



Technical Advisors Report

AP46 / 2018

Irish Sea seed mussel Aquaculture and Foreshore
Licence Application Appeal

Report prepared by MERC Consultants on behalf of

Aquaculture Licences Appeals Board

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Appeal Ref No. AP46/2018
Aquaculture Licences Appeals Board
Technical Advisor's Report

Description:

Appeal against the decision of the Minister for Agriculture, Food and the Marine to grant an Aquaculture and Foreshore Licence to Irish Mussel Seed Co Ltd., Site Ref T32/27 for the collection of mussel seed using longlines on a site on the foreshore in an area on the foreshore between Clogga Bay and Kilmichael Point, Co Wicklow

Licence Application

Department Ref No: AP46/2018

Applicant: Irish Mussel Seed Company Limited

Minister's Decision: Licence Granted

Appeal

Type of Appeal:

Appeal against the decision of the Minister for Agriculture, Food and the Marine to grant an Aquaculture and Foreshore Licence to Irish Mussel Seed Co Ltd., Site Ref T32/27 for the collection of mussel seed using longlines on a site on the foreshore in an area on the foreshore between Clogga Bay and Kilmichael Point, Co Wicklow

Appellant(s): Marion Rueter

Observers: Irish Seed Mussel Company Ltd.

Technical Advisor MERC Consultants Ltd.

Date of site

Inspection 03/04/2019

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1. General Matters / Appeal Details

1.1 Appeal Details & Observer Comments / Submissions

Date Appeal Received: 19/11/2018

Location of Site Appealed: Between Clogga and Kilmichael Point, Co. Wicklow

1.2 Name of Appellant (s):

Marion Reuter,
Clogga,
Arklow,
Co. Wicklow

1.3 Name of Observer (s)

Irish Seed Mussel Company Ltd.

1.4 Grounds for Appeal

Substantive Issues

1. The appellant maintains the size of the site is approximately 6-7 times larger than the average size of a “shellfish farm” and probably one of the largest in Ireland.
2. The appellant maintains there is no history of aquaculture applications or experience off the Wicklow coast and that this means that sites sensitive or vulnerable to a 100 acre shellfish farm have not been identified.
3. The appellant maintains a 100acre shellfish farm is being located in an area already designated for tourism.
4. The appellant states that Wicklow Co. Council in its Coastal Zone Management Plan refers to the coastal area as amongst the most sensitive and valuable resources in the County in terms of habitats, scenic beauty and recreation.
5. The appellant states “In the adjacent short area of coastline it includes a significant pNHA and an important SAC, both of which include or included important sand dune systems. Further to this the appellant states “The Arklow Sandbanks run parallel to the coast to the east. Erosion of the dunes over the past century has resulted in a submerged sand dune system stretching under the shallow bay and out toward the sandbanks. The area qualifies under the EU Habitats Directive as one requiring an SAC”.
6. The appellant maintains that unlike the farms in Cork and Wexford this is a corridor for protected species traveling up the east coast.
7. The appellant maintains the granting of the licence did not take into consideration the size of the development.

8. The appellant maintains the granting of the licence did not consider objectively the impact a development of this size would have on an area acknowledged to be amongst the most valuable and sensitive resources in the county.

9. The appellant maintains that as a newly proposed development no studies were submitted on the existing habitats or species present and that there has been no assessment of the possible impact on the local area.

10. The appellant maintains no evidence was provided to show there was sufficient mussel seed produced locally to seed a shellfish farm of 76Ha.

Non-substantive issues

There were no non-substantive issues

1.5 Minister's submission

Section 44(2) of the Fisheries (Amendment) Act 1997 states that

"The Board shall, as soon as practicable after receiving a notice of appeal, give a copy to each other party to the appeal."

Section 44(2) of the Fisheries (Amendment) Act 1997 states that

"The Minister and each other party except the Appellant may make submissions or observations in writing to the Board in relation to the appeal within a period of one month beginning on the day on which a copy of the notice of appeal is sent to that party by the Board and any submissions or observations received by the Board after the expiration of that period shall not be considered by it."

The *Notice of Appeal* was received by the Department of Agriculture, Food and Marine on 19/11/2018. While the Department responded within the required timeframe and in so doing provided copies of relevant documentation relating to the application and internal process, no Ministerial submission in relation to the appeal was received by the Board within the specified timeframe. It is therefore determined that no Ministerial submission was made in response to the appeal which the Board is required to consider

1.6 Applicant response

The applicant provided a detailed response to the appeal as provided for under section 44 of the act. The response of the applicant is outlined in points 1 to 8 below. No comment on the accuracy or otherwise of the applicant's response by the Technical Advisor is made.

1. In relation to the size of the proposed aquaculture site:

- The size of the proposed site provides an opportunity to address the impact of mussel seed dredging on the environment.
- The scale of the farm has the potential to sustainably support the mussel on-growing business and associated socio-economic effects.
- Currently the mussel on-growing business are experiencing reduced seed availability year on year as documented in the National Strategic Plan for Sustainable Aquaculture Development.
- The scale of the site is reflected in the need for mussel seed to support the bottom culture industry.
- The size of the site is not comparable to rope culture sites in the west and south west as those are inshore sites which may (i) host more than a single aquaculture licence (ii) may result in cumulative impacts on the environment resulting in licence granting for smaller farms (iii) grow mussels to full size with equipment in place year round as opposed to the applicants "droppers" in the water for specified periods of time (iv) the size of the site reflects the scale required for a commercially viable venture relative to the equipment required.
- By comparison the applicant refers to the closest offshore operation (Lyme Bay, Devon) which is 1540 hectares with potential to produce 10,000 tons of full grown mussel. The applicant site being 4.9% of the size of the Lyme Bay site.

2. In relation to the location of the proposed aquaculture site and lack of existing aquaculture:

- Aquaculture (on-shore trout farming) takes place in Co. Wicklow.
- Wicklow historically hosted one of the largest oyster reefs in Europe.
- Wicklow has biotech oyster processing.
- The applicant agrees that there is no offshore aquaculture off Co. Wicklow.
- Provides their rationale for why aquaculture development should be accommodated including consultation with scientific and technical advisors as well as various statutory and public consultees including the NPWS and Marine Institute who considered all relevant environmental impacts of the proposed development.
- Noted that the all shellfish farms differ in terms of potential impact and the appropriateness of assessing each on a case by case basis rather than applying a set of indicators for benthic habitats the entire Irish coastline.
- Notes the conclusions of a larger scale site at Lyme Bay in the UK which the applicant states only records positive impacts.

