

Aquaculture Licences Appeals Board

Technical Advisor's Report – Shellfish Appeals

Appeal Ref No. **AP1/2023**

Appeal description:

Appeal by Peter Sweetman (on behalf of Wild Ireland Defence) against the decision of the Minister for Agriculture, Food and the Marine to grant an aquaculture licence to Conor O Malley for authorisation to cultivate blue mussels on longlines on the sub-tidal foreshore on a 6.58 hectare site (T09/524A) on the north shore of Cleggan Bay, Co. Galway

Technical Advisor:

Dr Ciar O'Toole

Date of site inspection:

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1.0 General Matters / Appeal Details

1.1 Licence Application

Department Ref No: T09/52A

Applicant: Conor O' Malley

Minister's Decision: To grant an aquaculture licence to Conor O Malley for authorization to cultivate blue mussels on longlines on the sub-tidal foreshore on a 6.58 hectare site (T09/524A) on the north shore of Cleggan Bay, Co. Galway.

1.2 Appeal Details

Date Appeal Received: 24 January 2023

Location of Site Appealed: Site T09/524A, on the north shore of Cleggan Bay, Co. Galway

1.3 Name of Appellant (s):

Peter Sweetman, on behalf of Wild Ireland Defence CLG, North Allihies, Beara, Co. Cork.

1.4 Name of Observer (s)

No submissions were made by third-party observers in relation to appeals AP1/2023.

1.5 Grounds for Appeal

1. Legislative The appellant states that decision of the Minister is not in accordance with the requirements of the Habitats Directive as the development has not been assessed as required.

1.6 Minister's submission

No submissions were made by the Minister under Section 44 of the Act in relation to AP1/2023.

1.7 Applicant response

No submissions were made by the Applicant in relation to AP1/2023.

2.0 Minister's file

The Minister's file was requested on the 8 February 2023 and received by ALAB on 21 February 2023.

It contained:

- Application forms, maps, and drawings
- Submissions from Statutory and Technical consultations
- Submissions from the Aquaculture and Foreshore Management Division to the Minister
- Appropriate Assessment Conclusion Statement for West Connacht Coast SAC
- Notification of Minister's decision to the applicant
- Location map of the surrounding area including licenced sites

The Minister's Determination in relation to Site T09/524A stated:

"The Minister for Agriculture, Food and the Marine has determined that it is in the public interest to grant the licence sought. In making his determination the Minister considered those matters which by virtue of the Fisheries (Amendment) Act 1997, and other relevant legislation, he was required to have regard. Such matters include any submissions and observations received in accordance with the statutory provisions. The following are the reasons and considerations for the Minister's determination to grant the licence sought: -

- a. Scientific advice is to the effect that the waters are suitable.
- b. public access to recreational and other activities can be accommodated by this project.
- c. The proposed development should have a positive effect on the economy of the local area.
- d. All issues raised during Public and Statutory consultation phase.
- e. There are no effects anticipated on the man-made environment heritage of value in the area.
- f. No significant effects arise regarding wild fisheries.
- g. The site is located within the West Connacht Coast SAC Special Area of Conservation. An article 6 Assessment has been carried out in relation to aquaculture activities in the SAC. The Licensing Authority's Conclusion Statement (available on the Department's website) outlines how aquaculture activities in this SAC, including this site, are being licensed and managed so as not to significantly and adversely affect the integrity of the West Connacht Coast SAC.
- h. Scientific observations related to the Appropriate Assessment received during the licensing consultation process are addressed in the Licensing Authority's Appropriate Assessment Conclusion Statement.
- i. Taking account of the recommendations of the Appropriate Assessment the aquaculture activity at this site is consistent with the Conservation Objectives for the SAC.
- j. No significant impacts on the marine environment and the quality status of the area will not be adversely impacted.
- k. The updated Aquaculture licence contains terms and conditions which reflect the environmental protection required under EU and National law."

3.0 Context of the Area

3.1 Physical descriptions

3.1.1 Site Location

Cleggan Bay is located in north-west County Galway (see Figures 1 and 2). The Bay is relatively small, being approximately 4 km long by 1.5 kms wide at its widest point. The main area of habitation is Cleggan village, located along the southern side of the Bay. Cleggan pier provides a ferry access point to Inishbofin Island, located approximately 6 km offshore and Inishturk Island, 15 km to the north.



Figure 1 showing Cleggan Bay in Co. Galway highlighted in red. Taken from Bing Maps 11/01/2023.

There is still fishing activity from Cleggan pier, and the village sees considerable tourism activity during the summer months. The proposed site is located along the northern shore of Cleggan Bay, beside an existing seaweed aquaculture site, as can be seen in Figure 2.



Figure 2 showing the location of the existing (T09/434) and proposed (T09/524) aquaculture sites in Cleggan Bay. Provided by the Aquaculture and Foreshore Management Division of DAFM.

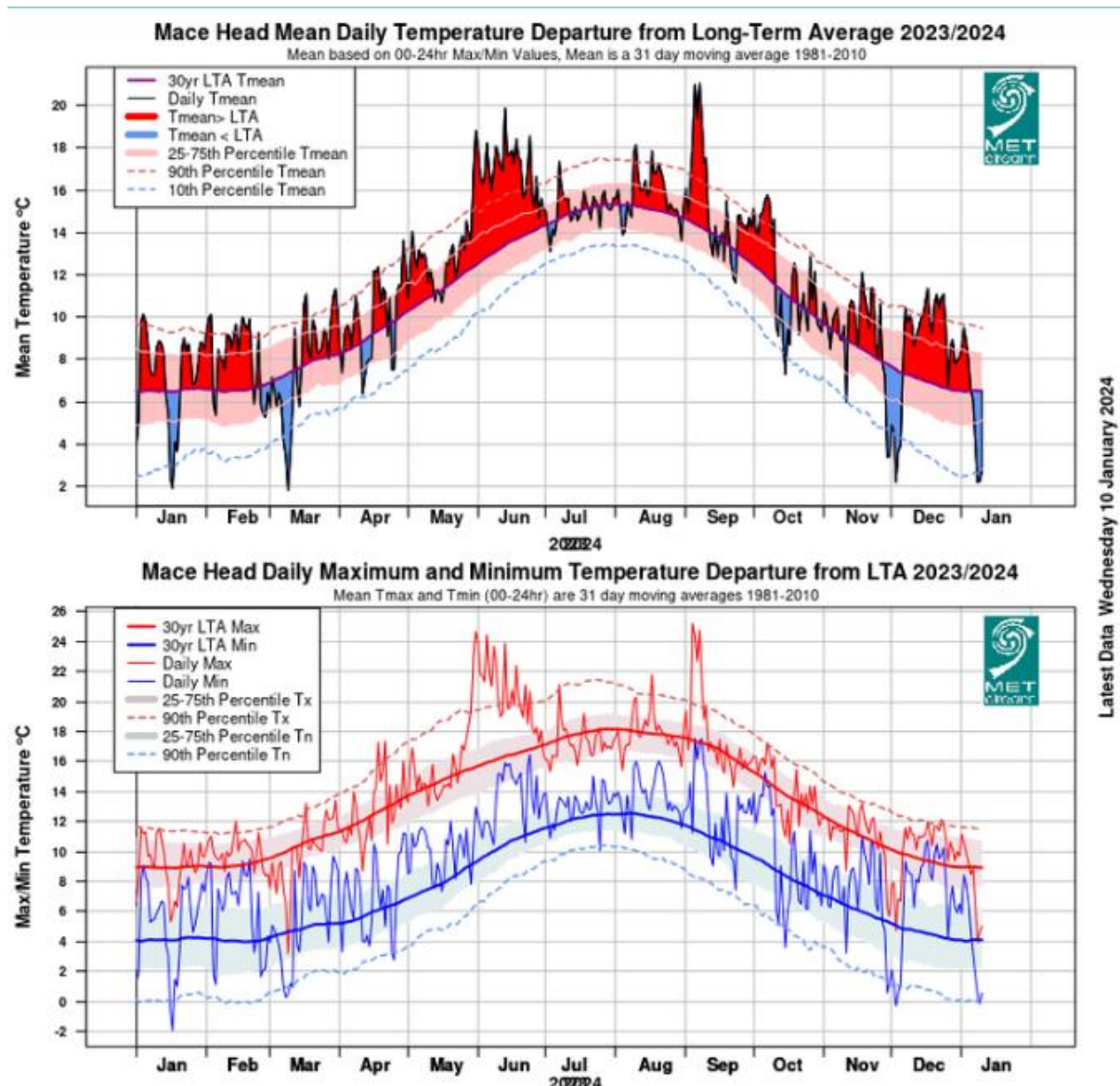
3.1.2 Physical Characteristics

Cleggan Bay has an overall size of approximately 500 hectares and faces north-westward to the Atlantic. There are a number of small streams running into the bay, from various sources. The geology of the area is quite complex. Most of the rocks in the Connemara area are composed of meta-sedimentary rocks. These rocks were originally deposited in a marine environment during a phase of continental tension and crustal thinning beginning around 850 million years ago. Connemara is part of the Dalradian sequence that also occurs in North

Mayo, Donegal and through into western Scotland. There are Precambrian rocks in a very few places exposed by massive faults, including around Cleggan Bay.

3.1.3 Meteorological Conditions

Mace Head is the nearest weather station some 30 km to the south, and the area has a mid-oceanic climate. Rainfall of 1162.1 mm was recorded in 2023. As can be seen from the Figure 3 below the temperature is mild throughout the year normally ranging between average values of 2 and 10 degrees (www.met.ie).



