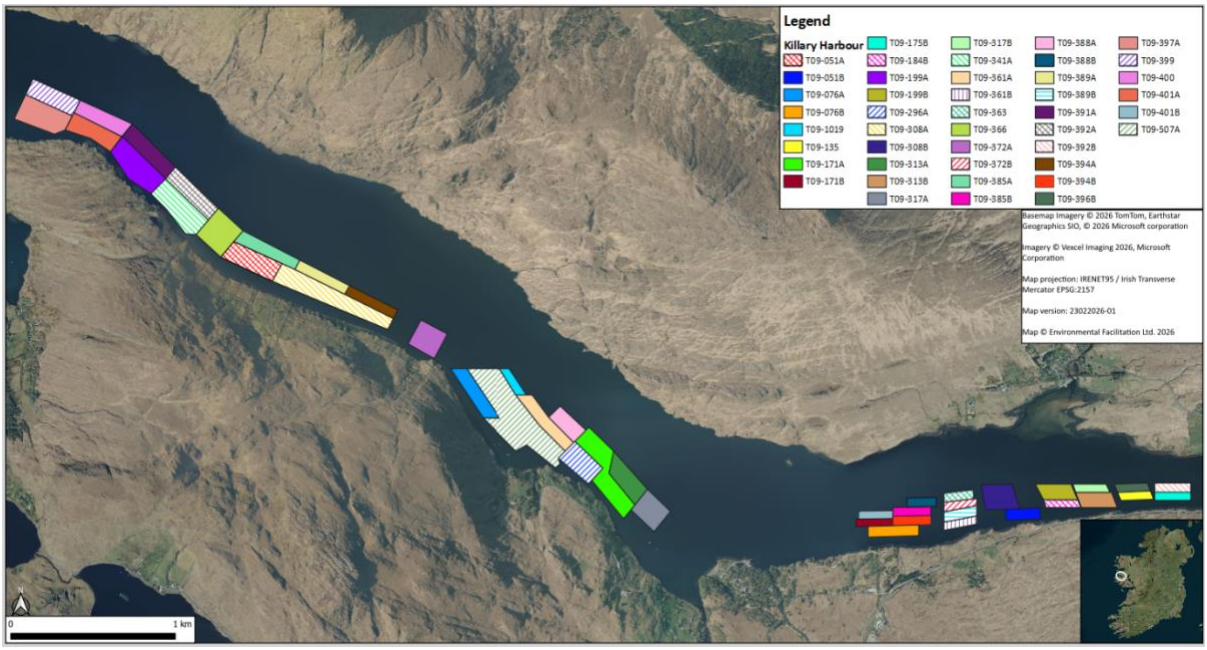
Appropriate Assessment Screening Report

for renewal, review and new aquaculture and foreshore licence applications in Killary Harbour, Co. Galway.



	Prepared by Environmental Facilitation Ltd on behalf of the Department of Agriculture, Food and the Marine Date: 18/03/2026

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Part A: AA Screening Report

1. Preface

The Habitats Directive (Council Directive 92/43/EEC)[1] establishes legal provisions for conserving natural habitats and species of community interest and within this, Articles 3 to 16 provide the legislative means to create a network of protected sites across the European Union known as Natura 2000 sites. Sites in Ireland, that form part of this Natura 2000 network include Special Areas of Conservation (SACs) and Special Protection Areas (SPAs). SACs are designated due to their significant ecological importance for habitats and/or species protected under Annex I and Annex II respectively of the Habitats Directive. SPAs are designated for the protection of populations and habitats of bird species protected under the EU Birds Directive (Council Directive 2009/147/EC)[2] on the conservation of wild birds). The features for which SACs and SPAs are designated are respectively called Qualifying Interests (QIs) and Special Conservation Interests (SCIs)(also collectively referred to as conservation features). However, in practice, the common terminology of QIs applies also to SCIs, and is used throughout this report. The National Parks and Wildlife Service (NPWS) serves as the competent authority for Natura 2000 sites in Ireland.

The Habitats Directive was implemented into national law under Regulation 31 of the Habitats Regulations SI 94/1997 and subsequently amended and consolidated in the European Communities (Birds and Natural Habitats) Regulations 2011. Article 6(3) of the Directive mandates an Appropriate Assessment (AA) when a plan or project is likely to have a significant effect on the features for which the site is designated, either individually or in combination with other plans or projects, and it is not connected with or necessary for the management of a protected site.

There is a long history of aquaculture operations within Irish coastal waters, predating the designation of sites as Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) under the relevant Directives. An incremental process of AA is underway for existing and proposed aquaculture activities within these designated Natura 2000 sites. This process, agreed upon with the EU Commission in 2009, aims to eventually cover all aquaculture operations across Natura 2000 sites in Ireland. The AA assesses aquaculture operations against the Conservation Objectives defined by the NPWS for the conservation features of each Natura 2000 site. Aquaculture activities are licensed by the Department of Agriculture, Food and Marine (DAFM). When receiving applications for such activities, DAFM submits those applications and existing licences for AA consideration. If the AA

[1] https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A01992L0043-20130701
[2] https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A02009L0147-20190626

process identifies the possibility of significant adverse effects or potential negative consequences for designated conservation features, further mitigation measures are required. While assessment reports may not always specify explicit mitigation methods, they indicate whether mitigation is necessary and the desired outcomes.

This screening report, supporting the AA, considers the renewal and review of 43 aquaculture and foreshore licences plus one new (T09-1019) aquaculture and foreshore licence (hereinafter referred to as the 'projects') for Blue Mussel (*Mytilus edulis)* rope culture within Killary Harbour, Co. Galway, to determine whether they, individually or in combination with other plans and projects, are likely to have a significant effect on any European site (i.e. Natura 2000 sites), in view of the site's conservation objectives. A list of the projects is provided in Table 1 and are located within approximately 7.5 km east-of each other, east to west.

2. Introduction

2.1. Overview of this Screening Assessment

This document assesses the potential effects of the proposed extensive aquaculture activities in Killary Harbour, Co. Galway in combination with existing aquaculture activities on the Qualifying Interests (QIs) of Natura sites. Extensive aquaculture is defined in Regulation 3(iii) of the Aquaculture (Licence Applications) (Amendment) Regulations 2018 as "aquaculture activities where there is no external supply of feed and the culture depends entirely on natural processes for production and supply of feed". Shellfish (molluscs, echinoderms and crustaceans) and seaweed aquaculture fall within this definition; finfish aquaculture does not.

The aim of this report is to consider if the proposed aquaculture activities are likely to significantly affect the conservation features of Natura 2000 sites, with respect to their Conservation Objectives (COs), through undertaking an Appropriate Assessment (AA) screening process. If it is deemed that there is the potential for a likely significant effect on the conservation features as a consequence of the activity taking place, these activities will be carried forward for full assessment and considered on a cumulative basis with other aquaculture activities and other potentially disturbing activities (e.g. fisheries).

This AA screening report considers the potential ecological interactions between the proposed aquaculture activities and the Conservation Objectives of the Natura sites.

2.2. Legislative context

Articles 3 – 16 of the European Community (EC) Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Flora and Fauna (the Habitats Directive) provide the

legislative means to protect habitats and species of Community interest through the conservation of an EU-wide network of protected sites, known as Natura 2000 sites.

The Habitats Directive was originally transposed into Irish law by the European Communities (Natural Habitats) Regulations, 1997 (S.I. No. 94 of 1997). The 1997 Regulations were subsequently replaced by the European Communities (Birds and Natural Habitats) Regulations 2011, as amended (referred to as the 2011 Birds and Natural Habitats Regulations). Natura 2000 sites are referred to as European sites in these Regulations. The terms Natura 2000 sites and European sites are synonymous - the term Natura 2000 sites is used in this report. Natura 2000 sites include Special Areas of Conservation (SACs) which are designated under the Habitats Directive, and Special Protection Areas (SPAs) which are designated under EC Directive EC 79/409/EEC (the Birds Directive).

SACs are designated due to their significant ecological importance for habitats and for species protected under Annex I and Annex II respectively of the Habitats Directive. SPAs are designated for the protection of populations and habitats of bird species protected under the Birds Directive. The specific named habitats and/or (non-bird) species for which an SAC or SPA are selected are called the Qualifying Interests (QI), of the site. The specific named bird species for which a SPA is selected are called the 'Special Conservation Interests' (SCI). However, in practice, the common terminology of QI applies also to SCI. The term QI is used throughout this report.

Under Article 6(3) of the Habitats Directive, any plan or project not directly connected with or necessary to the management of a European site must be subject to Appropriate Assessment (AA) where it cannot be excluded, on the basis of objective scientific information, that it is likely to have a significant effect on that site of a plan or project on a Natura 2000 site and considers the implications for the site in view of its Conservation Objectives (COs). Every Natura 2000 site has COs which are set out by the NPWS - the competent authority for the management of Natura 2000 sites in Ireland. The AA process must also consider any plan or proposal in combination with other activities that have the potential to significantly affect the integrity of the Natura 2000 site.

DAFM has responsibility for foreshore licensing functions in respect of activities wholly or primarily for the use, development or support of aquaculture under the 1933 Foreshore Act, as amended[3]. DAFM is also the aquaculture licensing authority under the Fisheries (Amendment) Act (1997)[4] and determines applications for new, or renewal of, aquaculture licences. They are the competent authority responsible for undertaking AAs of aquaculture licence applications. As part of the licensing process DAFM must determine if the proposed aquaculture activities, individually or in-combination with other activities, are likely to significantly impact the Conservation Status of QIs and the integrity of Natura

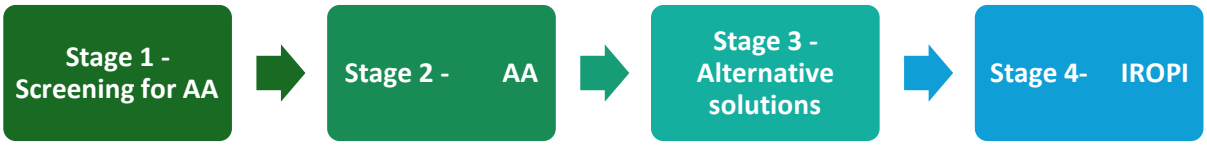
[3] https://revisedacts.lawreform.ie/eli/1933/act/12/front/revised/en/html
[4] https://revisedacts.lawreform.ie/eli/1997/act/23/revised/en/html

2000 sites. DAFM must base its determination on an AA and is also responsible for ensuring that an AA is carried out.

2.3. Appropriate Assessment (AA) process

The requirement for an AA derives directly from Article 6(3) of the Habitats Directive, which outlines the decision-making tests for considering plans and projects that may have a significant effect on a Natura 2000 site. No definition of the content or scope of AA is given in the Habitats Directive, but the concept and approach are set out in EC guidance[5]. The Guidance on Appropriate Assessment of Plans and Projects in Ireland[6], published by the Department of Environment, Heritage and Local Government (DEHLG) in 2009, sets out how an AA of plans or proposals in Natura 2000 sites in Ireland should be carried out in alignment with EC guidance. In 2021, the Office of the Planning Regulator (OPR) published a practice note on AA Screening[7], which provides guidance on how a planning authority should screen an application for planning permission for AA.

The Guidance on Appropriate Assessment of Plans and Projects in Ireland document promotes a four-stage process to complete the AA. The four stages are:



The key procedures involved in completing the first two stages of the AA process are described below. Stage 3 and Stage 4 (Imperative Reasoning of Overriding Public Interest - IROPI) are not applicable here.

2.3.1. Stage 1: Appropriate Assessment Screening

Stage 1 AA Screening is the process that addresses and records the reasoning and conclusions in relation to whether a plan or project, alone or in combination with other plans and projects, is likely to have significant effects on a Natura 2000 site in view of the site's COs. If the effects, on the basis of objective information, are deemed to be significant, potentially significant, or uncertain, or if the screening process becomes overly complicated, then the process must proceed to Stage 2 Appropriate Assessment. Screening should be undertaken without the inclusion of mitigation. The

[5] https://environment.ec.europa.eu/topics/nature-and-biodiversity/natura-2000/managing-and-protecting-natura-2000-sites_en
[6] https://www.npws.ie/protected-sites/guidance-appropriate-assessment-planning-authorities
[7] https://www.opr.ie/wp-content/uploads/2021/03/9729-Office-of-the-Planning-Regulator-Appropriate-Assessment-Screening-booklet-15.pdf

greatest level of evidence and justification will be needed in circumstances when the process ends at screening stage on grounds of no effect.

2.3.2.Stage 2: Appropriate Assessment

This stage considers whether the plan or project, alone or in combination with other projects or plans, will have adverse effects on the integrity of a Natura 2000 site, and includes any mitigation measures necessary to avoid, reduce adverse effects. This stage requires a targeted scientific examination of the plan or project and the relevant Natura 2000 sites, to identify and characterise any possible implications for the site in view of the site's QIs and COs, taking account of in combination effects.