3. In relation to the location of the proposed aquaculture site, tourism, bathing water and Wicklow County Council Coastal zone management:

- Wicklow County Council's Coastal zone management plan reflects development on land only and the Council's functional area does not extend to the location of the proposed aquaculture site.
- While the Clogga area is described in the Coastal Plan for Wicklow as having potential for tourism this is not to the exclusion of other development.
- Wicklow County Council were consulted in relation to the proposed aquaculture project and actively promoting aquaculture for offshore on the Wicklow coastline.

4. In relation to access

- There is limited access to public beaches at this site.
- There is very little on looking of the shore from the proposed site.
- The public bathing area at Clogga Beach is not visible from the proposed aquaculture site.

5. In relation to SAC's, pNHA's, qualification for the designation of habitats under the EU Habitats Directive

- The proposed aquaculture site is not in an SAC or marine protected area.
- NPWS and the Marine Institute reviewed the licence application and neither found any potential impacts or conflict arising from the activities of the applicant.
- The applicant responded to the appellant re impacts on pNHA's, SAC's and qualifications for the designation of habitats during the public consultation phase.
- The site will only be used for the collection of mussel seed occurring naturally at the site. The mussel seed collected would be on-grown elsewhere. The mussel seed is not for human consumption. No chemicals or hazardous substances will be used during the production process.

6. In relation to corridors for protected species on the east coast

- The supposition that unlike farms in Cork and Wexford this site is a corridor for protected species travelling up the east coast is incorrect. In fact sightings for Dolphins, Porpoises and Turtles are most concentrated in areas like Cork where they coexist with aquaculture.
- The presence of seals in the area is encouraging. A report, which the applicant states, indicates no adverse effects on the interaction of seabirds or common seals with rope mussel sites is referenced.

7. In relation to tourism

- While tourism exists in Clogga Bay there is no public access around Clogga Point reducing significantly the interference of the proposed site will have on tourism in terms of visual impact.
- There is private access from the appellant's site on Clogga Point however the business is focused on the Clogga side of Clogga Head and the existing infrastructure does not overlook Kilmichael.

- The Applicant responded to the appellant's public objection to the licence in relation to their consideration of tourism.
- Mussels are filter feeders and improve water quality as they grow. Therefore in relation to bathing water quality it [aquaculture] is a positive response. By providing mussel seed reliance on dredged wild mussel seed is decreased thereby reducing impact on sensitive habitats.
- The applicant met with the Department of Tourism and sport who requested the applicant to meet with local sporting clubs who have, since this meetings written in support of the development.
- The site was chosen as it fronts a beach that has limited public access.
- For angling the development will bring increased biodiversity to the area and therefore increased opportunities.
- The Lyme Bay site previously referred to in the applicants response was discussed in relation to tourism. The applicant stated that tourism in this area of the Devon coast is thriving with no adverse effect noted from the off-shore aquaculture site. The applicant further stated that there are 45 beaches listed by the Environment agency in Devon area which are rated good or excellent.
- The applicant discusses aquaculture in relation to marine spatial planning and synergies with the marine environment where it would add value to onshore activity and comments that that it has been demonstrated that aquaculture and tourism can benefit each other. The Fáilte Ireland/BIM "Taste of the Atlantic" initiative is mentioned as one such synergy.
- The consideration taken into account when assessing an aquaculture licence application by the Commissioners of Irish lights is set out in the 'Commissioners of Irish lights submission for the National Strategic Plan for sustainable Aquaculture Development' and the safety of marine tourism is a factor.

8. In relation to scale, infrastructure, navigation, fishing and tourism

- Tourism was taken into consideration and addressed in the responses outlined in 7 above.
- "The lights are set out in the schematic drawings and as dictated by the Commissioner for Irish Lights. The number of buoys will be every 2-3 meters and will increase as weight on the lines increases. These buoys will be coloured battleship grey to reduce visual impact."
- During winter months the droppers will be removed from the water and the number of buoys reduced. Navigation issues have been considered by the Commissioner for Irish Lights who take all marine traffic and tourism, including the safety of marine tourism into account.
- The applicant states that the application has been assessed to a much higher level than any other shellfish licence application. In areas like Cork or Wexford where aquaculture licences exist there are far less reports necessary for assessment by the Department of Agriculture Fisheries and Food. In these areas it is generally accepted that the equipment will work within the confines of the bays similarly to other aquaculture operators within the area or bay. The applicant in order to attain a licence had to carry out, Sub bottom profiling assessing the structure of the seafloor for 20 meters below the seabed,

Geotechnical report, numerical 3D modelling in terms of anchors that would withstand the pressure of worst case scenarios over a 50 year period, among others. Other aquaculture applications are not required to for to the expenses of these reports and so indicates the higher level of scrutiny the applicants licence underwent in order to be granted.

2.0 Consideration of Non-Substantive Issues

No non-substantive issues were raised.

3.0 Oral Hearing Assessment

The appellant requested an oral hearing in the Notice of Appeal. Having reviewed the Ministers File, additional correspondence from the appellant/applicant and Department of Agriculture, Food and the Marine and having carried out a site visit, it is considered that there is sufficient information and documentation available to the technical review in order to make a clear recommendation in relation to the appeal. An oral hearing is therefore not considered necessary in the circumstances.

4.0 Minister's file

No.	Date	Item
1.	8 th March 2018	Application for Aquaculture and Foreshore licence for T32/27
2.	9 th May 2018	Commissioners of Irish Lights response to DAFM
3.	15 th May 2018	Sea Fisheries Protection Authority Response to DAFM
4.	18 th July 2018	Marine Institute Advice to DAFM
5.	Undated	DHPLG (Maritime Spatial Planning Section) response on behalf of Wicklow Maritime Business Development Group.
6.	Undated	Recommendation to Grant an Aquaculture and Foreshore Licence for 1 site (T3/27)
7.	Undated	Response from Irish Seed Mussel Company
8.	17 th September 2018	Response from DAFM (Marine Engineering Division)
9.	16 th October 2018	Decision by Minister to grant an aquaculture Licence.
10.	19 th November 2018	Appeal against the Ministers decision to grant an aquaculture licence.
11.	19 th December 2019	Applicants response to appellants appeal

5.0 Context of the Area

5.1 Physical descriptions

The proposed site is located off the Wicklow coast between Clogga and Kilmichael Point. The northern boundary of the site is 2.7km south of Arklow Head, Co. Wicklow. The total area of the proposed site is 66ha.

