



## **Appeal Ref No. AP 17 & 18**

### **Aquaculture Licences Appeals Board**

#### **Technical Advisor's Report**

**Description:** Assessment of the appeal against the decision of the Minister for Agriculture, Food and the Marine to Grant a Variation of Aquaculture and Foreshore Licences and Grant/Not Grant Licence Reviews to Crookhaven Fishermen's Association Ltd, c/o Jimmy Newman to cultivate Scallops using cages on the seabed and reviews to add the cultivation of native Green, Brown and Red Seaweeds using floating longlines on the subtidal foreshore on site ref T05/432B & C in Crookhaven Harbour, Co. Cork.

#### **Licence Application**

**Department Ref No:** T05 / 432B & C

**Applicant:** Crookhaven Fisherman's Association Ltd c/o Jimmy Newman

**Minister's Decision:** Variation of the Aquaculture Licence renewals and reviews sought and associated Foreshore Licences for these sites i.e. only Scallops seeded onto the seabed without any structures (i.e. no cages) will be permitted. The proposed floating Seaweed longline structures, as applied for in the reviews, are not being permitted.

#### **Appeal**

**Type of Appeal:** To appeal against the Ministerial Decision to grant a variation of aquaculture and foreshore licences and grant / not-grant licence reviews on sites T05 / 432B & C in Crookhaven Harbour.

**Appellant(s):** Crookhaven Fisherman's Association Ltd c/o Jimmy Newman

**Observers:** Bantry Marine Research Station and associated Universities: Dr. Nessa E. O'Connor, Assoc. Prof in Ecology and Marine Biology, Trinity College Dublin. Dr. Fionnuala Murphy, Assis. Prof, School of Biosystems & Food Engineering, University College Dublin and Joseph Sweney, EU LIFE Farm4More project, School of Agriculture and Food Science, University College Dublin.

**Technical Advisor** EcoÉireann Ecological Consultants

**Date of site**

**Inspection**

Site visit completed on the 25/06/2020 by Ecologist, Eoin Cussen.

## Document Control

Version	Date	Changes	Confidentiality	Prep	Rev	Auth
V1	07/07/2020	Draft to client	Confidential	EC	JT	MM
V2	22/07/2021	Address client's comments	Confidential	EC		
V3	13/08/2021	Incorporation of FI Requests and Responses	Confidential	EC		
V4	08/09/2021	Draft Interim Report	Confidential	EC		

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## **1.0 General Matters / Appeal Details**

### **1.1. Appeal Details & Observer Comments / Submissions**

Date Appeal Received: 6<sup>th</sup> January 2020  
Location of Site Appealed: Crookhaven Harbour Co. Cork

A series of submissions supporting the proposed aquaculture sites were received by the ALAB from both Trinity College Dublin and University College Dublin. It is stated that the Universities will be working with Dr. Julie Maguire, of the Bantry Marine Research Station, on the proposed sites to test new methods of cultivating multiple seaweed species.

The aim of the project is to test whether monocultures or mixtures of algal species are more productive (in terms of biomass production) and resilient to environmental change and will also be used to assess the ecological impacts of seaweed cultivation and its role in carbon sequestration to develop new tools for climate change mitigation. The seaweed will be tested for commercial properties including bioengineering products (for the treatment of bone damage and degenerative diseases) in addition to biofuel production.

The observers state that the proposed licenses are required to provide the necessary experimental platform to facilitate the new research collaboration and anticipate that this research project will provide a stimulus to further develop the Irish seaweed farming industry in a sustainable and ecologically sensitive manner and will position Ireland as a key actor in seaweed research and development on an international scale.

### **1.2. Name of Appellant (s):**

Crookhaven Fisherman's Association Ltd c/o Jimmy Newman, Crookhaven, Co. Cork.

### **1.3. Name of Observer (s)**

Dr. Nessa E. O'Connor, Assoc. Prof in Ecology and Marine Biology, Trinity College Dublin.

Dr. Fionnuala Murphy, Assis. Prof, School of Biosystems & Food Engineering, University College Dublin.

Joseph Sweney, EU LIFE Farm4More project, School of Agriculture and Food Science, University College Dublin.

