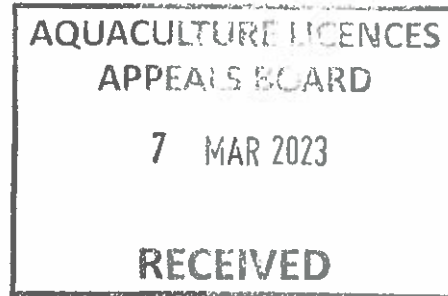




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MARINE RESEARCH STATION

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Aquaculture Licences Appeals Board,
Kilminchy Court,
Dublin Road,
Portlaoise,
Co. Laois.
R32 DTW5



03rd March 2023

Re: Aquaculture and Foreshore Licence
Site Ref: T05/640A

REF: AP1/1-3/2022

Dear Sirs,

Please find enclosed the submission of Bantry Marine Research Station replying to the appeals against the Ministerial decision to grant an Aquaculture licence for the above referenced site dated the 22nd November 2022.

Yours sincerely,

David O'Neill,
General Manager.

Directors:
Dr Dan Tierney (Chairman)
Donal Tierney MBA
Julie Maguire PhD
David O'Neill MA, MSc, MBA
Secretary:
Paul Brady LLM, FCIS

Bantry Office:
Gerahies, Bantry, Co. Cork Ireland - P75 AX07
Bantry Marine Research Station Ltd

Registered Office: 6th Floor, 2 Grand Canal Square, Dublin 2 Ireland
Registered Number: 402087 VAT Number: IE6422087U

Reply to Appeals to the Granting of an Aquaculture Licence in Dunmanus Bay

Site Reference: T05/640A

Bantry Marine Research Station (BMRS) wish to make the following reply to the appeals against the Ministerial decision to grant an Aquaculture licence for the above reference site dated the 22nd November 2022.

We note that of the three appeals made, some include submissions or variations of same by individuals when they were submitted to the department during the public consultation phase. For completeness we attach a copy of our reply to all of the Public and statutory submissions.

Our reply here is based on the order in which the appeals are included on the ALAB website,

1. Fishermens Inshore Saltwater Heritage Ltd.
2. Friends Of Dooneen Pier
3. Paul and Kate Brooks

Fishermens Inshore Saltwater Heritage Ltd.

As stated in our previous response to the department, in the event that the licence to the company is granted BMRS will facilitate continued access for the inshore fishing vessels that use the area for potting. It is worth quoting point no. 8 in full,

“Various studies over several years have shown that seaweed farms result in a substantial increase in fish populations and predominantly shellfish due to the additional coverage provided by the seaweed canopy, thus allowing better protections from predators (see addendum). The development of the farm will if anything improve the fishing grounds and whilst it may change how people access their pots, it will certainly not unduly restrict them. BMRS will of course consult with the local inshore fishermen and facilitate them. There are no plans to hinder any access to any of the piers and thus there is no impact in this way.”

We note the wider theme concerning conflict between aquaculture use and fishing grounds, but we are of the view that one is not mutually exclusive to the other but that both can coexist in harmony. Please see the photos submitted of Gerahies pier by the appellants (P Jeremy Cahill Tab 12/28) which show the stacked pots used by the local fishermen (not BMRS) and is the same pier that is used by the company to access its existing licenced seaweed farm site in Bantry Bay.

Friends of Dooneen Pier

A detailed submission has been provided by J Cahill, Kings Counsel UK, on behalf of the Friends of Dooneen and whilst we do not propose to address each and every point individually, we will provide a response to those most relevant.