The sensitivity of identified QIs in relation to the proposed activities is assessed and the significance of any identified adverse effects is then determined. If adverse effects are determined to be likely, then their scale, magnitude, intensity, and duration are considered in light of the COs and relevant guidance documents. If the assessment is negative, then recommendations on mitigation measures or specific management actions on licensing decisions will be made.

2.4.Structure of AA Screening Report

This screening report provides:

1. **Introduction** - an outline of the legislative context and the processes.
2. **Appropriate Assessment Screening** - providing details of the AA screening undertaken.
3. **Conclusion** - a summary of the findings from the screening process.

2.5.Data sources

Reference documents and sources of information used to inform this process may include:

- The Applications
- DAFM Aquaculture & Foreshore Management website
- DAFM - Aquaculture viewer – AquaMIS
- National Parks & Wildlife (NPWS) protected site, marine habitats and community type information
- NPWS Guidance documents
- Aquaculture profiling reports (if prepared)
- Targeted scientific studies & peer-reviewed literature
- Grey literature, reviews and report documents
- Peer reviewed & published literature

- Expert opinion
- Direct queries to applicants through DAFM
- Fisheries (Amendment) Act 1997
- Aquaculture (Licence Application) Regulations, 1998, as amended.
- Aquaculture (Licence Application) (Amendment) Regulations 2018
- Ireland's Marine Atlas
- MI/BIM Commissioned Reports
- DHLGH Foreshore licencing database
- EPA GeoHive
- EPA Maps Appropriate Assessment Tool: https://gis.epa.ie/EPAMaps/AAGeoTool
- NPWS Status of EU Protected Habitats and Species in Ireland – Article 17 (Habitats & species
- EU Commission assessments of bird's population status and trends web tool
- Marine Life Information Network: https://www.marlin.ac.uk/
- EPA Catchments.ie dashboard: https://www.catchments.ie/data/
- Ordnance Survey of Ireland (OSI)
- National Biodiversity Data Centre: https://maps.biodiversityireland.ie/
- European Environmental agency
- OPR, 2021. Appropriate Assessment Screening for Development Management. March 2021; Office of Planning Regulator.
- DEHLG, 2009. Appropriate Assessment of Plans and Projects in Ireland - Guidance for Planning Authorities. NPWS, 2009 – updated in 2010 with reference to Natura Impact Statement.
- Möckel, S., 2017. The European ecological network "Natura 2000" and the appropriate assessment for projects and plans under Article 6 (3) of the Habitats Directive. Nature Conservation, 23.
- NPWS (2019). The Status of EU Protected Habitats and Species in Ireland. Volume 1: Summary Overview. Unpublished NPWS report. Edited by: Deirdre Lynn and Fionnuala O'Neill.
- EC Article 6 - Managing and protecting Natura 2000 sites
- EC Management of Natura 2000 sites: Best Practice
- EC 2000. Managing Natura 2000 sites: The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC. Office for Official Publications of the European Communities, Luxembourg.
- EC 2002. Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC. Office for Official Publications of the European Communities, Luxembourg.
- EC 2006. Nature and biodiversity cases: Ruling of the European Court of Justice. Office for Official Publications of the European Communities, Luxembourg.

- EC 2018. Guidance on Aquaculture and Natura 2000 Sustainable aquaculture activities in the context of the Natura 2000 Network.
- EC 2012. Common methodology for assessing the impact of fisheries on marine Natura 2000. Service Contract No. 070307/2010/578174/SER/B. DGEnv Brussels.
- Poelman *et al*., 2022. Study on state-of-the-art scientific information on the impacts of aquaculture activities in Europe.
- ABPMer, 2013a – h. Tools for Appropriate Assessment of Fishing and Aquaculture Activities in Marine and Coastal Natura 2000 Sites. Marine Institute.
- Marine Institute (2013). A risk assessment framework for fisheries in Natura 2000 sites in Ireland: with case study assessments. Version 1.3., Galway, 31pp.
- Google Earth.

2.6. Assumptions made for Appropriate Assessment reports

A precautionary approach has been applied throughout this screening assessment. In circumstances where uncertainty remained regarding the existence of a credible source–pathway–receptor linkage, the relevant feature was considered in further detail. Screening conclusions were reached only where likely significant effects could be excluded on the basis of objective scientific information. Additional assumptions include:

- All aquaculture sites considered in this assessment report are assumed to be fully operational and that the operations (as well as environmental impacts) are occurring across the entire area of the sites, at a minimum.

- All aquaculture applications which were submitted prior to those being considered here, but may still be pending decisions (e.g., appealed to Aquaculture Licences Appeals Board- ALAB), are also assumed to be fully operational across the entire area of the relevant sites. This ensures a conservative approach in that it assumes these activities will be operational to the maximum extent possible.

- Where multiple species might be proposed to be cultured at a site, the assessment assumes that the species most likely to result in the greatest likely ecological effects on the surrounding environment will be the culture species considered. Furthermore, it will be assessed on the basis that it is cultured throughout the entire area of the proposed site. This ensures that the report considers the highest potential impact in relation to the prospective culture species interaction with the surrounding environment.

- Other assumptions may be identified on a case-by-case basis and clearly communicated in the AA report.

3. Description of the projects and local site characteristics

The projects are located within Killary Harbour, Co. Galway, in close proximity (within 7.5 km from east to west) to each other (see Figure 1).

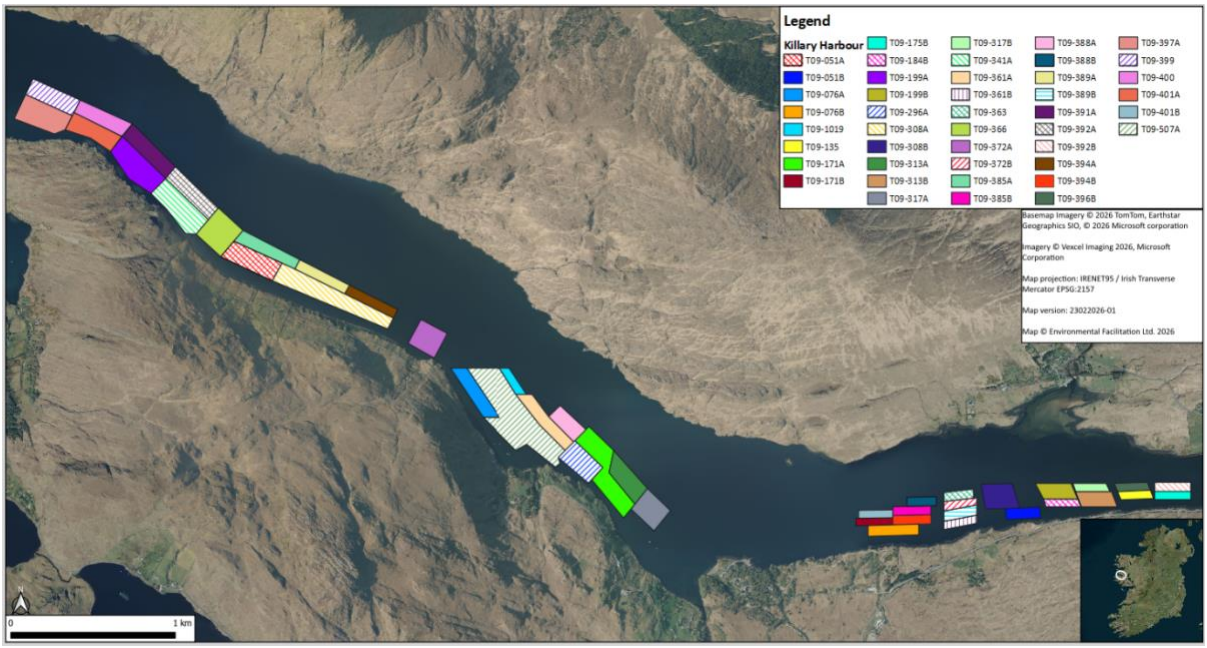


***Figure 1**: The location of the 44 aquaculture and foreshore licence applications considered in this Appropriate Assessment screening.*

3.1. Brief description of each project:

All projects propose culturing Blue Mussel (*Mytilus edulis*) using the same method: double head rope longlines. All project applications state that mussel spat will be sourced through natural settlement onto collection meshes and longlines. Production estimates across the 44 projects vary significantly over the five-year period and are detailed in Table 1 below.

Table 1 License list with production estimates (in tonnes) over a five-year period where relevant.

File Ref.	Year 1	Year 2	Year 3	Year 4	Year 5
T09-076A	60	60	60	60	60
T09-171A	100	100	100	100	100
T09-171B	20	20	20	20	20
T09/317A	40	40	40	40	40
T09/366	40	40	40	40	40
T09/372A	60	60	60	60	60
T09/385A	20	20	20	20	20
T09/385B	10	10	10	10	10
T09/389A	100	0	100	0	100

File Ref.	Year 1	Year 2	Year 3	Year 4	Year 5
T09/389B	40	0	40	0	40
T09/392A	40	40	40	40	40
T09/392B	20	20	20	20	20
T09/396B	20	20	20	20	20
T09/399	120	120	120	120	120
T09-184B	10	10	10	10	10
T09-199A	100	100	100	100	100
T09-199B	40	40	40	40	40
T09-341A	100	100	100	100	100
T09-361A	60	60	60	60	60
T09-361B	20	20	20	20	20
T09-372B	25	25	25	25	25
T09-388A	40	40	40	40	40
T09-388B	20	20	20	20	20
T09-391A	60	60	60	60	60
T09-394A	40	40	40	40	40
T09-394B	20	20	20	20	20
T09-400	30	30	30	30	30
T09-401A	100	100	100	100	100
T09-401B	20	20	20	20	20
T09/135	20	20	20	20	20
T09/051A	60	60	60	60	60
T09/051B	40	40	40	40	40
T09/308A	40	40	40	40	40
T09/308B	30	30	30	30	30
T09/076B	10	10	10	10	10
T09/363	16	16	16	16	16
T09/296A	30	30	30	30	30
T09/313A	70	70	70	70	70
T09/397A	90	90	90	90	90
T09-1019	20	20	20	20	20
T09-507A	120	120	120	120	120
T09/313B	Seed Collection only.				
T09/317B					
T09/175B					

3.2. Location of projects:

The location (approximate centroid) and the applicant's name of each project is set out in Table 2 below.

Table 2: *The approximate size (ha) and location (approximate centroid) of each project considered under this Appropriate Assessment.*

File Ref.	Hectarage	Applicants	Approximate centroid (lat/long)
T09-076A	3	Cluggam Mussels Ltd	53.6045°N, 9.8062°W
T09-171A	6.15	Pat Lydon	53.6005°N, 9.7939°W
T09-171B	1	Lettergesh Mussels Ltd	53.5981°N, 9.7689°W
T09/175B	1.1	Killary Fjord Shellfish Ltd	53.5999°N, 9.7419°W
T09/317A	3.08	Purple Spade Ltd	53.5985°N, 9.7896°W
T09/317B	1	Purple Spade Ltd	53.6003°N, 9.7495°W
T09/366	4.25	Purple Spade Ltd	53.6129°N, 9.8289°W
T09/372A	3.04	Bartley O'Malley	53.6074°N, 9.8105°W
T09/385A	2.95	Purple Spade Ltd	53.6121°N, 9.8255°W
T09/385B	1.25	Purple Spade Ltd	53.5987°N, 9.7659°W
T09/389A	2.1	Black Pearl Shellfish Ltd	53.6106°N, 9.8202°W
T09/389B	1.25	Black Pearl Shellfish Ltd	53.5987°N, 9.7608°W
T09/392A	3.36	Black Pearl Shellfish Ltd	53.6152°N, 9.8325°W
T09/392B	1.2	Black Pearl Shellfish Ltd	53.6004°N, 9.7419°W
T09/396B	1	Brian Spellman	53.6003°N, 9.7457°W
T09/399	3.3	Black Pearl Shellfish Ltd	53.6201°N, 9.8452°W
T09-184B	1	Kevin Lydon	53.5993°N, 9.7522°W
T09-199A	5	Killary Fish Farming Co-Operative Society Ltd	53.6165°N, 9.8373°W
T09-199B	2	Killary Fish Farming Co-Operative Society Ltd	53.5998°N, 9.7512°W
T09-341A	5	Cluggam Mussels Ltd	53.6143°N, 9.8333°W
T09-361A	3.15	Jim O'Malley	53.6031°N, 9.7992°W
T09-361B	1	Jim O'Malley	53.5982°N, 9.7602°W
T09-372B	1	Bartley O'Malley	53.5992°N, 9.7612°W
T09-388A	2.19	Peter Nee	53.6031°N, 9.7974°W
T09-388B	1	Peter Nee	53.5992°N, 9.7651°W
T09-391A	3.5	Ciaran Coyne	53.6174°N, 9.8373°W
T09-394A	1.95	Edward Nee Junior	53.6095°N, 9.8166°W
T09-394B	1.25	Edward Nee Junior	53.5982°N, 9.7654°W
T09-400	3	Liam Gerard Laffey	53.6189°N, 9.8402°W
T09-401A	3.3	Black Pearl Shellfish Ltd	53.6182°N, 9.8418°W

T09-401B	1	Black Pearl Shellfish Ltd	53.5984°N, 9.7691°W
T09/135	1	Kevin and Michael Lydon	53.5998°N, 9.7451°W
T09/051A	4	Brid Kavanagh	53.6155°N, 9.8266°W
T09/051B	1.4	Brid Kavanagh	53.5987°N, 9.7555°W
T09/308A	7.5	Kevin and Michael Lydon	53.6087°N, 9.8163°W
T09/308B	3	Kevin and Michael Lydon	53.5996°N, 9.7581°W
T09/076B	2	Kevin and Michael Lydon	53.5976°N, 9.7673°W
T09/363	1	Eddie Nee	53.5997°N, 9.7614°W
T09/296A	3.25	Online Mussels	53.6008°N, 9.7957°W
T09/313A	3.17	Online Mussels	53.6001°N, 9.7913°W
T09/313B	2	Online Mussels	53.5996°N, 9.7477°W
T09/397A	4.63	Online Mussels	53.6188°N, 9.8441°W
T09-1019	1	Black Pearl Shellfish Ltd	53.6051°N, 9.8022°W
T09-507A	12.69	Killary Fjord Shellfish Ltd	53.6031°N, 9.8000°W

3.3. Local site characteristics:

Killary Harbour is a narrow glacial fjord, 15km long and over 1km wide at its widest point. It runs from east to west, from the village of Leenane into the Atlantic Ocean. The underlying geology is primarily composed of Ordovician and Silurian sedimentary and volcanic rocks (Meehan *et al*., 2019). This deepwater, marine/estuarine inlet is flanked by the Mweelrea/Sheeffry/Erriff Complex SAC to the north (Co. Mayo) and both the Maumturk Mountains SAC and The Twelve Bens/Garraun Complex SAC to the south (Co. Galway).

