



An Bord Achomharc Um Cheadúnais Dobharshaothraithe Aquaculture Licences Appeals Board

Appropriate Assessment Conclusion by Competent Authority (Aquaculture Licences Appeals Board) concerning an aquaculture application in Bantry Bay with potential impacts on adjacent and nearby Special Areas of Conservation and Special Protection Areas (Natura sites).

An Appropriate Assessment of a proposed aquaculture site in Bantry Bay was carried out by the Aquaculture Licences Appeals Board (ALAB), with contributions from external technical experts; MERC Consultants, Dr Olivia Crowe, Alex Coram, Dr Tom Gittings, Dr Graham Saunders, and ALAB's internal technical advisor, Dr Ciar O'Toole. The Appropriate Assessment (Article 6 (3)) assessed the potential ecological impacts of aquaculture activities on Natura features in and adjacent to the Natura sites in Bantry Bay. There are seven Special Protection Areas (SPAs) which were considered as part of this assessment that are designated for breeding seabirds, as it is possible (based on published foraging ranges) that several of the listed species may occur in the vicinity of the proposed development. Two adjoining terrestrial Special Areas of Conservation (SACs) were also considered as part of the assessment. These are:

- Glengarriff Harbour and Woodland SAC Site Code: 00090
- Sheep's Head SAC Site code: 000102
- Beara Peninsula SPA Site code: 004155
- Iveragh Peninsula SPA Site code: 004154
- Deenish Island and Scariff Island SPA Site code: 004175
- The Bull and The Cow Rocks SPA Site code: 004066
- Skelligs SPA Site code: 004007
- Sheep's Head to Toe Head SPA Site code: 004156
- Puffin Island SPA Site code: 004003

Description of the proposed aquaculture development

The proposed farm would include one production site located near Shot Head on the northern shoreline of Bantry Bay. The proposed site is 42.5 hectares in size. It is proposed that the Shot Head site would undergo a 2-year production cycle. The site service would be provided by a vessel operated from moorings in either Castletownbere Harbour or at the Pontoon Pier at Beal Lough to the east of Castletownbere. The operation of the Shot Head site will involve the use of the Applicant's existing shore-based facilities in Castletownbere.

The project site at Shot Head is located approximately mid-way along the northern shoreline of Bantry Bay. It offers a location of sufficient depth for salmon farming that is partially sheltered from severe storm and wind conditions by Bere Island to the west and is a site that is not already populated by a commercial fishery or aquaculture resource.

The proposed salmon farm at Shot Head is not located within any designated Natura 2000 sites.

Existing Aquaculture Activity in Bantry Bay

According to the Department of Agriculture, Food and the Marine (DAFM) as of May 2021, in total there are 77 shellfish licences granted along with three (3) operational marine finfish licences in Bantry Bay (exclusive of the proposed Shot Head site being considered here). Existing licensed aquaculture activity relates to suspended and bottom culture of abalone (2), sea urchins (1), mussels (55), bottom cultivation of scallops (2), cultivation of marine algae (2), oyster (9) as well as on growing of finfish - Rainbow trout (1) and Atlantic salmon (3).

Natura 2000 Sites

Special Areas of Conservation

ALAB accepted the findings of the Marine Institutes updated AA Screening Matrix for aquaculture activities in Outer Bantry Bay (Marine Institute, 2020) (<https://www.gov.ie/en/collection/10731-aquacultureforeshore-licence-applications-cork/#bantry-bay-september-2020>) in relation to SACs only. This found that there would be no direct or indirect impacts from the culture operations in outer Bantry Bay on the adjacent terrestrial SACs, which are:

- Glengarriff Harbour and Woodland SAC Site Code: 00090
- Sheep's Head SAC Site code: 000102

ALAB commissioned reports on potential impacts of Otter (*Lutra lutra*, Saunders, 2017) and Common Seal (*Phoca vitulina*, Coram, 2018) in the Glengarriff Harbour and Woodland SAC and Sheep's Head SAC of the proposed aquaculture development. Both reports found no evidence of significant negative impacts predicted from the proposed development.