1. Throughout the submission it is stated on numerous occasions that the seaweed lines will be stripped on the pier in Dooneen. Nowhere in the application is it proposed to carry same out on the pier and to be clear it is not and never was the intention of BMRS to do so. As has been the case for a number of years the company harvests its biomass on board the boat as the lines are removed from the bay and are hand cut into 1T bins.
2. Following on from point number 1 it is the opinion of the appellant that the stripping of the lines on the pier (which is not proposed) and the transport of the biomass through the road

accessing the pier will have an enormous impact upon the SPA. Whilst BMRS nor the appropriate statutory body accept that this is the case the company is quite prepared to largely address these concerns, if required by ALAB or in consultation with the department, by landing and transporting the biomass from the site at an alternative pier in Dunmanus Bay. See point number 1 of our earlier response to the department,

“Traffic Impact and safety concerns- Following the public meeting and the concerns raised in the submissions, the company are seeking ways to mitigate the impact of same. BMRS believes that the more intensive work during deployment and harvesting could be carried out at sea and the resultant biomass harvested could be landed at alternative working piers such as the quay west of the church in Durrus in Dunmanus Bay, which is already utilised by other aquaculture producers. Whilst the pier at Dooneen would still be required for maintenance purposes we believe this would average no more than 1 pickup accessing the pier once a week. Personnel will be informed of the sensitive nature of the surrounding area and to be considerate of the nature of the road and the variety of users.”

3. As quoted on the ALAB website “Customers, the public or environmental organisations aggrieved by a decision of the Minister for Agriculture, Food and the Marine on an aquaculture licence application, or by the revocation or amendment of an aquaculture licence, may make an appeal within one month of publication (in the case of a decision) or notification (in the case of revocation/amendment).”

It is telling that despite the alarmist claims made in this submission that no environmental organisation including Birdwatch Ireland or the NPWS raised any objection or made any submission/recommendation during the public consultation phase or made any appeal to ALAB on the proposed development despite being informed of same. We will again repeat an extract from point number 7 of the reply as submitted to the department,

“Defective Screening body – BMRS does not in any way accept that the screening document is defective. The appropriate statutory body appointed to conduct same, the Marine Institute, are experts in their field and they are carrying out this work on a regular basis all over the country. They state in their statutory submission “...as concluded in the AA screening report for Dunmanus Bay, the Marine Institute is of the view that significant effects on any Natura 2000 sites or features are not likely” and that they had “...no objections to a licence being granted.” (emphasis added)

4. BMRS also disputes the claim that the additional road usage to the pier by the company personnel would impact upon the SPA. In fact, within the submissions made it is acknowledged that various other commercial enterprises already use this road including refuse trucks (carrying all manner of waste from outside the existing SPA and through a significant portion of the “haul” route). In addition, these trucks can have capacity to carry 26 tonnes in waste material and travel on this road at least weekly if not on multiple occasions depending on the number of providers. Other commercial users per the submissions made include agricultural machinery including large 4WD tractors, fishermen, diving and boat operators some hauling large boats, and delivery vans to name a few but the impression is trying to be created that the limited additional traffic proposed will cause all manner of difficulties for residents and visitors. The position of the appellants in this regard is inconsistent with the realities on the ground. To be clear BMRS is not entitled to nor has any plans to widen or upgrade the road and will also not interfere with any public access along the

road or at the pier. There should be no need to store any equipment or parts or buoys on the pier and the convenience of the company base on the northern side of the peninsula will allow for items to be stored at this location. The pier is described in the Eoceanic report attached to this submission as “substantial refurbished concrete Dooneen Pier” and “The pier has an excellent pair of steps.” all of which provides an ideal maintenance access point for company personnel to check the farm in suitable weather conditions.