Access points	Small boat access to the aquaculture projects will be from Bundorragha Pier (accessed via R335) or from Rossroe Pier (accessed via L5102).
WFD EPA water body name and quality	The proposed aquaculture projects lie within the Killary Harbour coastal waterbody, in good ecological status / WFD Risk is under review[8].
Hydrological regime (exposure (wave) and tidal currents)	Modelled datasets for kinetic energy at the seabed due to waves[9] and currents[10], developed as part of the EUSeaMap project (Populus *et al*, 2017), indicate that Killary Harbour has a relatively high kinetic energy at the seabed due to waves and relatively low levels of kinetic energy

[8] https://www.catchments.ie/data/#/waterbody/IE_WE_310_0000?_k=7y4rtd

[9] https://emodnet.ec.europa.eu/geonetwork/srv/eng/catalog.search#/metadata/2a2659c4-ce1b-4feb-81cf-a2bcbc362a3f

[10] https://emodnet.ec.europa.eu/geonetwork/srv/eng/catalog.search#/metadata/d72bfeca-ceb5-4faa-b7b0-e95db8c6310b

	at the seabed due to currents, suggesting it is fairly exposed to the prevailing Atlantic swell.
Water depth range	The inlet is 45m deep immediately inside the mouth of the fjord, has an average depth of 20m (Hennessy *et al*., 2019) and has a residency time of approximately 7 to 15 days (McMahon *et al*., 1992).
Underlying/adjacent marine habitats	Modelling from EUSeaMap (Populus *et al*, 2017) (see Figure 2) suggest the seabed is dominated by low energy infralittoral and circalittoral seabed habitats.

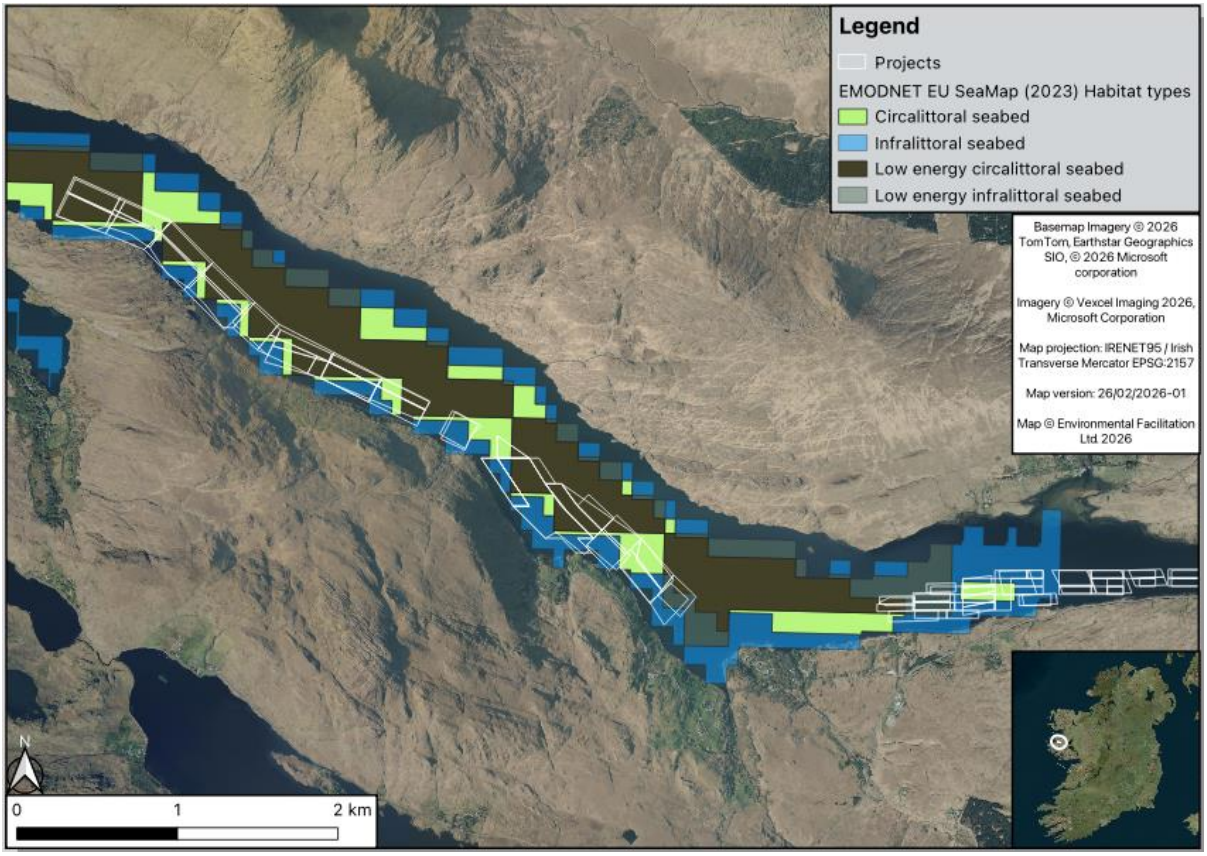


Figure 2: *EMODnet EUSeaMap (2023) seabed habitat types in the vicinity of the aquaculture projects. https://emodnet.ec.europa.eu/geoviewer/*

4. Overview of existing aquaculture activities

Typically, Blue Mussels (*Mytilus edulis*) are farmed in Ireland through suspended rope culture, have little environmental impact and do not require any commercial feed sources; all of the mussel nutrient requirements are filtered from the surrounding water (PWC, 2006). Spat (mussel seed) used for farming will be sourced locally through natural settling during spat fall.

The projects are situated within the Killary Harbour Classified Bivalve Mollusc (BLM) Production Area[11].

There are currently two existing aquaculture sites licensed within Killary Harbour. The details are listed in Table 3 and their locations illustrated in Figure 3 below.

Table 3: *Existing aquaculture sites (for Atlantic salmon and Blue mussel) in the vicinity of the projects being assessed within this Appropriate Assessment.*

Licence No.	Species	Area (hectares)	Name of Applicant
T09-143	Atlantic Salmon	22.51	DOCON LTD
T09-408A	Blue mussel	1.40	Black Pearl Shellfish Ltd

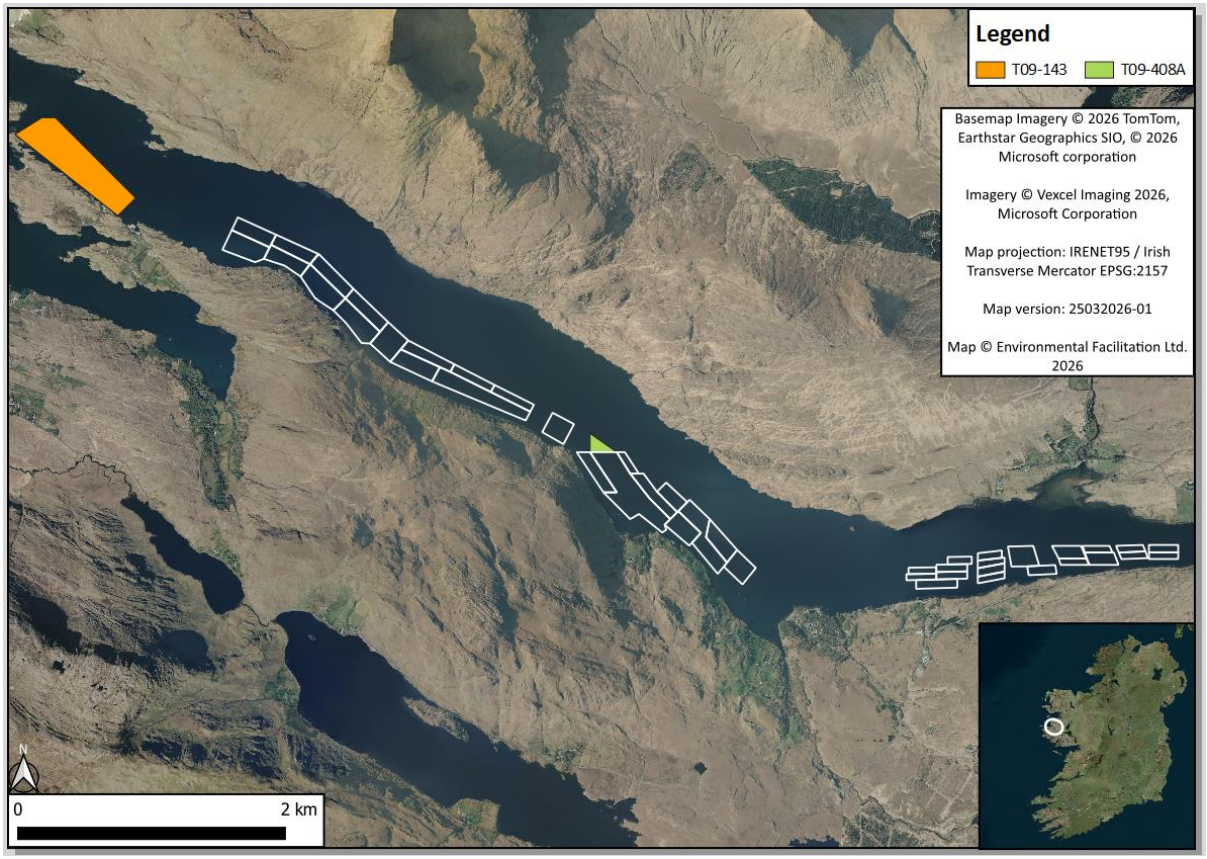


Figure 3*: Location of the two existing aquaculture sites licensed within Killary Harbour; T09-143 and T09-408A.*

[11] https://www.sfpa.ie/LinkClick.aspx?fileticket=BdHd0-39ThU%3d&portalid=0&resourceView=1

5. Identification and screening of Natura 2000 sites

5.1. Identification of all European sites within 15km

To support the Appropriate Assessment, a single polygon was created to encompass all 44 projects. Given their close proximity and identical aquaculture methods, this polygon was used as the basis for the proximity analysis of all adjacent European sites.

Ten SACs and two SPAs were identified within 15km of the group of projects. These are listed below in Table 4 and illustrated in Figure 4 and Figure 5 below, for SACs and SPAs respectively. All of the above European sites will be taken forward to the AA screening phase, set out in Section 5.3 and Section 5.4 below.

Table 4 A list of European sites located within 15km of the Killary Harbour licence applications.

