

Appropriate Assessment Conclusion Statement for aquaculture activities in Galway Bay Complex SAC (Site Code: 000268) and Inner Galway Bay SPA (004031)

This Conclusion Statement outlines how it is proposed to licence and manage aquaculture activities in the above Natura 2000 sites in compliance with the EU Birds and Habitats Directives. Aquaculture in these Natura sites will be licensed in accordance with the standard licence terms and conditions as set out in the aquaculture licence templates. These are available for inspection on the Department's website at:

<http://www.agriculture.gov.ie/fisheries/aquacultureforeshoremanagement/aquaculturelicensing/>

The licences will also incorporate specific conditions to accommodate Natura requirements, as appropriate, in accordance with the principles set out in this document.

Appropriate Assessment reports relating to aquaculture in the Galway Bay Complex Special Area Conservation (SAC) (000268) and Inner Galway Bay Special Protection Area (SPA) (004031) have been prepared to inform this process. The reports assessed the potential ecological impacts of aquaculture activities on Natura features in both the SAC and the SPA. In addition to the target Natura sites, there are a number of other SACs proximate to the proposed aquaculture activities and a screening was carried out on their likely interactions with aquaculture.

Aquaculture activity in the Natura Sites

The profile of the aquaculture industry in the Bay, used in this assessment, was prepared by BIM and is derived from the list of licence applications received by DAFM and provided to the MI for assessment in April 2019. At this time a total of 52 aquaculture sites, covering a total area of approximately 247 hectares (ha) occur within Inner Galway Bay. These include 33 licensed sites covering a total area of 76 ha, and 19 application sites. Most of the sites are small, with a mean area of 2.3 ha (range 0.4 - 6.8 ha). However, there are four larger sites (all applications) with areas of 11-79 ha. Since the completion of the Appropriate Assessment a number of the larger sites were significantly reduced in size (with the largest site reducing from 79 ha to 21 ha) prior to the Public and Statutory Consultation stage of the application process and another application was withdrawn by the applicant.

The predominant existing/proposed aquaculture activity is the intertidal cultivation of Pacific Oysters using a variety of methods. Other existing and/or planned activities are subtidal suspended mussel cultivation using rafts and longlines, bottom cultivation of native oysters, scallop cultivation, clam cultivation and seaweed cultivation.

Galway Bay Complex SAC

Galway Bay Complex is designated as a Special Area of Conservation (SAC) (Site Code 000268) under the Habitats Directive. Galway Bay Complex SAC is a large site situated on the west coast of Ireland, comprising the entire marine area of inner Galway Bay, extending from the north shore (Silverstrand west of Galway city) to Tawin in the middle of the bay to a point on the south shore west of Ballyvaughan in County

Clare. The marine area is designated as a large shallow inlet and bay and for intertidal mud and sand flats not covered by seawater at low tide. The bay supports a variety of sub-tidal and intertidal sedimentary and reef habitats including habitats that are sensitive to pressures, which might arise from fishing and aquaculture, such as maerl (corraline algae) and seagrass beds. The area is also designated for and supports significant numbers of Harbour Seal and Otter while salmon and sea lamprey, designated in the Lough Corrib SAC which flows into the north east corner of the Bay, migrate through the Bay as smolts and as mature animals returning from sea. Conservation Objectives for these habitats and species (within the Galway Bay Complex SAC) were identified by National Parks and Wildlife Service (NPWS) and relate to the requirement to maintain habitat distribution, structure and function, as defined by characterizing (dominant) species in these habitats.

For designated species the objective is to maintain various attributes of the populations including population size, cohort structure and the distribution of the species in the Bay. Guidance on the conservation objectives is provided by NPWS.