5. Economic benefits – This proposed development will have significant economic benefits to the local area. The seed to be used for the lines is produced in the existing BMRS hatchery on the Sheeps head, the materials used on the farm will (subject to tender), as was the case in the other BMRS seaweed farms be provided by a West Cork based company, the boats used for deployment and harvesting are also based in West Cork. Whilst the additional employment created within the farm during the on growing phase will be minimal it would be remiss not to acknowledge the direct economic benefits of the projected €500,000 investment in the farm. Furthermore, once the seaweed is harvested BMRS will use some of this biomass to conduct its EU marine research projects which provides further employment at the company base. In addition the company have also plans in the pipeline to develop off shoot business from the end product biomass which has the potential for secondary economic benefits resulting in further investment and employment opportunities within the West Cork area.
6. Wider Benefits – Seaweed has the potential to address some of the world’s most pressing challenges as stated in the recently published UN document “Seaweed Revolution: A manifesto for a sustainable future” and the European Green Deal and Farm to Fork Strategy. It will play a significant role in future food security, climate change mitigation as well as job creation and economic growth.
The European Commission has published a 23 Point Action Plan (starting in 2023) as it aims to unlock the potential of The EU algal sector (*Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions – Towards a Strong and Sustainable EU Algae Sector – November 2022*). Concerning job creation and economic growth according to the European Commission a thriving EU algae industry could become a flagship for other industries to become more regenerative, innovative and socially exemplary, creating thousands of jobs in coastal communities.
7. The company acknowledges that there will be a visual impact from the development however in mitigation BMRS have included grey LD2 buoys in the application which are specifically designed to be unobtrusive. This has not been reflected in the CGI photomontage as presented by the appellants.
8. One of the most important aspects of the Green coast award is “excellent water quality” in the area. BMRS understands that the deterioration of water quality is becoming an issue in the locality. The Seaweed farm will enhance the water quality in the area “Water quality benefits and habitat provision are the two environmental benefits categories that are the most well supported in the scientific literature for seaweed aquaculture and have the best available knowledge associated with positive ecosystem outcomes” (see addendum to department submission).
9. From a tourism perspective BMRS personnels limited use of the route will not unduly interfere with the walkers and cyclists. In fact the development may enhance the tourism offering available in the area. We note that “Discover Ireland Tours” already conduct Aquaculture tours where “groups can see the efforts by Irish farmers to ensure sustainability and to minimise any environmental impact”. BMRS would be open to discussions with local tourism operators to see if this is something that could be progressed.

10. Concerning the Cork County development plan the appellants state that "The Ministers apparent failure to address these highly relevant provisions ..." (point no.51), without any support as to whether this is the position. Despite the Ministers determination not being to the appellants satisfaction, BMRS accepts the position that aquaculture developments per the development plan "must take account of the ecological, social and scenic impacts of any such developments". BMRS contends that this process has clearly being undertaken during the assessment process but by the appointed bodies namely through the AA screening document in conjunction with the department assessing all submissions and objections which had raised concerns on various grounds including those referenced.

Paul and Kate Brooks

BMRS acknowledges the submission on behalf of the residents of the access road to Donneen Pier and note the contents therein. The issues raised have generally been addressed in our preceding comments but there are certain issues that need to be reiterated,

1. BMRS followed all the required protocols for statutory and public consultation notices in local newspapers and facilitating access to the application documents as required. In addition, the company attended a public meeting facilitated by the local community council where the proposal was discussed.
2. Following the concerns raised at the public meeting and in the submissions to the department with regard to accessing the site, the company expressed in writing to the department a willingness to carry out work during the intensive periods such as deployment and harvesting from alternative piers within Dunmanus Bay. This remains the company position and could be the most practical solution and would go a long way to mitigating some of the concerns expressed.
3. The site itself is a relatively sheltered site and we note the comments of the appellants Fishermens Inshore Saltwater Heritage Ltd. in their appeal and where they state "... we see no reason for them to encroach on sheltered fishing grounds in Dunmanus Bay". Likewise, the report from Eoceanic attached to the second appellants appeal describe it as "Well protected from the prevailing winds". As is the case with almost all sea-based sites it is not sheltered in all types of weather depending upon wind and wave and tidal conditions. The farm however is designed to account for the difficult conditions that may be encountered and there is always the potential to upgrade certain equipment if required.
4. BMRS notes that there was no appeal from any environmental group as allowed for throughout this process. In fact, the evidence supplied by the appellants is that despite consulting with some groups and despite any reservations expressed by any individual members, the bodies themselves chose not to make any submission with regard to this proposed development.
5. The Marine Institute whom are the appointed experts have stated in the Appropriate Assessment "...the Marine Institute is of the view that significant effects on any Natura 2000 sites or features are not likely".
6. BMRS does not envisage that the development of the farm will have any significant impact upon those that access the pier whether they are walking, cycling, swimming or any type of identified leisure activity.
7. On a very general point we wish to make clear that the material as shown in the photographs of the pier at Gerahies is not owned by BMRS. Also note that the historical photograph showing stripping of a seaweed line on the pier in Gerahies is not how the harvesting technique is carried out, which is now done on board the boat at sea.