Latest Data Wednesday 10 January 2024

Figure 3 showing average air temperature at mace Head Weather Station. www.met.ie 11/01/2024

3.1.4 Local Population

The area immediately beside the proposed development is very sparsely populated and rural, with 157 people recorded as living in the relevant Statistical Small area in 2022

(www.cso.maps.arcgis.com). The main population centre in the area is Cleggan village, with a population of 147 recorded in 2022.

3.1.5 Land Use

The area in the locality of the Site is primarily agricultural. The electoral division of Cleggan, which the Site is adjacent to had just over 100 hectares being farmed as grassland in 2020, with an estimated 300 cattle and over 2,200 sheep.

3.1.6 Freshwater influence

All streams that empty into Cleggan Bay had a “Good” status during the 2016-2021 Water Framework Directive monitoring period. Cleggan Bay is part of the Western Atlantic Seaboard Coastal Waterbody and had a “High” status during the 2016-2021 Water Framework Directive monitoring period. This Coastal Waterbody was also classified as “Unpolluted” as part of the 2018-2020 National Water Monitoring Programme.

3.1.7 Wastewater Treatment

There are no wastewater treatment plants in the locality, including Cleggan village which has no wastewater treatment or storage facilities. Individual septic tanks or private treatment plants serve local properties, with most septic tank effluent discharging into percolation areas.

3.2 Resource Users

3.2.1 Aquaculture Activity

Currently there is one other existing aquaculture development within Cleggan Bay, a seaweed farm located beside the proposed aquaculture development (See Figure 3).

The proposed development is for mussel aquaculture. The culture of mussels is reliant upon ambient nutrient levels in the water column and does not require the additional input of feed or additives. Mussels are cultured using longlines. A long line is supported by a series of small floats joined by a cable or chain and anchored at the bottom on both ends. Mussel spat (seed) is collected on ropes or strings (droppers), which are suspended on the line. From each of the lines there are a number of dropper lines (up to 5m in length). The depth of the droppers, which is directly related to the quantity of mussels being cultured, is dependent upon a number of factors including water depth, the floatation provided and the carrying capacity of the system.

3.2.2 Angling Activity

Cleggan Pier is a departure point for sea angling boats that fish along the coast and around the nearby islands, including Inishbofin with 30 species of fish being recorded as caught in the area. The Pier is also a shore angling location, with conger eel, rays, dogfish, mullet and pollack recorded.

3.2.3 Tourism and Leisure users

Cleggan is within Connemara, an important tourism area, with Connemara National Park and Cliften close to the village. The village is busy with tourists during the summer season, in particular with people accessing the ferry to Inishbofin.

3.2.4 Commercial Inshore Fishing Activity

Inshore fishing takes place in Cleggan Bay for crayfish and brown crab (Ireland's Marine Atlas, 11/01/2024).

3.2.5 Industrial/Agricultural Activity

There is no heavy industry in the region. Agriculture consists predominately of grazing for sheep and cattle as described in 3.1.4 above.

3.3 Statutory Status

3.3.1 Nature Conservation Designations

Nature Conservation Designations (Natura 2000 sites) are sites designated under the Habitats and Birds Directives. There are two types: Special Areas of Conservation (SAC, habitats and species) and Special Protection Areas (SPA, birds).

Special Areas of Conservation are prime wildlife conservation areas in the country, considered to be important on a European as well as Irish level. The Habitats Directive lists certain habitats and species that must be protected within SACs. The proposed development is within the West Connacht Coast SAC (Site code: 002998). The site is a Special Area of Conservation (SAC) for the Annex II species, the Bottle-nosed Dolphin (*Tursiops truncatus*) [1349]. Nearby SAC sites include Slyne Head Peninsula SAC [002074], Slyne Head Islands SAC [00328], Inishbofin and Inishshark SAC [000278] and The Twelve Bens/Garraun Complex SAC [002031] among others. See the AA Screening report at Appendix 1 for more details.

Special Protected Areas are important bird conservation areas, considered important on a European and Irish level. Nearby SPA sites with potential overlap include High Island, Inishshark and Davillaun SPA [004144], Clare Island SPA [004136], Lough Carra SPA [004051], Lough Mask SPA [004062] and the Connemara Bog Complex SPA [004181] among others. See the AA Screening report at Appendix 1 for more details.



Figure 4 showing Cleggan Bay within the West Connacht Coast Special Area of Conservation, along with other Natura 2000 sites in the area (shown by red hatched lines). Taken from Aquamis Aquaculture Viewer, 11/01/2024.

The Marine Institute on the behalf of the Department of Agriculture, Food and the Marine (DAFM) produced an Appropriate Assessment Screening Report for aquaculture activity in the West Connacht Coast SAC entitled “Report Supporting Appropriate Assessment of Suspended Aquaculture in West Connacht Coast SAC (Site code: 002998)”. There was no corresponding Finding of Significant Effects report, although the Screening Report concluded that there was no likely significant impact of the proposed development on protected species.

The Marine Institute’s Screening Report only considered Special Protected Area (SPA) sites within 15km of the proposed development, did not consider the foraging range of Special Conservation Interest (SCI) Species from SPA sites located at a greater distance from the sites, and did not fully consider the in-combination effects of all species from nearby SAC and SPA sites. Therefore, a follow up assessment was carried out by the ALAB technical advisor entitled “Appropriate Assessment of proposed Aquaculture Activity in Cleggan Bay for site application T09/524A (AP1/2023) – consideration of Special Areas of Conservation and Special Protection Areas” and is attached to this report (Appendix 1).

3.3.2 Protected Species

There are a range of protected species recorded in the Cleggan Bay area, based on records from Biodiversity Ireland in the last twenty years, including insects, birds, marine mammals, otters and flowering plants (<https://maps.biodiversityireland.ie/Map> [Accessed on 11/01/2024]). Animals with a potential overlap with the marine environment, or a presence within the marine environment are listed in the following tables.

Table 1 showing protected aquatic bird species recorded in the Cleggan bay area.

Species name	Count record	Date of last record	EU Birds Directive	Birds of Conservation Concern	Wildlife Act
Black Guillemot (Cepphus grylle)	1	31/12/2011		Amber List	Protected Species
Common Sandpiper (Actitis hypoleucos)	2	31/12/2011		Amber List	Protected Species
Common Snipe (Gallinago gallinago)	1	31/12/2011	Annex II and III	Amber List	Protected Species
Eurasian Curlew (Numenius arquata)	1	31/12/2011	Annex II	Red List	Protected Species
Eurasian Oystercatcher (Haematopus ostralegus)	1	31/12/2011		Amber List	Protected Species
Eurasian Teal (Anas crecca)	2	31/12/2011	Annex II and III	Amber List	Protected Species
Eurasian Wigeon (Anas penelope)	1	31/12/2011	Annex II and III	Amber List	Protected Species
European Golden Plover (Pluvialis apricaria)	1	31/12/2011	Annex I, II and III	Red List	Protected Species
European Shag (Phalacrocorax aristotelis)	1	31/12/2011		Amber List	Protected Species
Great Black-backed Gull (Larus marinus)	1	31/12/2011		Amber List	Protected Species
Great Cormorant (Phalacrocorax carbo)	1	31/12/2011		Amber List	Protected Species

Great Northern Diver (<i>Gavia immer</i>)	1	31/12/2011	Annex I		Protected Species
Herring Gull (<i>Larus argentatus</i>)	2	31/12/2011		Red List	Protected Species
Little Grebe (<i>Tachybaptus ruficollis</i>)	2	31/12/2011		Amber List	Protected Species
Mallard (<i>Anas platyrhynchos</i>)	3	31/12/2011	Annex II and III		Protected Species
Mew Gull (<i>Larus canus</i>)	2	31/12/2011		Amber List	Protected Species
Mute Swan (<i>Cygnus olor</i>)	5	04/06/2019		Amber List	Protected Species
Northern Lapwing (<i>Vanellus vanellus</i>)	1	31/12/2011	Annex II	Red List	Protected Species
Red-throated Diver (<i>Gavia stellata</i>)	1	31/12/2011	Annex I	Amber List	Protected Species
Ringed Plover (<i>Charadrius hiaticula</i>)	2	31/12/2011		Amber List	Protected Species
Tufted Duck (<i>Aythya fuligula</i>)	1	31/12/2011	Annex II and III	Amber List	Protected Species
Whooper Swan (<i>Cygnus cygnus</i>)	1	31/12/2011	Annex I	Amber List	Protected Species

Table 2 showing protected marine species recorded in the Cleggan bay area.

Species group	Species name	Count record	Date of last record	EU Habitats Directive	Wildlife Act	Other Designation
Cartilaginous fish (<i>Chondrichthyes</i>)	Basking Shark (<i>Cetorhinus maximus</i>)	1	23/04/2020			OSPAR - Threatened
Marine mammal	Bottle-nosed Dolphin (<i>Tursiops truncatus</i>)	1	20/12/2004	Annex II and IV	Protected Species	
Marine mammal	Common Dolphin (<i>Delphinus delphis</i>)	1	02/02/2015	Annex IV	Protected Species	

Marine mammal	White-beaked Dolphin (Lagenorhynchus albirostris)	1	12/12/2004	Annex IV	Protected Species	
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3.3.3 Statutory Plans

Cleggan Bay is not not the subject of a statutory plan in its own right but is covered under the most recent County Development Plan for Galway, the Galway County Development Plan 2022-2028, which has the following relevant policy objectives:

Marine and Coastal Tourism:

- To protect beaches, and bathing areas as valuable local amenities and as a tourism resource and support the maintenance, protection and improvement of access to these amenities.
- To encourage the development of coastal tourism in areas such as water sports and water-related activities and events subject to normal planning and environmental criteria.
- To support proposals for tourism development in coastal areas where it can be demonstrated that there will be no negative impacts on the amenities of the area, the integrity of the natural, environment or the economic value of the County's coastline and beaches.
- To continue to work with An Taisce, the local community and other relevant stakeholders to retain and increase the number of Blue Flag awards in the County.
- To support the protection and enhancement of our islands, coastline and waterways as tourism products and attractions, subject to community and environmental carrying capacity.
- To support proposals that improve the existing network of coastal walks within the county in accordance with environmental considerations.