Qualifying interests of SAC

The SAC is designated for a number of habitats and species as listed in Annex I and II of the EU Habitats Directive including:-

- 1140 Mudflats and sandflats not covered by sea water at low tide
- 1150 Coastal lagoons
- 1160 Large shallow inlets and bays
- 1170 Reefs
- 1220 Perennial vegetation of stony banks
- 1310 *Salicornia* and other annuals colonising mud and sand
- 1330 Atlantic salt meadows (*Glauco-Puccinellietalia maritima*)
- 1355 Otter *Lutra lutra*
- 1365 Harbour Seal *Phoca vitulina*
- 1410 Mediterranean salt meadows (*Juncetalia maritimi*)
- 3180 Turloughs*
- 5130 *Juniperus communis* formations on heaths or calcareous grasslands
- 6210 Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco Brometalia) (*important orchid sites)
- 7210 Calcareous fens with *Cladium mariscus* and species of the *Caricion davallianae**
- 7230 Alkaline fens

A full assessment was carried out on the likely interactions between aquaculture operations and the feature of the Annex 1 habitats Mudflats and Sandflats not covered by seawater at low tide (1140), Large Shallow

Inlets and Bay (1160) and Reefs (1170). In addition, a number of other habitat features were screened and excluded from further consideration as no spatial overlap or likely interaction with aquaculture activities (existing or proposed) was expected to occur. These included (1150) Coastal lagoons, (1220) Perennial vegetation of stony banks, (1310) Salicornia and other annuals colonising mud and sand (1330) Atlantic salt meadows (*Glauco-Puccinellietalia maritima*) and (1410) Mediterranean salt meadows (*Juncetalia maritimi*).

Habitats and species that are key contributors to biodiversity and which are sensitive to disturbance should be afforded a high degree of protection i.e. thresholds for impact on these habitats is low and any significant anthropogenic disturbance should be avoided. In Galway Bay these habitats included (1160) Zostera dominated community complex and (1160) Maerl dominated community

The likely effects of the aquaculture activities were considered in light of the sensitivity of the constituent communities of these Annex 1 habitats. The likely interactions between the proposed aquaculture activities and the Annex II Species Harbour Seal (*Phoca vitulina*) and Otter (*Lutra lutra*) were also assessed.

Inner Galway Special Protection SPA

The Special Conservation Interests (SCIs) of the Inner Galway Bay SPA include: All the SCI species of the Inner Galway Bay SPA: Light-bellied Brent Goose, Wigeon, Teal, Shoveler, Golden Plover, Lapwing, Ringed Plover, Curlew, Bar-tailed Godwit, Turnstone, Dunlin, Redshank, Sandwich Tern, Common Tern, Black-headed Gull and Common Gull. The Sandwich Tern and Common Tern SCIs refer to breeding populations. Cormorant is listed as separate SCIs for its breeding and non-breeding/wintering populations. All the other SCIs refer to non-breeding/wintering populations.

The assessment also includes the following SCIs of other SPAs: the non-breeding/wintering Shoveler, breeding Common Scoter and breeding Common Gull SCIs of the Lough Corrib SPA; and the non-breeding/wintering Wigeon, Golden Plover and Black-tailed Godwit SCIs of the Rahasane Turlough SPA.

The conservation objectives for the Cormorant, Sandwich Tern and Common Tern breeding populations in Inner Galway Bay are to maintain their favourable conservation status, which are defined by there being no significant decline in the abundance of the breeding population, the productivity rate, the distribution of breeding colonies and prey biomass available, and no significant increase in barriers to connectivity and disturbance at the breeding site.

The conservation objectives for the non-breeding SCI species at Inner Galway Bay are to maintain their favourable conservation condition, which are defined by there being stable or increasing long-term population trends and no significant decrease in numbers or range of areas used within Inner Galway Bay.

The wetland habitats within the Inner Galway Bay SPA and the waterbirds that utilise this resource are an additional SCI (the wetlands and water birds SCI). The conservation objective for the wetlands and water birds SCI is to maintain its favourable conservation condition, which is defined by there being no significant decrease in the permanent area occupied by wetland habitats.