Special Protected Areas

All SPAs located within 15 km of the proposed development site were included as per published guidelines as are sites considered to potentially be impacted based largely on the reported mean foraging ranges of respective Species of Conservation Interest (SCIs) as assessed and reported by Gittings (2018) and Crowe (2019)

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The SPAs considered are:

- Beara Peninsula SPA (Site code 004155)
- Iveragh Peninsula SPA (Site code 004154)
- Deenish Island and Scariff Island SPA (Site code 004175)
- The Bull and The Cow Rocks SPA (Site code 004066)
- Skelligs SPA (Site code 004007)
- Sheep’s Head to Toe Head SPA (Site code 004156)
- Puffin Island SPA (Site code 004003)

Qualifying Features:

The list of SCI’s identified across all seven sites included in the screening comprised the following species: Chough *Pyrhcorax pyrrhcorax*, Peregrine *Falco peregrine*, Storm petrel *Hydrobates pelagicus*, Puffin *Fratercula arctica*, Lesser Black-backed gulls *Larus fuscus*, Gannet *Morus pelagicus*, Guillemot *Uria aalge*, Fulmar *Fulmarus glacialis*, Manx shearwater *Puffinus puffinus*, Kittiwake *Rissa tridactyla*, Razorbill *Alca torda*, Arctic tern *Sterna paradisaea*.

Conservation Objectives:

A generic conservation objective is available for the connected SPA sites (NPWS, 2018; NPWS, 2019). The generic conservation objective is:

- *To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA*

No further or more specific conservation interests have been published in relation to any of the SPA sites connected to Bantry Bay. However, as part of this assessment a review was carried out to identify further possible conservation objectives that could reasonably be applied to the SCI sites in order to demonstrate more thorough and effective application of the **precautionary principle** (a specific requirement referred to in NPWS Guidance when carrying out AA). The review determined that specific conservation objectives are available for the Great Saltee Islands (NPWS, 2011) and these relate to the same SCI species relevant to this assessment. Accordingly, it is considered appropriate to apply these in the context of the present assessment. The specific conservation objectives are listed in Table 1.

Table 1: Specific conservation objectives for connected SPA species (adapted from Great Saltee Islands SPA, 2011)

Attribute	Measure	Target
Breeding population abundance: apparently occupied sites (AOSs)	Number	No significant decline
Productivity rate	Mean number	No significant decline
Distribution: breeding colonies	Number; location; area (hectares)	No significant decline
Prey biomass available	Kilogrammes	No significant decline
Barriers to connectivity	Number; location; shape; area (hectares)	No significant increase

Disturbance at the breeding site	Level of impact	No significant increase
Disturbance at marine areas immediately adjacent to the colony	Level of impact	No significant increase

Appropriate Assessment

The function of the Appropriate Assessment is to determine if the ongoing and proposed aquaculture activities are consistent with the Conservation Objectives for the sites. The National Parks and Wildlife Service (NPWS) provide guidance on interpretation of the Conservation Objectives which are, in effect, management targets for habitats and species in the sites. The assessment of activities was informed by this guidance, which is scaled relative to the anticipated sensitivity of the habitats and species to disturbance by the proposed activities.

The Appropriate Assessment process is divided into a Screening stage and Appropriate Assessment proper. The assessment begins by screening out those activities which are deemed incapable of having any significant impact. If the assessment cannot rule out potential significant impacts at the screening stage, it moves to Stage 2. The Screening and Stage 2 assessments in this case were based on a desktop review of existing information, along with a number of commissioned and submitted reports to ALAB which included: Otter Impact Report (Saunders, 2017), Common Seal Impact Report (Coram, 2018), Bird Impact Report (Gittings, 2018), AA Screening Report (Crowe, 2019), Natura Impact Statement (Watermark Environmental, 2020), AA Assessment Report and Briefing Note (MERC, 2020 & 2021), submissions from a public consultation process and a report on potential in-combination effects with mechanical kelp harvesting prepared by ALAB’s Technical Advisor.