European Site (code)	Distance from proposed projects (km)
The Twelve Bens/Garraun Complex SAC (002031)	Ca. 0.0km
Maumturk Mountains SAC (002008)	Ca. 0.1km
Mweelrea/Sheeffry/Erriff Complex SAC (001932)	Ca. 0.4km
West Connacht Coast SAC (002998)	Ca. 2.8km
Tully Lough SAC (002130)	Ca. 2.8km
Cross Lough (Killadoon) SAC (000484)	Ca. 9.7km
Lough Cahasy, Lough Baun and Roonah Lough SAC (001529)	Ca. 11.4km
Rusheenduff Lough SAC (001311)	Ca. 10.1km
Tully Mountain SAC (000330)	Ca. 10.2km
Connemara Bog Complex SAC (002034)	Ca. 14.8km
Cross Lough (Killadoon) SPA (004212)	Ca. 10.2km
Illaunnanoon SPA (004221)	Ca. 10.7km

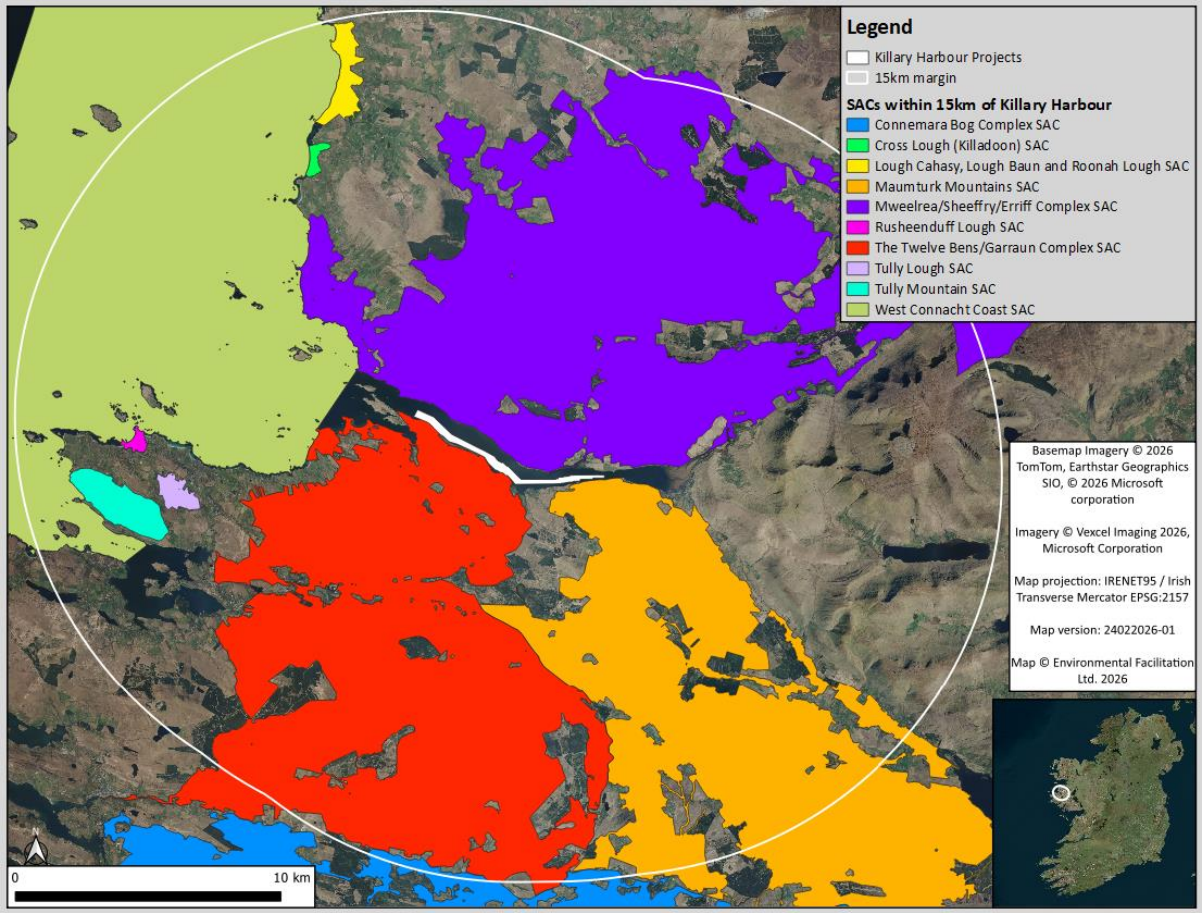


Figure 4: *SACs located within 15km of the projects.*

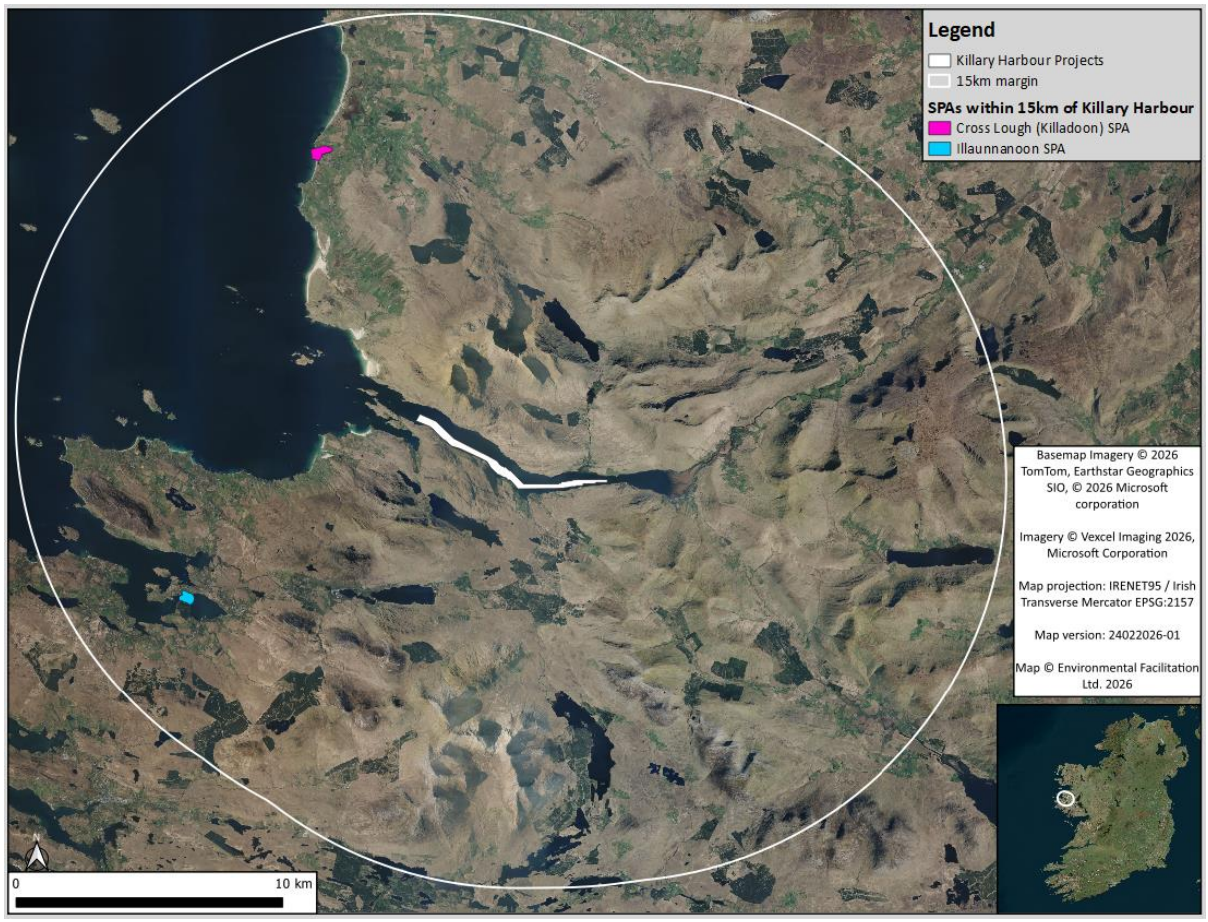


***Figure 5**: SPAs located within 15km of the projects.*

5.2. Identification of SPAs within 50km

Identification of European sites within a 15km zone is commonplace in Appropriate Assessment screening, this is an arbitrary distance and not necessarily based on Source-Pathway-Receptor models. Where there are migratory species, or species with a large foraging range (such as bird species), the proposed aquaculture activities may result in structures along their migratory routes or impact foraging behaviour. Therefore, in addition to the two SPAs located within 15km of the projects within Killary Harbour, a further fourteen SPAs were identified as occurring within 50km of the projects and are listed in Table 5 and illustrated in Figure 6 below.

Table 5: *A list of SPAs located 15km-50km from the projects.*

European Site (code)	Distance from proposed projects (km)
Connemara Bog Complex SPA (004181)	Ca. 15.3km
Lough Mask SPA (004062)	Ca. 15.7km
Lough Corrib SPA (004042)	Ca. 16.8km
High Island, Inishshark and Davillaun SPA (004144)	Ca. 17.5km
Clare Island SPA (004136)	Ca. 21.5km
Inishbofin, Omey Island and Turbot Island SPA (004231)	Ca. 21.9km
Cruagh Island SPA (004170)	Ca. 25.7km
Connemara Islands SPA (004159)	Ca. 27.4km
Lough Carra SPA (004051)	Ca. 32km
Owenduff/Nephin Complex SPA (004098)	Ca. 32.3km
Bills Rocks SPA (004177)	Ca. 36.1km
Doogort Machair SPA (004197)	Ca. 44.3km
Blacksod Bay/Broad Haven SPA (004037)	Ca. 45.7km
Inishmore SPA (004152)	Ca. 49.1km

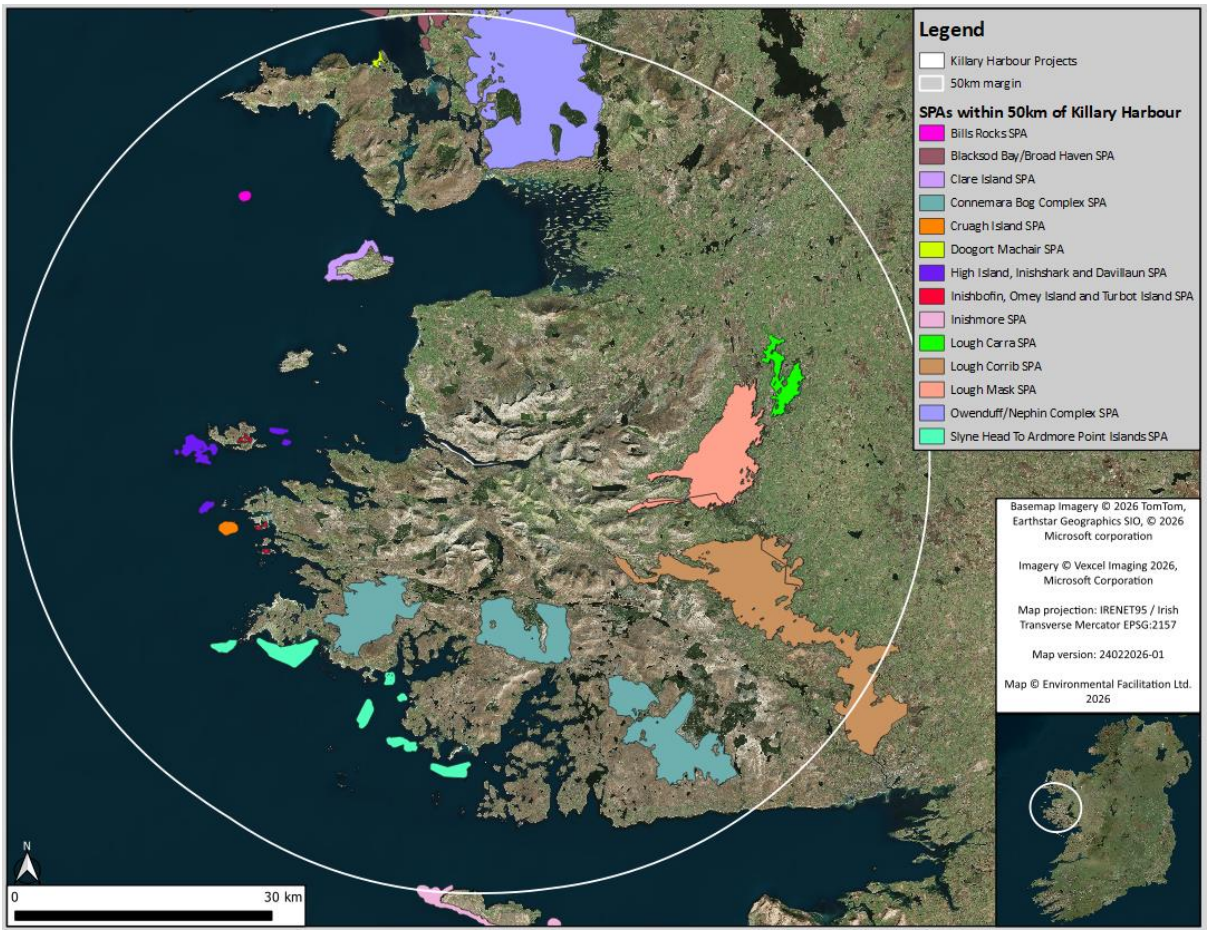


***Figure 6**: SPAs located 15km-50km from the projects.*

For the SCIs of the fourteen SPAs located between 15-50km (Table 5) from the projects (and which were not considered as part of the assessment of likely significant effects in Section 5.4), an assessment of population level impacts was undertaken, set out in Table 6 below.