All of the SCI species for the Inner Galway Bay make significant use of subtidal and/or intertidal habitat within the SPA and were, therefore, carried forward for full Appropriate Assessment. Many of the SCI species listed for the other SPAs were screened out because they do not use subtidal and/or intertidal habitat and/or were considered unlikely to make significant use of the Inner Galway Bay SPA due to their typical foraging ranges. The SCI species retained for full Appropriate Assessment from the other SPAs were Shoveler, Golden Plover and Common Gull (Lough Corrib SPA) and Wigeon, Golden Plover and Black-tailed Godwit (Rahasane Turlough SPA).

The Conservation Objectives define the favourable conservation condition of the wetlands and waterbirds SCI at Inner Galway Bay purely in terms of habitat area. None of the activities being assessed will cause any change in the extent of wetland habitat. Therefore, the activities being assessed are not likely to have any significant impact on this SCI.

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 these sites; and in the case of SPAs also those neighbouring sites where there is the potential usage of aquaculture areas by birds for which these SPAs have been designated. 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.

Appropriate Assessment of the SAC

The appropriate assessment and risk assessment finds that the majority of activities, at the current and proposed or likely future scale and frequency of activity are consistent with the Conservation Objectives. The following are the exceptions:

Maerl-dominated community and Zostera-dominated community complex

Aquaculture activity is deemed disturbing on two community types, Maerl-dominated community and *Zostera*-dominated community complex. The risk to the conservation status of sensitive habitats (i.e. Mearl and *Zostera*) posed by number of overlapping or adjacent aquaculture locations therefore, cannot be discounted. These impacts, in some areas, are potentially exacerbated by fishing activities. The AA Report

recommended that all efforts should be made to avoid overlap with these sensitive areas and a suitable buffer zone be applied in order to allow for mapping anomalies and enforcement measures.

Introduction of non-native species

The presence of non-native species *Didemnum* sp. in Galway Bay is acknowledged and in particular, is associated with structures used to culture oysters (trestles). The AA Report recommended that best practice should be employed to ensure that structures and netting are kept clean at all times and that any biofouling be dealt and disposed of in a responsible manner such that it is removed from the marine environment and does not pose a risk to the conservation features of the site. The draft Code of Practice produced by Invasive Species Ireland' is recommended as a suitable reference for appropriate management actions.

Notwithstanding that current levels of feral Pacific oyster recruitment in Galway Bay are considered relatively low, the AA Report recommended that operators be encouraged to increase their use of triploid oysters in order to mitigate the risk of successful reproduction. This is recommended on the basis that oyster recruitment has been recorded in Galway Bay and that it is proposed to increase the levels of oyster production in the bay and hence the potential for spawning and recruitment will increase.

The AA Report recommended that acceptable sources of seed (in terms of alien species risk) are identified for aquaculture culture operations and that all future movements of all shellfish stock (mussels, oysters and clams) in and out of Galway Bay Complex SAC should adhere to relevant fish health legislation.

Annex II Species interaction with Aquaculture

The likely interactions between the proposed aquaculture activities and the Annex II Species Harbour Seal (*Phoca vitulina*) and Otter (*Lutra lutra*) were also assessed. The objectives for these species in the SAC focus upon maintaining the good conservation status of the population. The AA Report concluded that the activities proposed in the areas that potentially overlap with otter habitat do not pose a threat to the conservation status of this species.

It is acknowledged in this assessment that the favourable conservation status of the Harbour seal (*Phoca vitulina*) has been achieved given current levels of aquaculture production within the SAC. The aspect of the culture activities that could potentially disturb the Harbour seal status relates to movement of people and vehicles within the sites as well as accessing the sites over intertidal areas and via water.

The current levels of licensed aquaculture (existing) are considered non-disturbing to harbour seal conservation features in all areas of the SAC.