Screening

The Marine Institute issued an updated AA Screening Matrix for aquaculture activities in Outer Bantry Bay in September 2020, following on from a previous Screening Matrix issued in June 2018 (Marine Institute, 2018, 2020) (<https://www.gov.ie/en/collection/10731-aquacultureforeshore-licence-applications-cork/#bantry-bay-september-2020>). The screening matrix assesses aquaculture activity for 34 licensed sites including algae, oysters, clams, urchins, mussels and finfish in the context of SCIs for nearby designated SPAs and SACs. The activities considered occupy approx. 547 hectares in total, representing approximately 1.2% of the surface area of Bantry Bay.

Designated sites considered on the basis of being connected to Outer Bantry Bay are:

- Sheep’s Head to Toe Head SPA (Site Code: 004156)
- Beara Peninsula SPA (Site Code: 004155)
- Glengarriff Harbour and Woodland SAC (Site Code 00090)
- Sheep’s Head SAC (Site code: 000102)

The screening determines that “*There are no direct or indirect impacts from the culture operations on any of the SACs or SPAs adjacent to outer Bantry Bay*”.

A Findings of No Significant Effects statement by the Marine Institute determined that “*the cultivation of shellfish, finfish and macroalgae in outer Bantry Bay is not likely to affect the features of adjoining Natura 2000 sites*” The statement is made on the basis that there is no spatial overlap of the aquaculture activities with designated sites and the activities do not interfere with key relationships that define the function of the sites. The culture activities are assessed as not leading to habitat loss and will not give rise to significant disturbance to key species. No habitat or species fragmentation is considered to result from the existing and proposed aquaculture activity and no direct discharge of pollutants into the environment is predicted to occur. Water quality is not predicted to be affected. Overall conclusions are that the culture of shellfish and finfish, as it is currently constituted and proposed, in Bantry Bay does not pose significant risk to the conservation features (SCIs) of the adjacent sites and as such existing and proposed aquaculture activity does not require a full appropriate assessment.

ALAB commissioned reports on potential impacts of Otter (*Lutra lutra*, Saunders, 2017) and Common Seal (*Phoca vitulina*, Coram, 2018) in the Glengarriff Harbour and Woodland SAC and Sheep’s Head SAC of the proposed aquaculture development. Both reports found no evidence of significant negative impacts predicted from the proposed development. The Board accepted the conclusion of both reports and determined that the proposed activity at the Site has no potential for significant effects and it is not likely to have a significant effect on the Glengarriff Harbour and Woodland SAC either individually or in combination with other sites, plans or projects.

Whilst the Marine Institute’s screening matrix considers the potential for impacts on the qualifying interests of SPA and SAC designated sites within close proximity to the proposed Shot Head, the screening does not consider the potential for impacts on SCIs of more distant SPAs which are considered to be connected to Bantry Bay on account of likely foraging ranges for specified SCI species. Accordingly, of the seven SPA sites considered relevant in the context of the AA process, only two sites that are directly connected to Bantry Bay are considered in the matrix, because sections of their respective boundaries coincide with the shoreline of Bantry Bay, and the potential for impacts to SCI’s of more distant sites is not evaluated. As per legislative requirements, in the event that further projects or developments that have potential to impact on connected designated sites are considered for consent in Bantry Bay, AA screening should be revised to fully account for direct and/or in-combination effects.

The Board had regard to the June 2018 and September 2020 Screening Reports produced by MI and accepted their Finding of no Significant Impacts for the two relevant SAC sites only - Glengarriff Harbour and Woodland SAC and Sheep’s Head SAC -and determined that the proposed activity at the Site has no potential for significant effects and it is not likely to have a significant effect on either of the SACs either individually or in combination with other sites, plans or projects.