Applicant Company Overview

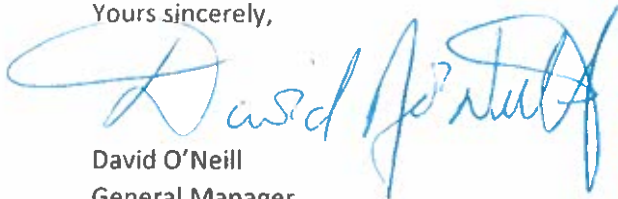
Bantry Marine Research Station Ltd. (BMRS) is located on the Sheeps Head peninsula since its inception in 2005, the company is a marine research business mainly focused on researching seaweeds and their potential for bioremediation to their biotechnological applications. Research activities include the following areas: micro- and macro-algae production and analysis, seaweed conversion to bio-products (including bio-plastic), seaweed bioactive extraction, earth observation, GIS and oceanography, and investigating native Irish seaweeds for anti-methanogenic properties in particular as a potential feed additive for ruminants including cattle.

Conclusion

BMRS would urge the board to grant this licence as it not located in a Natura 2000 site and no effects on any such sites is envisaged. The development is located in a suitable area and is sustainable, environmentally enhancing and economically beneficial to the locality. This application if granted will not interfere in any significant way with the variety of users of the site itself, pier and surrounding areas. Furthermore, the proposed development is consistent with local, national and European policy.

If the Board require any further information or clarifications, please do not hesitate to contact me.

Yours sincerely,



David O'Neill
General Manager
BMRS Ltd.

Date : 03rd March 2023

Application for an Aquaculture Licence in Dunmanus Bay

Site Reference: T05/640A

In reference to the Site T05/640A application for an Aquaculture and Foreshore licence and the subsequent public and statutory submissions and observations, Bantry Marine Research Station (BMRS) wish to make the following response.

Public Submissions

The common themes running through the submissions are as follows;

- 1. Traffic impact and safety concerns in relation to same;
- 2. The visual impact of the development;
- 3. The impact on tourism, the impact upon the pier at Dooneen and the Green Coast award;
- 4. Lack of consultation;
- 5. No economic benefits;
- 6. The impact on the Special Protection Area (SPA);
- 7. Defective screening document; &
- 8. Fishing impact.

Before BMRS addresses the specific items above, the company wish to make clear that it has had a long association with the Sheep's Head Peninsula, including having an existing seaweed farm near the company base on the north side of the peninsula. Whilst BMRS may not have agreed with much of the content in the submissions, if the licences are granted the company will seek to reach mutually agreeable accommodations within the parameters allowed with any licence awarded.

The company would also like to thank the local community council (Muintir Bhaira Community Council) for facilitating the public meeting where all opinions were allowed to be voiced. Although reservations were expressed by a few individuals, BMRS note that no submission was made on behalf of the community council. This is important to note because one submission was entered on the "Muintir Bhaira Community Council" headed paper even though this submission was signed in a personal capacity.

