

**Draft Appropriate Assessment Conclusion Statement for aquaculture activities in the Clonakilty Bay Special Area of Conservation (Natura 2000 Site code: 000091) and Clonakilty Bay Special Protection Area (Natura 2000 Site code: 004081)**

**1. Appropriate Assessment Process**

**1.1.** This draft Conclusion Statement outlines how it is proposed to determine an application for an aquaculture licence in the above Special Area of Conservation (SAC) and Special Protection Area (SPA) in compliance with the EU Birds and Habitats Directives.

**1.2.** The SAC and SPA reports were prepared by AQUAFAC International Services Ltd. and Atkins Ecology respectively, for the Marine Institute on behalf of the Department of Agriculture, Food and the Marine. These Appropriate Assessment Reports<sup>i</sup> assessed the potential ecological impacts of aquaculture activities on Natura features in both the SAC and the SPA.

**1.3.** The information upon which the Appropriate Assessment is based is the definitive list of applications for aquaculture available at the time of assessment. This information was provided by the Department of Agriculture, Food and the Marine.

**2. Description of the Aquaculture Activities**

**2.1.** There is currently no existing licensed aquaculture within the SAC or SPA. There is one application for intertidal aquaculture of Pacific oyster (*Crassostrea gigas*) on a site north of Inchydoney Island in the inner harbour. The proposed site is 22.7ha in area and lies at the mouth of Clonakilty Bay and close to Ring Channel.

**3. The Special Area of Conservation**

**3.1.** The Clonakilty Bay Special Area of Conservation (SAC) (Natura 2000 site code: 000091), located in West Cork, is an intertidal expanse that stretches from Clonakilty to the open sea and comprises two small estuaries separated by Inchydoney Island. The site which includes adjacent sand dunes and inland marshes has a good diversity of habitats.

**3.2** The SAC is designated for the following Annex I habitats (\* = priority habitat; numbers in brackets are Natura 2000 codes):

- [1140] Tidal Mudflats and Sandflats

- [1210] Annual Vegetation of Drift Lines
- [2110] Embryonic Shifting Dunes
- [2120] Marram Dunes (White Dunes)
- [2130] Fixed Dunes (Grey Dunes)\*
- [2150] Decalcified Dune Heath\*

**3.3** The Conservation objectives for the qualifying interests are identified in the NPWS guidance documents.<sup>ii</sup> The natural condition of the designated features should be preserved with respect to their area, distribution, extent and community distribution. For the practical purpose of management of sedimentary habitats, a 15% threshold of overlap between disturbing activities and a habitat is given in the NPWS guidance. **Below this threshold disturbance is considered to be non-significant.**

#### **4. Appropriate Assessment Screening of the Special Area of Conservation**

**4.1** The first stage of the Appropriate Assessment process is an initial screening wherein activities that cannot have, because they do not spatially overlap with a given habitat or have a clear pathway for interaction, any impact on the features for which the site is designated and are therefore excluded from further consideration.

**4.2** With the exception of mudflats and sandflats not covered by seawater at low tide [1140] potential effects to the conservation features were excluded at the screening stage. A full assessment was carried out on the likely interactions between proposed aquaculture operations and the feature Annex 1 habitat mudflats and sandflats not covered by seawater at low tide [1140]. The likely effects of proposed aquaculture activities were considered in light of the sensitivity of the constituent community of the Annex 1 habitat [1140] that was shown to overlap with proposed intertidal oyster application, namely; Sand with polychaetes and bivalves community complex.

#### **5. Screening of Adjacent Special Areas of Conservation**

**5.1** A total of 2 SACs are located within 15km of the proposed aquaculture sites at Clonakilty Bay SAC.

The sites are:

- Courtmacsherry Estuary SAC (Natura 2000 site code: 001230)
- Kilkeran Lake and Castlefreke Dunes SAC (Natura 2000 site code: 001061)

**5.2** The conservation features of the above SAC sites are identified and a preliminary screening was carried out on the likely interaction with aquaculture activities within Clonakilty Bay SAC. As there is no spatial overlap or likely interactions with aquaculture activities in Clonakilty Bay SAC – both Courtmacsherry Estuary SAC and Kilkeran Lake and Castlefreke Dunes SAC conservation features were **excluded from further analysis**.