An independent screening report on SPAs and SCI species was carried out by Dr Olivia Crowe on behalf of ALAB (Crowe, 2019), based on the outcomes of a report prepared for ALAB by Gittings (2018). This AA screening report (Crowe, 2019) investigated all SCI species in the seven SPAs listed

above. The list of SCI's identified across all seven sites included in the screening comprised the following species: Chough *Pyrhocorax pyrrhocorax*, Peregrine *Falco peregrine*, Storm petrel *Hydrobates pelagicus*, Puffin *Fratercula arctica*, Lesser Black-backed gulls *Larus fuscus*, Gannet *Morus pelagicus*, Guillemot *Uria aalge*, Fulmar *Fulmarus glacialis*, Manx shearwater *Puffinus puffinus*, Kittiwake *Rissa tridactyla*, Razorbill *Alca torda*, Arctic tern *Sterna paradisaea*.

Further evaluation determined that Chough and Peregrine SCIs are predominantly terrestrial species and would not associate with a fish farm. The screening report also considered that while Storm petrel and Puffin could potentially overlap with the proposed salmon farm based on known foraging ranges, this has no potential for significant effects and it is not likely to occur. Furthermore, while Lesser Black-backed gulls could potentially overlap with the proposed site, they are not likely to be adversely affected by the development. Arctic tern, Razorbill Kittiwake and Manx shearwater were not deemed capable of occurring within the vicinity of the proposed development (based on known foraging ranges).

In relation to Gannet, Fulmar and Guillemot, considering the available information and in reviewing the nearby SPAs and their SCIs, the screening report determined that it was not possible to rule out potential adverse impacts of the proposed development at Shot Head on Fulmar SCI for Beara Peninsula SPA, Iveragh Peninsula SPA, Deenish Island and Scariff Island SPA; Gannet SCI for The Bull and The Cow Rocks SPA and Skelligs SPA; and Guillemot SCI for Iveragh Peninsula SPA. Therefore, it was recommended that the assessment progress to a Stage 2 Appropriate Assessment. The potential impacts on SCI species identified at screening were: Loss of foraging habitat, disturbance and entanglement.

All other SCI species under consideration were screened out at this point, as were any potential impacts on Puffin Island SPA (Site code: 004003). Therefore, it was concluded that the proposed activity at the Site has no potential for significant effects and it is not likely to have a significant effect on the SPAs or in the Bantry Bay catchment either individually or in combination with other sites, plans or projects in relation to the SCI species:

- Chough and Peregrine for Sheep's Head and Toe Head SPA;
- Chough for Beara Peninsula SPA;
- Chough, Peregrine and Kittiwake for Iveragh Peninsula SPA;
- Manx Shearwater, Storm Petrel, Lesser Black-backed Gull and Arctic Tern for Deenish Island and Scariff Island SPA;
- Storm Petrel and Puffin for The Bull and Cows Rock SPA;
- Fulmar, Manx Shearwater, Storm Petrel, Kittiwake, Guillemot and Puffin for Skelligs SPA; and
- for all SCI species for Puffin Island SPA.

Findings

Gannet

The impacts of disturbance and loss of foraging habitat resulting from the construction and operation of the proposed salmon farm at Shot head are considered to have no potential for significant effects and it is not likely to have a significant effect on foraging opportunities for the Gannet SCI in Bantry Bay. Significant impacts on breeding success and productivity in connected SPA populations are therefore considered to have no potential for significant effects and it is not likely to have a significant effect either individually or in combination with other sites, plans or projects in relation to the SCI species.

Entanglement leading to mortality of Gannet is likely to be an occasional event affecting individual birds. The Gannet population at connected SPAs has been increasing over the last number of years and this trend is consistent with population trends at other Irish, UK and Norwegian colonies, including at those colonies that are within the foraging range of the extensive marine cage culture industries in those countries. This increasing population trend has continued throughout the period where salmon cages have been in place in Bantry Bay and the adjacent Kenmare River, suggesting that any mortality events at these sites are not currently having an adverse population level impact on the Gannet colonies at connected SPAs. Given the low likelihood of entanglement within the context of a stable and increasing population, significant effects are considered not likely to occur. However, the Gannet population is unlikely to continue to increase and there are many pressures on seabird populations. Modelling work carried out on behalf of ALAB (Population Viability Analysis, DMP, 2021) demonstrates the high level of Gannet mortality that would have to occur as a result of entanglement before a significant negative effect would be seen on Gannet populations at the Bull and Cow Rock SPA. This is far higher the suggested level of mortality for entanglement that may have caused a significantly negative impact on Gannet populations in this SPA (reported in Gittings 2018). Therefore, the potential impact of Gannet mortality due to entanglement was considered to have no potential for significant effects and it is not likely to cause a significant negative effect either individually or in combination with other sites, plans or projects in relation to the SCI species.