### **1.4. Grounds for Appeal**

1. *Economic*                      The appellant states that the licencing of the proposed sites will generate year-round employment opportunities in an area which primarily relies on seasonal income from tourists.
2. *Business Continuity*              The appellant states that the growing of seaweed will provide supplemental income to the company over the long scallop growing season, though scallop mortality events and in the event of theft of Scallops from the seabed.
3. *Business Development*      The appellant states that a local sustainable source of hatchery seaweed plantlets have been sourced from the Bantry Marine Research Station and that potential buyers of the seaweed product have been identified, allowing for future development of the Crookhaven Fisherman's Association.
4. *Departmental Communication*    The appellant states that during the initial application process they made clear to the Department that they were willing to address any navigational and visual impact concerns raised. And subsequently acquiesced with a Departmental request to redraw Site T05/432 D to allow for public access to a local pier. No requests were made in relation to Sites T05 / 432 B & C.
5. *Public Consultation*              The appellant states that no submissions were lodged as to navigational or visual impact concerns during the public consultation period
6. *Navigation*                      The appellant states that the appealed sites are shallower than the main navigational channel and will not interfere with access to the Harbour. The appellant states that the proposed scallop cage dimensions are such that they will not interfere with any boats that inadvertently stray into the aquaculture area
7. *Other Users*                      The appellant states that the Crookhaven Harbour Sailing Club, which actively use the Harbour in the summer, have no objection to the developments. The appellant also states that the proposed development will not impact on any other existing beneficial use of the Harbour.
8. *Visual Impact*                      The appellant states that the only visual impact from the proposed development will be an increased number of buoys, which will be of uniform size, regular in deployment, small and of a uniform grey colour. The appellant compares these proposed buoys to the many

mooring buoys present within the Harbour which are various sizes, colours and dimensions and area visible from all vistas

9. *Mitigation* The appellant states that, as the Minister in his determination expressed that there would be a negative impact upon visual amenity and navigation by the granting of both sites T05/432 B & C for longline cultivation, then the appellant in mitigation of these concerns is willing to accept longlines on Site T05/432 C only, is the boards deems this appropriate.
10. *Subsea Pipeline* The appellant states that subsea pipeline was lain down in the mid-1990s and has now sunk deep into the silty sediment of the Harbour. However, it can easily be identified and avoided when laying any heavy mooring structures or scallop cages and that this is what the appellant would do should the sites be licenced for such.
11. *Improved Environment and Water Quality* The appellant states that the proposed development of seaweed longlines and scallop cages, will help improve the water quality, reduce erosion and improve fish recruitment in the Harbour by offsetting the carbon burden and the discharged waste from the town.

### **1.5. Minister's submission**

Section 44 of the Fisheries (Amendment) Act 1997 states that:

*"The Minister and each other party except the Appellant may make submissions or observations in writing to the Board in relation to the appeal within a period of one month beginning on the day on which a copy of the notice of appeal is sent to that party by the Board and any submissions or observations received by the Board after the expiration of that period shall not be considered by it."*

The Minister responded to the application for the aquaculture and foreshore licence as below, as described in the DAFM website:

[https://www.agriculture.gov.ie/media/migration/seafood/aquacultureforeshoremanagement/aquaculturelicensing/aquaculturelicencedecisions/cork/2MinistersDeterminationT05432BandC261119\[1\].pdf](https://www.agriculture.gov.ie/media/migration/seafood/aquacultureforeshoremanagement/aquaculturelicensing/aquaculturelicencedecisions/cork/2MinistersDeterminationT05432BandC261119[1].pdf) [Accessed on 01/06/2020]

The following are the reasons and considerations for the Minister's determination to grant a variation of the licences sought:

- Technical advice is to the effect that the waters are suitable for the production of bottom culture Scallops *Pecten maximus* and not suitable for the proposed floating seaweed longline structures which would restrict safe access into Crookhaven Harbour and conflict with the significant sailing and marine leisure related activities which take place within the Harbour;
- The proposed longline structures have the potential to negatively impact the visual amenity of this area of Crookhaven Harbour. However, no visual impacts arise from bottom culture Scallops at these sites;
- The Scallops shall be seeded onto the seabed without the proposed cages or any other structures as both sites extend over and have the potential to conflict with an existing subsea pipeline;
- There should be no significant impacts on the marine environment and the quality status of the area should not be adversely affected by aquaculture at these sites;
- The aquaculture at these sites should have a positive effect on the economy of the local area;
- The sites are not located within a designated Natura 2000 site. The Appropriate Assessment Screening Report for Crookhaven Harbour and Toormore Bay found that the cultivation of shellfish and seaweeds in Crookhaven Harbour should have no significant effects on the qualifying features/interests of the adjacent Natura 2000 sites;
- The measures set out in the draft Marine Aquaculture Code of Practice prepared by Invasive Species Ireland shall be fully implemented as required in the licensing conditions;
- All issues raised during the public and statutory consultation phase;
- The updated and enhanced Aquaculture and Foreshore licences contain terms and conditions which reflect the environmental protection required under EU and National law."