The predominant seabed habitat in the area within and surrounding the proposed licence application is classified as shallow sublittoral sand. This data is derived from the Marine Strategy Framework Directive (MSFD) predominant habitat types (source www.atlas.marine.ie). Approximate water depths for this area are in the region of 18-22 meters BCD. A geotechnical site investigation, utilising side scan survey and sub-bottom profiling, of the proposed aquaculture site was carried out on behalf of the Irish Seed Mussel Company. The side scan survey indicated the site was characterised by sand with some gravelly sand and sandy gravel pockets. While sub-bottom profiling describes four distinct stratigraphic horizon across the site. These comprised, an uppermost mobile sand horizon across the entire site. Underlying this horizon was a layer of uniformly cohesive material, most likely marl. Bedrock was recorded throughout the site sloping west to east and had pockets of overlaying gravel in the east (Geomara, 2015).

The adjacent shoreline is characterised by sandy beaches backed by soft sea-cliffs and interrupted by areas of intertidal reef and sea-cliffs. The beach areas are located to the north and south of a small headland at Clogga (hereafter referred to as Clogga Head). The beach area on the northern side of Clogga Head (Beach A, figure 5.1) is approximately 1km in length while the beach area to the south of Clogga Head (Beach B, figure 5.1) is 0.28 km. An additional beach area (Beach C, figure 5.1) 0.65 km in length, is located in the southern section of the general area.

The landscape in this area is characterised by improved agricultural grassland with scattered rural housing and farmsteads. The nearest urban centre to the proposed aquaculture installation is Arklow town, 5 km north of the proposed site. A large quarry site with marine berthing facilities occupies a site at Big Rock, 2.3km north of the proposed aquaculture site.



Figure 5.1 General location of the proposed project.

5.2 Resource Users

Aquaculture Activity

There are no existing aquaculture activities at the location of the proposed aquaculture licence or surrounding area.

Angling Activity

Dinghy and small boat fishing in the area is concentrated over the offshore sand banks east of Arklow for dogfish, ray, codling, whiting and tope. Small boat charter from Arklow and Wicklow is also available for sea angling along the south Wicklow coast.

At Clogga strand, bottom fishing from the beach over sand for bass, dogfish and flounder takes place with codling and whiting possible in winter. Float fishing and spinning for bass and mackerel from the rocks also takes place in summer. An active recreational sea-angling enterprise and boat charter service operates from Wicklow Harbour. A wide range of sites are utilized along the Wicklow coast, depending on conditions and species sought.

At Kilmichael, just south of the Wicklow border in Co. Wexford bass fishing occurs while Sea trout and mackerel are also taken occasionally. (Dunlop, 2009).

Tourism

The south Wicklow coast is a popular tourist destination and there is considerable tourism infrastructure in the general area, especially in the vicinity of Wicklow, Arklow and Gorey towns. Much of the coastal tourism is focused on access to the coast and a number of popular beaches in particular.

There are two caravan parks in the vicinity of Clogga Head. Clogga Caravan Park is located on the headland at Clogga and has private access onto the beach (Beach area A, figure 5.1). Gleeson's holiday park is situated on the north side of the headland and also has private access to the beach (Beach area A, figure 5.1). A parking area is located at Clogga Head which provides public access onto this beach area. The beaches immediately to the south of Clogga Head have no public access.

Agricultural Activity

The area within the vicinity of Clogga to Kilmichael point is characterised by improved agricultural grassland that supports mixed farming dominated by cattle and sheep grazing in addition to tillage. Average farms sizes in the county are 42ha (CSO, 2010). The soils are dominated by well drained fine loamy over clayey calcareous Irish sea till soils. Commercial forestry is absent from the coastal area. Indoor rearing of cattle is an increasing feature of agriculture in the area.

Inshore Fishing activity

A number of commercial fishing vessels operate out of Arklow Harbour. Potting (potting activity of vessels <15 metres length) is recorded in an area approximately 1.3km east of the coast (Atlas.marine.ie). A significant fishery for Whelk (*Buccinum*

undatum) exists in the south Irish Sea (Marine Institute and Bord Iascaigh Mhara, 2018).

Leisure Users of the water body & surrounding area

There is good public access to the beach area to the north of Clogga Head. Bathing and associated leisure activities are popular at this location and the beaches are popular for recreation and walking. The remainder of the coastal area between Clogga Head and Kilmichael Point is largely inaccessible to the public.

Other

An active quarry site with an associated jetty is located at Arklow Rock, 2.3 km north of the proposed aquaculture site.

5.3 Environmental Data

Water Quality

The proposed aquaculture site is within the Southwestern Irish Sea - Brittas Bay waterbody (IE-EA-140-0000). Water quality monitoring and assessments carried out on Irish coastal waters for the Reporting period 2010-2012 by the EPA have classified the water of this area of the coast as “unpolluted” (Source [https://gis.epa.ie/EPAMaps/Water quality](https://gis.epa.ie/EPAMaps/Water%20quality)).

Water Framework Directive

The water quality status of transitional and coastal waterbodies assessed under the EU Water Framework Directive (2000/60/EC) is provided under section 5.4

Under the Water Framework Directive an approved risk is also assigned to each feature by catchment scientists. The approved risk for the Southwestern Irish Sea - Brittas Bay waterbody (IE-EA-140-0000) is “not at risk” (Source [https://gis.epa.ie/EPAMaps/Water Framework Directive](https://gis.epa.ie/EPAMaps/Water%20Framework%20Directive)).

Discharge points

There are 3 discharge points at Clogga Head. These are licensed Section 4 (Local Government (Water Pollution) Act, 1977) discharges to water points.

5.4 Statutory Status

Nature Conservation Designations

Natura 2000 sites Special Areas of Conservation (SAC's) established under the EU Habitats Directive (92/43/EEC) and Special Protection Areas (SPA's) established under the EU Birds Directive (79/409/EEC).

The proposed aquaculture site is not located within any site designated under the Natura 2000 network of sites. Three (3) SAC's lie within a 15km radius of the proposed aquaculture site (See table 5.1 for details). There are no SPA's within a 15 km radius of the proposed project site.

Table 5.1 Additional Natura 2000 sites within a 15km radius of the proposed aquaculture sites.