***Table 6**: An assessment of population level impacts for SCIs of European sites located between 15-50km from the projects, and where they have not already been considered in Section 5.4.*

Special Conservation Interest (SCI)	Relevant SPAs	Assessment of population level impacts from projects
Cormorant (*Phalacrocorax carbo*) [A017]	Connemara Bog Complex SPA (004181)	Known to frequent open waters, both inland and marine, *carbo* markedly marine. Prefers sheltered areas and estuaries. Sometimes, lakes, lagoons, reservoirs, wide rivers, and flood waters. (Hatch *et al*., 2020). Normally feeds in shallow water. Breeds on inshore islands, cliffs, stacks, amongst boulders. Considering its habitat preference, foraging behaviour and the intervening distance between these aquaculture projects and this SPA (ca. 15.3km away), Cormorant are not anticipated to be found in significant numbers adjacent to or within these projects, and population level impacts are therefore extremely unlikely.
Merlin (*Falco columbarius*) [A098]	Connemara Bog Complex SPA (004181) Owenduff/Nephin Complex SPA (004098)	No adverse impacts anticipated from these projects.
Golden Plover (*Pluvialis apricaria*) [A140]	Connemara Bog Complex SPA (004181) Lough Corrib SPA (004042) Owenduff/Nephin Complex SPA (004098)	Usually found on pastures, open agricultural land, and regularly feeds on intertidal flats. Foraging mostly on invertebrates, polychaetes on intertidal flats, and sometimes berries, seeds and grass (Wiersma *et al*., 2020b). Considering its habitat preference, foraging behaviour and the intervening distance between these aquaculture projects and this SPA (ca. 15.3km away), Golden Plover are not anticipated to be found in significant numbers adjacent to or within these projects, and population level impacts are therefore extremely unlikely.
Common Gull (*Larus canus*) [A182]	Connemara Bog Complex SPA (004181) Lough Corrib SPA (004042) Clare Island SPA (004136) Lough Carra SPA (004051)	Adaptable species, found across marine and aquatic habitats. Most coastal habitat and estuaries, but also beaches, bogs, marshes. Opportunistic, omnivorous feeding habits, mainly terrestrial foods including invertebrates, grain, and garbage (Moskoff *et al*., 2021). Considering its habitat preference, foraging behaviour and the intervening distance between these aquaculture projects and this SPA (ca. 15.3km away), Common Gull are not anticipated to be found in significant numbers adjacent to/within these projects and population level impacts are therefore extremely unlikely.

Special Conservation Interest (SCI)	Relevant SPAs	Assessment of population level impacts from projects
Tufted Duck (*Aythya fuligula*) [A061]	Lough Mask SPA (004062)	Usually breeds on "large, deep, freshwater lakes, ponds and reservoirs with marginal and emergent vegetation, open waters and preferably islands, mainly in lowland areas," (Carboneras & Kirwan, 2020). Considering its habitat preference, foraging behaviour and the intervening distance between these aquaculture projects and this SPA (ca. 15.7km away), Tufted Duck are not anticipated to be found in significant numbers adjacent to/within these projects and population level impacts are therefore extremely unlikely.
Black-headed Gull (*Chroicocephalus ridibundus*) [A179]	Lough Mask SPA (004062) Lough Corrib SPA (004042)	Black-headed Gull is reported to have a global mean foraging distance of 7km (Woodward *et al*., 2024). Considering its habitat preference, foraging behaviour and the intervening distance between these aquaculture projects and this SPA (ca. 15.7km away), Black-headed Gull are not anticipated to be found in significant numbers adjacent to/within these projects and population level impacts are therefore extremely unlikely.
Lesser Black-backed Gull (*Larus fuscus*) [A183]	Lough Mask SPA (004062)	Frequents coastal and inland habitats, likes to feed or roost on estuaries, harbours, lakes, reservoirs and sandy beaches (Burger *et al*., 2020). Considering its habitat preference, foraging behaviour and the intervening distance between these aquaculture projects and this SPA (ca. 15.7km away), Lesser Black-backed Gull are not anticipated to be found in significant numbers adjacent to/within these projects and population level impacts are therefore extremely unlikely.
Common Tern (*Sterna hirundo*) [A193]	Lough Mask SPA (004062) Lough Corrib SPA (004042) Connemara Islands SPA (004159)	On the Atlantic Coast, Common Tern usually forage within 1 km of the shore; they often feed over predatory fish in open water (Arnold *et al.,* 2020), and they have a global mean foraging distance of 6.4km (Woodward *et al*., 2024). Considering the intervening distance between these aquaculture projects and this SPA (ca. 15.7km away), Common Tern are not anticipated to be found in significant numbers adjacent to/within these projects and population level impacts are therefore extremely unlikely.

Special Conservation Interest (SCI)	Relevant SPAs	Assessment of population level impacts from projects
Greenland White-fronted Goose (*Anser albifrons flavirostris*) [A395]	Lough Mask SPA (004062) Lough Corrib SPA (004042)	Prefers to winter on peatlands and improved grasslands and forages mostly on plant matter (Ely *et al*., 2024). Considering its habitat preference, foraging behaviour and the intervening distance between these aquaculture projects and this SPA (ca. 15.7km away), Greenland White-fronted Geese are not anticipated to be found in significant numbers adjacent to/within these projects and population level impacts are therefore extremely unlikely.
Wetland and Waterbirds [A999]	Lough Mask SPA (004062) Lough Corrib SPA (004042)	There is no spatial overlap or hydrological pathway between the project area and this Special Conservation Interest. Therefore, any adverse impacts are considered extremely unlikely.
Pochard (*Aythya ferina*) [A059]	Lough Corrib SPA (004042)	Found usually on "well-vegetated eutrophic to neutral swamps, marshes, lakes and slow-flowing rivers with areas of open water and abundant emergent fringing vegetation, but also breeds on saline, brackish and soda lakes, occasionally even in sheltered coastal bays. In winter, often on brackish coastal lagoons and tidal estuaries," (Carboneras *et al*., 2020). Foraging mostly on "seeds, roots and green parts of grasses, sedges and aquatic plants; also small invertebrates (aquatic insects and their larvae, molluscs, crustaceans, worms), amphibians and small fish." Considering its habitat preference, foraging behaviour and the intervening distance between these aquaculture projects and this SPA (ca. 16.8km away), Pochard are not anticipated to be found in significant numbers adjacent to/within these projects and population level impacts are therefore extremely unlikely.
Common Scoter (*Melanitta nigra*) [A065]	Lough Corrib SPA (004042)	Usually found breeding on freshwater pools, small lakes or slow-flowing rivers, foraging on plants, invertebrates, and freshwater crustaceans. Nest is scraped into ground hidden among vegetation. Winters usually at sea in shallow waters (<20m) and dives several metres (1-3.7m) to feed, predominantly of benthic bivalve molluscs. (Carboneras & Kirwan, 2020). Considering its habitat preference, foraging behaviour and the intervening distance between these aquaculture projects and this SPA (ca. 16.8km away), Common Scoter are not anticipated to be found in significant numbers adjacent to/within these projects and population level impacts are therefore extremely unlikely.

Special Conservation Interest (SCI)	Relevant SPAs	Assessment of population level impacts from projects
Hen Harrier (*Circus cyaneus*) [A082]	Lough Corrib SPA (004042)	No adverse impacts anticipated from these projects.
Coot (*Fulica atra*) [A125]	Lough Corrib SPA (004042)	Outside breeding season, usually found on "quiet estuarine or inshore sea waters, and often occurs on open water of lakes and reservoirs". Omnivorous, but primarily vegetarian (Taylor *et al*., 2020). Considering its habitat preference, foraging behaviour and the intervening distance between these aquaculture projects and this SPA (ca. 16.8km away), Coot are not anticipated to be found in significant numbers adjacent to/within these projects and population level impacts are therefore extremely unlikely.
Arctic Tern (*Sterna paradisaea*) [A194]	Lough Corrib SPA (004042) High Island, Inishshark and Davillaun SPA (004144) Connemara Islands SPA (004159)	Most foraging occurs within 20km of the colony, where prey availability is 50cm from the surface (Hatch *et al*., 2020). Considering its habitat preference, foraging behaviour and the intervening distance between these aquaculture projects and this SPA (ca. 16.8km away), Arctic Tern are not anticipated to be found in significant numbers adjacent to/within these projects and population level impacts are therefore extremely unlikely.
Shoveler (*Spatula clypeata*) [A857]	Lough Corrib SPA (004042)	Usually found wintering on "wetland habitats, including freshwater and saline marshes, brackish lagoons and tidal mudflats". Usually forages in freshwater column on swimming invertebrates and seed biomass (Dubowy *et al.,* 2020). Considering its habitat preference, foraging behaviour and the intervening distance between these aquaculture projects and this SPA (ca. 16.8km away), Shoveler are not anticipated to be found in significant numbers adjacent to/within these projects and population level impacts are therefore extremely unlikely.
Gadwall (*Mareca strepera*) [A889]	Lough Corrib SPA (004042)	Usually found wintering at a variety of inland and coastal areas, prefers islands, places with emergent vegetation, and fresh and brackish water (Dubowy *et al.,* 2020). Considering its habitat preference, foraging behaviour and the intervening distance between these aquaculture projects and this SPA (ca. 16.8km away), Gadwall are not

Special Conservation Interest (SCI)	Relevant SPAs	Assessment of population level impacts from projects
		anticipated to be found in significant numbers adjacent to/within these projects and population level impacts are therefore extremely unlikely.
Fulmar (*Fulmarus glacialis*) [A009]	High Island, Inishshark and Davillaun SPA (004144) Clare Island SPA (004136)	Typically breeds on cliffs, and feeds on a wide variety of foods, fish, cephalopods, zooplankton, offal and carrion (Mallory *et al*., 2023). Considering its habitat preference, foraging behaviour and the intervening distance between these aquaculture projects and this SPA (ca. 17.5km away), Fulmar are not anticipated to be found in significant numbers adjacent to/within these projects and population level impacts are therefore extremely unlikely.
Barnacle Goose (*Branta leucopsis*) [A045]	High Island, Inishshark and Davillaun SPA (004144) Cruagh Island SPA (004170) Connemara Islands SPA (004159)	Tidal mudflats, saltmarshes, lowland meadows and improved pastures all provide important foraging habitat for this species (Mlodinow *et al*., 2023). Considering its habitat preference, foraging behaviour and the intervening distance between these aquaculture projects and this SPA (ca. 17.5km away), Barnacle Geese are not anticipated to be found in significant numbers adjacent to/within these projects and population level impacts are therefore extremely unlikely.
Shag (*Phalacrocorax aristotelis*) [A018]	Clare Island SPA (004136)	A marine bird usually found on rocky coasts and islands, forages on sandy substrate mostly, and roosts on rocks and stacks (Orta *et al*., 2021). Considering its habitat preference, foraging behaviour and the intervening distance between these aquaculture projects and this SPA (ca. 21.5km away), Shag are not anticipated to be found in significant numbers adjacent to/within these projects and population level impacts are therefore extremely unlikely.
Kittiwake (*Rissa tridactyla*) [A188]	Clare Island SPA (004136)	Breeds on coasts and prefers high cliffs and ledges, forages using a variety of methods and is mainly piscivorous (Hatch *et al*., 2020). Considering its habitat preference, foraging behaviour and the intervening distance between these aquaculture projects and this SPA (ca. 21.5km away), Kittiwake are not anticipated to be found in significant numbers adjacent to/within these projects and population level impacts are therefore extremely unlikely.

Special Conservation Interest (SCI)	Relevant SPAs	Assessment of population level impacts from projects
Guillemot (*Uria aalge*) [A199]	Clare Island SPA (004136)	Breeds on cliffs, feeds on fish, euphausiids, large copepods, and squid. Prey captured by bill diving, normal feeding depth is 20-25m (Ainley *et al*., 2021). Considering its habitat preference, foraging behaviour and the intervening distance between these aquaculture projects and this SPA (ca. 21.5km away), Guillemot are not anticipated to be found in significant numbers adjacent to/within these projects and population level impacts are therefore extremely unlikely.
Razorbill (*Alca torda*) [A200]	Clare Island SPA (004136)	Breeds on rocky coastal regions and steep mainland cliffs and islands, mainly feeds in shallow waters and dives by bill diving for fish (Lavers *et al*., 2020). Considering its habitat preference, foraging behaviour and the intervening distance between these aquaculture projects and this SPA (ca. 21.5km away), Razorbill are not anticipated to be found in significant numbers adjacent to/within these projects and population level impacts are therefore extremely unlikely.
Chough (*Pyrrhocorax pyrrhocorax*) [A346]	Clare Island SPA (004136)	Prefers coastal cliffs and high mountain pastures with rocky crags. Primarily insectivorous, but also plant material (Madge, 2020). Considering its habitat preference, foraging behaviour and the intervening distance between these aquaculture projects and this SPA (ca. 21.5km away), Chough are not anticipated to be found in significant numbers adjacent to/within these projects and population level impacts are therefore extremely unlikely.
Corncrake (*Crex crex*) [A122]	Inishbofin, Omey Island and Turbot Island SPA (004231)	No adverse impacts anticipated from these projects.
Manx Shearwater (*Puffinus puffinus*) [A013]	Cruagh Island SPA (004170)	Mainly breeds on coastal or offshore islands or promontories, occupying flat hill tops or slopes. Primarily feeds on bait fish, but also cephalopods, crustaceans, and offal (Lee, 2023). Considering its habitat preference, foraging behaviour and the intervening distance between these aquaculture projects and this SPA (ca. 25.7km away), Manx Shearwater are not anticipated to be found in significant numbers adjacent to/within these projects and population level impacts are therefore extremely unlikely.