## 1.6. Applicant Response

The Applicant has made a submission as the Appellant. The appellants submission dated 4<sup>th</sup> January 2020, is addressed within this report.

## **2.0 Consideration of Non-Substantive Issues**

## **3.0 Oral Hearing Assessment**

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

At this time an oral hearing has been requested by the appellant.

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

## **4.0 Minister's File**

Details of the file received by ALAB from the Minister requested under Section 43 are listed here in chronological order. Copies of the following items were received:

- Application forms, maps and drawings
- Submissions from Statutory and Technical consultations
- Screening matrix for Appropriate Assessment of Aquaculture Activities within Crookhaven and Toormore Bay
- Draft Aquaculture and Foreshore Licence
- Notification of Minister's decision to the applicant
- Location map of the surrounding area including
  - Sites under application
  - Licenced sites
  - Sites currently under appeal



## **5.0 Context of the Area**

### **5.1. Physical Descriptions**

#### **5.1.1 Site Location**

Crookhaven Harbour is a picturesque naturally formed deep protected inlet situated on the southwest coast of Ireland on the southside of the Mizen Peninsula, with Mizen Head being Ireland's most south-westerly point. The Harbour is formed by a narrow neck of land which creates a naturally deep inlet providing an ideal anchorage.

#### **5.1.2 Physical Characteristics**

Crookhaven Harbour is a small sheltered inlet along the south western edge of Roaring-water Bay on the south coast of Co. Cork.

The Harbour is aligned along an east north-east / west south-west axis, with the entrance on the eastern side between Black Horse Rocks (off Streak Head) and Sheemon Point (on Rock Island), which are both lit for navigation, with Sheemon Point housing the Rock Island lighthouse.

The long-hooked peninsula encloses an extensive natural Harbour which is just over 3km long, with unhindered deep-water access. The Harbour varies in width from just under 600m at the entrance to 250m at its narrowest point at the south western tip of Rock Island, adjacent to the proposed site T05/432B.

Depths within the Harbour range from between 1-2m at the western side of Granny Island to >10m at the entrance to the Harbour (see Figure 3 & 4, below, extracted from <https://eoceanic.com/map.php?latitude=51.4691162&longitude=-9.7261000&zoom=12&chart=1> [accessed on 12/06/2020]).

#### **5.1.3 Meteorological Conditions**

Crookhaven Harbour is situated on the southern edge of the Mizen Peninsula. The Gulf Stream North Atlantic Current flows past the south-west coastline resulting in generally mild temperatures, while its mountainous nature, geographical location and the prevailing south westerly winds results in one of the highest rainfall rates in the country. The average monthly rainfall recorded by Met Éireann at the Sherkin Island Observatory (located on the eastern side of Roaringwater Bay) over the last 3 years (2017-2019) was 99mm.

#### **5.1.4 Local Population**

The local population of the Crookhaven Electoral Division, which encompasses the entire southern end of the Mizen peninsula, was 225 in the 2016 census. The local population of the Crookhaven Small Area, which encompasses the eastern half of the Crookhaven Electoral Division was 150 in the 2016 census.

The largest community in the local area is the Town of Schull, 15km north-east of Crookhaven, as the crow flies. Schull's population increased by 6.4% or 42 people between 2011-2016 and had a population of 700 during the 2016 census <http://census.cso.ie/p2map11/> [Accessed on 01/06/2020])

The population of Crookhaven Harbour expands extensively during the summer with the influx of holiday-homeowners and their families, and a large number of tourists.