In relation to new licence applications, and given the potential broad range of Harbour Seal within the SAC, the AA Report noted that the risk of disturbance to Harbour Seals should be assessed on the basis of the

nature of the culture type and location relative to seal sites. For example, it concluded that a site may pose a greater risk of disturbance than others on the basis of blocking potential egress routes available to seals and the proposed levels of activity at the sites. To this end, the AA report recommended that consideration should be given to not licensing sites where access is blocked and where there does not appear to be any mitigating actions to prevent disturbance to seals.

The aquaculture activities proposed do not pose a threat to otter in the Galway Bay Complex.

AQUACULTURE AND FISHERIES INTERACTIONS WITH SPA FEATURES

The assessment did not identify any significant potential displacement impacts from aquaculture or fisheries activities on the following SCIs of Inner Galway Bay SPA: Light-bellied, Wigeon, Teal, Shoveler, Grey Heron, Oystercatcher, Golden Plover, Lapwing, Dunlin, Bar-tailed Godwit, Curlew, Redshank, Turnstone, Black-headed Gull and Common Gull. Therefore, no impacts to the conservation objectives for these species are predicted.

The AA Report concluded that full development of the existing licensed sites is unlikely to cause significant displacement impacts to any of the species covered by this assessment. Full development of the application sites, however, may cause significant displacement impacts to a number of species covered by this assessment, particularly Light-bellied Brent Goose, Ringed Plover and Curlew mainly at two large sites on either side of the Aughinish Island causeway.

Red-breasted Merganser

New evidence has indicated that Red-breasted Merganser has a higher potential sensitivity to disturbance from moving vessels than was previously assumed. Single trips to all the application sites would cumulatively flush a theoretical total of 34 mergansers, causing a 60% increase in the total number of birds flushed. The significance of disturbance impacts from use of marine access routes will depend on the seasonal timing and frequency of husbandry activity in each of the relevant aquaculture sites.

Great Northern Diver

In Irish coastal waters, Great Northern Divers appear to be relatively tolerant of disturbance from marine traffic. Northern Diver communal roosts in Inner Galway Bay are not known so the potential disturbance impact from vessel traffic along the marine access routes to these roosts cannot be assessed.

However, the roosting Great Northern Divers would only be potentially vulnerable to disturbance impacts from around one hour before dusk to shortly after dawn the following morning.

Cormorant (non-breeding)

In Irish coastal waters, foraging Cormorants appear to be relatively tolerant of disturbance from marine traffic. Roosting Cormorants are likely to be much more sensitive to disturbance than they are when

foraging. The impact of disturbance to birds at daytime roosts may be minor due to the typically small size of these roosts and the widespread availability of alternative roosts throughout the site. Disturbance to nocturnal roosts may have more severe impacts on Cormorant populations. However, the roosting Cormorants would only be potentially vulnerable to disturbance impacts from around two hours before dusk to shortly after dawn the following morning.

High tide roosts

Most roosts are not located close to any of the relevant aquaculture sites or access routes. However, the marine access route from New Quay into Muckinish Bay passes close to a concentration of wader roosts in the outer part of Muckinish Bay and an alternate access from the south would avoid these roosts. Another concentration of wader roosts occurs around the aquaculture site at Tawin East. Additional individual roosts occur close to some of the other aquaculture sites and access routes.

Breeding SCIs

Cormorant

The main Cormorant breeding colony in Inner Galway Bay is located on Deer Island. This is around 1.7 km from the nearest aquaculture site, and around 1.3 km from the nearest marine access route.

Therefore, this colony is not likely to be affected by disturbance impacts from aquaculture activity associated with the aquaculture sites covered by this assessment. However, disturbance from vessel traffic along the marine access route is more likely given the closer distance and the fact that there appears to be limited existing vessel activity in this area. The significance of any such disturbance impact will depend on the seasonal timing and frequency of husbandry activity in the seaweed cultivation site, although a single severe disturbance event can be enough to cause breeding seabirds to abandon a colony in some instances.

Common Tern and Sandwich Tern

In recent years, the main Common Tern breeding colony in Inner Galway Bay has moved between Mutton Island and Rabbit Island in the northern part of the bay. These islands are over 3.5 km from the nearest aquaculture site.