Special Conservation Interest (SCI)	Relevant SPAs	Assessment of population level impacts from projects
Sandwich Tern (*Thalasseus sandvicensis*) [A863]	Connemara Islands SPA (004159)	Sandwich Tern is reported to usually feed within 2 km of shore, "tends to ignore bays and estuaries," (Shealer *et al.,* 2020). Considering its habitat preference, foraging behaviour and the intervening distance between these aquaculture projects and this SPA (ca. 27.4km away), Sandwich Tern are not anticipated to be found in significant numbers adjacent to/within these projects and population level impacts are therefore extremely unlikely.
Little Tern (*Sternula albifrons*) [A885]	Connemara Islands SPA (004159)	Little Tern is reported to forage locally with respect to the breeding site (within 3km of the colony) (Gochfeld *et al*., 2020). Considering its habitat preference, foraging behaviour and the intervening distance between these aquaculture projects and this SPA (ca. 27.4km away), Little Tern are not anticipated to be found in significant numbers adjacent to/within these projects and population level impacts are therefore extremely unlikely.
Storm Petrel (*Hydrobates pelagicus*) [A014]	Bills Rocks SPA (004177)	Breeds on islands and winters in the South Atlantic, feeds mainly on fish, plankton, molluscs and crustaceans (Carboneras, 2021). Considering its habitat preference, foraging behaviour and the intervening distance between these aquaculture projects and this SPA (ca. 36.1km away), Storm Petrel are not anticipated to be found in significant numbers adjacent to/within these projects and population level impacts are therefore extremely unlikely.
Puffin (*Fratercula arctica*) [A204]	Bills Rocks SPA (004177)	Exclusively marine, occurring along rocky coasts and offshore islands. Breeds on grassy-turfed maritime slopes or adjacent flattish ground, also on sea cliffs, and boulder fields and scree slopes. Feeds mostly on small fish (Lowther *et al*., 2020). Considering its habitat preference, foraging behaviour and the intervening distance between these aquaculture projects and this SPA (ca. 36.1km away), Puffin are not anticipated to be found in significant numbers adjacent to/within these projects and population level impacts are therefore extremely unlikely.
Dunlin (*Calidris alpina*) [A419]	Blacksod Bay/Broad Haven SPA (004037)/ Doogort Machair SPA (004235)	The Dunlin, a wader commonly found in Ireland, typically inhabits intertidal mudflats, estuaries, and sheltered coastal bays during the non-breeding season, where it forages

Special Conservation Interest (SCI)	Relevant SPAs	Assessment of population level impacts from projects
		primarily on small invertebrates such as molluscs and crustaceans (MacWhirter *et al*., 2020). Killary Harbour provides some suitable intertidal habitat; however, the proposed mussel longline aquaculture sites are predominantly subtidal and spatially separated from the key foraging and roosting areas used by Dunlin. Given this spatial separation and the nature of the aquaculture activity, there is no direct pathway for significant disturbance or habitat loss affecting Dunlin populations and population impacts are therefore considered extremely unlikely.
Dunlin (*Calidris alpina schinzii*) [A466]	Blacksod Bay/Broad Haven SPA (004037)	The Dunlin (*Calidris alpina schinzii*) primarily uses intertidal mudflats, estuaries, and sheltered coastal bays for foraging during the non-breeding season, feeding mainly on small invertebrates including molluscs and crustaceans (MacWhirter *et al*., 2020; MacWhirter *et al*., 2023). The subspecies is prevalent along Ireland's west coast in suitable habitats. While Killary Harbour offers some intertidal feeding grounds, the proposed mussel longline aquaculture sites are located subtidally and spatially separated from key Dunlin foraging and roosting areas. This spatial and ecological separation means there is no direct pathway for significant disturbance or habitat loss affecting Dunlin populations and population impacts are therefore considered extremely unlikely.
Red-throated Diver (*Gavia stellata*) [A001]	Blacksod Bay/Broad Haven SPA (004037)	They typically feed along the coasts of tidal estuaries and over mudflats in streams, rivers or larger lakes. It is also reported that they are rarely seen off rocky shorelines (Rizzolo *et al*., 2020). Prefers breeding in low elevation wetlands. Considering its foraging behaviour and the intervening distance between these aquaculture projects and the SPA (ca. 45.7km away), Red-throated Diver are not anticipated to be found in significant numbers adjacent to/within these projects and population level impacts are therefore extremely unlikely.
Great Northern Diver (*Gavia immer*) [A003]	Blacksod Bay/Broad Haven SPA (004037)	When wintering, occupies nearshore and offshore coastal areas, like bays channels, and inlets. Feeds primarily on fish, opportunistically on crustaceans whilst breeding also, generally in waters <5m in depth (Paruk *et al*., 2021). Considering its foraging behaviour and the intervening distance between these aquaculture projects and the SPA (ca. 45.7km away), Great Northern Diver are not anticipated to be found in significant numbers adjacent to/within these projects and population level impacts are therefore extremely unlikely.

Special Conservation Interest (SCI)	Relevant SPAs	Assessment of population level impacts from projects
Slavonian Grebe (*Podiceps auritus*) [A007]	Blacksod Bay/Broad Haven SPA (004037)	Prefers small ponds and lake inlets containing a mixture of emergent vegetation and open water, which are used to good advantage: its cryptic, floating nest is usually concealed in the vegetation (Stedman, 2020). Considering its foraging behaviour and the intervening distance between these aquaculture projects and the SPA (ca. 45.7km away), Slavonian Grebe are not anticipated to be found in significant numbers adjacent to/within these projects and population level impacts are therefore extremely unlikely.
Light-bellied Brent Goose (*Branta bernicla hrota*) [A046]	Blacksod Bay/Broad Haven SPA (004037)	In western Europe, Brent Geese use eelgrass meadows (eelgrass is a strong indicator of the abundance of the Brent Goose) and green algae beds, and salt marshes, but they have used grasslands in spring also and now regularly use agricultural grasslands and winter cereals in fall and winter too. However, research has shown that agricultural areas are second choice behind salt marshes (Inger *et al*. 2008). Therefore, considering habitat preference and the intervening distance between these aquaculture projects and these SPAs (closest is ca. 45.7km away), Light-bellied Brent Geese are not anticipated to be found in significant numbers adjacent to/within these projects and population level impacts are therefore extremely unlikely.
Red-breasted Merganser (*Mergus serrator*) [A069]	Blacksod Bay/Broad Haven SPA (004037)	Usually wintering "at sea, frequenting both inshore and offshore waters, sandy estuaries, sheltered bays and brackish lagoons." Feeds mostly on "Small fish (10-15 cm) and crustaceans; also worms, insects, amphibians, and some plant material." Forages mostly by diving to various depths (Craik *et al*., 2020). The conservation status is not globally threatened (Least Concern). Considering its habitat preference, foraging behaviour and the intervening distance between these aquaculture projects and this SPA (ca. 45.7km away), Red-breasted Merganser are not anticipated to be found in significant numbers adjacent to/within these projects and population level impacts are therefore extremely unlikely.
Ringed Plover (*Charadrius hiaticula*) [A137]	Blacksod Bay/Broad Haven SPA (004037)	Usually found on "sandbanks, mudflats, estuaries and, occasionally, rivers, lakes, lagoons, saltmarshes, short grassland, flooded fields." Forages on small invertebrates on tidal flats. (Wiersma *et al*., 2020a).

Special Conservation Interest (SCI)	Relevant SPAs	Assessment of population level impacts from projects
		Considering its habitat preference, foraging behaviour and the intervening distance between these aquaculture projects and these SPAs (closest is ca. 45.7km away), Ringed Plover are not anticipated to be found in significant numbers adjacent to/within these projects and population level impacts are therefore extremely unlikely.
Sanderling (*Calidris alba*) [A144]	Blacksod Bay/Broad Haven SPA (004037)	Nests on well vegetated areas, and often on stony, well drained ridge tops, often <60m above sea level. Forages on coastal beaches on small invertebrates and bivalve molluscs. (Macwhirter *et al*., 2020). Considering its habitat preference, foraging behaviour and the intervening distance between these aquaculture projects and these SPAs (closest is ca. 45.7km away), Sanderling are not anticipated to be found in significant numbers adjacent to/within these projects and population level impacts are therefore extremely unlikely.
Bar-tailed Godwit (*Limosa lapponica*) [A157]	Blacksod Bay/Broad Haven SPA (004037)	Usually found on intertidal areas, sandy estuaries, and sheltered bays. Foraging usually on molluscs, crustaceans and insects (McCaffery & Gill, 2020). Considering its habitat preference, foraging behaviour and the intervening distance between these aquaculture projects and these SPAs (closest is ca. 45.7km away), Bar-tailed Godwit are not anticipated to be found in significant numbers adjacent to/within these projects and population level impacts are therefore extremely unlikely.
Curlew (*Numenius arquata*) [A160]	Blacksod Bay/Broad Haven SPA (004037)	During non-breeding periods, Curlew is typically found on muddy coasts, bays and estuaries (Van Gils *et al*., 2020). Forages on wide variety, mainly on invertebrates, sometimes small vertebrates, and plant material. Considering its habitat preference, foraging behaviour and the intervening distance between these aquaculture projects and this SPA (ca. 45.7km away), Curlew are not anticipated to be found in significant numbers adjacent to/within these projects and population level impacts are therefore extremely unlikely.

Having examined, analysed, and evaluated, in the light of the best scientific knowledge in the field, the following aspects of the projects:

- the nature of the proposed aquaculture projects (including associated operations and ancillary works) and location;
- the above European sites together with their SCIs and conservation objectives;
- potential sources and pathways relevant to these European sites

it can be ruled out, based on objective scientific information, that the projects themselves (i.e. individually) will have a significant effect on these European Sites located between 15-50km from the aquaculture licence areas (listed in Table 3 and Table 4 in Section 5.2), in light of the above information and the following rationale:

- Due to the separation distance between each Natura site and the projects and the absence of important foraging areas for the feature SCIs in the vicinity of the projects.

5.3. Assessment of Likely Significant Effects for Qualifying Interests (QIs) of Special Areas of Conservation.

The Twelve Bens/Garraun Complex SAC (002031)

Qualifying Interest (QI)	Conservation Objectives	Assessment of Likely Significant Effect	Screening outcome
Lutra lutra (Otter) [1355]	To maintain the favourable conservation condition	Several records of otter (see Appendix 1) were noted along the banks of Killary Harbour and adjacent to the projects. Source: https://maps.biodiversityireland.ie/Map accessed on 03/03/2026. Following examination of the mapping data, there appears to be no spatial overlap between the projects and the European site. The projects comprise suspended subtidal longline infrastructure and do not involve reclamation, shoreline modification, excavation, or loss of terrestrial riparian habitat used by otter for resting or breeding purposes. Vessel activity associated with routine maintenance is intermittent, low-speed and dispersed across the wider harbour environment. The projects do not create a physical barrier to commuting or foraging behaviour and no evidence has been identified that the existing or proposed operational regime would result in significant disturbance, displacement or fragmentation effects for otter populations." Therefore, there is no likely S-P-R link between the QI and the projects and it is concluded that any significant impact from the projects on this QI as highly unlikely.	Screened out
Salmo salar (Salmon) [1106]	To maintain the favourable conservation condition	Salmon migration specialist was consulted regarding potential impacts of the projects on this QI. Although Atlantic salmon migrate through Killary Harbour to access upstream freshwater systems, the suspended mussel longline infrastructure does not obstruct migratory passage, alter hydrodynamic conditions at a scale capable of affecting migration behaviour, or give rise to significant underwater noise, water quality deterioration or entanglement risk. Routine operational activities are localised and intermittent in nature and do not present a mechanism by which the conservation objectives for this species could be undermined. (Ken Whelan *pers comm.*). There is no S-P-R link that could lead to a likely significant effect on the conservation condition of this QI.	