Site Code	Site Name	Distance from Proposed aquaculture sites (km)
001742	Kilpatrick Sandhills SAC	0.98
000729	Buckronev-Brittis Dunes and Fen SAC	9.0
000781	Slaney River Valley SAC	12.7

Table 5.2 Features of interest for all sites within a 15 km radius of the proposed aquaculture site. Data down as provided by NPWS protected sites data 17/4/2019.

Kilpatrick Sandhills SAC (Site code: 001742)
<ul style="list-style-type: none"> • Annual vegetation of drift lines [1210] • Embryonic shifting dunes [2110] • Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) [2120] • Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130] • Atlantic decalcified fixed dunes (Calluno-Ulicetea) [2150]
Buckronev-Brittis Dunes And Fen SAC (Site code: 000729)
<ul style="list-style-type: none"> • Annual vegetation of drift lines [1210] • Perennial vegetation of stony banks [1220] • Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410] • Embryonic shifting dunes [2110] • Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) [2120] • Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130] • Atlantic decalcified fixed dunes (Calluno-Ulicetea) [2150] • Dunes with <i>Salix repens</i> ssp. <i>argentea</i> (<i>Salicion arenariae</i>) [2170] • Humid dune slacks [2190] • Alkaline fens [7230]
Slaney River Valley SAC (Site code: 00781)
<ul style="list-style-type: none"> • Estuaries [1130] • Mudflats and sandflats not covered by seawater at low tide [1140] • Atlantic salt meadows (<i>Glaucopuccinellietalia maritimae</i>) [1330] • Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410] • Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitriche-Batrachion</i> vegetation [3260] • Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles [91A0] • Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i>, <i>Alnion incanae</i>, <i>Salicion albae</i>) [91E0] • <i>Margaritifera margaritifera</i> (Freshwater Pearl Mussel) [1029] • <i>Petromyzon marinus</i> (Sea Lamprey) [1095] • <i>Lampetra planeri</i> (Brook Lamprey) [1096] • <i>Lampetra fluviatilis</i> (River Lamprey) [1099] • <i>Alosa fallax fallax</i> (Twait Shad) [1103] • <i>Salmo salar</i> (Salmon) [1106] • <i>Lutra lutra</i> (Otter) [1355]

Natural Heritage Areas (NHA's) and Proposed Natural Heritage Areas (pNHA's)

There are no NHA's within a 15km radius of the proposed aquaculture site. Ten (10) pNHA's are located within a 15km radius of the proposed aquaculture site. These are:

- Arklow Rock-Askintinny (Site code: 001745)
- Arklow Sand dunes (Site Code: 001746)
- Arklow town marsh (Site Code: 001931)
- Buckroneys-Brittias Dunes and Fen (Site Code: 000729)
- Avoca River Valley (Site Code: 001748)
- Kilpatrick Sandhills (Site Code: 001742)
- Kilgorman River Marsh (Site Code: 001834)
- Ballymoney Strand (Site Code: 000745)
- Courtown Dunes and Glen (Site Code: 000757)
- Ardamine wood (Site Code: 001733)

All of the above listed pNHA's are terrestrial or coastal sites with no marine component.

Protected Species

Marine Mammals

The 1992 EC Habitats Directive as transposed by the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477 of 2011) requires that both seal species (Common seal and Grey seal) and all cetaceans occurring in Irish waters are maintained at favourable conservation status. Under Article 12 of the Directive, all cetaceans should receive strict protection within the Exclusive Economic Zone. Under the Wildlife (Amendment) Act 1976-2005, all cetaceans and seals are protected species listed on the 5th Schedule. Under this Act, Natural Heritage Areas (NHAs) may be established to protect habitats or species. Whilst some terrestrial and coastal NHAs may encompass adjacent marine areas, no NHA's have been established for marine mammals to date.

Cetaceans

24 cetacean species are recorded to date in Irish waters. Those species that have been recorded off the east coast (Source <http://www.iwdg.ie/conservation>) include those listed below:

- **Humpback whales:** have been seen off all Irish coasts, though less frequently in the Irish Sea.
- **Fin Whale:** Although they prefer deeper waters along the Continental shelf edge, they can be seen from Irish headlands when inshore feeding opportunities occur. A high number sightings have been reported along the southern Irish coast, extending from Sleah Head, Co. Kerry east towards Hook Head, Co. Wexford.
- **Minke whale:** This is the most frequently recorded baleen whale in Irish waters can be seen off most headlands throughout the year along the entire Irish coast, although most sightings are recorded from the south and west coasts.

- **Killer Whale:** The largest concentrations of Killer Whales in Ireland are over the continental shelf. However Killer Whales have been recorded off the Saltee Islands and are occasionally encountered in shallower waters such as the sightings in Cork Harbour and elsewhere in 2001.
- **Risso's Dolphin:** This species appear to prefer deep offshore waters but on occasion can be seen close inshore around the Irish coast. They are also seen with some regularity between Arklow and Kilcoole along the Co Wicklow coastline.
- **Harbor porpoise:** This is the most frequently reported and widespread species in Ireland and can be seen around the entire coast, although they appear to be most abundant off the southwest coast.
- **Bottlenose Dolphin:** This species can be seen inshore on all Irish coasts although they are most frequently recorded off the west coast.

Seals

- **Grey Seal (*Halichoerus grypus*)** occurs in greatest numbers on the western seaboard of Ireland although significant numbers also occur on the east and southeast coasts.
- **Common Seal (*Phoca vitulina*):** In Ireland, the greatest numbers of common seals are found along the western seaboard predominantly in relatively sheltered areas (often estuaries and sand or mudflats) that are not subject to much human disturbance. (Source: <https://www.npws.ie/marine/marine-species>)

Statutory Plans

The Wicklow County Development Plan 2016-2022 (Wicklow County Council, 2016) sets out the overall strategy for the proper planning and sustainable development of County Wicklow for the plan period and beyond. The plan consists of a written statement and plans that indicate the development objectives for County Wicklow.

It is noted that the Wicklow County development Plan 2017 to 2022 refers to development on land. Therefore the policies set out in the development plan do not apply to the area of the proposed aquaculture site. Nonetheless a number of land based policies are considered relevant to the proposed aquaculture development and are documented below:

- **Objective CZM5:** To protect the character and visual potential of the coast and conserve the character and quality of seascapes.
- **Objective CZM6:** To facilitate an Integrated Coastal Zone Management approach to ensure the conservation, management and protection of man-made and natural resources of the coastal zone.
- **Objective: FSH1:** To support the sustainable development of the fisheries and aquaculture industry in co-operation with the Department of Agriculture, Food and the Marine and the Inland Fisheries Ireland. The Council will not permit development that has a detrimental impact on the environment. In particular,

development that has a detrimental impact on the environmental/ ecological/ water quality of seas, rivers and streams, will not be permitted.