The MERC (2020) report stated that “Given the lack of data on Gannet predation and entanglement, this interaction requires monitoring. Should the Gannet population decline at the Bull and Cow Rock it will be important to evaluate the effect of this interaction on a declining population. A recommendation is made in this context and is an outcome of this assessment.” ALAB acknowledges this point and is of the opinion that it is not suitable to enforce this on one licensee in one site in isolation. ALAB believes it is appropriate to add a condition to a licence which requires the licensee to comply with any code of practise or monitoring programme for Bantry Bay developed in agreement with NPWS or any relevant State body for the purposes of monitoring and recording bird populations in Bantry Bay. The Board considered this conclusion and accepted that the proposed activity at the Site is not likely to have a significant effect on this listed SCI species of these SPAs identified for Stage 2 assessment either individually or in combination with other sites, plans or projects.

Fulmar

The impacts of disturbance and loss of foraging habitat resulting from the construction and operation of the proposed salmon farm at Shot Head are considered not likely to have a significant effect on foraging Fulmar in Bantry Bay. Significant impacts on breeding success and productivity in connected SPA populations are therefore not considered likely. Based on the literature Fulmar

predation at salmon farms is rarely recorded, thus the risk of entanglement and mortality has not been considered. The Board considered this conclusion and accepted that the proposed activity at the Site has no potential for significant effects and is not likely to have a significant effect on this listed SCI species of these SPAs identified for Stage 2 assessment either individually or in combination with other sites, plans or projects.

Guillemot:

Guillemot may be displaced from potential foraging habitat by the proposed salmon cages. The fish farm development will lead to a reduction of 0.106% in the available foraging habitat in Bantry Bay. This is not considered to be a significant loss of potential foraging habitat. Boat activity may cause temporary displacement of Guillemots during movements to and from the fish farm site. It is likely that displaced Guillemot will forage elsewhere (moderate flexibility in prey and large foraging range) and it is likely that this displacement effect will not be significant, given the availability of extensive areas of open waters in Bantry Bay. Overall, Guillemot are recorded in low densities in Bantry Bay and not all Guillemot are likely to be from the Iveragh Peninsula SPA. Significant impacts on breeding success and productivity in connected SPA populations are not considered likely. The MERC AA report (MERC, 2020) stated “While the lack of specific data for Guillemot use of the north shore of Bantry Bay (Shot Head to Bere Island) does not alter the findings of this assessment, in the context of overall management of seabird populations, the ongoing need for further data on seabird use and distribution within Bantry Bay is apparent.” ALAB acknowledges this point and is of the opinion that it is not practical to enforce this on one licensee in one site in isolation. ALAB believes it is appropriate to add a condition to a licence which requires the licensee to comply with any bay wide code of practice or monitoring programme for Bantry Bay developed in agreement with NPWS or any relevant State body for the purposes of monitoring and recording bird populations in Bantry Bay. The Board considered this conclusion and accepted that the proposed activity at the Site has no potential for significant effects and is not likely to have a significant effect on this listed SCI species of these SPAs identified for Stage 2 assessment either individually or in combination with other sites, plans or projects.

In-Combination Impacts

Commercial fishing:

For the SCI species concerned, removal of forage fish in seasonal periodic sprat fisheries may cause impacts as competition for forage fish is known to potentially affect some species such as Guillemot. However, given the known foraging ranges of the SCI species, it is considered that adequate foraging opportunities exist and the proposed Shot Head salmon farm, together with all existing aquaculture activity in Bantry Bay has no potential for significant effects and it is not likely to contribute to significant loss of foraging opportunities for any SCI species. Fishing traps and bottom set nets are set on the seabed and displacement effects of surface markers are insignificant as rafting birds quickly become habituated to their presence. While some displacement and disturbance effects are likely to result, displacement by the farm is estimated to be a proportion of the licensed area and birds will be free to forage in and around farm structures. Disturbance will be minimal and relate to regular patterns of vessel movement to and from the farm and use of machinery on the site.