1. **Traffic impact and safety concerns** - Following the public meeting and the concerns raised in the submissions, the company are seeking ways to mitigate the impact of same. BMRS believes that the more intensive work during deployment and harvesting could be carried out at sea and the resultant biomass harvested could be landed at alternative working piers such as the quay west of the church in Durrus in Dunmanus Bay, which is already utilised by other aquaculture producers. Whilst the pier at Dooneen would still be required for maintenance purposes, we believe this would average no more than the BMRS pickup accessing the pier once a week. Personnel will be informed of the sensitive nature of the surrounding area and to be considerate of the nature of the road and the variety of users.
2. **Visual impact of the development** - As included in the original application, the company have applied to use grey LD2 buoys, which are specifically designed to be unobtrusive. The Aids to Navigation are a statutory requirement. We have included four on the site to be prudent, but the statutory bodies may only require two with the near shore aids excluded. The lines themselves are submerged but the MFL130 floats at each end would

be noticeable. These floats are on a smaller scale as they are not required to hold significant weight.

3. **Impact upon tourism, impact upon the pier at Dooneen and the Green Coast award**– As discussed in the first point, using alternative piers for deploying and harvesting will certainly address a lot of the concerns individuals had regarding the impact on walkers/tourists. The reduction in the use of the pier at this time will result in minimal additional traffic traversing the pier. The use of the pier itself on such a sparing basis with the BMRS pickup will again have a negligible impact. There should be no need to store any equipment or parts or buoys on the pier and the convenience of the company base on the northern side of the peninsula will allow for items to be stored at this location.
4. **Lack of Consultation** – BMRS have applied using the appropriate notices in the local newspapers as well as providing the applications for viewing as required. In addition, as referred to in some of the submissions, a public meeting was held with members of the local community.
5. **No economic benefits** – BMRS continues to be a significant local employer in the area. This has been facilitated in part by its existing seaweed farm licences, which have allowed the company to carry out research in conjunction with third-level institutions, state bodies and EU consortia into the environmental benefits of different species of seaweed. It is correct to say that the grow-out farm itself will not create much additional employment, however, there are significant secondary employment benefits deriving from the research undertaken and the processing of the harvested biomass.
6. **Impact upon the SPA**- Again following on from the first point above, the additional traffic that will be generated in this scenario would be minimal. Therefore, BMRS's view is that there would be no concerns of any additional impact upon the adjacent SPA.
7. **Defective Screening body** – BMRS does not in any way accept that the screening document is defective. The appropriate statutory body appointed to conduct same, the Marine Institute, are experts in their field and they are carrying out this work regularly all over the country. They state in their statutory submission "...as concluded in the AA screening report for Dunmanus Bay, the Marine Institute is of the view that significant effects on any Natura 2000 sites or features are not likely" and that they had "...no objections to a licence being granted." Regardless of the opinions of some, about the Appropriate Assessment carried out the scenario described in the first point above would essentially make this argument redundant.
8. **Fishing Impact** – Various studies over several years have shown that seaweed farms result in a substantial increase in fish populations and predominantly shellfish due to the additional coverage provided by the seaweed canopy, thus allowing better protection from predators (see addendum). The development of the farm will if anything improve the fishing grounds and whilst it may change how people access their pots, it will certainly not unduly restrict them. BMRS will of course consult with the local inshore fishermen and facilitate them. There are no plans to hinder any access to any of the piers and thus there is no impact in this way.

Statutory Submissions

Concerning the statutory submissions that were made, the company note the comments therein. No objection to the proposed application has been made by any of the Statutory consultees.

Irish Water

- *"... the development referred to is outside designated shellfish waters."*
- The proposed development is not in close proximity to wastewater discharges and in any event, seaweed plays an important role in the removal of dissolved nutrients both from runoff from the land or from wastewater discharges and can be absorbed and converted to increase the protein content of seaweed.

Marine Institute (MI)

- BMRS note the contents of the MI submission including that their view is *"... that there will be no significant impacts on the marine environment and that the quality status of the area will not be adversely impacted"*.
- BMRS does not have any objection to the recommendation that the initial source of seed (plantlets) or other sources in the future should be subject to Ministerial approval.
- BMRS will, if the site is approved, draw up a contingency plan for approval by the department as recommended by the Marine Institute.