- **Objective FSH2:** To facilitate the provision of infrastructure, which is necessary for the development of the fishing and aquaculture industry. Infrastructure and buildings in coastal or riverbank locations should be located in proximity to existing landing facilities and shall be of a design that is compatible with the area. Any development, which by reason of its nature or scale is detrimental to the character or amenity of an area, will not be permitted.
- **Objective CZ12:** This objective deals with the coastal zone in an area defined in the County development plan as “Cell 12” which is defined as the area between Rock Big in the north to the Wicklow County boundary at Kilmichael point in the south. It states, *inter alia*, that: Development that is detrimental to the quality or amenity of heritage features will not be permitted, including views and prospects, archaeological features, protected trees/structures.

Biodiversity Plan

County Wicklow Biodiversity Action Plan 2010-2015 (Wicklow County Council, 2010) sets out a number of objectives and actions to maintain and enhance the local biodiversity of the county. The objectives relate to better understanding, raising awareness, enhancing habitats and species and fostering active participation in biodiversity in County Wicklow.

Water Quality Status

Water Framework Directive

Coastal and Transitional Waterbody Status results are recorded in accordance with European Communities (Water Policy) Regulations 2003 (SI No. 722/2003). The regulation objectives include the attainment of good status in waterbodies that are of lesser status at present and retaining good status or better where such status exists at present by 22nd December 2015.

The water quality status of the Southwestern Irish Sea - Brittas Bay waterbody (IE-EA-140-0000) for the reporting period 2010-2015 is “unassigned”.

Bathing Waters

Annual bathing water quality following monitoring is carried out by Local Authorities over the bathing period. The assessments are carried out on designated Bathing water locations as part of the legislation governing the quality of bathing waters that is set out in the Quality of Bathing Waters Regulations, 1992 (S.I 155 of 1992) and amendments, which transposed the EC Directive 76/160/EEC concerning the quality of bathing water.

The bathing water quality at Clogga Beach on the north side of Clogga head (site IEEABWC140_0000_0100) was report as “excellent water quality” for 2017.

5.5 Man-made heritage

There are no recorded terrestrial archaeological or heritage sites in the vicinity of the proposed aquaculture site. No ship wrecks are recorded in close proximity to the proposed aquaculture site (Archaeology Department of Culture, Heritage and the Gaeltacht, 2019).

6.0 Section 61 Assessment

6.1 Site Suitability

The site for which aquaculture and foreshore licences have been granted is **suitable** for the proposed collection of seed mussel for the following reasons:

- *Appropriate studies of local area hydrodynamics including computer modelling of wave conditions; and seabed geology indicate that the proposed mussel seed collection equipment can successfully be deployed and maintained at this site and that risks from inclement weather and sea conditions have been considered and can be managed*
- *The site has been confirmed as suitable for seed collection in the context of mussel larvae presence and data confirms there is a viable presence of mussel larvae in the water column as evidenced by studies supported by BIM*
- *Placing of seed collection equipment on the site can be achieved without displacing existing commercial fishing, boating and angling interests*
- *Placing of seed collection equipment on the site can be achieved without creating a development that will be visible from a majority of local coastal vantage points*
- *The management regime proposed for the Aquaculture operation.*
- *The proposed site layout and structure is suitable to the site.*
- *Details of land based facilities and site access and finalisation of these aspects.*
- *Details of proposed navigation and associated marking scheme*
- *Potential for visual impact and mitigation of same to be defined in the licence conditions*
- *The Marine Engineering Division of the Department of Agriculture Food and the Marine considers that the site is suitable for licencing for the intended purpose, provided their recommendations as listed below are adhered to.*
 - *Due to the exposed nature of this location, the site must be operated and maintained as set out in the application documentation including the code of practice.*
 - *Records of the operation and maintenance of the site should be provided on request to the Department to ensure the facility is operated and maintained as set out in the application documentation*
 - *Any change to the management and operation of the site from that outlined in the application documentation must be approved by the Department prior to being implemented*
 - *Annual inspection of the site to ensure compliance with the licence conditions.*

The site for which an aquaculture site licences have been granted is **not suitable** for the harvest of mussel seed for the following reasons:

- *There are no reasons that indicate that the site is unsuitable for the intended activity*

6.2 Other uses

It is likely that existing vessel traffic navigates through the area. As the site lies outside of any direct passage routes, such traffic is likely to be infrequent. Development of the site will not preclude navigation of the site in emergency situation as the spacing of the lines will facilitate this. Development of the site will not impede passage for vessel traffic or infringe on access to the shore or any surrounding location for vessel traffic or leisure users. Adjacent beaches are important for recreational activities but these are not affected by the granting of the licence. No other significant use of the site has been identified during the application process or during the Technical Review.

The granting of aquaculture and foreshore licenses will not cause significant negative impacts on other users of the site.

6.3 Statutory Status

The proposed aquaculture site is not located within any site designated under the Natura 2000 network of sites, however a number of sites are designated in the locality, as detailed in section 5.4. The closest Natura designated sites (c. 1km distant) are all terrestrial sites. A number of pNHA sites occur in the area also, all of which are terrestrial or coastal sites with no subtidal marine component.

The Wicklow County Development Plan 2016-2022 (Wicklow County Council, 2016) sets out the overall strategy for the proper planning and sustainable development of County Wicklow for the plan period and beyond. The plan consists of a written statement and plans that indicate the development objectives for County Wicklow.

It is noted that the Wicklow County development Plan 2017 to 2022 refers to development on land. Therefore the policies set out in the development plan do not apply to the area of the proposed aquaculture site. Nonetheless a number of land based policies are considered relevant to the proposed aquaculture development and are documented below:

- Objective CZM5: To protect the character and visual potential of the coast and conserve the character and quality of seascapes.
- Objective CZM6: To facilitate an Integrated Coastal Zone Management approach to ensure the conservation, management and protection of man-made and natural resources of the coastal zone.
- Objective: FSH1: To support the sustainable development of the fisheries and aquaculture industry in co-operation with the Department of Agriculture, Food and the Marine and the Inland Fisheries Ireland. The Council will not permit development that has a detrimental impact on the environment. In particular, development that has a detrimental impact on the environmental/ ecological/ water quality of seas, rivers and streams, will not be permitted.
- Objective FSH2: To facilitate the provision of infrastructure, which is necessary for the development of the fishing and aquaculture industry.