While reducing the available foraging area in Bantry Bay by less than 2%, proposed and existing aquaculture in no way reduces the actual amount of forage fish available.

Direct mortality of seabirds is predicted to be low for the proposed Shot Head farm based on the findings of the NIS, which captures and details the standard mitigations employed, modern salmon husbandry practices and general understanding of risks related to salmon cage culture. There is no evidence that the development and operation of the Shot Head site will lead to a significant increase in mortality rates through any in-combination effect. The proposed Shot Head farm together with all commercial fishing activity has no potential for significant effects and it is not likely to produce in-combination effects that will impact on SCI species or the conservation objectives for any designated site. The Board considered this conclusion and accepted that the proposed activity at the Site and commercial fishing have no potential for significant effects and are not likely to have a significant effect on the listed SCI species of these SPAs identified for Stage 2 assessment either individually or in combination with other sites, plans or projects.

Aquaculture:

The Gannet population at connected SPA's has been increasing over the last number of years and this trend is consistent with other Irish and UK colonies. This trend has continued with the existence of salmon cages in Bantry Bay, suggesting that any mortality events at these sites are not currently having an impact on connected SPAs. Given the low likelihood of mortality from entanglement, within the context of a stable and increasing population, significant effects on the Bull and Cow Rock SPA Gannet SCI have no potential for significant effects and it is not likely. However the Gannet population is not likely to continue to increase indefinitely (Furness et al, 2018) and there are pressures on seabird populations. Seabirds are long lived species with low reproductive outputs. Populations are therefore slow to recover from adult mortality.

Population Viability Analysis has been carried out as a means of measuring population level effects on the Bull and Cow Rock Gannet population. This modelling work demonstrates the high level of Gannet mortality that would have to occur as a result of entanglement before a significant negative effect was seen on Gannet populations at the Bull and Cow Rock SPA. This is far higher the suggested level of mortality for entanglement that may have caused a significantly negative impact on Gannet populations in this SPA (reported in Gittings 2018). Therefore, the potential impact of Gannet mortality, or mortality of the other SCI species considered, due to entanglement was considered to have no potential for significant effects and it is not likely to cause a significant negative effect either individually or in combination with other sites, plans or projects in relation to the SCI species.

Impacts of aquaculture in the context of in-combination effects have been considered in the AA screening report and NIS. The proposed Shot Head farm together with all aquaculture activity is considered to have no potential for significant effects and it is not likely to cause in-combination effects that will impact on SCI species or the conservation objectives for any designated site. No significant source-pathway-target vectors have been identified whereby SCI species may be affected by present and proposed levels of additional farming activity. The Board considered this conclusion and accepted that the proposed activity at the Site and other aquaculture in Bantry Bay have no potential for significant effects and are not likely to have a significant effect on the listed SCI species

of these SPAs identified for Stage 2 assessment either individually or in combination with other sites, plans or projects.

Navigation and Marine Transport

Impacts of navigation in the context of possible in-combination effects do not appear to have been considered in the AA screening report and NIS. The proposed Shot Head farm together with all marine navigation and vessel movement activity is considered highly has no potential for significant effects and it is not likely to cause in-combination effects that will impact on SCI species or the conservation objectives for any designated site. Proportionately, the development of the Shot Head site will cause a small increase in the total number of vessel movements in Bantry Bay. Vessel movements will not be within any SPA site and will be along established navigable corridors that are used extensively by existing aquaculture service and fisheries vessels.

Existing levels of navigation and marine traffic are not known to cause significant displacement or disturbance and the SCI species demonstrate a high degree of tolerance to vessel traffic. Accordingly, no significant source-pathway-target vectors have been identified whereby SCI species may be adversely affected by likely increased levels of vessel traffic in combination with any other effect. The Board considered this conclusion and accepted that the proposed activity at the Site and local commercial marine traffic have no potential for significant effects and are not likely to have a significant effect on the listed SCI species of these SPAs identified for Stage 2 assessment either individually or in combination with other sites, plans or projects.