Figure 1 Crookhaven Harbour in context of the Surrounding Area

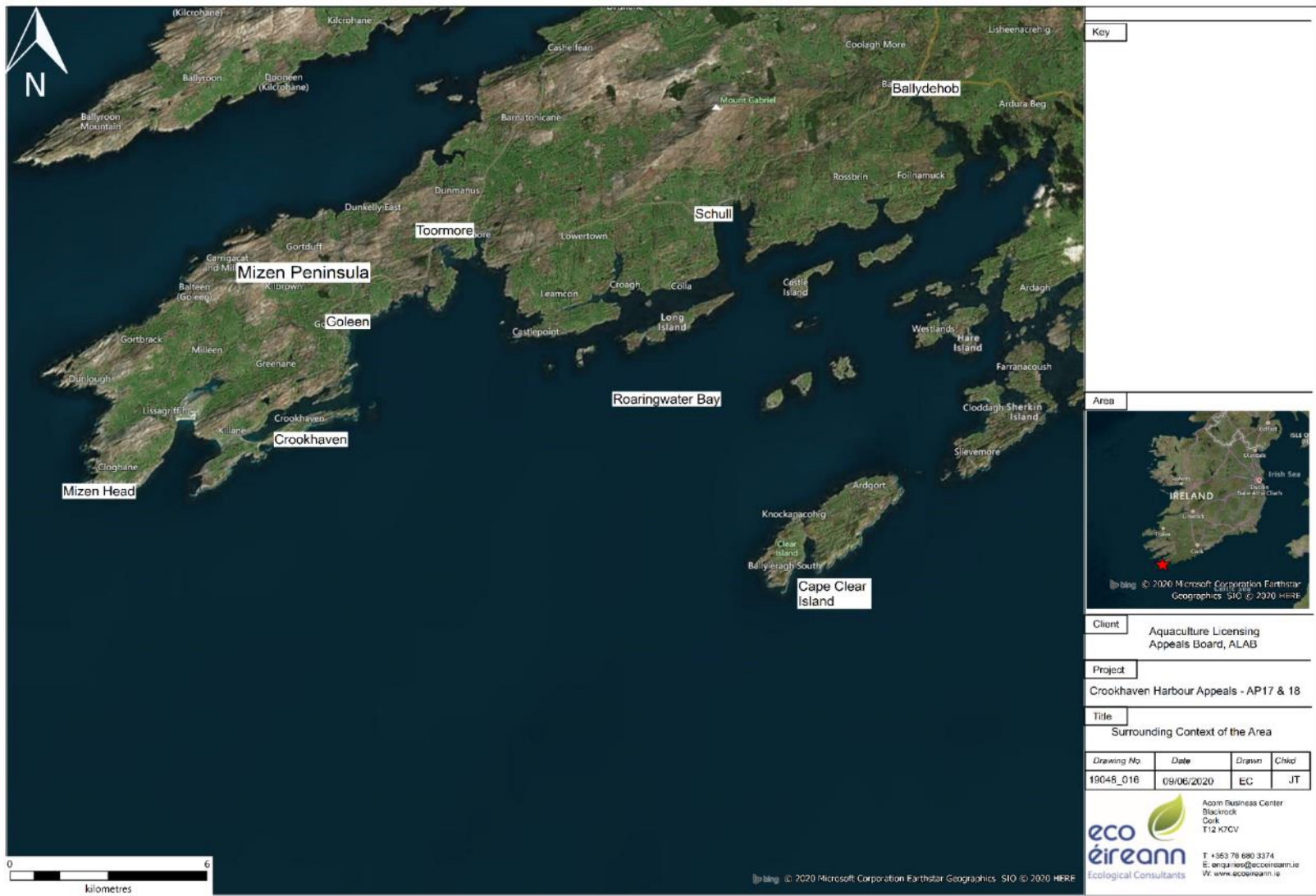


Figure 2 Crookhaven Harbour and the surrounding Mizen Peninsula