Marine Planning Framework:

- To seek to implement the policy objectives as set out within the National Marine Planning Framework to support the effective management of marine activities and more sustainable use of the county's marine resources.

Marine and Coastal Development:

- To protect the special character of the coast by preventing inappropriate development, particularly on the seaward side of coastal roads. New development, wherever possible, shall be accommodated within existing developed areas and shall be climate resilient in its location and design.

- To strictly control the nature and pattern of development within coastal areas and ensure that it is designed and landscaped to the highest standards and sited appropriately so as not to detract from the visual amenity of the area.

Marine and Coastal Economy:

- To support development and growth of the maritime economy and balance the competing demands for available space along the coast by different users and encourage co-location and co-existence of activities and infrastructure while having regard to appropriate environmental considerations.

Aquaculture and Fishing:

- To support the sustainable development of marine aquaculture and fishing industries, so as to maximise their contribution to jobs and growth in coastal communities where it can be demonstrated that the development will not have significant adverse effects on the environment.
- To continue to work with local communities, relevant stakeholders and with the Department of Agriculture, Food and Marine to ensure the proper and successful implementation of the Shellfish Waters Directive along County Galway's coastline.
- To seek to protect the quality of designated shellfish waters off the County Galway coast.

Marine and Coastal Heritage:

- To prevent where possible marine development from compromising the quality and significance of marine culture and heritage in accordance with proper planning and sustainable development.
- It is a policy objective of the Local Authority to protect and enhance where appropriate marine biodiversity in accordance with proper planning and sustainable development.

Marine and Coastal Challenges:

- Protect the amenity, character, visual, recreational, economic potential, and environmental values of the coast. Ensure that natural coastal defences including sand dunes, beaches and coastal wetlands are not compromised by inappropriate development.
- To strictly control the nature and pattern of development within coastal areas and ensure that it is designed and landscaped to the highest standards and sited appropriately so as not to detract from the visual amenity of the area.
- Development shall be prohibited where the development poses a significant or potential threat to coastal habitats or features, and/or where the development is likely to result in altered patterns of erosion or deposition elsewhere along the coast.
- To prohibit development along the coast outside existing towns and villages where such development is not adequately safeguarded over the lifetime of the development without the need to construct additional coastal defences.
- It is a policy objective to protect the Coastal Area through the following measures:(a) Ensure that conservation works undertaken in coastal areas are in accordance with best practice and measures to protect the coast, the coastal edge and coastal habitats

are supported;(b) Seek to prevent the unauthorised removal of sand and related beach material; (c) Protect, enhance and conserve beaches in the County from inappropriate development and seek to maintain the current status of the designated Blue Flag beaches and Green Coasts and to increase the number of beaches and coasts holding this status in the future;(d) Facilitate an Integrated Coastal Zone Management approach to ensure the conservation, management and protection of man-made and natural resources of the coastal zone.

- Support the preparation of an Integrated Galway Bay Framework Management Plan by all relevant stakeholders to provide for the sustainable and integrated development of the Galway Bay Area in a coordinated manner.

3.3.4 Water Quality Status

Cleggan Bay is recorded as a High value Coastal Waterbody with an Unpolluted status under the 2013-2018 Water Framework Directive reporting cycle and is deemed not at risk of further deterioration during the current cycle. This designation is based on extrapolated data. Freshwater influences into the Bay are rated as Good under the current WFD cycle, see Section 3.1.5 for more details (www.gis.epa.ie).

3.3.5 Bathing Water Quality

The nearest bathing water areas are Omey Island Strand or Dumhah on Inishbofin, Bathing water quality at both beaches was recorded as excellent from 2019 to 2023 (beaches.ie, accessed on 11/01/24).

3.3.6 Shellfish Designated Areas

The nearest Designated Shellfish Waters are Ballynakill Harbour and Killary Harbour to the north and Streamstown and Cliften Bay to the south. Cleggan Bay is not a Designated Shellfish Water under SI No 268 of 2006 and (Amendments), European Communities (Quality of Shellfish Waters) Regulations.

3.3.7 Shellfish Classified Areas

The nearest Shellfish Classified Production Areas managed by the SFPA are Ballynakill Harbour and Killary Harbour to the north and Streamstown and Cliften Bay to the south. Cleggan Bay has no area designated as a Shellfish Classified Production Area.

3.4 Man-made heritage

A search of the Historic Environment Viewer (Archaeological Survey of Ireland <https://webgis.archaeology.ie/historicenvironment/> [accessed on 11/01/2024]) identified some land-based features of historical note in the immediate area of the proposed development including:

- The remains of a Megalithic tomb on the north shore of Cleggan Bay

- Cleggan House, located on the north shore of Cleggan Bay
- A signal tower Situated at the east edge of the summit area of Cleggan Hill

In Cleggan Bay itself, there are no shipwrecks noted on Wreck Viewer [accessed on 11/01/2024].

4.0 Environmental Impact Assessment.

An Environmental Impact Assessment (EIA) must be carried out by the Board in respect of an appeal of:

- (a) aquaculture of a class specified in Regulations 5(1)(a), (b), (c) or (d) of the Aquaculture (Licence Application) Regulations 1998 as amended;
- (b) intensive fish farming of a class specified in Annex II of the EIA Directive 2011/92/EU as amended by Directive 2014/52/EU which the Board determines would be likely to have significant effects on the environment.

The proposed aquaculture the subject of the appeal is not of a class specified in Regulations 5(1)(a), (b), (c) or (d) of the Application Regulations.

In addition, it is not “intensive fish farming” for the purposes of Annex II of the EIA Directive. As the proposed aquaculture is not a class of project specified in Annex II of the EIA Directive, there is no requirement to carry out a screening for EIA or EIA.

5.0 Screening for Appropriate Assessment.

In November 2021, the Marine Institute on the behalf of the Department of Agriculture, Food and the Marine (DAFM) produced an Appropriate Assessment Screening Report for aquaculture activity in the West Connacht Coast SAC entitled “Report Supporting Appropriate Assessment of Suspended Aquaculture in West Connacht Coast SAC (Site code: 002998)” There was no corresponding Finding of Significant Effects report, although the Screening Report concluded that:

“The screening assessment investigates the potential for suspended aquaculture activities to have significant effects on the conservation interests of the West Connacht Coast SAC [Site Code 002998] and adjacent Natura sites within the Natura 2000 network. The screening assessment has determined, in light of best available scientific data, that there is no potential for significant effects of proposed or existing suspended aquaculture activities (i.e., mussel and macro-algal culture) on the following Qualifying Interests of Site 002998:

- *Tursiops truncatus (Common Bottlenose Dolphin) [1349]*

The likelihood of significant ex-situ effects on Qualifying Interests of adjacent SAC and SPA sites have also been excluded (screened out)."

The Marine Institute's Screening Report only considered Special Protected Area (SPA) sites within 15km of the proposed development, did not consider the foraging range of Special Conservation Interest (SCI) Species from SPA sites located at a greater distance from the sites, and did not fully consider the in-combination effects of all species from nearby SAC and SPA sites. Therefore, a follow up assessment was carried out by the ALAB technical advisor entitled "Appropriate Assessment of proposed Aquaculture Activity in Cleggan Bay for site application T09/524A (AP1/2023) – consideration of Special Areas of Conservation and Special Protection Areas" and is attached to this report (Appendix 1) along with an accompanying Finding of No Significant Effect Report.

There were no negative impacts identified in terms of the proposed **activity** on any of the SAC sites or any of the SPA sites considered. Therefore, it is the opinion of the Technical Advisor that that the proposed activity at the proposed site has no potential for significant effects and is not likely to have any significant deleterious effects, either individually, or in combination with other plans or projects, on SCI species or conservation objectives for any SPA and SAC sites concerned and as such, will not adversely affect the integrity of any SPA and SAC sites. I confirm my AA screening conclusion that a full appropriate assessment is not required as it can be excluded on the basis of objective scientific information following screening, that the proposed activity, individually or in combination with other plans or projects, will have a significant effect on any of the European sites listed in Section 1.5 of the ALAB AA Screening Report (Appendix 1).

6.0 Section 46 and Section 47 Notices

No Section 46 or Section 47 Notices were issued in relation to this appeal.

7.0 Screening for Climate Change Impacts

While the coastline in general is considered to be one of the most vulnerable areas in relation to the impacts of climate change, this site is relatively sheltered within a bay. The proposed development has sufficient mooring weight to withstand winter storms and has been signed off as suitable by the Department's Marine Engineering Division. This development will not be at risk due to flooding or erosion due to extreme climate events due to its type and location.

8.0 Section 61 Assessment

Section 61 (a-e) of the Act outlines the matters which the licensing authority shall take account of when an application for or an appeal regarding an aquaculture licence is being considered. This section is used to assess the impact of the proposed aquaculture development under these headings, which are listed in 8.1 – 8.7 below.

8.1 Site Suitability

Section 61 (a) considers the suitability of the site at or in which the aquaculture is proposed to take place. The site of the proposed development is located on the north shore of Cleggan Bay, alongside an existing aquaculture site and out of the main navigation channel (Figure 5). It is approximately 6.58 hectares in size.