Infrastructure and buildings in coastal or riverbank locations should be located in proximity to existing landing facilities and shall be of a design that is compatible with the area. Any development, which by reason of its nature or scale is detrimental to the character or amenity of an area, will not be permitted.

- Objective CZ12: This objective deals with the coastal zone in an area defined in the County development plan as “Cell 12” which is defined as the area between Rock Big in the north to the Wicklow County boundary at Kilmichael point in the south. It states, *inter alia*, that: Development that is detrimental to the quality or amenity of heritage features will not be permitted, including views and prospects, archaeological features, protected trees/structures.

The granting of aquaculture and foreshore licenses will not cause significant negative impacts to statutory designations of the site, nearby designated sites or statutory plans including Wicklow County Development Plan.

6.4 Economic effects

The application projects that by year 4, a total of 8 fulltime permanent positions will be created while a further 2 part time positions will be created. Positions will be created incrementally as the site reaches full production over the projected 4 year period from inception. Accordingly the development is likely to have a significant impact on the local economy.

It is the view of the Technical Advisor that there will likely be additional significant beneficial economic effects for the mussel on-growing industry in other parts of the country as a result of improvement to the supply of seed mussel.

The granting of aquaculture and foreshore licenses have significant positive economic impacts on the local and wider economies.

6.5 Ecological Effects

The technical review has considered the potential for the development to impact negatively on a range of ecological features including marine mammals, avi-fauna, wild fisheries and adjacent seabed and terrestrial/coastal habitats.

No significant ecological effects are predicted for the following reasons:

- The proposed site is situated in an exposed subtidal location, at a significant distance from the shore and is located over a predominantly sandy substrate. While the cultivation of rope grown mussel seed has potential to lead to the production of faeces and pseudofaeces, the site will not be used for on-growing mussel seed. Mussel seed will be harvested from mussel lines for relaying and on-growing at other sites. Accordingly, volumes of faeces and pseudofaeces will be negligible and any impacts will be limited to the

footprint of the proposed site. The build-up of organic matter is unlikely to occur due to the dispersal effect of the current regime in the area.

- The proposed site is not within a Natura 2000 site and there are no marine Natura 2000 sites within a 15 km radius. Existing Natura 2000 within a 15km radius are designated for their coastal and or terrestrial features of interest. Therefore there is no potential for impact on the conservation objectives of these sites from the proposed aquaculture project
- No non-native species will be brought onto the site. Only native and naturally occurring mussel seed will be cultured until it is of suitable size for harvesting and relaying elsewhere.
- The code of practice for the aquaculture operation lists adequate mitigation measures to ensure there is no risk from hydrocarbons to the marine environment and its associated ecology.

The granting of aquaculture and foreshore licenses will not cause significant negative ecological impacts.

6.6 General Environmental Effects

No significant additional general environmental effects are considered likely to arise.

The granting of aquaculture and foreshore licenses will not cause significant negative environmental impacts.

6.7 Effect on man-made heritage

Licensing of the site being considered in the appeal will not significantly impact the known man-made heritage of the area, including known coastal features, as well as intertidal and subtidal features.

Licensing of the application site is unlikely to give rise to significant impacts on the man-made heritage of the area.

6.8 Section 61 Assessment Conclusions

The site for which an aquaculture site licences have been granted is **suitable** for the harvest of mussel seed for the following reasons:

Site Suitability

The site under appeal is suitable / not suitable for the intended purpose for the following reasons;

- *Appropriate studies of local area indicate that the proposed mussel seed collection equipment can successfully be deployed and maintained at this site and that risks from inclement weather and sea conditions have been considered and can be managed*

- *The site has been confirmed as suitable for seed collection in the context of mussel larvae presence and data confirms there is a viable presence of mussel larvae in the water column as evidenced by studies supported by BIM*
- *Placing of seed collection equipment on the site can be achieved without displacing existing commercial fishing, boating and angling interests*
- *Placing of seed collection equipment on the site can be achieved without creating a development that will be visible from a majority of local coastal vantage points*
- *The management regime proposed for the Aquaculture operation.*
- *The proposed site layout and structure is suitable to the site.*
- *Details of proposed navigation and associated marking scheme*
- *Potential for visual impact and mitigation of same to be defined in the licence conditions*
- *The Marine Engineering Division of the Department of Agriculture Food and the Marine considers that the site is suitable for licencing for the intended purpose, provided their recommendations as listed below are adhered to.*
- *Due to the exposed nature of this location, the site must be operated and maintained as set out in the application documentation including the code of practice.*
- *Records of the operation and maintenance of the site should be provided on request to the Department to ensure the facility is operated and maintained as set out in the application documentation*
- *Any change to the management and operation of the site from that outlined in the application documentation must be approved by the Department prior to being implemented*
- *Annual inspection of the site to ensure compliance with the licence conditions.*

The site for which an aquaculture site licences have been granted is **not suitable** for the harvest of mussel seed for the following reasons:

- *There are no reasons that indicate that the site is unsuitable for the intended activity*

Other Uses

The proposed development would have **no significant effect** on other users of the area for the following reasons:

1. Development of the site will not preclude navigation of the site in emergency situation as the spacing of the lines will facilitate this.
2. Development of the site will not impede passage for vessel traffic or infringe on access to the shore or any surrounding location for vessel traffic or leisure users.
3. Adjacent beaches are important for recreational activities but these are not affected by the granting of the licence.

4. No other significant use of the site has been identified during the application process or during the Technical Review.

Statutory Status

The proposed development would have no significant effect on statutory designations of the area for the following reasons:

- 1. There are no statutory designations that are relevant to the site. The site is not designated as an SAC or SPA or under any other nature protection statute.*

Economic effects

The proposed development would have a **significant beneficial** impact on the economy of the area for the following reasons:

- 1. In granting the additional licence, the additional projected local employment opportunities would likely be created with an associated benefit to the local economy*
- 2. Improvement to the supply of seed mussel would help to stabilise the on growing sector and reduce uncertainty*

Ecological Effects

The proposed development would have no significant effect on the ecology of the area for the following reasons:

- 1. The site is not considered to be sensitive to impacts from the proposed activity due to the dynamic nature of the site and its exposure to wind and, waves and currents*
- 2. The site application process has considered all technical, statutory and public consultation submissions and submissions from expert consultees supports the understanding that there will be no adverse impacts*
- 3. Some beneficial ecological impact may arise in this and other areas by a reduced need to capture seed mussel by dredging the seabed*

General Environmental Effects

No significant additional general environmental effects are considered likely to arise as a result of the proposed development for the following reasons:

- 1. License application process has resulted in a series of conditions being applied to the grant of aquaculture and foreshore licences designed to mitigate and/or prevent damage*
- 2. A Code of Practice has been developed for the site which will guide the operators in the development and operation of the site so as to minimise and manage risks to the environment*

Man-made Heritage

There would be **no impact** on the man-made heritage of value in the area as a result of licensing of the proposed site for the following reasons:

1. The absence of any protected structures or recorded monuments in the area of the proposed aquaculture licence application as indicated by the Record of Monuments and Places.