Figure 3 Inner Crookhaven Harbour Water Depths

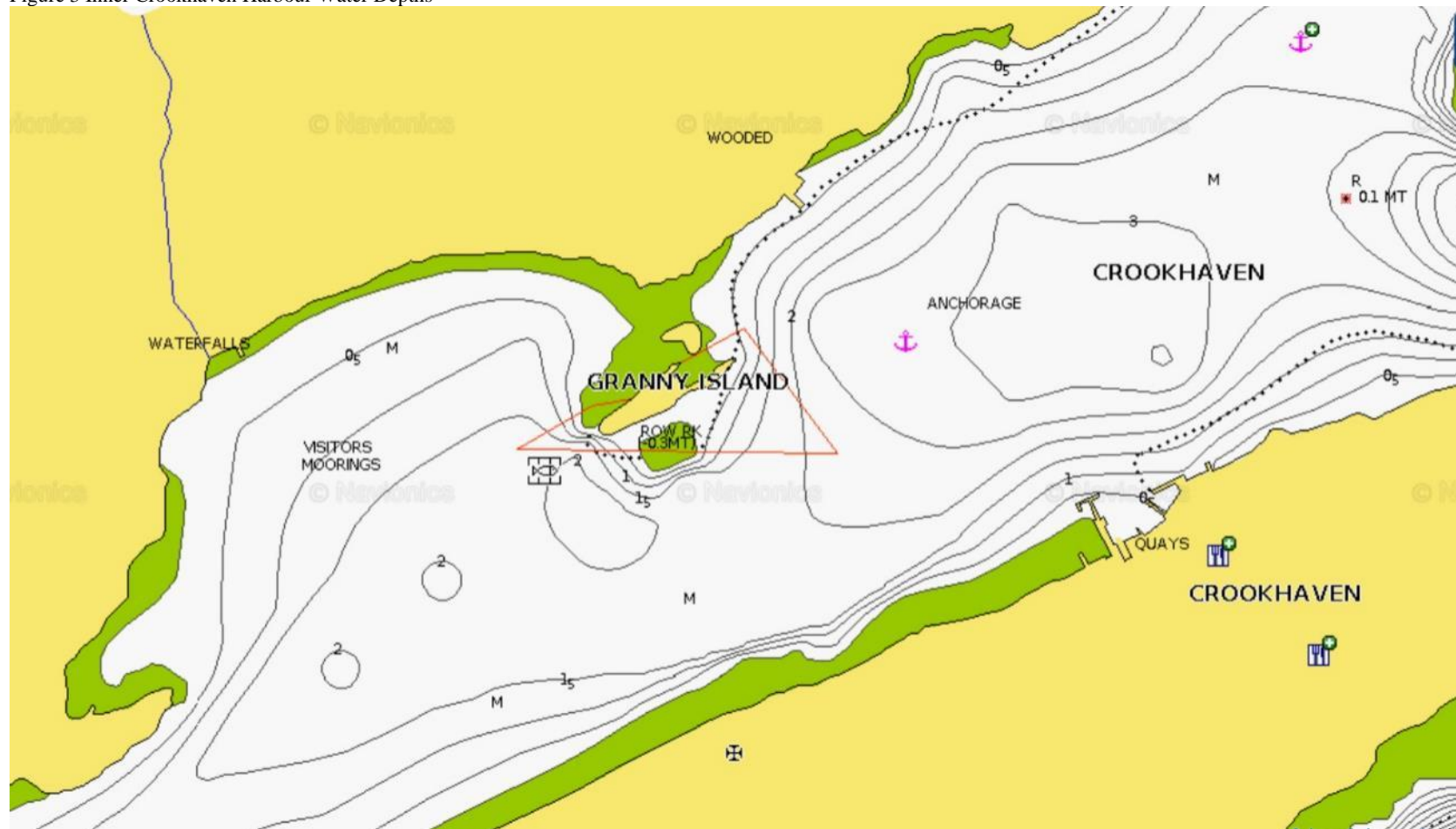
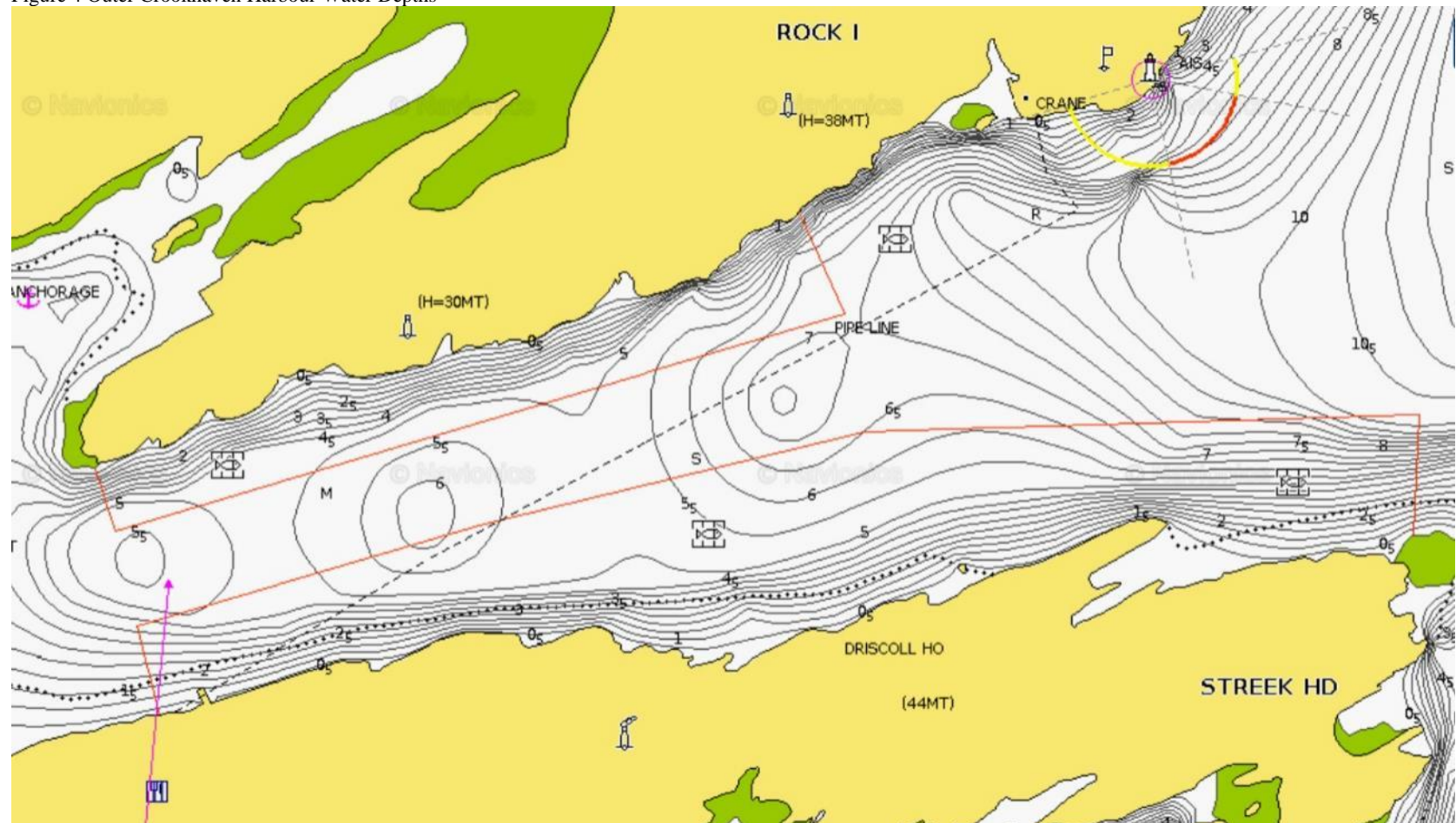