## **6. Findings of the Appropriate Assessment Report in respect of Clonakilty Bay Special Area of Conservation**

**6.1** The proposed aquaculture site is largely located within the Annex I habitat Tidal Mudflats and Sandflats [1140] and its constituent community type. The proposed vehicle route that will be used by tractors to access the site also overlaps Annex I habitat [1140] and its constituent community type. The constituent community type recorded in Clonakilty Bay SAC is sand to sandy mud with *Tubificoides benedii* and *Peringia ulvae* community complex [313ha]<sup>iii</sup>

**6.2** The proposed cultivation site and access route overlaps approximately 7.235% and 0.067%, respectively, of the Annex I habitat [1140] mudflats and sandflats not covered by seawater at low tide.

**6.3** As the overlap of the site with the community type in Annex I habitat [1140] is below the 15% threshold, **significant disturbance is unlikely to occur**.

**6.4** Intertidal and subtidal sands are sensitive to the introduction of non-native species. Aquaculture has been identified as a vector for the introduction/spread of a number of non-native species in Irish waters that have the potential to impact Qualifying Interest habitats and species for which the SACs are designated. With strict adherence to the relevant legislation and best practice guidelines, there will likely be **no significant adverse effects**.

**6.5** As there are no other licensed fisheries in the vicinity of the proposed aquaculture site, in-combination effects of fisheries with aquaculture activity on fisheries **can be discounted**.

**6.6** There are a number of activities which are terrestrial in origin that might result in impacts on the conservation features of the Clonakilty Bay SAC. Primary among these are point source discharges from domestic sewage outfalls located adjacent to the SAC. Pressures resulting from point discharge location would not significantly impact chemical parameters in the water column, any in-combination effects with aquaculture activities are considered to be minimal or negligible and are considered **non-disturbing**.

## **7. The Special Protection Area**

**7.1** Clonakilty Bay SPA (Natura 2000 Site code 004081) in west County Cork is a wetland complex which extends from Clonakilty town to the open sea. It comprises two small estuarine bays: Clonakilty Estuary and Inchydoney Estuary (also known as Muckruss Island).

**7.2** The Special Conservation Interests (SCI) of Clonakilty Bay SPA (Natura 2000 Site code: 004081) is the non-breeding population of Shelduck (*Tadorna tadorna*), Dunlin (*Calidris alpina*), Black-tailed Godwit (*Limosa limosa*) and Curlew (*Numenius arquata*). The conservation objectives for the non-breeding populations of Shelduck, Dunlin, Black-tailed Godwit and Curlew at Clonakilty Bay SPA are to maintain their favourable conservation status (NPWS, 2014a & c).

**7.3** In addition, wetland habitats within Clonakilty Bay SPA are identified to be of conservation importance for non-breeding (wintering) migratory waterbirds. There are no subtidal species for which the SPA has been designated. The conservation objective for wetlands and waterbirds at Clonakilty Bay SPA is to “*maintain the favourable conservation condition of the wetland habitat in Clonakilty Bay SPA as a resource for the regularly occurring migratory waterbirds that utilise it*” (NPWS, 2014a).

**7.4** Other species of note are as follows: A very large roost of gulls and terns (>1000) is located on the sandbanks by Ring village; while large numbers of gulls (in the thousands) also congregate in the central portion of Clonakilty estuary at dusk – it is not known if this aggregation persists as a night-time roost. Terns roosting near Ring are predominantly Sandwich Tern (*Thalasseus sandvicensis*) during late summer / autumn. Common tern (*Sterna hirundo*) and Arctic tern (*S. paradisaea*) can also occur. All three tern species are listed on Annex I of the EU Birds Directive. Furthermore, Little Egret (*Egretta garzetta*), breeds at a Grey heron colony adjoining the cul-de-sac pool.