Sea Fishery Protection Authority (SFPA)

- BMRS will not be hindering access to piers and the company note the comments of the SFPA that in these circumstances there would be no implications for fishery controls. Similarly, BMRS note that there are no known issues for live bivalve mollusc production and that there are no issues in terms of seafood safety.
- BMRS notes the comments that some inshore fishing vessels use the area for potting and the company will facilitate continued access for these fishermen. Additional comments are also made in point number 8 above in connection with same.

Commissioners of Irish Lights (CIL)

- BMRS note that CIL have no objection to the development.
- BMRS will not interfere with any navigable intertidal channels and all structures will be clearly marked.
- BMRS have no issue with securing statutory sanction from CIL for the Aids to Navigation to be used and with agreeing their design and specification in advance.
- If granted a licence, BMRS will inform the UK Hydrographic Office of the site's location as required.
- All parties have had an opportunity to make submissions based on the application and BMRS believes the same will be reflected in the final decision of the department. However, it remains the intention of BMRS that if the application is successful the company will continue to engage with the local community including fishing and tourism-related groups.

I trust that BMRS have answered the various submissions comprehensively and straightforwardly, resolving all the salient points clearly and concisely.

BMRS looks forward to hearing positively in due course and if further information is required, please contact me.

Kind regards,

A handwritten signature in black ink that reads "David O'Neill". The signature is written in a cursive, flowing style with a long horizontal line extending to the left from the start of the name.

David O'Neill
General Manager
BMRS Ltd.

Addendum

Seaweed farming is beneficial, restorative, and enhancing to its location.

Water quality benefits and habitat provision are the two environmental benefit categories that are the most well supported in the scientific literature for seaweed aquaculture and have the best available knowledge associated with positive ecosystem outcomes.

Carbon sequestration and ocean acidification buffering are also benefits of seaweed aquaculture thus providing climate adaptation and mitigation benefits. (The Nature Conservancy, 2021).

A single hectare of seaweed farm will

- Remove carbon dioxide in coastal waterways and reduce ocean acidification.
- Remove more than half a ton of nitrogen.
- Increase the abundance of wild fish by up to 5 tons per year (Gentry et al., 2020).

Environmental Benefits of Restorative Aquaculture (Seaweed) can provide multiple types of benefits to aquatic environments.

- Habitat provision from aquaculture gear (i.e., seaweed lines) and the seaweed cultivated on and within them can provide three-dimensional structured habitat that benefits fish and invertebrates.
- Farms protect juvenile fish and invertebrates, functioning similarly to natural nursery grounds (Costa-Pierce and Bridger, 2002; Barrett et al., 2019).
- Seaweed and biofouling communities associated with farms can provide food resources (Kawai et al., 2021).
- In a global review of 65 studies, higher fish abundance and diversity were generally associated with bivalve and seaweed farms than with nearby reference sites (Theuerkauf et al., 2021).

- The effect on the productivity of wild marine species due to aggregation versus recruitment suggests that there is evidence of increased production due to the presence of aquaculture facilities (Tallman and Forrester, 2007).
- The three-dimensional structure of aquaculture can also stabilize soft sediment, helping to reduce erosion or the impacts of extreme weather events (e.g., Zhu et al., 2020).
- The localized effects of reduced acidification and temperature created by seaweed farms can be beneficial to the provision of effective habitat (e.g., a refuge; Xiao et al., 2021).

Wild kelp forests play a key role in carbon regulation and sequestration (Queirós et al., 2019). Consequently, farming seaweed to capture carbon and sequester CO₂ has been proposed as a climate mitigation strategy (e.g., Froehlich et al., 2019).

“Moreover, their production helps improve ocean health by reducing carbon dioxide, phosphorus and nitrogen in marine ecosystems. They are also a nursery and hide-out for many marine animals, promoting underwater biodiversity” (The European Commission, the European Climate, Infrastructure and Environment Executive Agency (CINEA) February 2022).

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