A Sandwich Tern breeding colony is on Illaunagurroge in Corranroo Bay and this also holds a subsidiary Common Tern breeding colony. There are two application sites for oyster trestle cultivation in Corranroo Bay at distances of around 200 m and 500 m from the breeding colony. However, these are not new applications and these sites were included in the 2014 assessment. That assessment concluded that there was potential for disturbance to the colony from husbandry activity if the workers are accompanied by dogs, but this could be addressed by an appropriate license condition.

The significance of potential disturbance impacts arising from boat movements to the Red-breasted Merganser, roosting Great Northern Diver and high tide waterbird roosts cannot be fully dismissed. However, to minimise impacts to Great Northern Diver the AA report recommended that that boat activity be

restricted around one hour before dusk to shortly after dawn, while it also recommended that the proximity of boat movements to high tide roosts should be restricted to avoid disturbance to roosting birds. The risk of disturbance to Red-breasted Merganser for those sites which are accessed by boat may be mitigated if boat movements are relatively infrequent, or biased towards the months of May – September.

Cumulative impacts

The assessment did not identify any potentially significant potential cumulative impacts of fisheries activities in Inner Galway Bay in-combination with the aquaculture activity in the sites covered by that assessment. However, it noted that there would be a risk of in-combination effects in the event of recommencement or intensification of scallop and/or razor clam dredging, crayfish set net fisheries, spratt and herring fisheries in the wider area, and native oyster dredging.

The 2014 assessment identified the following potentially significant cumulative impacts from other activities in Inner Galway Bay in-combination with the aquaculture activity in the sites covered by that assessment. The 2014 assessment concluded that “overall, it is possible, but not highly likely, that disturbance from recreational activity in the intertidal zone could have in-combination effects with displacement impacts from aquaculture activities that cause a measurable increase in the overall cumulative impact” to Ringed Plover. In this AA Report the overall calculated displacement impact for Ringed Plover is higher than that calculated in the 2014 assessment. There is also a concentration of intertidal oyster cultivation along the shoreline between Aughinish Island and Doorus Point, overlapping with a beach recreation area at Traught Beach, and other shoreline access points at Newtown Lynch and along the Aughinish Island causeway. This is a sandy shoreline with high potential habitat suitability for Ringed Plover. Therefore, the potential for cumulative impacts from disturbance by beach recreation and other intertidal activity in combination with displacement by intertidal oyster cultivation is particularly high in this area.

The main impacts from aquaculture activities to Sandwich Tern and Common Tern in the 2014 assessment were also from bottom mussel cultivation. With the exception of the potential for dogs to cause disturbance to the Illaunagurroge breeding colony, which can be controlled by an appropriate licence condition, there are no measurable impacts to these species identified in the present assessment.

In addition to Ringed Plover, other species could potentially be affected by cumulative impacts from disturbance by beach recreation and other intertidal activity in combination with displacement by intertidal oyster cultivation. There is a potentially significant calculated displacement impact to Light-bellied Brent Goose. This species is not likely to be as strongly associated with beach recreation areas as Ringed Plover. However, it may be more vulnerable to disturbance impacts from winkle picking and bait digging. There was also a potentially significant calculated displacement impact to Curlew. This species has a dispersed distribution pattern across intertidal habitat so it tends not to occur in large concentrations in specific areas making it less vulnerable to point source disturbance impacts. The calculated displacement impacts for Bar-

tailed Godwit and Dunlin were below the significance threshold but not negligible. Both these species are likely to experience some degree of disturbance impact from beach recreation and other intertidal activity.

There is potential for marine traffic to cause cumulative impacts to Red-breasted Merganser, roosting Great Northern Diver and high tide waterbird roosts in combination with disturbance from aquaculture husbandry activity and associated access to/from the aquaculture sites. The current distribution patterns of Red-breasted Merganser, roosting Great Northern Diver and high tide waterbird roosts probably reflect existing levels of disturbance from the above activities. Introduction of additional disturbance sources, particularly in areas with low existing levels of disturbance, could have significant cumulative impacts.