Figure 4 Outer Crookhaven Harbour Water Depths



## **5.2. Resource Users**

### **5.2.1 Aquaculture Activity**

Aquaculture within Crookhaven Harbour is confined to the two appealed sites and one additional licenced site located in the centre of the Harbour, around Granny Island. These three sites T05/432 A, B & C were previously licenced for the bottom cultivation of king Scallops *Pecten maximus*.

Site T05/432 A has been granted a variation of the Aquaculture Licence review and renewal sought alongside T05/432B & C. Whereby the Minister has granted the use of cages on the seabed for the cultivation of Scallops at 432A and again refused the production of native seaweeds on longlines.

The scallop is an important commercially exploited species of bivalve in Northern Europe from Norway south to Spain. Scallops grow to about 150 mm in diameter and are considered to be of reasonable commercial size from about 100 mm upwards. In Ireland, the main fishery for wild king Scallops occurs offshore along the south-east coast, the Irish Sea, off the south and west coast of England and Wales and off the north coast of France. A smaller inshore scallop fishery also occurs along the South and West coasts of Ireland (Tully *et al.*, 2006). Scallop culture in Ireland remains a minor component of the national aquaculture output with an average annual output of <60 tonnes in 2018 (BIM, 2019).

Scallops are not sedentary organisms like oysters or mussels, which are anchored to the seabed, they can and do actively move around by propelling themselves through the water; due to this potential loss of stock, juvenile Scallops are sometimes grown in trays and frames, long-lines using net bags or cages, which are moored to the seabed (BIM, 2003).

Scallops are filter feeders and they feed on suspended particulate matter. They selectively ingest phytoplankton and other organic material (e.g. small zooplankton and bacteria) and dispose of inorganic and larger organic matter in pseudofaeces, which is excreted into the water column.

Seaweed is cultured using longlines supported by floating structures. The culture of seaweed is reliant upon ambient nutrient levels in the water column and solar illumination. The production of seaweed does not require the additional input of feed or additives. Seaweed aquaculture in Ireland remains a minor component of National output with <60 tonnes in 2018 (BIM, 2019).