There were no particular issues raised relating to site suitability during the appeals process or during the Minister's assessment by members of the public or by the statutory consultees. The SFPA raised a query regarding the lack of wastewater treatment facilities in the area. However, it is noted by them that the development is at a suitable distance from Cleggan village.

The general area is used for inshore fishing and the ferry route to Inishbofin passes by the proposed development but will not be impeded by it. No objections were raised in relation to the use of existing fishing grounds by this proposed development.

The proposed deployment of longlines in this area for mussel cultivation would be considered to be of low visual impact as assessed by the Marine Engineering Division, and similar to the visual impact of the neighbouring existing development. Views of the site are limited from local scenic routes, the nearest being across the bay at a distance of over one km. Figures 6 and 7 show the view of the site from Cleggan Pier and the head of the bay respectively. The technical advisor feels this proposed development will have a very low visual impact.



Figure 5 showing the location of the existing (T09/434) and proposed (T09/524) aquaculture sites in Cleggan Bay. Provided by the Aquaculture and Foreshore Management Division of DAFM.

Shore angling in the area would not be impacted by the proposed development, and boat angling and leisure tourism primarily uses Cleggan Pier as an access point rather than using Cleggan Bay itself for fishing or leisure activities. The proposed development will not impact these activities.



Figure 6 showing view across the bay from Cleggan Pier towards approximate site location.

This site is **suitable** for the proposed development for the following reasons:

- The area is a sheltered part of the bay and none of the statutory consultees had any major concerns regarding navigation or maritime safety.
- The isolated location of the proposed development and their low profile in the water means they would not be expected to be visually intrusive.
- The proposed site location would not interfere with any current tourism activities in the area, including shore angling.

The site under appeal is therefore **considered suitable** for the intended purpose.



Figure 7 showing view across the bay from Cleggan Pier towards approximate site location.

8.2 Other uses

Section 61 (b) takes account of other beneficial uses, both in existence or future in the area and / or waters of the proposed site.

The other users identified of the Sites under appeal are shore anglers and inshore fishermen. As described in Section 8.1, inshore anglers are unlikely to be impacted given the distance between the shore and the location of the proposed development. Inshore fishermen may be somewhat impacted, but no objections have been raised in relation to this.

Therefore, the proposed development would overall **not have a significant adverse impact** on the possible other uses or users of the area.

8.3 Statutory Status

Section 61 (c) considers the statutory status of the area under consideration including the provisions of any development plan. There are no specific statutory or development plans for Cleggan Bay. Aquaculture and fishing are however considered under the Galway County Development Plan 2022-2028. This aims to find a balance between supporting the sustainable development of the operations of the fishing and aquaculture industry while protecting and preserving the biodiversity and ecosystems in our oceans.

Water quality in the bay and in water sources contributing to it have been recorded as “high” or “good” status under Water Framework Directive testing.

Appropriate Assessment screening has been carried out (See Appendix 1 for the ALAB AA Screening Report) on the proposed aquaculture site in relation to the surrounding Natura 2000 sites. This screening assessment determined that there were no Likely Significant Effects on the SCIs or Qualifying Interests of the adjacent Natura 2000 sites from the development of the proposed site.

The low profile of the development in the bay means it is highly unlikely to have any significant visual impact in this area, as discussed in Section 8.1.

It is the considered opinion of the Technical Advisor that given the low levels of proposed aquaculture within the bay and the results of the AA screening process, that the proposed site would have **no significant negative impact** on the statutory status of the Bay.

8.4 Economic effects

Section 61 (d) takes into account the likely effect a proposed aquaculture development (or its amendment / revocation) would have on the economy of the area in which the aquaculture is to be located. The proposed development would have a positive economic impact for the applicant and the local area.

Therefore, this development is likely to have **a positive economic impact** on the economy of the area.

8.5 Ecological Effects

Section 61 (e) considers the likely effect that the proposed aquaculture operation would have on wild fisheries, natural habitats and the fauna and flora of the area. Mussel aquaculture is considered extensive aquaculture, which does not require the addition of feed to the environment.

Mussel aquaculture can potentially have an unquantified positive impact on an area in terms of removing excess nutrients from the water column and the long lines themselves can provide extra substrate and shelter for other marine creatures, for example, shelter for juvenile fish species. Sediment loading directly under a mussel farm due to faecal discharge is a concern in areas of low tidal flushing and where habitats are sensitive to sedimentary loading. The site in Cleggan Bay is not a recognized sensitive habitat and is classified as Infralittoral mixed sediment on Marine Atlas (www.marineatlas.ie). The current regime in the area is also reasonable for the proposed development given the density of the proposed site, as assessed by the Marine Engineering Division.

The potential for significant impacts on protected species and habitats has been considered **and excluded** under Section 5 and Section 8.3 above.

The movement of stock and equipment in and out of the water can encourage the transport of non-native and / or invasive species either through the introduction via seed and /or from boats /vehicles moving between sites. The appealed site propose to use local/native stock. It is the considered opinion of the technical advisor that there is no significant impact posed by this application with regards to the introduction of the non-native species into Cleggan Bay as the proposed species to be cultivated is native and will be sourced within Ireland.

Overall, **no significant impact on the ecology of the area** is predicted by the proposed development.

8.6 General Environmental Effects

Section 61 (f) considers any other effects on the environment in general that could occur in the vicinity of the area where the proposed site is to be located. The establishment of mussel cultivation could potentially improve the water quality within the Bay by removing suspended particles and excess nutrient input from agricultural runoff and wastewater discharges. It can also reduce the quality of benthic habitat directly underneath the site due to faecal discharge and settlement. However, Cleggan Bay is not regarded as an area with excess nutrient levels in the water column. The physical placement of mooring anchors and cages will potentially

increase the local biodiversity of the site by providing varied areas within the water column for marine species to settle and develop upon.

The physical placement of mooring anchors on the seafloor can potentially alter the benthic habitats in terms of species disturbance and distribution, however at the scale proposed within these applications this is considered to be localised to the areas of the structures and considered not likely to affect the overall benthic habitats within the Bay.

It is considered that the proposed application will not pose significant environmental effects within the Bay or in the wider area. There are no significant predicted impacts from pollution sources or changes to hydrological functioning of the site. The proposed aquaculture activities are extensive in nature, in that they do not require the addition of feedstuffs or medicinal inputs and rely wholly on the natural resources within the Harbour.

No significant environmental effects of the proposed development on the site or surrounding area has been found during the technical review.

8.7 Effect on man-made heritage

There is no predicted impact on known terrestrial or marine man-made heritage sites located around Cleggan Bay. There would be **no effect on the man-made heritage** of value in the area as a result of the proposed operations.

8.8 Section 61 Assessment Conclusions

In conclusion, the Section 61 assessment finds that **the site is deemed suitable for the proposed development** on the grounds of site suitability, impacts on other users, statutory status, ecological and environmental impacts, economic impact and effect on man-made heritage, as outlined in Sections 8.1 to 8.7 above.

8.9 Confirmation re Section 50 Notices

Under Section 50 of the Fisheries (Amendment) Act the Board can take into account matters other than those raised by the parties or by any person who has made submissions or observations to the Board if they are matters to which under section 61, the Board may have regard. However, the same section also obliges the Board, if it does intend to take into account such matters, to give notice in writing to the parties and to persons who made submissions and observations, in accordance with section 50 (2) of the 1997 Act.

The Technical Advisor is of the opinion that there are no matters which arise in Section 61 which the Board ought to take into account which have not been raised by the parties or by any person who has made submissions or observations to the Board in the appeal documents before the Board, and it is not necessary to give notice in writing to any parties in accordance with section 50 (2) of the 1997 Act.

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

AP1/2023		
Issue	Appellant Comments	Technical Advisor’s Response
Legislative	The appellant states that decision of the Minister is not in accordance with the requirements of the Habitats Directive as the development has not been assessed as required.	<p>Deficiencies were found in the original AA Screening report as carried out by the Marine Institute. The technical advisor has re-screened the proposed development (ALAB AA Screening Report, Appendix 1), and found that the culture of mussels using longlines at Site T09/524A proposed for Cleggan Bay does not pose significant risk to any of the Annex II or the SCI species considered from any of the Natura 2000 sites considered, either alone or in combination with any other activities.</p> <p>Consequently, it is concluded that a full appropriate assessment is not required for the culture of mussels using longlines at Site T09/524A proposed for Cleggan Bay as it can be excluded on the basis of objective scientific information following screening, that the proposed activity, individually or</p>

		in combination with other plans or projects, will not have a significant effect on any of the European sites listed in Section 1.5 of the ALAB AA Screening Report (Appendix 1).
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It should be noted that the consideration and determination of an appeal by the Board is considered to be “de novo”, which means that it is generally based on the facts and circumstances as they pertain at the time of the Board’s determination. The Technical Advisor has taken this under consideration when assessing this Appeal.

10.0 Oral Hearing Assessment

In line with Section 49 of the Fisheries Amendment Act 1997 an oral hearing may be conducted by the ALAB regarding the licence appeals.

At this time an oral hearing has not been requested by the appellant.

It is considered, by the advisor, that an Oral Hearing is not required for this application as there is no outstanding conflicting technical information on relevant and significant aspects of the appeals which have not been resolved.