Conclusions:

The appropriate assessment and risk assessment finds that the majority of activities, at the current and proposed or likely future scale and frequency of activity are consistent with the Conservation Objectives for these Natura sites. Some general conclusions and recommendations follow:

In Galway Bay Complex SAC/Inner Galway Bay SPA there are a range of aquaculture activities currently being carried out and proposed. Based upon this, and the information provided in the aquaculture profiling the likely interaction between aquaculture methodology and conservation features (habitats and species) of the site was considered.

Full development of the existing licensed aquaculture sites is unlikely to cause significant displacement impacts to any of the Annex II species covered by this assessment.

Full development of the majority of the proposed aquaculture sites is unlikely to cause significant displacement impacts to any of the Annex II species covered by this assessment. The exception is an intertidal oyster aquaculture site in Kinvarra Bay.

Full development of the application aquaculture sites may cause significant displacement impacts to a number of species covered by this assessment, particularly Light-bellied Brent Goose, Ringed Plover and Curlew. This is mainly due to the two large sites on either side of the Aughinish Island causeway.

The appropriate assessment noted that there remained a risk of disturbance to Red-breasted Merganser for those sites which are accessed by boat. However as it is not proposed to licence the specific sites in question, and as a result of the amendment of the access route to T08/114A this risk has been removed.

There is potential for beach recreation and other intertidal activities such as shellfish collection to have cumulative impacts on Light-bellied Brent Goose, Ringed Plover and other species in combination with displacement impacts from aquaculture activity.

Follow-up site inspections February 2020

- Site T09/519A, on the northern side of the Aughinish causeway, occupies a sandy bay, which is mapped as a mixture of intertidal sand, fine to medium sand with bivalves and *Laminaria*-dominated community complexes, with the fucoid-dominated community complex on the upper shore. During the site inspection in May 2019 extensive colonisation of the sand flats by the non-native and invasive seaweed *Sargassum muticum* was noted. Due to the reduction in size of the site prior to public consultation but after the Appropriate Assessment Report was submitted, a further site inspection was undertaken by the Marine Institute on the reduced site in February 2020. The second assessment again confirmed the presence of *Sargassum muticum* throughout the smaller site area in addition to extensive overlap of Eel grass (*Zostera* sp.) habitat. Aquaculture activities would likely result in dislodging of *Sargassum* sp. and dispersal beyond the boundaries of the site. Furthermore, it is likely that the macro-alga will settle on the culture species in bags or baskets, i.e., oysters, which could act as a vector if they are relocated to other grow out areas both within and outside Galway Bay. The activities proposed would result in considerable harm to the sensitive Eel grass habitat. On this basis and given the invasive nature of the *Sargassum muticum*, the use of site T09/519A for shellfish culture would likely result in harm to the SAC and conservation features within the bay.
- Site T08/115A, was found to also have the invasive seaweed *Sargassum muticum* within the site. Aquaculture activities would likely result in dislodging of this species and dispersal beyond the boundaries of the site. Furthermore, it is likely that the macro-alga will settle on the culture species in bags or baskets, i.e., oysters, which could act as a vector if they are relocated to other grow out areas both within and outside Galway Bay. Due to the invasive nature of the *Sargassum muticum* the use of site T08/115A and its environs would only increase the spread within the bay. The site was also found to be characterised by the presence of extensive and evenly spaced boulders interspaced by long ‘pathways’ comprised of muddy sand. These boulder fields, in places, had clear boundaries marked on corners with standing stones. Toward the southern end of the site the substrate consists of mobile sands which border the main channel into Aughinish and Corranroo Bays. Throughout the site individuals of the native oyster, *Ostrea edulis*, were also found. The presence of the native oyster could leave them susceptible to inadvertent harm or harvest within an aquaculture site. The presence of so many boulders throughout the site if licensed would most likely require the removal of some in places. Such activity could result in considerable harm to the intertidal habitat.