Qualifying Interest (QI)	Conservation Objectives	Assessment of Likely Significant Effect	Screening outcome
Margaritifera margaritifera (Freshwater Pearl Mussel) [1029]	To restore the favourable conservation condition	This QI is a strictly freshwater species while the projects are located within the marine/estuarine environment of Killary Harbour. There is no physical overlap between the footprint of the projects and the freshwater habitats of this species and there is no downstream hydrological connection between the projects and this European site. Therefore, there is no likely S-P-R link between the QI and the projects and it is concluded that any significant impact from the projects on this QI are highly unlikely.	
Najas flexilis (Slender Naiad) [1833]	To maintain the favourable conservation condition	No S–P–R linkage has been identified having regard to the nature, location, scale and operational characteristics of the projects, and therefore no likely significant effect is reasonably foreseeable.	Screened out
Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae) [3110]	To maintain the favourable conservation condition		
Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or Isoeto-Nanojuncetea [3130]	To maintain the favourable conservation condition		
Alpine and Boreal heaths [4060]	To restore the favourable conservation condition		
Blanket bogs (* if active bog) [7130]	To restore the favourable conservation condition		
Depressions on peat substrates of the Rhynchosporion [7150]	To restore the favourable conservation condition		

Qualifying Interest (QI)	Conservation Objectives	Assessment of Likely Significant Effect	Screening outcome
Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani) [8110]	To restore the favourable conservation condition	No S–P–R linkage has been identified having regard to the nature, location, scale and operational characteristics of the projects, and therefore no likely significant effect is reasonably foreseeable.	Screened out
Calcareous rocky slopes with chasmophytic vegetation [8210]	To restore the favourable conservation condition	No S–P–R linkage has been identified having regard to the nature, location, scale and operational characteristics of the projects, and therefore no likely significant effect is reasonably foreseeable.	Screened out
Siliceous rocky slopes with chasmophytic vegetation [8220]	To restore the favourable conservation condition		
Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0]	To maintain the favourable conservation condition		

Maumturk Mountains SAC (002008)

Qualifying Interest (QI)	Conservation Objectives	Assessment of Likely Significant Effect	Screening outcome
1106 Salmon *Salmo salar*	To maintain the favourable conservation condition	As part of the Appropriate Assessment process, a salmon migration specialist was consulted regarding potential impacts of the projects on this QI. While Salmon migrate through Killary Harbour to reach spawning grounds within the SAC, the suspended mussel longlines do not present a physical barrier to migration, do not impact water quality, and pose no risk of entanglement(Ken Whelan *pers comm.*). There is no source-pathway-receptor link that could lead to a likely significant effect on the conservation condition of this QI. No adverse impact concluded	Screened out

Qualifying Interest (QI)	Conservation Objectives	Assessment of Likely Significant Effect	Screening outcome
1833 Slender Naiad *Najas flexilis*	To maintain the favourable conservation condition	No S–P–R linkage has been identified having regard to the nature, location, scale and operational characteristics of the projects, and therefore no likely significant effect is reasonably foreseeable.	Screened out
3110 Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*)	To maintain the favourable conservation condition		
4010 Northern Atlantic wet heaths with *Erica tetralix*	To restore the favourable conservation condition	No S–P–R linkage has been identified having regard to the nature, location, scale and operational characteristics of the projects, and therefore no likely significant effect is reasonably foreseeable.	Screened out
4060 Alpine and Boreal heaths	To restore the favourable conservation condition		
7130 Blanket bogs (* if active bog)	To restore the favourable conservation condition		
7150 Depressions on peat substrates of the Rhynchosporion	To restore the favourable conservation condition		
8220 Siliceous rocky slopes with chasmophytic vegetation	To restore the favourable conservation condition		

Mweelrea/Sheeffry/Erriff Complex SAC (001932)

Qualifying Interest (QI)	Conservation Objectives	Assessment of Likely Significant Effect	Screening outcome
Lutra lutra (Otter) [1355]	To maintain the favourable conservation condition	Several records of otter (see Appendix 1) were noted along the banks of Killary Harbour and adjacent to the projects. Source: https://maps.biodiversityireland.ie/Map accessed on 03/03/2026. Following examination of the mapping data, there appears to be no spatial overlap between the projects and the European site. While the general habitat along the banks of the fjord may support otter, the projects are subtidal and do not impact terrestrial holt/couch sites. No evidence has been identified that the projects would adversely affect prey availability or supporting habitat function for the species. Existing levels of activity do not pose a significant disturbance risk to the population. Therefore, there is no likely S-P-R link between the QI and the projects and it is concluded that any significant impact from the projects on this QI are highly unlikely.	Screened out
Salmo salar (Salmon) [1106]	To restore the favourable conservation condition	As part of the Appropriate Assessment process, a salmon migration specialist was consulted regarding potential impacts of the projects on this QI. While Salmon migrate through Killary Harbour to reach spawning grounds within the SAC, the suspended mussel longlines do not present a physical barrier to migration, do not impact water quality, and pose no risk of entanglement (Ken Whelan *pers comm.*). There is no source-pathway-receptor link that could lead to a likely significant effect on the conservation condition of this QI. No adverse impact concluded	
Margaritifera margaritifera (Freshwater Pearl Mussel) [1029]	To restore the favourable conservation condition	This QI is a strictly freshwater species while the projects are located within the marine/estuarine environment of Killary Harbour. There is no physical overlap between the footprint of the projects and the freshwater habitats of this species and there is no downstream hydrological connection between the projects and this European site. Therefore, there is no likely S-P-R link between the QI and the projects and it is concluded that any significant impact from the projects on this QI are highly unlikely.	
Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*) [3110]	To maintain the favourable conservation condition	No S–P–R linkage has been identified having regard to the nature, location, scale and operational characteristics of the projects, and therefore no likely significant effect is reasonably foreseeable.	

Qualifying Interest (QI)	Conservation Objectives	Assessment of Likely Significant Effect	Screening outcome
Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or Isoeto-Nanojuncetea [3130]	To maintain the favourable conservation condition	No S–P–R linkage has been identified having regard to the nature, location, scale and operational characteristics of the projects, and therefore no likely significant effect is reasonably foreseeable.	Screened out
Natural dystrophic lakes and ponds [3160]	To maintain the favourable conservation condition		
Water courses of plain to montane levels with the *Ranunculion fluitantis* and Callitricho-Batrachion vegetation [3260]	To maintain the favourable conservation condition		
Coastal lagoons [1150]	To maintain the favourable conservation condition		
Annual vegetation of drift lines [1210]	To maintain the favourable conservation condition		
Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330]	To restore the favourable conservation condition		
Mediterranean salt meadows (*Juncetalia maritimi*) [1410]	To restore the favourable conservation condition		

Qualifying Interest (QI)	Conservation Objectives	Assessment of Likely Significant Effect	Screening outcome
Embryonic shifting dunes [2110]	To maintain the favourable conservation condition	No S–P–R linkage has been identified having regard to the nature, location, scale and operational characteristics of the projects, and therefore no likely significant effect is reasonably foreseeable.	Screened out
Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes) [2120]	To maintain the favourable conservation condition		
Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130]	To maintain the favourable conservation condition		
Atlantic decalcified fixed dunes (Calluno-Ulicetea) [2150]	To maintain the favourable conservation condition		
Dunes with Salix repens ssp. argentea (*Salicion arenariae*) [2170]	To maintain the favourable conservation condition		
Humid dune slacks [2190]	To maintain the favourable conservation condition		
Machairs (* in Ireland) [21A0]	To restore the favourable conservation condition		
Northern Atlantic wet heaths with *Erica tetralix* [4010]	To restore the favourable conservation condition		
European dry heaths [4030]	To restore the favourable conservation condition		

Qualifying Interest (QI)	Conservation Objectives	Assessment of Likely Significant Effect	Screening outcome
Alpine and Boreal heaths [4060]	To restore the favourable conservation condition	No S–P–R linkage has been identified having regard to the nature, location, scale and operational characteristics of the projects, and therefore no likely significant effect is reasonably foreseeable.	Screened out
Juniperus communis formations on heaths or calcareous grasslands [5130]	To maintain the favourable conservation condition		
Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels [6430]	To maintain the favourable conservation condition		
Blanket bogs (* if active bog) [7130]	To restore the favourable conservation condition		
Transition mires and quaking bogs [7140]	To restore the favourable conservation condition		
Depressions on peat substrates of the Rhynchosporion [7150]	To restore the favourable conservation condition		
Petrifying springs with tufa formation (Cratoneurion) [7220]	To maintain the favourable conservation condition		
Alkaline fens [7230]	To maintain the favourable conservation condition		

Qualifying Interest (QI)	Conservation Objectives	Assessment of Likely Significant Effect	Screening outcome
Siliceous scree of the montane to snow levels (*Androsacetalia alpinae* and *Galeopsietalia ladani*) [8110]	To maintain the favourable conservation condition	No S–P–R linkage has been identified having regard to the nature, location, scale and operational characteristics of the projects, and therefore no likely significant effect is reasonably foreseeable.	Screened out
Calcareous rocky slopes with chasmophytic vegetation [8210]	To maintain the favourable conservation condition		
Siliceous rocky slopes with chasmophytic vegetation [8220]	To maintain the favourable conservation condition		
Vertigo *geyeri* (Geyer's Whorl Snail) [1013]	To maintain the favourable conservation condition		
Vertigo angustior (Narrow-mouthed Whorl Snail) [1014]	To maintain the favourable conservation condition		
Petalophyllum ralfsii (Petalwort) [1395]	To restore the favourable conservation condition		
Najas flexilis (Slender Naiad) [1833]	To restore the favourable conservation condition		

West Connacht Coast SAC (002998)

Qualifying Interest (QI)	Conservation Objectives	Assessment of Likely Significant Effect	Screening outcome
Tursiops truncatus (Common Bottlenose Dolphin) [1349]	To maintain the favourable conservation condition	While the projects are located ca. 2.8 km from the SAC (at their closest point), there is no significant noise source (e.g., piling) or risk of entanglement from tensioned longline ropes. Movement is not restricted, and prey availability is likely unaffected or locally enhanced. Therefore, there is no likely S-P-R link between these QIs and the projects and it is concluded that any significant impact from the projects on these QIs are highly unlikely.	Screened out
Phocoena phocoena (Harbour Porpoise) [1351]	To maintain the favourable conservation condition		

Tully Lough SAC (002130)

Qualifying Interest (QI)	Conservation Objectives	Assessment of Likely Significant Effect	Screening outcome
Oligotrophic to mesotrophic standing waters with vegetation of the *Littorelletea uniflorae* and/or Isoeto-Nanojuncetea [3130]	To restore the favourable conservation condition	No S–P–R linkage has been identified having regard to the nature, location, scale and operational characteristics of the projects, and therefore no likely significant effect is reasonably foreseeable.	Screened out
Najas flexilis (Slender Naiad) [1833]	To maintain the favourable conservation condition		

Cross Lough (Killadoon) SAC (000484)

Qualifying Interest (QI)	Conservation Objectives	Assessment of Likely Significant Effect	Screening outcome
Perennial vegetation of stony banks [1220]	To restore the favourable conservation condition	No S–P–R linkage has been identified having regard to the nature, location, scale and operational characteristics of the projects, and therefore no likely significant effect is reasonably foreseeable.	Screened out

Lough Cahasy, Lough Baun and Roonah Lough SAC (001529)

Qualifying Interest (QI)	Conservation Objectives	Assessment of Likely Significant Effect	Screening outcome
Coastal lagoons [1150]	To restore the favourable conservation condition	No S–P–R linkage has been identified having regard to the nature, location, scale and operational characteristics of the projects, and therefore no likely significant effect is reasonably foreseeable.	Screened out
Perennial vegetation of stony banks [1220]	To maintain the favourable conservation condition		
Embryonic shifting dunes [2110]	To maintain the favourable conservation condition		
Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes) [2120]	To maintain the favourable conservation condition		
Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130]	To maintain the favourable conservation condition		
Machairs (* in Ireland) [21A0]	To maintain the favourable conservation condition		

Rusheenduff Lough SAC (001311)

Qualifying Interest (QI)	Conservation Objectives	Assessment of Likely Significant Effect	Screening outcome
Oligotrophic to mesotrophic standing waters with vegetation of the *Littorelletea uniflorae* and/or Isoeto-Nanojuncetea [3130]	To maintain the favourable conservation condition	No S–P–R linkage has been identified having regard to the nature, location, scale and operational characteristics of the projects, and therefore no likely significant effect is reasonably foreseeable.	Screened out
Najas flexilis (Slender Naiad) [1833]	To maintain the favourable conservation condition		

Tully Mountain SAC (000330)

Qualifying Interest (QI)	Conservation Objectives	Assessment of Likely Significant Effect	Screening outcome
European dry heaths [4030]	To restore the favourable conservation condition	No S–P–R linkage has been identified having regard to the nature, location, scale and operational characteristics of the projects, and therefore no likely significant effect is reasonably foreseeable.	Screened out
Alpine and Boreal heaths [4060]	To maintain the favourable conservation condition		

Connemara Bog Complex SAC (002034)

Qualifying Interest (QI)	Conservation Objectives	Assessment of Likely Significant Effect	Screening outcome
Coastal lagoons [1150]	To maintain the favourable conservation condition	No S–P–R linkage has been identified having regard to the nature, location, scale and operational characteristics of the projects, and therefore no likely significant effect is reasonably foreseeable.	Screened out
Reefs [1170]	To maintain the favourable conservation condition		
Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*) [3110]	To maintain the favourable conservation condition		
Oligotrophic to mesotrophic standing waters with vegetation of the *Littorelletea uniflorae* and/or Isoeto-Nanojuncetea [3130]	To maintain the favourable conservation condition		
Natural dystrophic lakes and ponds [3160]	To maintain the favourable conservation condition		
Water courses of plain to montane levels with the *Ranunculion fluitantis* and Callitricho-Batrachion vegetation [3260]	To maintain the favourable conservation condition		
Northern Atlantic wet heaths with Erica tetralix [4010]	To restore the favourable conservation condition		
European dry heaths [4030]	To restore the favourable conservation condition		