### **5.2.2 Angling Activity**

Deep-sea angling charter boats operate out of Schull and Goleen on the Mizen peninsula, mainly operating on the offshore reefs off the Mizen Head.

Shore angling marks are located at the Mouth of Crookhaven Harbour, Galley Cove (south of Crookhaven village) and Barley Cove. Lugworm and crab bait can also be collected within Crookhaven Harbour.

### **5.2.3 Tourism**

The south west region (Cork/Kerry) was the most popular tourist and holiday destination outside of Dublin in 2017 (Fáilte Ireland, 2018a). Approximately 19% of the total tourists visiting Ireland (from overseas and domestic) travelled to the south west region with approximately 2,718,000 tourists (domestic and overseas) travelling to Cork in 2017 (Fáilte Ireland, 2018b)

County Cork is one of the leading tourism destinations in Ireland, the County is dependent on tourism, especially the regional economy of West Cork, with rich scenic beauty, cultural heritage and it is known for strong maritime, sporting and traditional music and language traditions (CCC, 2014).

The Cork County Development Plan (CCC, 2014) identifies a range of Nationally significant tourism assets including the 'West Cork Peninsulas (Beara, Mizen, Sheep's Head)' with their unique visual amenity and landscape character they offer potential for numerous outdoor amenity activities including; fishing, walking, cycling and other outdoor and marine related amenity activities.

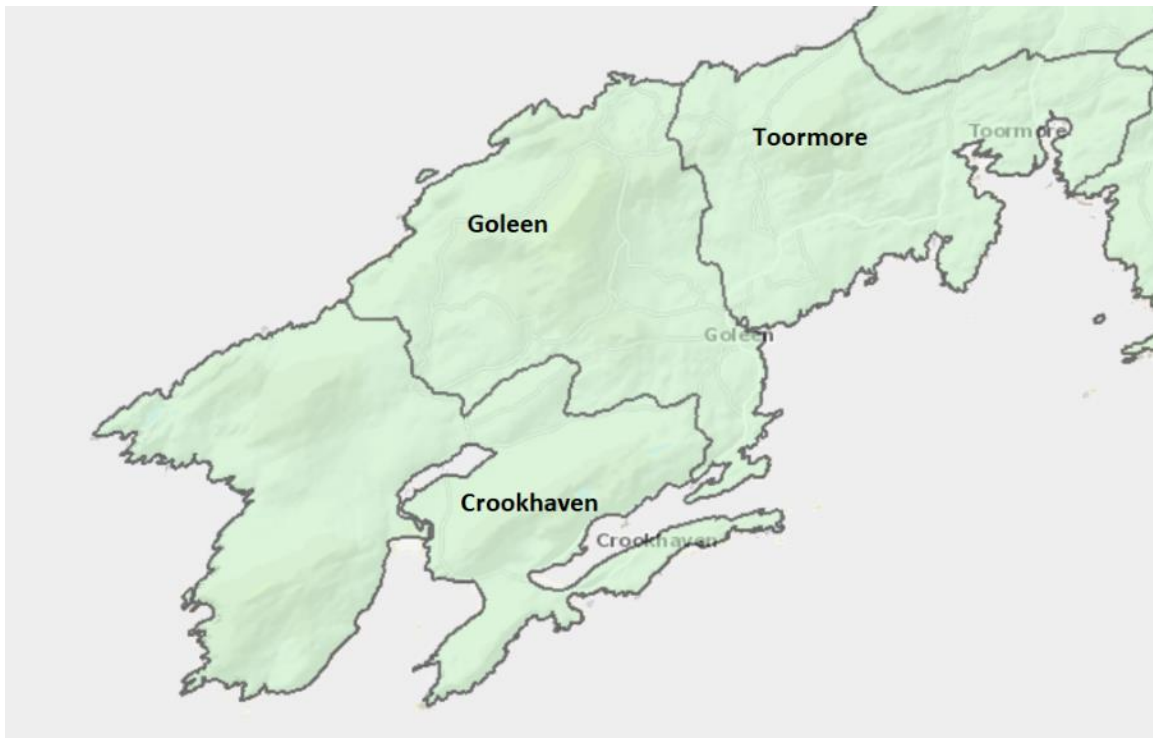
Marine related tourism activities are extremely important to Crookhaven village and the surrounding areas of West Cork, with the Marine leisure sector being the fastest growing sector within the tourism industry. The Mizen Peninsula holds a Nationally important tourist attraction with significant visitor numbers, the Mizen Head Signal Station (CCC, 2014).