6.9 Confirmation re Section 50 Notices

There are no pertinent matters arising outside of Section 61 which the Board ought to take into account that have not been raised in the appeal documents and it is not necessary to give notice in writing to any parties in accordance with Section 50(2) of the 1997 Act.

7.0 Screening for Environmental Impact Assessment.

Under S.I. No. 468/2012 - Aquaculture Appeals (Environmental Impact Assessment) Regulations 2012 an Environmental Impact Statement is required for aquaculture the Board determines would be likely to have significant effects on the environment.

The Marine Institute on behalf of Department of Agriculture, Food and the Marine has assessed the proposed aquaculture development in relation to the marine environment and concluded that there will be no significant impacts on the marine environment and that the quality status of the area will not be adversely impacted.

Environmental impact assessment means an assessment, to include an examination, analysis and evaluation to identify, describe and assess the effects of certain public and private projects on the environment including the direct and indirect effects of a proposed development on the following:

- (a) Human beings, flora and fauna
- (b) Soil, water, air, climate and the landscape,
- (c) Material assets and the cultural heritage, and
- (d) The interaction between the factors mentioned in paragraphs (a), (b) and (c) above

Having reviewed the proposed aquaculture project in relation to its potential impacts on the elements listed above (a to d) it is the opinion of the Technical Advisor that the proposed aquaculture site and its operation is unlikely to have significant effects on the environment by virtue of *inter alia*, its nature, size or location. We are of the view that in-combination effects are also unlikely. Therefore an environmental impact assessment in accordance with S.I. 468 of 2012 is not required.

8.0 Screening for Appropriate Assessment.

The Marine Institute on behalf of Department of Agriculture, Food and the Marine has assessed the Natura 2000 sites within the vicinity of the proposed aquaculture sites. This assessment concluded that given the principally terrestrial nature of the features of interest of these Natura sites there would be no adverse impact on sensitive habitats or species.

This technical advisor has also examined all Natura 2000 sites within a 15km radius of the proposed aquaculture site. The proposed aquaculture site is not within a Natura 2000 site. As stated in section 5.4, three (3) SAC's lie within a 15km radius of the proposed aquaculture site. Two of the Natura 2000 sites (Kilpatrick Sandhills SAC and Buckroney-Brittias Dunes and Fen SAC) are coastal sites within no marine component. While at its nearest point the Slaney River Valley SAC is within 15km of the proposed site, this relates to the freshwater/terrestrial component of the site, the marine components of this site are 46km to the south. Therefore, it is our opinion that due to the distance of the proposed aquaculture site, exposed nature of the location and type of aquaculture proposed that there is no potential for impact on the features of interest or conservation objectives of these Natura sites alone or in combination with other projects or plans. Therefore it is considered that Appropriate Assessment is not required

9.0 Technical Advisor's Evaluation of the Substantive Issues in Respect of Appeal and Submissions/Observations Received

1. The appellant maintains the size of the site is approximately 6-7 times larger than the average size of a "shellfish farm" and probably one of the largest in Ireland.

The proposed activity is not typical of an "average" shellfish farm in the context that the proposed activity is not a farm per se but represents a novel solution for collecting wild seed mussel, in response to the decreasing availability of wild seed mussel captured by dredging the seabed. Seed mussel is essential to support the established bottom and rope grown mussel sectors in Ireland. As the proposed activity is focussed on collection of wild juvenile mussel seed, economies of scale in the proposed activity are essential in order to ensure that the farm is economically viable and that sufficient seed mussel settlement surface is provided to ensure significant volumes of seed are produced from the site, thereby justifying the capital investment required to develop the project, as well as to provide for operating costs and long-term economic viability. The licence application is for a site of 66ha. The projected production of 3,840T of seed mussel by Year 5 may reduce significantly the need for seed mussel dredging activity in the Irish Sea. This is considered likely to contribute significantly to a reduction in environmental impacts associated with intensive dredging activity by licensed fishing vessels attempting to harvest scarce and ephemeral mussel seed beds in Irish waters for the purposes of supplying the mussel industry with juvenile mussels for on-growing at other licensed aquaculture sites.

2. The appellant maintains there is no history of aquaculture applications or experience off the Wicklow coast and that this means that sites sensitive or vulnerable to a 100 acre shellfish farm have not been identified.

Extensive surveys of Ireland coastal subtidal environment have been undertaken as part of formal programmes to identify, designate and monitor Ireland's marine SAC's. The Irish Sea coast is reasonably well understood and there is no information to support the suggestion that sensitive or vulnerable sites may be impacted by the development at this site. As part of the application process, the developer has undertaken reasonable seabed surveys including side scan sonar surveys, sub-bottom profiling as well as a hydrographic survey. Survey results indicate that the seabed in the area of the license application is comprised mainly of sand with some coarser materials including gravelly sand and sandy gravel pockets. The hydrographic survey reports maximum recorded tidal currents on the seabed of 0.7ms^{-1} (1.4 knots). The sediment regime considered together with the recorded maximum current suggests that surficial sediments are mobile and subject to shifting with tidal currents and wave action. Movement of seabed sediments creates significant levels of scour which does not provide conditions that would support the development of vulnerable or sensitive seabed habitats or communities. Indeed, habitats and associated communities are very likely to be characterised by a low diversity of robust, scour tolerant fauna.

3. The appellant maintains a 100acre shellfish farm is being located in an area already designated for tourism.

The Wicklow County development Plan 2017 to 2022 refers to development on land. Therefore the policies set out in the development plan do not apply to the area of the proposed aquaculture site. The location of the proposed aquaculture site is not designated for tourism. The proposed development is highly unlikely to negatively impact on tourism to a significant extent.