Marine Leisure and Recreation

For the purposes of the present assessment, there is no evidence that marine tourism and leisure activity generally present additional risks of in-combination effects and impacts to SCI species and conservation objectives for any SPA. The Board considered this conclusion and accepted that the proposed activity at the Site and local recreational marine traffic have no potential for significant effects and are not likely to have a significant effect on the listed SCI species of these SPAs identified for Stage 2 assessment either individually or in combination with other sites, plans or projects.

Mechanical Kelp Harvesting

Potential in-combination effects between mechanical kelp harvesting in Bantry Bay and the Shot Head salmon culture site were assessed, with no evidence found of significant negative effects on SCI species. This has been considered in greater detail in a report prepared by ALAB by their Technical Advisor (O'Toole, 2021). The proposed Shot Head salmon farm together with mechanical kelp harvesting is considered to have no potential for significant effects and it is not likely to cause in-combination effects that will impact on SCI species or the conservation objectives for any designated site. The Board considered this conclusion and accepted that the proposed activity at the Site and mechanical kelp harvesting in Bantry Bay have no potential for significant effects and are not likely to have a significant effect on the listed SCI species of these SPAs identified for Stage 2 assessment either individually or in combination with other sites, plans or projects.

Other activities

No evidence of potential in-combination effects have been presented and no source-pathway-impact vectors have been identified as leading to uncertainty over possible in-combination effects in

either the AA screening report or NIS. Accordingly, interactions between other activities currently taking place and the SCI species have no potential for significant effects and it is not likely to lead to any adverse in-combination effect. The Board considered this conclusion and accepted that the proposed activity at the Site and other activities have no potential for significant effects and are not likely to have a significant effect on the listed SCI species of these SPAs identified for Stage 2 assessment either individually or in combination with other sites, plans or projects.

Outcomes

The AA screening reports carried out have provided different outcomes in terms of the assessment of risks to SCI species. Crowe (2019) determined that the Fulmar, Guillemot and Gannet in nearby SPA's may be at risk of being impacted by the proposed Shot Head salmon farm development while the Marine Institute has screened out the same species. The differing outcomes are attributable to the fact that the Marine Institute screening matrix has considered SPA sites (Beara Peninsula SPA and Sheep's Head to Toe Head SPA) and associated SCI's that are directly connected to outer Bantry Bay, whereas the AA screening report prepared by Crowe (2019) considers additional more widely distributed sites on the basis that there is ecological connectivity to Bantry Bay and the Shot Head site through the use of Bantry Bay by some SCI species for foraging activity.

Following on from the Screening Stage Assessment Report by Crowe (2019), a Natura Impact Statement was completed by Watermark Consultants (2020). The NIS examined the status of SCI species populations in Ireland and in other areas where salmon farming is substantially more developed. The evidence presented demonstrates that populations of SCI species are stable or increasing in Ireland as well as in areas where salmon farming activity is most developed in the northeast Atlantic; off the west coast of Scotland and Norway, where colonies of Fulmar, Guillemot and Gannets are all increasing or stable despite their relative proximity to marine cage aquaculture centres and where, in some cases, the populations are subject to direct harvesting. While data has been lacking in terms of absolute levels of interactions and mortality of Gannets due to entanglement in predator nets, the status of Gannet populations at local colonies has been increasing steadily, despite the co-existence of marine cage aquaculture in surrounding areas. Data in relation to wildlife interactions for nearby cage farms operated by the applicant for the Shot Head site is voluntarily collected and has been available for this assessment. This demonstrates no lethal interaction with seabirds at any site in recent years. Modelling work carried out on behalf of ALAB (DMP, 2021) demonstrates the high level of Gannet mortality that would have to occur as a result of entanglement before a significant negative effect was seen on Gannet populations at the Bull and Cow Rock SPA. This is far higher the suggested level of mortality for entanglement that may have caused a significantly negative impact on Gannet populations (reported in Gittings 2018). Therefore, the potential impact of Gannet mortality due to entanglement was considered to have no potential for significant effects and it is not likely to cause a significant negative effect either individually or in combination with other sites, plans or projects.