11.0 Recommendation of Technical Advisor with Reasons and Consideration

It is the recommendation of the Technical Advisor **to agree with the decisions of the Minister to grant a Licence** for Site T09/524 for the reasons below:

The site is **suitable** for the proposed development for the following reasons:

- The area is a sheltered part of the bay and none of the statutory consultees had any major concerns regarding navigation or maritime safety.
- The isolated location of the proposed development and its low profile in the water means it would not be expected to be visually intrusive.
- The proposed site location would not interfere with any current tourism activities in the area, including shore angling.
- It has not been found to impact other users
- It has not been found to contravene the statutory status, including considerations of the Birds and Habitats Directives

- It will have a positive impact on the local economy
- It will not have a significant negative ecological or environmental impact
- It will not have a negative impact on the man-made heritage of the area.

Technical Advisor: Dr Ciar O'Toole

Date: 22 January 2024

Appropriate Assessment of proposed Aquaculture Activity in Cleggan Bay for site application T09/524A (AP1/2023) – consideration of Special Areas of Conservation and Special Protection Areas
Updated January 2024

Dr Ciar O’Toole, 22 January 2024

1.1 Brief description of Project or Plan

Licence application to cultivate blue mussels on longlines on the sub-tidal foreshore on site T09-524A on the north shore of Cleggan Bay, Co. Galway. Mussels are cultured using longlines. A long-line is supported by a series of small floats joined by a cable or chain and anchored at the bottom on both ends. Mussel spat (seed) is collected on ropes or strings (droppers), which are suspended on the line. From each of the lines there are a number of dropper lines (up to 5m in length). The depth of the droppers, which is directly related to the quantity of mussels being cultured, is dependent upon a number of factors including water depth, the floatation provided and the carrying capacity of the system.

This site was previously screened for Appropriate Assessment by the Marine Institute in November 2021 on behalf of the Department of Food, Agriculture and the Marine. A review by ALAB found some gaps in that assessment resulting in a new screening process being undertaken here.

There are five existing licensed sites for aquaculture and one application within West Connacht Coast SAC:

1. T10/058A – finfish – licensed (Clare Island).
2. T09/143A – finfish – licensed (Killary).
3. T09/132A – finfish – licensed (Ballinakill).
4. T09/434A – longline seaweed- licensed (Cleggan Bay).
5. T09/492A – longline mussels – licensed (Ballinakill); and
6. T09/524A – longline mussels – application (Cleggan Bay).

There were no other pending applications for aquaculture or foreshore licences (www.gov.ie) at the time this AA screening was carried out.

The MI AA report referenced above assessed the potential impact of the three licences/licence applications listed as numbers 4-6 above without considering potential in-combination impacts of licences 1-3.

This screening report assesses the licence application as listed at number 6 above, T09/524A and potential in-combination impacts of all other licensed sites in the bay, listed as 1-5 above, along with other relevant potential impacts.

1.2 Brief description of Natura 2000 site

West Connacht Coast Special Area of Conservation (SAC) (Site code: 002998, NPWS, 2015) consists of two large bodies of marine waters off the coasts of Mayo and Galway (see Figure 1). The site is a Special Area of Conservation (SAC) for the Annex II species, the Bottle-nosed Dolphin (*Tursiops truncatus*) [1349]. For more detail see NPWS (2015) Conservation Objectives: West Connacht Coast SAC 002998. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

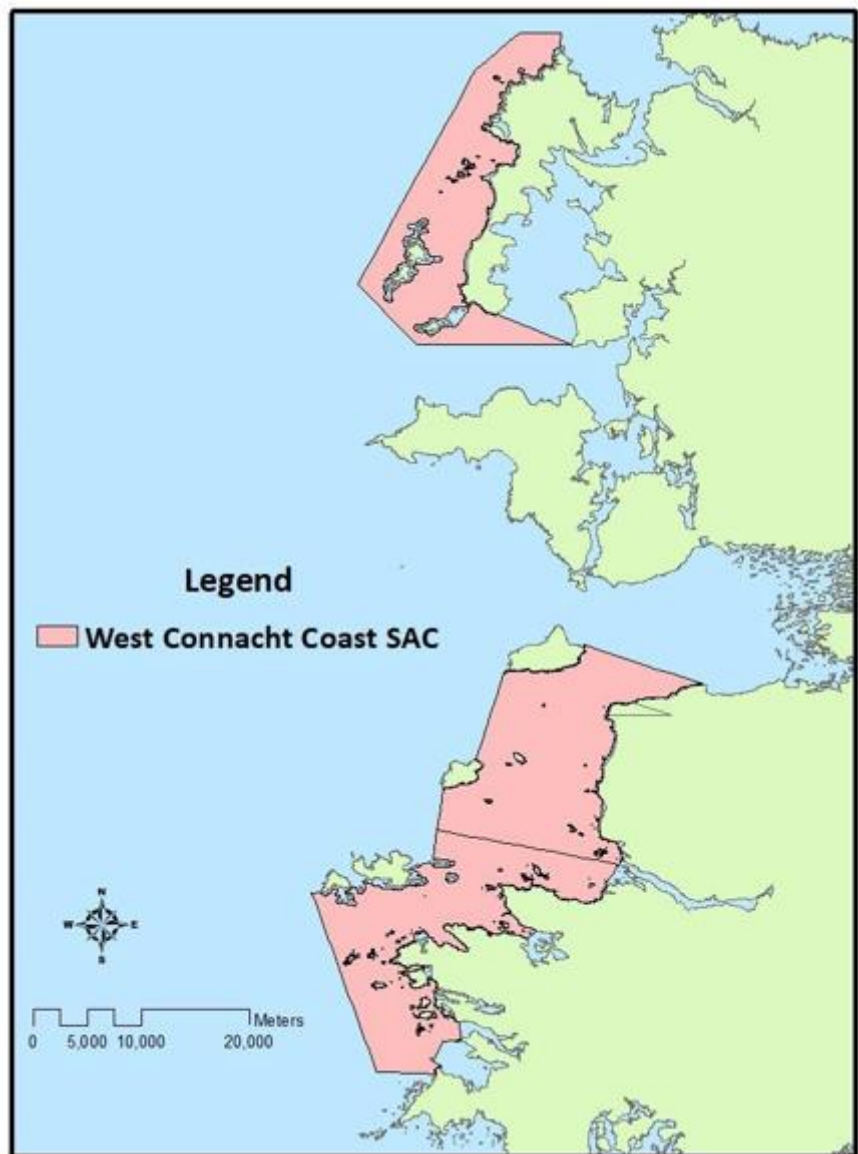


Figure 1: West Connacht Coast SAC (002998), taken from MI AA report, 2021.

1.3 Relevant prescribed bodies consulted:	See DAFM file submitted to ALAB on 21 February 2023 and Marine Institute AA report of November 2021 entitled “Report Supporting Appropriate Assessment of Suspended Aquaculture in West Connacht Coast SAC (Site code: 002998)” (“MI AA report”)
1.4 Response to consultation:	See DAFM file submitted to ALAB on 21 February 2023 and MI AA report

1.5 Identification of relevant Natura 2000 sites using Source-Pathway-Receptor model and compilation of information on Qualifying Interests.

European Site (code)	List of Qualifying Interest/Special Conservation Interest	Distance from proposed development (km)	Connections (Source-Pathway-Receptor)	Considered further in screening Y/N
SAC sites				
West Connacht Coast SAC [002998] NPWS (2015) Conservation Objectives: West Connacht Coast SAC [002998] Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht	<i>Tursiops truncatus</i> (Common Bottlenose Dolphin) [1349]	0km – site is within SAC	Site development and use within SAC	Y
Slyne Head Peninsula SAC [002074]	<i>Tursiops truncatus</i>	Approx. 17.5 km straight line	Within foraging range of QI species	Y

<p>NPWS (2015) Conservation Objectives: Slyne Head Peninsula SAC 002074. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht</p>	<p>(Common Bottlenose Dolphin) [1349]</p> <p>See NPWS (2015) Conservation Objectives: Slyne Head Peninsula SAC 002074. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht for list of other QI species and habitats – all with no Source-Pathway-Receptor link to proposed development</p>	<p>distance at nearest point</p>		
<p>Slyne Head Islands SAC [00328]</p> <p>NPWS (2015) Conservation Objectives: Slyne Head Islands SAC [00328] Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht</p>	<p><i>Tursiops truncatus</i> (Common Bottlenose Dolphin) [1349]</p> <p><i>Halichoerus grypus</i> (Grey Seal) [1364]</p> <p>Reefs [1170]</p>	<p>Approx. 15 km straight line distance at nearest point</p>	<p>Within foraging range of both QI species</p>	<p>Y</p>
<p>Inishbofin and Inishshark SAC [000278]</p> <p>NPWS (2015) Conservation</p>	<p><i>Halichoerus grypus</i> (Grey Seal) [1364]</p> <p>See NPWS (2015) Conservation</p>	<p>Approx. 6 km straight line distance at nearest point</p>	<p>Within foraging range of QI species</p>	<p>Y</p>

<p>Objectives: Inishbofin and Inishshark SAC 000278. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht</p>	<p>Objectives: Inishbofin and Inishshark SAC 000278. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht for list of other QI species and habitats – all with no Source-Pathway-Receptor link to proposed development</p>			
<p>The Twelve Bens/Garraun Complex SAC [002031]</p> <p>NPWS (2017) Conservation Objectives: The Twelve Bens/Garraun Complex SAC 002031. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.</p>	<p><i>Salmo salar</i> (Salmon) [1106] <i>Lutra lutra</i> (Otter) [1355]</p> <p>See NPWS (2017) Conservation Objectives: The Twelve Bens/Garraun Complex SAC 002031. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs for a list of other QI species and habitats – all with no Source-Pathway-Receptor link to proposed development</p>	<p>Approx. 11 km straight line distance at nearest point</p>	<p>Within foraging and migration range of QI species</p>	<p>Y</p>