4. The appellant states that Wicklow Co. Council in its Coastal Zone Management Plan refers to the coastal area as amongst the most sensitive and valuable resources in the County in terms of habitats, scenic beauty and recreation.

The Wicklow County Development Plan 2017 to 2022 refers to development on land. Therefore the policies set out in the development plan do not apply to the area of the proposed aquaculture site. The proposed aquaculture site is located in a subtidal area approximately 250 meters from the shoreline at its nearest point. There is very limited and difficult public access to the section of the shoreline adjacent to the proposed aquaculture site. Therefore no significant impacts on scenic amenity and recreational value of the area are considered likely.

5. The appellant states "In the adjacent short area of coastline it includes a significant pNHA and an important SAC, both of which include or included important sand dune systems. Further to this the appellant states "The Arklow Sandbanks run parallel to the coast to the east. Erosion of the dunes over the past century has resulted in a submerged sand dune system stretching under the shallow bay and out toward the sandbanks. The area qualifies under the EU Habitats Directive as one requiring an SAC".

A number of SAC's, NHA's and pNHA's lie within a 15km radius of the proposed aquaculture site (see section 5.4). All of these sites are either terrestrial or coastal sites with no marine component. The conservation objectives of the SAC's do not have the potential to be impacted by the proposed aquaculture project by reason of the lack of connectivity of their features of interest to the proposed aquaculture site including the scale, size and type of aquaculture proposed. Similarly the NHA's and pNHA's do not have the potential to be impacted by the proposed aquaculture site.

Under the EU Habitats Directive, to be considered for designation as an SAC a site must have representative examples of one or more Annex I habitats or Annex II species. Submerged sand dunes are not an Annex I habitat and would not qualify for designation. Sand dunes are dynamic features. As such, their structure and function changes as a result of natural processes e.g. erosion.

6. The appellant maintains that unlike the farms in Cork and Wexford this is a corridor for protected species traveling up the east coast.

The technical review process has examined the possibility that the coastline is important for the migration or passage of species traveling up (or down) the east coast and that it may form a corridor. There is no scientific evidence available to support the assertion that area adjacent to the foreshore is a corridor for protected species. Inland Fisheries Ireland were satisfied that the orientation of the farm would not infringe on the free movement of anadromous fish along the Wicklow/Wexford coast. Other protected species, where they may occasionally frequent the area, will not be prevented from moving through the site and will likely passage around the site.

7. The appellant maintains the granting of the licence did not take into consideration the size of the development.

Review of Ministerial documentation by the technical review process has confirmed that in making the decision to grant aquaculture and foreshore licences for the development, the Minister took into account the size and orientation of the development along with relevant commentary in this context from the Marine Engineering Division.

8. The appellant maintains the granting of the licence did not consider objectively the impact a development of this size would have on an area acknowledged to be the most amongst the most valuable and sensitive resources in the county.

Review of the Departmental file confirms that in making the decision to grant aquaculture and foreshore licences, the Minister took into account all submissions from the technical consultation, statutory consultation and public consultation stages of the application process. In particular, it was noted that public access to recreational and other activities can be accommodated by the project. Marine Engineering Division explicitly considered the visual amenity value of the area and concluded that the site is not highly visible and the development will not impact on any views or prospects of Significant Amenity Value or Special Interest. No submission from the

local authority was received in the context that the development might impact significantly on the valuable coastal resource.

9. The appellant maintains that as a newly proposed development no studies were submitted on the existing habitats or species present and that there has been no assessment of the possible impact on the local area.

The site is not within an area designated under the Natura 2000 network of sites. The geophysical and hydrographic survey reports submitted by the applicant together with existing bathymetric data provide adequate information to understand the type of habitat present at the location of the proposed aquaculture site in order to assess potential impacts of the proposed project in accordance with the requirements of the EU Habitats Directive and EIA.

The Marine Institute on behalf of Department of Agriculture, Food and the Marine has assessed the proposed project relative to the local area (i.e. Natura 2000 sites and the marine environment) and concluded that there would be no adverse impact on sensitive habitats or species in Natura 2000 sites or the marine environment and the quality status of the area will not be adversely impacted. Therefore further habitat and species surveys of the site were not considered necessary.

10. The appellant maintains no evidence was provided to show there was sufficient mussel seed produced locally to seed a shellfish farm of 76-Ha.

The applicant has monitored mussel larvae presence in water samples for an extended period of time prior to selecting the site. Additional data in relation to the abundance of seed mussel and mussel larvae in the Arklow area is available from BIM. All data indicate abundant levels of mussel larvae. Being a site that is characterised by strong tidal currents and high levels of water exchange, planktonic mussel larvae will be circulated through the site along with tidally driven exchange of waters through the site. The implication of this is that a near continuous supply of planktonic larvae will pass through the site, subject to seasonal peaks and lows in abundance as mussels spawn over an extended period in different parts of the Irish Sea. In order to optimise production, as much settlement surface as possible needs to be provided for larvae and the scale of the proposed development is thus necessary and justified. Available evidence and economic considerations support the development of the project over the specified 66ha.

10.0 Recommendation of Technical Advisor with Reasons and Considerations.

The grounds for appeal (substantive issues) have been considered, evaluated and responded to in previous sections of the evaluation report. The reasoning and considerations of the Technical Advisor with respect to the appeal are provided below and a final recommendation to the Board follows.

The substantive issues raised by the appellant have been considered and reviewed in detail during the technical review process. None of the grounds for appeal as stated in the Notice of Appeal have been found to be factual or an accurate analysis of the application process or, where relevant, a probable outcome of licensing the site that the Minister has overlooked. In terms of environmental and ecological issues raised by the appellant, the suggested damage that the appellant infers will likely arise as a consequence of the granting of the licences have not withstood the analysis of the Technical Review and the application process has given due consideration to environmental and ecological concerns in granting the licences.

Accordingly, analysis of the best information available at time of review confirms that granting of the aquaculture and foreshore licences that are the focus of the present appeal is consistent with all legal requirements and has taken into consideration all submissions from expert technical and statutory entities, as well as submissions from the public consultation phase.

It is therefore recommended that the aquaculture licence application that the Ministers decision to grant aquaculture and foreshore licences in this instance be upheld.

11.0 Draft Determination Refusal /or Grant

It is recommended that the Minister's decision to grant aquaculture and foreshore licences in respect of the applications for site reference T33/27 be upheld.

Technical Advisor: MERC Consultants

Date: 29.4.2018

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