As part of this assessment process, both generic and precautionary conservation objectives (adapted from the Great Saltee islands SPA conservation objectives) were applied to the SCI species that could potentially be affected by the Shot head development and a precautionary assessment was made.

The conclusion of this assessment is that no adverse impacts on the conservation objectives for any SCI species or connected SPA site associated with the development of the proposed Shot Head site will result from the development of the Shot Head site, either individually or in combination with other sites, plans or projects.

Appropriate Assessment of projects is reliant on access to information and data concerning effects and potential impacts of projects on SCI's. This assessment has confirmed that available information and data concerning effects of cage aquaculture and relevant SCI seabird species ecology and populations are, in this instance, adequate to support the assessment of population risks associated with the proposed salmon farm development, as demonstrated by data relating to the ecology and population status and trends for Gannet, Fulmar and Guillemot in Ireland and in the vicinity of other European centres of cage aquaculture, including populations in the vicinity Bantry Bay.

ALAB noted that the MERC report stated: "Greater transparency concerning the levels of impact could be demonstrated by collecting additional specific data in relation to interactions between aquaculture and seabird species. Voluntary recording of wildlife interactions by cage farms as part of third-party sustainability certifications and industry led transparency initiatives provide a useful general understanding of interactions and risk levels that supports this assessment's findings. However, regular collection of scientifically robust data would quantify impacts, and would allow detailed specific assessments to be made of interactions and impacts on other (non SCI) species and allow for ongoing monitoring." ALAB considered this and while it is desirable it needs to be done on a whole bay basis. What ALAB proposes is to require the licensee to comply with any bay wide code of practise or monitoring programme for Bantry Bay developed in agreement with NPWS or any relevant State body for the purposes of monitoring and recording bird populations in the bay. The MERC (2020) report also recommended the implementation of a Single Bay Management scheme in Bantry Bay. Again, ALAB considered this and proposes to require the licensee to comply with any such bay wide code of practise or plan for Bantry Bay developed in agreement with NPWS or any relevant State body should it occur.

Conclusion

The Aquaculture Licences and Appeals Board is satisfied that, given the conclusions and recommendations of the Stage 2 Appropriate Assessment process, the proposed licensed activity is not likely to have a significant effect on the integrity of the conservation objectives of Beara Peninsula SPA (Site code 004155), Iveragh Peninsula SPA (Site code 004154), Deenish Island and Scariff Island SPA (Site code 004175), The Bull and The Cow Rocks SPA (Site code 004066), Skelligs SPA (Site code 004007), Sheep's Head to Toe Head SPA (Site code 004156). As ALAB has concluded that the proposed licensed activity is not likely to have a significant negative effect on the integrity of the conservation objectives of any of the SPAs listed above, and as no mitigations have been identified, there will therefore be no residual adverse impacts. The Board accepted that the proposed activity at the Site, either individually or in combination with other sites, plans or projects, has no potential for significant effects and is not likely to have an adverse effect on the listed SCI species of these SPAs identified for Stage 2 assessment either individually or in combination with other sites, plans or projects.

The Aquaculture Licences and Appeals Board is also satisfied that, given the outcomes of the earlier screening process, the proposed licenced activity will have no significant effect on the integrity of the conservation objectives of Glengarriff Harbour and Woodland SAC (Site Code: 00090), Sheep's Head SAC (Site code: 000102) and Puffin Island SPA (Site code: 004003). This follows on from the findings of the Marine Institute (2018, 2020) and Crowe (2019). The Board accepted that the proposed activity at the Site, either individually or in combination with other sites, plans or projects, has no potential for significant effects and is not likely to have an adverse effect on the listed SCI species of these SPAs and SACs either individually or in combination with other sites, plans or projects.

Aquaculture Licence Appeals Board
28th May 2021

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