## **8. Appropriate Assessment Screening of the Special Protection Area and Adjacent Special Protection Areas**

**8.1** A preliminary 'coarse' screening was applied based on the distance from the aquaculture activities to SPAs with an initial threshold set at 15 km. The purpose of this was to screen out SPAs that were so distant from the location of the aquaculture activities being assessed that detailed consideration of such SPAs and their SCIs were not required.

**8.2.** There are several other SPAs in the vicinity: e.g. Courtmacsherry Bay SPA (Natura 2000 site code: 004219), Seven Heads SPA (Natura 2000 site code: 004191), Old Head of Kinsale SPA (Natura 2000 site code: 004021), Galley Head to Duneen Point SPA (Natura 2000 site code: 004191), Sovereign Islands SPA (Natura 2000 site code: 004124) and Sheep's Head to Toe Head SPA (Natura 2000 site code: 004156), which were also considered as part of the Report

## **9. Findings of the Appropriate Assessment Report in respect of Clonakilty Bay Special Protection Area**

**9.1** The percentage occurrence of the qualifying interests in the areas of the SPA that overlap with the application site can be summarised as follows:

- Black-tailed Godwit: 1.06% - 29.64% at low tide; 51.98% at high tide;
- Curlew: 14.00% - 45.33% at low tide; 75.96% at high tide;
- Shelduck: 0% at low tide; 78.57% at high tide; and
- Dunlin: 0.52% - 31.37% at low tide; 51.98% at high tide.

**9.2** With respect to potential for displacement (based on NPWS low tide data from 2010/11) based on loss of access to intertidal areas within 0L506 & 0L507 within the licence plot: -

- **Black-tailed godwit** - Assuming development of site T05/603A, this species could be displaced from a maximum of 76.2% of available intertidal habitat at low tide. This represents a maximum of 22.6% displacement of the species (average displacement using 4 low tide counts is 8.85%);
- **Curlew** - Curlew could be displaced from 76.2% of available intertidal habitat at low tide representing a maximum of 34.5% displacement of this species (average displacement using 4 low tide counts is 23.4%)

- **Shelduck** – no birds were recorded at low tide. During the January high tide count 44 birds were recorded in OL506. While not a large count it did represent 78.6% of Shelduck using Clonakilty Bay at the time.
- **Dunlin** - The peak low tide count was 101 birds (100 birds in OL506 in February 2011); 10% of birds in Clonakilty Bay at this time. Assuming development of T05/603A birds could be displaced from 76.2% of available intertidal habitat at low tide; given the high proportion of this species within the area proposed for aquaculture, this would represent a maximum of 23.9% displacement of this species (average displacement of 9.23%).

**9.3** A significant tern/gull roost occurs within Clonakilty Harbour. There is insufficient data available on the numbers, species and location of these roosts to discount the potential for negative impacts.

**9.4** On the basis on the potential levels of displacement identified above and the fact that no mitigation measures are apparent, the potential for negative impacts on bird species for which Clonakilty SPA has been designated **cannot be discounted**.

## **10. Conclusion**

**10.1** It is concluded that the proposed aquaculture activities in the Clonakilty Bay SAC will not lead to deterioration in the attributes of the Qualifying Interests of the SAC or of adjacent SACs.

**10.2** Based on the potential levels of displacement identified above the potential for negative impacts on bird species for which Clonakilty Bay SPA has been designated **cannot be discounted**.

**10.3.** Given the conclusions of the Appropriate Assessment process, in particular in relation to the impacts on bird species for which Clonakilty Bay SPA has been designated, the proposed aquaculture activity is likely to have a significant negative impact on the integrity of the Clonakilty Bay SPA and therefore licensing of the current proposed application is **not recommended**.

**April 2021**

<sup>i</sup> <https://www.gov.ie/en/publication/fcd20-aquaculture-foreshore-management/#appropriate-assessments-carried-out>

<sup>ii</sup> NPWS (2014f). *Clonakilty Bay SAC. Conservation objectives supporting documentation – marine habitats. Version 1.0.* April 2014, NPWS (2014a) Conservation Objectives: Clonakilty Bay SAC 000091. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht

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<sup>iii</sup> NPWS (2014b). *Conservation Objectives: Clonakilty Bay SAC 000091. Version 1*. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

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