Other nearby SAC sites	See Table 2-2 of the MI AA report for details	See Table 2-2 of the MI AA report for details	See Table 2-2 of the MI AA report for details	N
SPA sites				
High Island, Inishshark and Davillaun SPA [004144] NPWS (2023) Conservation Objectives: High Island, Inishshark and Davillaun SPA [004144] Version 1. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage	Fulmar (<i>Fulmarus glacialis</i>) [A009] [A045] Arctic Tern (<i>Sterna paradisaea</i>) [A194] Barnacle Goose (<i>Branta leucopsis</i>) [A045]	Approx. 6 km straight line distance at nearest point	Within possible foraging range of SCI species	Y
Clare Island SPA [004136] NPWS (2023) Conservation Objectives: Clare Island SPA [004136] Version 1. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage	Fulmar (<i>Fulmarus glacialis</i>) [A009] Shag (<i>Phalacrocorax aristotelis</i>) [A018] Common Gull (<i>Larus canus</i>) [A182] Kittiwake (<i>Rissa tridactyla</i>) [A188] Guillemot (<i>Uria aalge</i>) [A199] Razorbill (<i>Alca torda</i>) [A200] Chough (<i>Pyrhocorax pyrrhocorax</i>) [A346]	Approx. 23 km straight line distance at nearest point	Within possible foraging range of some SCI species	Y
Lough Carra SPA [004051]	A182 Common Gull (<i>Larus canus</i>)	Approx. 40 km straight line	Within possible foraging range of SCI species	Y

<p>NPWS (2023) Conservation Objectives: Lough Carra SPA [004051] Version 1. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage</p>		<p>distance at nearest point</p>		
<p>Lough Mask SPA [004062] NPWS (2023) Conservation Objectives: Lough Mask SPA [004062] Version 1. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage</p>	<p>Tufted Duck (<i>Aythya fuligula</i>) [A061] Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179] Common Gull (<i>Larus canus</i>) [A182] Lesser Black-backed Gull (<i>Larus fuscus</i>) [A183] Common Tern (<i>Sterna hirundo</i>) [A193] Greenland White-fronted Goose (<i>Anser albifrons flavirostris</i>) [A395] Wetland and Waterbirds [A999]</p>	<p>Approx. 34 km straight line distance at nearest point</p>	<p>Within possible foraging range of SCI species</p>	<p>Y</p>
<p>Connemara Bog Complex [004181] NPWS (2023) Conservation Objectives:</p>	<p>Cormorant (<i>Phalacrocorax carbo</i>) [A017] Merlin (<i>Falco columbarius</i>) [A098]</p>	<p>Approx. 14 km straight line distance at nearest point</p>	<p>Within possible foraging range of SCI species</p>	<p>Y</p>

Connemara Bog Complex [004181] Version 1. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage	Golden Plover (<i>Pluvialis apricaria</i>) [A140] Common Gull (<i>Larus canus</i>) [A182]			
Lough Corrib SPA [004042] NPWS (2023) Conservation Objectives: Lough Corrib SPA 004042. Version 1. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage	See NPWS (2023) Conservation Objectives: Lough Corrib SPA 004042. Version 1. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage for list of SCI species.	Approx. 33 km straight line distance at nearest point	None identified	N
Bills Rock SPA [004177] NPWS (2023) Conservation Objectives: Bills Rock SPA [004177] Version 1. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage	A014 Storm Petrel (<i>Hydrobates pelagicus</i>) A204 Puffin (<i>Fratercula arctica</i>)	Approx. 34 km straight line distance at nearest point	None identified	N
Cross Lough (Killadoon) SPA [004212]	A191 Sandwich Tern (<i>Sterna sandvicensis</i>)	Approx. 25 km straight line	None identified	N

<p>NPWS (2023) Conservation Objectives: Cross Lough (Killadoon) SPA [004212] Version 1. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage</p>		<p>distance at nearest point</p>		
<p>Other nearby SPA sites and SCI species</p>	<p>See Table 2-3 of the MI AA report for details</p>	<p>See Table 2-3 of the MI AA report for details</p>	<p>See Table 2-3 of the MI AA report for details</p>	<p>N</p>

<p>1.6 Describe the individual elements of the project (either alone or in combination with other plans and projects) likely to give rise to impacts on the Natura 2000 site.</p>	<p>Mussels are cultured using longlines, these are supported by a series of small floats joined by a cable or chain and anchored at the bottom on both ends. Mussel spat (seed) is collected on ropes or strings (droppers), which are suspended on the line. From each of the lines there are a number of dropper lines (up to 5m in length). The depth of the droppers, which is directly related to the quantity of mussels being cultured, is dependent upon a number of factors including water depth, the floatation provided and the carrying capacity of the system. There is currently one licenced mussel site within the SAC and one application site, T09/524A, the focus of this assessment.</p> <p>Finfish (salmon) are contained in floating cage structures arranged in a grid system which are secured to the seabed via ropes attached to anchors. The fish are put into the cages as smolts, where they are fed, and following a period of usually 18-24 months are harvested. There are currently three licensed salmon culture sites within the SAC.</p> <p>Seaweed culture is currently licensed in Cleggan Bay and involves the natural seeding of ropes with young native seaweed gametophytes which then grow through to harvest. Culture is by means of suspended culture with ropes hanging from floats deployed in subtidal areas, similar to the structures used for mussel culture. Depending on the species, the seaweed will be left to grow for months to a year before it will be harvested manually. One site is currently used for this culture practice within the SAC (T09/434A) and is subject to a renewal application.</p>
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Fishing in the West Connacht Coast SAC is subject to a Fisheries Natura Assessment which has not yet been concluded, according to information on the online Fishing Net portal. Fishing in the SAC historically consists of both offshore and inshore fishing efforts of various methods (atlas.marine.ie).

In relation to SACs listed in 1.5 above, there are no overlaps with protected habitats. Annex II species to be considered further in terms of their conservation objectives – to maintain favourable conservation conditions.

are:

West Connacht Coast SAC - 002998

- Common Bottlenose Dolphin, *Tursiops truncatus* [1349]

Slyne Head Peninsula SAC - 002074

- Common Bottlenose Dolphin, *Tursiops truncatus* [1349]

Slyne Head Islands SAC - 000328

- Common Bottlenose Dolphin, *Tursiops truncatus* [1349]
- Grey Seal, *Halichoerus grypus* [1364]

Inishbofin and Inishshark SAC [000278]

- Grey Seal, *Halichoerus grypus* [1364]

The Twelve Bens/Garraun Complex SAC - 002031

- Atlantic salmon, *Salmo salar* [1106]
- Otter *Lutra lutra* [1355]

For the majority of SCI species in the SPA's listed in Section 1.5 above, there is no potential link in terms of either range or feeding habits to the proposed development in Cleggan Bay. SCI species from the listed SPA's that have the potential to range as far as Cleggan Bay and are known to feed in in-shore waters and bays are:

High Island, Inishshark and Davillaun SPA – 004144

- Arctic Tern
- Barnacle goose

Clare Island SPA - 004136

- Common Gull

Connemara Bog complex SPA - 004181

- Cormorant
- Common gull

Lough Carra SPA – 004051

- Common gull

Lough Mask – 004062

- Lesser Black-backed gull

1.7 Describe any likely direct, indirect, or secondary impacts of the project (either alone or in combination with other plans or projects) on the Natura 2000 site by virtue of:

- **Size and scale**

For *Tursiops truncatus* (Common Bottlenose Dolphin) [1349] from West Connacht Coast SAC [002998], Slyne Head Islands SAC [000328] and Slyne Head Peninsula SAC [002074] the conservation objective for all SACs is to maintain favourable conservation condition.

West Connacht Coast SAC [002998] supports a resident population of the Bottlenose Dolphin (*Tursiops truncatus*). Within this large SAC (approx. 65,000ha), it is estimated, on the basis of surveys conducted during the summers of 2013 and 2014, that there are between 140-296 dolphins resident in the SAC. Bottlenose dolphins from Slyne Head Islands SAC [00328] and Slyne Head Peninsula SAC [002074] are likely to migrate into the West Connacht Coast SAC. It is possible these individuals may interact with shellfish and macro-algal aquaculture operations if they forage inshore. Bottlenose dolphin individuals from the Slyne Head Island SAC and Slyne Head Peninsula SAC are also likely to be found within the West Connemara Coast SAC.

There is potential that the Bottlenose Dolphin may occur within the existing and proposed aquaculture sites and thereby, interact with activities. This potential for interaction is possible if they forage inshore close to the structures. The MI AA report notes that the overall footprint of total specified suspended aquaculture operations (mussel and seaweed) is small (i.e., approx. 30ha) and represents a very small proportion of the Dolphin habitat in the SAC (i.e., 0.05%). Given the relatively small footprint of all suspended aquaculture location, the likelihood of interactions is very small. In addition, the location of the existing and proposed structures are relatively close to the shorelines, and as such they do not present a barrier to movement of this species. These structures are also such that echolocating species, such as dolphin, can easily avoid the structures/sites (Watson-Capps and Mann, 2005; Heinrich, 2006; Ribeiro et al., 2007), greatly reducing any entanglement risk. It is also important to note that there are no energy sources (e.g., light, noise etc.) likely to result from activities at any of the aquaculture sites within the SAC that are of a type to pose a risk to this dolphin species.

Some research has indicated that dolphin species, and marine mammals generally, may be attracted to finfish installations, presumably as these installations act as attractants to wild fish (Callier et al., 2017). This may potentially have implications for increased entanglement risk to cetaceans but the research to date does not bear this out (Callier et al., 2017).