Summary of Mitigation Measures and Management Actions that are being implemented as a consequence of the findings in the Appropriate Assessment report

Taking account of the recommendations of the Appropriate Assessment, as well as additional technical/scientific observations, the following measures are being taken in relation to licensing aquaculture in these Natura sites:

- Aquaculture activity is deemed disturbing on two community types, Maërl-dominated community and *Zostera*-dominated community complex. Overlap with these sensitive areas will not be permitted and a suitable buffer zone will be applied in order to allow for mapping anomalies and enforcement measures. Reduction by the applicant after the original Appropriate Assessment of site T09/520 has removed the overlap that existed for that site.
- The presence of non-native species *Didemnum* sp. in Galway Bay is acknowledged and in particular, is associated with structures used to culture oysters (trestles). Therefore structures and netting must be kept clean at all times and that any biofouling be dealt and disposed of in a responsible manner such that it is removed from the marine environment and does not pose a risk to the conservation features of the site. Adherence to such practice will be included in the licence conditions.
- Due to the extensive overlap of Eel grass (*Zostera* sp.) habitat and the presence of the non native seaweed *Sargassum muticum* at Site T09/519A and the risk of its dispersal beyond the boundaries of the site, it is not proposed to licence this site..
- Due to the presence of the native oyster, *Ostrea edulis* as well as the presence of the non native seaweed *Sargassum muticum* at Site T08/115A and the risk of the dispersal of *Sargassum muticum* beyond the boundaries of the site, it is not proposed to licence this site.
- There was potential for one of the access routes to the application site for seaweed cultivation to cause disturbance to a small Cormorant breeding colony and to Red-breasted Merganser in Muckinish Bay. Therefore the access route will be amended to remove this impact if the site is licensed.
- Notwithstanding that current levels of feral Pacific oyster recruitment in Galway Bay are considered relatively low operators will be required to increase their use of triploid oysters in order to mitigate the risk of successful reproduction. Licence conditions requiring that all new licences granted for Pacific Oysters in Galway Bay will be for the use of triploid seed only will apply.
- It is not proposed to licence intertidal oyster culture sites which are deemed to be disturbing to seal conservation objectives and where mitigation measures are not possible.
- Possible impacts to the Great Northern Diver have been removed, as it is not proposed to licence the specific sites in question..

- Licensing of the application sites near to the Sandwich Tern breeding colony the proximity of boat movements to high tide roosts should be restricted to avoid disturbance to roosting birds.
- The source of seed and any changes to the source of seed are to be approved by the Department of Agriculture, Food and the Marine in advance.
- A Licence condition requiring strict adherence to the identified access routes in order to minimise species/ habitat disturbance will be in each licence issued.
- A Licence condition will require full implementation of the measures set out in the draft Marine Aquaculture Code of Practice prepared by Invasive Species Ireland (e.g. <http://invasivespeciesireland.com/cops/aquaculture>).
- The movement of stock in and out of Galway Bay SAC/Inner Galway Bay SPA should adhere to relevant fish health legislation.
- A licence condition will require that all operators shall adhere to any recommendations that may arise in order to avoid adverse impacts on the integrity of the Galway Bay SAC/Inner Galway Bay SPA.
- The use of updated Aquaculture and Foreshore Licences containing terms and conditions which reflect the environmental protection required under EU and National law.

Overall Conclusion

The appropriate assessment and risk assessment finds that the majority of activities, at the current and proposed or likely future scale and frequency of activity are consistent with the Conservation Objectives for these Natura sites.

The Licensing Authority is satisfied that from a Natura 2000 perspective, given the conclusions and recommendations of the Appropriate Assessment process, along with implementation of the above measures that will mitigate certain pressures on Natura features, the proposed licensed activities are not likely to have a significant effect on the integrity of the Galway Bay Complex SAC and Inner Galway Bay SPA.

July 2020