, MHI submits that licences are being "simply" granted. We would like to point out that it has taken over 4 years to get to this stage. This has involved a huge investment of money and time, with many meetings with our engineer, BIM, Dept. of Marine, Dept. of Irish Lights, Bantry Harbour Commissioners and all other statutory organisations.

We have completely satisfied all necessary conditions set out in legislation, as regards consultation. From our point of view, it has been far from a simple process.

To summarise:

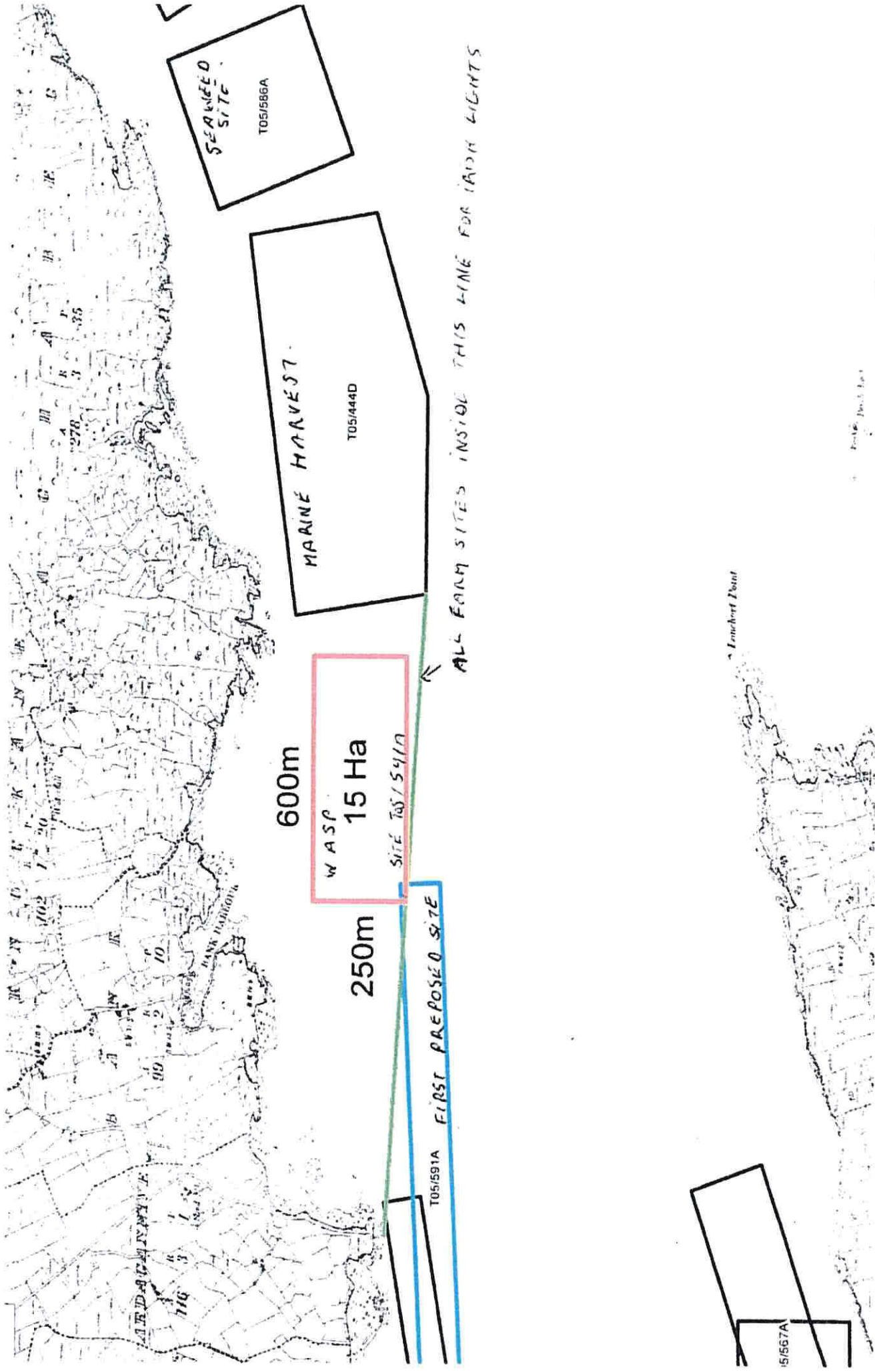
- MHI appear to be using the legislative application process, as a means to damage the ministerial decision to grant our licence.
- MHI are confused, as regards the number and location of our site, with numerous references to, what we can only explain as a previous application for two sites, one of which is between both there finfish sites, This may pertain to a completely unrelated site, T05/486A. The fact that there is this level of confusion or unfamiliarity to this extent should, at least throw doubt to any argument made regarding navigational pinch points. The fact that MHI states that T05/591A is adjacent to their Roancarrig site rather than the Ahabeg site, probably says enough.
- MHI know very little about Modern Seaweed cultivation, why should they! they are Salmon Farmers. We acknowledge that there are possible and probable interactions between the two sites, but current International scientific thinking points to these interactions as positive (IMTA) interactions, MHI have provided no documentary evidence of scientific research or peer reviewed literature that may support any of their arguments set out in this appeal.
- MHI have not provided any evidence to substantiate their Risk based approach to Bio security, which seems to be the "Scientific" basis for their appeal, even though it can be shown that the veterinary consultants Fish Vet Group, view the Risk profile differently, and appears to be completely at odds with MHI's unsubstantiated opinion.