As seaweed and mussel installations do not act as such strong wild fish attractants, they are not considered such a strong attractant for marine mammal species. Their structures also pose a very low entanglement risk to cetaceans, as discussed above.

Potential in-combination impacts relating to the proposed development relate to the neighbouring seaweed farm, fishing and other aquaculture activities in the SAC. However, as **the proposed development itself has been determined not to be of risk to the QI species**, it follows that it will not act in combination with other activities considered here to either result in a risk to the QI species due to the proposed development or to increase any risk to the QI species from the other activities and **no pathways which indicate same have been identified.**

For *Halichoerus grypus* (Grey Seal) [1364] from Inishbofin and Inishshark SAC [000278] and from Slyne Head Islands SAC [00328] the conservation objective is also to maintain favourable conservation condition.

Grey Seal from both SACs may migrate into the West Connacht Coast SAC. It is possible that those individuals (seals) may interact with the shellfish and macro-algal aquaculture operations if they forage inshore. Given the distance to Inishbofin and Inishshark SAC, it is unlikely that the existing or proposed activities will negatively impact on those conservation targets relating to haul-out locations. In addition, the proposed activities do not result in those pressures considered to be threats to the species (NPWS 2019), (i.e., Geotechnical Surveying and Marine fish and shellfish harvesting using tangle nets) The structures associated with suspended aquaculture may act as fish attraction devices to an extent and thus, may prove beneficial to the seal. Entanglement is not considered a risk for grey seals at these type of suspended aquaculture installations **it is unlikely that this species will negatively interact with the existing and proposed suspended aquaculture activities.**

Potential in-combination impacts relate to the neighbouring seaweed farm, fishing and other aquaculture activities in the SAC. However, as **the proposed development itself has been determined not to be of risk to the QI species**, it follows that it will not act in combination with other activities considered here to either result in a risk to the QI species due to the proposed development or to increase any risk to the QI species from the other activities and **no pathways which indicate same have been identified.**

Atlantic salmon, *Salmo salar* [1106] could migrate through or near the area proposed for development, however, as the in-water structures consist of mussel growing lines, mooring lines and mooring weights, they will not cause an obstruction to the migration of the fish. There are no increased disease or predation risks for the salmon linked to the proposed development at this site. Migrating salmon smolts and

returning adults may find temporary cover in these kinds of structures although the size of the farm is relatively small in terms of the size of the Bay so any potential positive impact would also be small.

Potential in-combination relate to the neighbouring seaweed farm, fishing and other aquaculture activities in the SAC. However, as **the proposed development itself has been determined not to be of risk to the QI species**, it follows that it will not act in combination with other activities considered here to either result in a risk to the QI species due to the proposed development or to increase any risk to the QI species from the other activities and **no pathways which indicate same have been identified**.

Otter *Lutra lutra* [1355] will likely forage in the Cleggan Bay area. Given the location adjacent to coastline and the relatively dispersed nature of the 'dropper' ropes at the site, otter will be able to move freely among the structures. They do not present a barrier to movement. In the case of disturbance, activities at the site occur during daylight hours and will not overlap with the crepuscular foraging of otter. Given these observations it is concluded there are no significant effects posed by the suspended aquaculture on salmon and otter in The Twelve Bens/Garraun Complex SAC.

Potential in-combination impacts relate to the neighbouring seaweed farm, fishing and other aquaculture activities in the SAC. However, as **the proposed development itself has been determined not to be of risk to the QI species**, it follows that it will not act in combination with other activities considered here to either result in a risk to the QI species due to the proposed development or to increase any risk to the QI species from the other activities and **no pathways which indicate same have been identified**.

SCI Species – Birds

The size and scale of the proposed development is unlikely to have any negative impacts on any of the SCI species listed in 1.6 above. Potential impacts on these species are discussed further in the Sections below.

Potential in-combination impacts relate to the neighbouring seaweed farm, fishing and other aquaculture activities in the West Connacht Coast SAC. However, as **the proposed development itself has been determined not to be of risk to the QI species listed in Section 1.6**, it follows that it will not act in combination with other activities considered here to either result in a risk to the QI species due to the proposed development or to increase any risk to the QI species from the other activities and **no pathways which indicate same have been identified**.

<ul style="list-style-type: none"> • Land-take 	Not relevant here
<ul style="list-style-type: none"> • Distance from the Natura 2000 site or key features of the site 	See above – Section 1.5 and “Size and Scale” in Section 1.7 There is considered to be the possibility of overlap in foraging and migration areas for the species identified.
<ul style="list-style-type: none"> • Resource requirements 	<p>Cultured bivalves (mussels and oysters) are filter feeders and they feed upon suspended particulate matter. They selectively ingest phytoplankton and other organic material (e.g., small zooplankton and bacteria) and dispose of inorganic and larger organic matter in pseudofaeces, which is excreted into the water column. Typically, the faecal and pseudofaecal pellets will fall to the sea floor and may cause localised organic enrichment and/or sedimentation. The level of enrichment is a function of, <i>inter alia</i>, water depth current speed, density of culture, the quantity of suspended particulate matter in the water column, or a combination of these. The build-up of excess organic matter beyond the footprint of the site is not considered likely.</p> <p>The proposed bivalve shellfish production activities will not use any resources or are predicted to have a negative impact on any resources, required by the qualifying interests within the Natura 2000 site or nearby Natura 2000 sites under consideration.</p>
<ul style="list-style-type: none"> • Emissions (disposal to land, water or air): 	<p>The only emissions arising from the mussel production are faeces and pseudofaeces, which are excreted into the water column. Typically, the faecal and pseudofaecal pellets will fall to the sea floor and there is no direct or indirect impact on the qualifying interests within the Natura 2000 sites under consideration.</p> <p>Activities associated with the mussel culture would include regular boat trips to the lines to seed, maintain, thin lines and/or harvest the mussels. These site visits would necessitate the use of a vessel which would increase slightly the level of noise in the system. As the access route runs parallel to an existing ferry route, this would be an insignificant addition. The risk of pollution from exhaust or a spill would be increased by virtue of the vessels operating in the system. This same risk would apply to recreational boats, ferries and wild fishery interests operating in the SAC. Any accidental oil spills / pollution events associated with mussel production activities within Cleggan Bay are likely to be minor in nature, have a localised impact only and will not have any direct or indirect impact on the qualifying interests of the Natura 2000 sites it is in or near to.</p>

<ul style="list-style-type: none"> • Excavation requirements 	<p>There are no excavation or similar activities associated with the aquaculture activity</p>
<ul style="list-style-type: none"> • Transportation requirements 	<p>Access routes to the aquaculture site spatially overlap with the West Connacht SAC, however, the access route is less than 900m long and is in the vicinity of a regular ferry route to Inishbofin. There is no risk of significant increased disturbance to any of the species under consideration from a small increase in boat traffic in the Cleggan Bay area. The produced aquaculture products would be transported offsite by lorry using the existing national road network with no impact on the nearby Natura 2000 sites.</p>
<ul style="list-style-type: none"> • Duration of construction, operation, decommissioning etc. 	<p>During set up and decommissioning there will be some temporary non-significant small scale disturbance due to increased boat activity and the deployment of mooring weights, buoys and lines. This is not of a level to be considered significant to any of the qualifying interests under consideration.</p>
<ul style="list-style-type: none"> • Other 	<p>None</p>
<p>1.8 Describe any likely changes to the site arising as a result of:</p>	
<ul style="list-style-type: none"> • reduction of habitat area 	<p>There is negligible habitat area loss within the Natura 2000 site arising from the mussel production activities that has been considered under “Size and Scale” in Section 1.7 above and is not considered to have a negative impact on any of the qualifying interests under consideration.</p> <p>As discussed in Section 1.7 above, entanglement is not considered a risk to bottlenose dolphins or grey seals and the proposed development and existing development in Cleggan Bay will not impede migration or foraging.</p> <p>Mussel longlines have actually been shown in studies to provide extra perching sites for gulls, shags and cormorants, causing a potential positive impact</p>
<ul style="list-style-type: none"> • disturbance to key species 	<p>There is no evidence in the literature to suggest that rope mussel culture will negatively impact bottlenose dolphins, grey seals, salmon, otter, cormorants, common gulls or lesser black-backed gulls.</p> <p>The studies of Roycroft et al (2006) on mussel farm and bird interactions in a bay in SW Ireland found neutral/positive interactions for both cormorants and gull species from mussel farming and Section 1.7 above further outlines potential neutral/positive impacts for Annex II species.</p>
<ul style="list-style-type: none"> • habitat or species fragmentation 	<p>There is no protected habitat or species fragmentation within the Natura 2000 sites arising from the mussel production activities.</p>

<ul style="list-style-type: none"> • reduction in species density 	There is no reduction in species density within the Natura 2000 sites arising from the mussel production activities
<ul style="list-style-type: none"> • changes in key indicators of conservation value (water quality etc.) 	There are no changes in key indicators of conservation value within the Natura 2000 sites arising from the mussel production activities.
<ul style="list-style-type: none"> • climate change 	Given the nature and scale of the mussel production activities the contribution to climate change is insignificant. Aquaculture production can generally be considered a low-carbon emitting activity.
1.9 Describe any likely impacts on the Natura 2000 site as a whole in terms of:	
<ul style="list-style-type: none"> • interference with the key relationships that define the structure of the site. 	The activities associated with the proposed production of mussels in Cleggan Bay will not interfere with the key relationships that define the structure of the West Connacht Coast SAC, nearby SAC sites or nearby SPA sites
<ul style="list-style-type: none"> • interference with key relationships that define the function of the site. 	<p>As there are no potential pathways for significant interaction with activities effects on the Qualifying Interests in terms of Annex II species can be excluded. While other activities in the SAC may pose a risk to the QI species, as the proposed development is not a risk to the QI species, there are no risks of negative impacts, either alone or in combination with other activities listed in the SAC.</p> <p>In relation to SCI species under consideration, current knowledge indicates that these species have a positive/neutral reaction to mussel longlines, using the floats as perches and feeding from the epibenthos growing on the ropes and floats.</p>
1.10 Provide indicators of significance as a result of the identification of effects set out above in terms of:	
<ul style="list-style-type: none"> • loss 	None identified
<ul style="list-style-type: none"> • fragmentation 	None identified
<ul style="list-style-type: none"> • disruption 	None identified
<ul style="list-style-type: none"> • disturbance 	None identified