Qualifying Interest (QI)	Conservation Objectives	Assessment of Likely Significant Effect	Screening outcome
Molinia meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*) [6410]	To maintain the favourable conservation condition		
Blanket bogs (* if active bog) [7130]	To restore the favourable conservation condition	No S–P–R linkage has been identified having regard to the nature, location, scale and operational characteristics of the projects, and therefore no likely significant effect is reasonably foreseeable.	Screened out
Transition mires and quaking bogs [7140]	To restore the favourable conservation condition		
Depressions on peat substrates of the Rhynchosporion [7150]	To restore the favourable conservation condition		
Alkaline fens [7230]	To restore the favourable conservation condition		
Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles [91A0]	To maintain the favourable conservation condition		
Euphydryas aurinia (Marsh Fritillary) [1065]	To maintain the favourable conservation condition		
Salmo salar (Salmon) [1106]	To restore the favourable conservation condition		
Lutra lutra (Otter) [1355]	To maintain the favourable conservation condition		
Najas flexilis (Slender Naiad) [1833]	To maintain the favourable conservation condition		

5.4. Assessment of Likely Significant Effects for Special Conservation Interests (SCIs) of Special Protection Areas.

Cross Lough (Killadoon) SPA (004212)

Special Conservation Interest (SCI)	Conservation Objectives	Assessment of Likely Significant Effect	Screening outcome
Sandwich Tern (Sterna sandvicensis) [A191]	To restore the favourable conservation condition	While the projects are within the theoretical maximum foraging range (49km; Thaxter *et al*., 2012), it is well beyond the core foraging range (ca. 5km). Given the distance of the proposed project from the SPA supporting this SCI, and considering core foraging range, there is no likely S-P-R link between the SCI and the projects.	Screened out

Illaunnanoon SPA (004221)

Special Conservation Interest (SCI)	Conservation Objectives	Assessment of Likely Significant Effect	Screening outcome
Sandwich Tern (Sterna sandvicensis) [A191]	To restore the favourable conservation condition	While the projects are within the theoretical maximum foraging range (49km; Thaxter *et al*., 2012), it is well beyond the core foraging range (ca. 5km). Given the distance of the proposed project from the SPA supporting this SCI, and considering core foraging range, there is no likely S-P-R link between the SCI and the projects.	Screened out

5.5. Screening of potential effects of introduction of non-native species.

Bivalves have been grown and transported for culture for centuries and the introduction of certain species outside their natural range for aquaculture purposes has been proposed as a significant pathway for the spread of exotic marine species (McKindsey *et al.,* 2007), either through intentional introduction or via associated species (i.e. hitch-hiking organisms). However, mussel spat will be sourced from the local area (as noted in the applications), so no risk of introducing non-native species is anticipated via this process.

5.6. Aids to Navigation

5.6.1. Assessment for Aids to Navigation

All aquaculture sites with structures are required to have Aids to Navigation. Aquaculture applications, such as these projects in Killary Harbour, use special marks to indicate the boundaries of the aquaculture activities. Aids to navigation (AtoN) are devices or systems designed to enhance the safe and efficient navigation of vessels. An aid to navigation station may be defined as a point described by geographic coordinates and categorised as: land (a fixed station accessible by land); offshore (a fixed station only accessible by boat or helicopter); and floating (buoys etc).

Special Marks are used to indicate a special area or feature whose nature may be apparent from reference to a chart or other nautical publication. They may be utilised as a Mobile Aid to Navigation (MatoN) where a mark is attached to a floating object which may constitute a collision hazard. Special marks are yellow, may carry a top mark (single yellow 'X' shape/ St. Andrew's Cross), are preferably three-dimensional to be visible from all directions and any light used is also yellow. Special marks do not have any of the rhythms used for white lights (associated with Cardinal marks, Isolated Danger, and Safe Water marks). Special marks for aquaculture sites are typically floating buoys and/or ground marks.

5.6.2. Descriptions of markers

While no special marks have been detailed in the aquaculture and foreshore licence applications, it is assumed that their use will be required to mark the boundary of the projects. In addition, it is assumed that dedicated anchors will be deployed on the seabed to fix these special marks.

5.6.3. Assessment of pressures

5.6.3.1. Habitats

The anchoring of all types of moorings can cause physical loss and change of habitat in the direct footprint of the moorings (i.e. smothering). This pressure will continue for the entire length of time the structure is in place. For this assessment, we assume that time is the entire length of the aquaculture licence.

There is no spatial overlap between the projects and adjacent European sites. Therefore, the anchors will not be located on any marine community types / Qualifying Interest (QI) features and thus **likely**

significant effects from physical loss, change of habitat or seabed abrasion, on QIs or MCTs can be ruled out.

5.6.3.2. SAC species

Where applicable, subtidal markers have chains and ropes both of which could pose a collision or entanglement risk to cetacean QIs. While not detailed in the applications, best practice utilising a 2:1 ratio of rope and the mid-line buoy (to ensure a tight mooring system) shall mitigate against entanglement risk. **Likely significant effects of entanglement on SAC species for subtidal markers can therefore be ruled out.**

It is assumed that any special marks shall utilise a lighting system to aid navigation, which can pose a visual disturbance to species foraging at night-time. However, fully marine species such as cetaceans are unlikely to be affected. **Likely significant effects of AtoNs and their lights on cetacean species can therefore be ruled out.**

5.6.3.3. SPA species

No SPAs were screened-in as part of this AA screening process. While lights on any installed AToN may present a visual disturbance which can affect nesting birds, the closest SPA (Cross Lough (Killadoon) SPA) is located >10km northwest of the project area and on a different section of coastline with no line of sight. Therefore, light from any lanterns on the AtoNs will not be visible to nesting birds. **Likely significant effects of the lights used on AtoNs on nesting birds can therefore be ruled out.**

Where applicable, subtidal markers may pose potential entanglement risk, particularly for diving species. While not detailed in the applications, best practice utilising A 2:1 rope ratio and use of a mid-line buoy (to ensure tighter mooring) allied with appropriate rope and chain width all provide sufficient visual reference for diving species and reduces the likelihood of entanglement. **Likely significant effects of entanglement on diving birds can therefore be ruled out.**

5.7. Consideration of in-combination effects on Natura 2000 site Qualifying Interest / Special Conservation Interest features.

The QIs that may screen out during the initial Appropriate Assessment screening exercise have been considered from an in-combination perspective. If the impact pathways from the proposed aquaculture operations act in-combination with other activities (including non-aquaculture) to the point where QIs are potentially affected, this should trigger a full assessment. In-combination impacts by their nature are greater than the sum of individual impacts. This is a challenging aspect to the assessment with a number of technical challenges to derive conclusive observations. A number of sources were considered in the assessment of the potential for in combination impacts:

- *Water Framework Directive Hydromorphological and Biological Element classifications: https://gis.epa.ie/GetData/Download (Accessed 03/03/2026)*
- *DHLGH Foreshore Licencing (https://www.gov.ie/en/foreshore-notices/ - Accessed: 03/04/2024)*
- *EIA Portal:* https://experience.arcgis.com/experience/a1a85d92623147b191dd25a14b2571da *(Accessed 03/03/2026)*
- *Galway County Council planning:* https://www.galway.ie/en/planning-building *(Accessed 03/03/2026)*
- *Mayo County Council planning:* https://www.mayo.ie/planning *(Accessed 03/03/2026)*
- *EPA Pressures & Activities (https://gis.epa.ie/EPAMaps/Water : Accessed: 03/03/2026)*
- *Inshore Fishing Maps (Ireland's Marine Atlas -* https://atlas.marine.ie/#?c=53.6181:-9.8062:13 *: Accessed: 03/03/2026)*

The in-combination assessment considered the cumulative effects of all licensed, proposed and review aquaculture activities within Killary Harbour together with other relevant marine activities. Particular consideration was given to potential cumulative disturbance, habitat interaction, water quality effects, navigation intensity, migratory species interactions and supporting habitat availability. Having regard to the extensive tidal exchange within the fjord system, the suspended and non-fed nature of the culture methodology, the absence of significant benthic enrichment pathways, and the absence of habitat loss or barrier effects, no credible mechanism was identified by which the projects, either individually or in combination with other plans or projects, could result in likely significant effects on the conservation objectives of any European site.

Part B: AA Screening Conclusions and Recommendations

Screened-Out European Sites

Following AA screening, and pursuant to Article 6(3) of the Habitats Directive, the European Communities (Birds & Natural Habitats) Regulations 2011 (S.I. No. 477 of 2011) (as amended), the Foreshore Act 1933, as amended and the Fisheries (Amendment) Act (1997), the screening assessment has found that there is no likelihood of the projects proposed under the aquaculture and foreshore licence applications T09-076A, T09-171A, T09-171B, T09/175B, T09/317A, T09/317B, T09/366, T09/372A, T09/385A, T09/385B, T09/389A, T09/389B, T09/392A, T09/392B, T09/396B, T09/399, T09-184B, T09-199A, T09-199B, T09-341A, T09-361A, T09-361B, T09-372B, T09-388A, T09-388B, T09-391A, T09-394A, T09-394B, T09-400, T09-401A, T09-401B, T09/135, T09/051A, T09/051B, T09/308A, T09/308B, T09/076B, T09/363, T09/296A, T09/313A, T09/313B, T09/397A, T09-1019, T09-507A having any significant effect, either individually or in combination with other plans or projects, on any of the following European site(s), for the reasons set out in Part A: Screening Report:

- The Twelve Bens/Garraun Complex SAC (002031)
- Maumturk Mountains SAC (002008)
- Mweelrea/Sheeffry/Erriff Complex SAC (001932)
- West Connacht Coast SAC (002998)
- Tully Lough SAC (002130)
- Cross Lough (Killadoon) SAC (000484)
- Lough Cahasy, Lough Baun and Roonah Lough SAC (001529)
- Rusheenduff Lough SAC (001311)
- Tully Mountain SAC (000330)
- Connemara Bog Complex SAC (002034)
- Cross Lough (Killadoon) SPA (004212)
- Illaunnanoon SPA (004221)

As such, the projects do not advance to the appropriate assessment stage in relation to these European Sites.

AA Screening Report and Determination prepared by:	Niall Phelan, Environmental Facilitation Ltd, on behalf of the Department of Agriculture, Food and the Marine Date: 18/03/2026

Part C: References

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Appendix

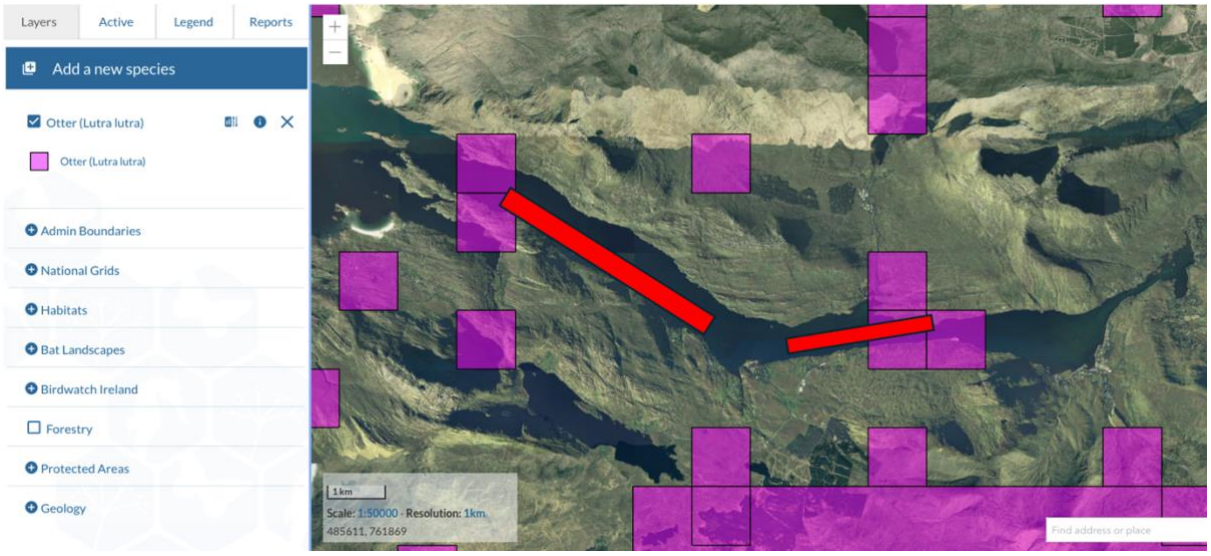

Figure 1: Several otter records are noted along the banks of Killary Harbour, adjacent to the project(s) (approximate located of projects marked by the red polygon). Accessed on 03/03/2026 via the https://maps.biodiversityireland.ie/Map.