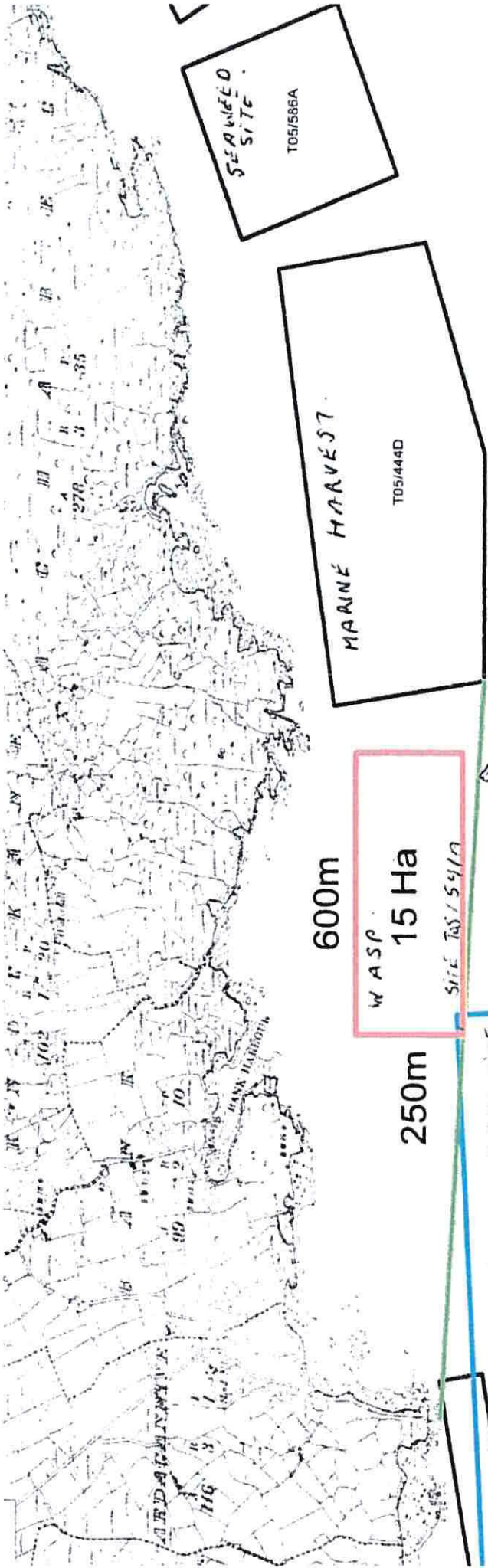
It cannot be forgotten that within the last 3 months two other seaweed licences have been issued, to sites adjacent to and closer to MHI's two existing finfish Sites. As far as we are aware there were no appeals to these licences, we know that MHI, were fully aware of the applications and chose not to appeal. We would also like to repeat, that this current location was determined by DAFM, the Irish lights and MSO. We feel that this appeal is a poor attempt of a "copy and paste", with scant regard for the licensing process and the integrity of ourselves, the applicant. We sincerely feel that MHI's appeal is unwarranted, unfounded and unsubstantiated, and has more to do with 40 years of unencumbered access, than any Bio-security threat.

Respectfully yours

Ebbie Sheehan, Director

Tim Reardon, Director





ALL FARM SITES INSIDE THIS LINE FOR LIGHTS

Lambert Point

Direct risk

- Freshwater mussel (order *Unionoida*) larvae (glochidia):
 - Obligate parasites host fishes (gills)
- Blue mussel (*Mytilus edulis*)
 - Cases of gill infection with larvae documented.

Disease transmission:

- Surfaces
- Several viruses and bacteria can infect hosts in different taxonomic orders
- Many parasites have complex life cycles
- Increased interaction between wild and farmed species





Sea weeds (macroalgae)

- Extractive aquaculture – remove inorganic nutrients and reduce environmental impact of farms
- Get viral, bacterial and fungal infections

Possible risks:

- Fouling organisms (hydroids, bryozoans etc)
- Surface area of algae has been shown to contain various bacteria and ciliates
- Introduction of diseases?





We have completely satisfied all necessary conditions set out in legislation, as regards consultation. From our point of view, it has been far from a simple process.

To summarise:

- MHI appear to be using the legislative application process, as a means to damage the ministerial decision to grant our licence.
- MHI are confused, as regards the number and location of our site, with numerous references to, what we can only explain as a previous application for two sites, one of which is between both there finfish sites, This may pertain to a completely unrelated site, T05/486A. The fact that there is this level of confusion or unfamiliarity to this extent should, at least throw doubt to any argument made regarding navigational pinch points. The fact that MHI states that T05/591A is adjacent to their Roancarrig site rather than the Ahabeg site, probably says enough.
- MHI know very little about Modern Seaweed cultivation, why should they! they are Salmon Farmers. We acknowledge that there are possible and probable interactions between the two sites, but current International scientific thinking points to these interactions as positive (IMTA) interactions, MHI have provided no documentary evidence of scientific research or peer reviewed literature that may support any of their arguments set out in this appeal.
- MHI have not provided any evidence to substantiate their Risk based approach to Bio security, which seems to be the "Scientific" basis for their appeal, even though it can be shown that the veterinary consultants Fish Vet Group, view the Risk profile differently, and appears to be completely at odds with MHI's unsubstantiated opinion.

It cannot be forgotten that within the last 3 months two other seaweed licences have been issued, to sites adjacent to and closer to MHI's two existing finfish Sites. As far as we are aware there were no appeals to these licences, we know that MHI, were fully aware of the applications and chose not to appeal. We would also like to repeat, that this current location was determined by DAFM, the Irish lights and MSO. We feel that this appeal is a poor attempt of a "copy and paste", with scant regard for the licensing process and the integrity of ourselves, the applicant. We sincerely feel that MHI's appeal is unwarranted, unfounded and unsubstantiated, and has more to do with 40 years of unencumbered access, than any Bio-security threat.

Respectfully yours


Ebbie Sheehan, Director