<ul style="list-style-type: none"> • change to key elements of the site (e.g., water quality etc.) 	None identified
<p>1.11 Describe from the above those elements of the project or plan, or combination of elements, where the above impacts are likely to be significant or where the scale or magnitude of impacts is not known.</p>	<p>None identified.</p> <p>The proposed development is considered not to pose a risk to the favourable conservation condition of Bottlenose Dolphin in the West Connacht Coast SAC and for individuals from nearby SACs.</p> <p>The proposed development is considered not to pose a risk to the favourable conservation condition of Grey Seal in the Inishbofin and Inishshark SAC and from Slyne Head Islands SAC.</p> <p>The proposed development is considered not to pose a risk to the favourable conservation condition of Atlantic Salmon in the Twelve Bens/Garraun Complex SAC.</p> <p>The proposed development is considered not to pose a risk to the favourable conservation condition of Otter in the Twelve Bens/Garraun Complex SAC.</p> <p>The proposed development is considered not to pose a negative risk to the continuing favourable conservation condition of SCI species in the SPAs identified.</p>

Finding of No Significant Effects	
Details of project or plan	
<p>2.1 Name of Project or Plan</p>	<p>Appropriate Assessment of proposed Aquaculture Activity in Cleggan Bay for site application T09/524A (AP1/2023)</p>
<p>2.2 Name and location of Natura 2000 site</p>	<p>Cleggan Bay is within the West Connemara Coast SAC and the other SACs and SPAs considered for interactions with the proposed development are listed and referenced in Section 1.5 above.</p>
<p>2.3 Description of Project or Plan</p>	<p>Licence application for rope mussel culture in Cleggan Bay</p>
<p>2.4 Is the project or plan directly connected with or necessary to the management of the site (provide details)?</p>	<p>No</p>

2.5 Are there other projects or plans that together with the project or plan being assessed could affect the site (provide details)?	No
Assessment of significant effects	
2.6 Describe how the project or plan (alone or in combination) is likely to affect the Natura 2000 site.	No significant effects detected on the West Connemara Coast SAC, nearby SAC sites and Annex II species or nearby SPA sites and SCI species due to the planned cultivation of mussel in Cleggan Bay for site application T09/524A (AP1/2023). See Appropriate Assessment Screening Matrix above for further details.
2.7 Explain why these effects are not considered significant.	<p>While the activity takes place within a Natura 2000 site, emissions of faeces and pseudofaeces are localised and impact the seabed beneath the longlines & rafts and have no direct or indirect effect on the qualifying interests of this or adjoining Natura sites as assessed in the Appropriate Assessment Screening Matrix above. There will be no reduction or fragmentation of any protected habitats within the sites or disruption or disturbance of key species. The integrity of the sites will not be impacted.</p> <p>Previous studies have detected positive/neutral impacts on the SCI species assessed from longline mussel culture and ruled out negative impacts on bottlenose dolphins.</p> <p>On the basis of the above it is considered that there will be no significant effects posed by the culture of shellfish on the Annex II or SCI species listed in 1.5 above or any of the other qualifying interests of adjoining Natura 2000 sites assessed.</p> <p>Consequently, it is concluded that a full appropriate assessment is not required for the culture of mussels using longlines at Site T09/524A proposed for Cleggan Bay as it can be excluded on the basis of objective scientific information following screening, that the proposed activity, individually or in combination with other plans or projects, will not have a significant effect on any of the European sites listed in Section 1.5 of this Report.</p>
Data collected to carry out the assessment	
2.8 Who carried out the assessment?	Dr Ciar O’Toole, Technical Advisor for the Aquaculture Licences Appeals Board on 26 September 2023. Updated on 22 January 2024.
2.9 Sources of data	

	<p>Callier M, Byron C, Bengtson D, Cranford P, Cross S, Focken U, Jansen H, Kamermans P, Kiessling A, Landry T., O’Beirn F., Petersson E., Rheault, RB., Strand, O., Sundell, K., Svasand, T., Wikfors, GH., McKindsey, CW. (2017) Attraction and repulsion of mobile wild organisms to finfish and shellfish aquaculture: a review. <i>Rev Aquac</i> 0:1–26</p> <p>Heinrich, S. (2006) Ecology of Chilean dolphins and Peale’s dolphins at Isla Chiloe, southern Chile (PhD dissertation). University of St Andrews, 239 p.</p> <p>Marine Institute (2021) Report Supporting Appropriate Assessment of Suspended Aquaculture in West Connacht Coast SAC (Site code: 002998).</p> <p>NPWS (2023) Conservation objectives for Bills Rocks SPA [004177]. Generic Version 8.0. Department of Housing, Local Government and Heritage.</p> <p>NPWS (2023) Conservation objectives for Clare Island SPA [004136]. Generic Version 8.0. Department of Housing, Local Government and Heritage.</p> <p>NPWS (2023) Conservation objectives for Cross Lough (Killadoon) SPA [004212]. Generic Version 8.0. Department of Housing, Local Government and Heritage.</p> <p>NPWS (2023) Conservation objectives for Illaunnaon SPA [004221]. Generic Version 8.0. Department of Housing, Local Government and Heritage.</p> <p>NPWS (2021) Conservation objectives for High Island, Inishshark and Davillaun SPA [004144]. Generic Version 8.0. Department of Housing, Local Government and Heritage.</p> <p>NPWS (2023) Conservation objectives for Cruagh Island SPA [004170]. Generic Version 8.0. Department of Housing, Local Government and Heritage.</p> <p>NPWS (2023) Conservation objectives for Connemara Bog Complex SPA [004181]. Generic Version 8.0. Department of Housing, Local Government and Heritage.</p> <p>NPWS (2023) Conservation objectives for Lough Carra SPA [004051]. Generic Version 8.0. Department of Housing, Local Government and Heritage.</p> <p>NPWS (2023) Conservation objectives for Lough Mask SPA [004062]. Generic Version 8.0. Department of Housing, Local Government and Heritage.</p> <p>NPWS (2023) Conservation objectives for Lough Corrib SPA [004042]. Generic Version 8.0. Department of Housing, Local Government and Heritage.</p> <p>NPWS (2023) Conservation objectives for Slyne Head to Ardmore Point Islands SPA [004159]. Generic Version 8.0. Department of Housing, Local Government and Heritage.</p>
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	<p>NPWS (2023) Conservation objectives for Inishbofin, Omev Island and Turbot Island SPA [004231]. Generic Version 8.0. Department of Housing, Local Government and Heritage.</p> <p>NPWS (2017) Conservation Objectives: The Twelve Bens/Garraun Complex SAC 002031. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.</p> <p>NPWS (2015) Conservation Objectives: West Connacht Coast SAC 002998. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.</p> <p>NPWS (2015) Conservation Objectives: Slyne Head Peninsula SAC 002074. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.</p> <p>NPWS (2012) Conservation Objectives: Slyne Head Islands SAC 000328. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.</p> <p>NPWS (2015) Conservation Objectives: Inishbofin and Inishshark SAC 000278. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.</p> <p>OPR (2021) Appropriate Assessment Screening for Development Management. Practice Note PN01. Office of the Planning Regulator. March 2021. https://www.opr.ie/wp-content/uploads/2021/03/9729-Office-of-the-Planning-Regulator-Appropriate-Assessment-Screening-booklet-15.pdf</p> <p>Roycroft, Daphne; Kelly, Thomas; Lewis, Lesley (2006) Behavioural interactions of seabirds with suspended mussel longlines. Aquaculture International, Volume 15 (1) – Nov 8, 200</p> <p>Thaxter, Chris B.; Lascelles, Ben; Sugar, Kate; Cook, Aonghais S.C.P.; Roos, Staffan; Bolton M., Langston R H W, Burton N H K. (2012) Seabird foraging ranges as a preliminary tool for identifying candidate Marine Protected Areas. Biological Conservation, Volume 156: 53-61 – Nov 1, 2012.</p> <p>Ribeiro S, Viddi FA, Cordeiro JL, Freitas TRO (2007) Fine-scale habitat selection of Chilean dolphins (<i>Cephalorhynchus eutropia</i>): interactions with aquaculture activities in southern Chiloe Island, Chile. Journal of the Marine Biological Association of the United Kingdom 87: 119–128.</p> <p>Watson-Capps JJ, Mann J (2005) The effects of aquaculture on bottlenose dolphin (<i>Tursiops</i> sp.) ranging in Shark Bay, Western Australia. Biological Conservation 124: 519–526.</p> <p>Special Protection Areas (SPA) National Parks & Wildlife Service (npws.ie) gov.ie - Aquaculture & Foreshore Management (www.gov.ie)</p>
<p>2.11 Level of assessment completed.</p>	<p>Desk study</p>

2.12 Where can the full results of the assessment be accessed and viewed?

See 2.9 for references