#### 5.2.4 Agricultural Activity

A single electoral region comprises the southern portion of the Mizen Peninsula, Crookhaven Electoral Division (CSO ED: 18312). With the Goleen Electoral Division (CSO ED:18315) comprising the north eastern corner of Crookhaven Harbour, including Rock Island. (<http://census.cso.ie/agrimap/> [Accessed on 05/06/2020]). The number of farms in each region are based on latest data (2010):

- Crookhaven – 41
- Goleen – 33
- Toormore - 26



**Table 1 Grazing Figures per Electoral Area (2010)**

CSO ED Code	Area	Total Farmed Area (ha)	Pasture (ha)	Rough Grazing (ha)	Total Cattle (head)	Total Sheep (head)	Total Horses (Head)
<b>18312</b>	Crookhaven	1,846	1,079	466	2,091	1,062	18
<b>18315</b>	Goleen	1,036	609	293	1,140	591	26
<b>18319</b>	Toormore	832	518	89	977	325	9

#### 5.2.5 Inshore Fishing activity

Deep sea angling charter boats operate out of numerous small fishing ports around Roaringwater Bay including Goleen, Schull, Baltimore and Union Hall, the majority of these specialize in reef and wreck fishing.

Inshore commercial fishing occurs around the Mizen Peninsula and throughout Roaringwater Bay, including bottom, seine and passive fishing. Bottom trawl fishing occurs in 3 extensive areas in Roaringwater Bay. Dredge fishing occurs within Crookhaven Harbour as well as the northern and eastern sections of Roaringwater Bay. Line fishing occurs within the eastern section of Roaringwater Bay around Sherkin and Cape Clear Islands. Pot fishing occurs extensively around the Mizen peninsula and the south-west coast (Marine Institutes Marine Atlas <http://atlas.marine.ie/#?c=51.4689:-9.7050:12> [accessed on 12/06/2020]).

#### **5.2.6 Leisure Users of the Water Body & Surrounding Area**

Crookhaven Harbour is renowned for its sailing. The Crookhaven Harbour Sailing Club is primarily a summer-based club which was founded in 1979. The club operate training courses throughout July, with races taking place at the beginning of August for two weeks (<http://www.crookhavenhsc.com/index.html> [accessed on 27/04/2021]). The 2021 sailing season is due to start on the 29<sup>th</sup> June and progress through to August ([http://crookhavenhsc.com/docs/CHSC\\_Application\\_Form.pdf](http://crookhavenhsc.com/docs/CHSC_Application_Form.pdf) [accessed on 27/04/2021]).

The summer population of Crookhaven village expands to roughly 10 times the size of the year-round resident population, with a large influx of holiday homeowners and tourists.

#### **5.2.7 Other Uses / History**

Crookhaven Harbour was historically used as a stopover point for resupply of ships prior to crossing the Atlantic between Europe and North America. An extensive maritime trade developed in the region between the late 19<sup>th</sup> and early 20<sup>th</sup> centuries. It was the last/first safe port for ships crossing the North Atlantic and boats sheltered here or stocked up with provisions after/before the long Atlantic crossing. Piracy was rife in the region prior to this during the late 16<sup>th</sup> and early 17<sup>th</sup> centuries until 1614 when a Dutch fleet destroyed the alliance of pirates which had previously outmatched Britain's Royal Navy.

A cut stone staircase is located on Streek Head, with niches cut into the surrounding cliff face which were made to hold candles or lanterns used to signal the smugglers and pirates. This staircase leads to a subterranean cavern with access to the sea.

Crookhaven was made famous in the early 20<sup>th</sup> century when Guglielmo Marconi established the Marconi Wireless Telegraph Station on Brow Head to experiment and develop wireless communications from ship to shore and across the Atlantic Ocean. In late 1901 Marconi successfully transmitted telegraphic messages between the Brow

Head Station and Poldhu in Cornwall, UK. And subsequently on the 1<sup>st</sup> December 1901 the first trans-Atlantic messages between Poldhu and St. John's, Newfoundland.

The area covered by the proposed sites currently has a subsea pipeline running from the eastern end of Crookhaven village across the Harbour to Rock Island Lighthouse. This pipeline was laid down in the mid-1990s and still supplies freshwater to the lighthouse complex and the other dwellings on Rock Island. The pipeline consists of a 3" Diameter blue HDPE pipe encased in concrete sleeving, to keep it weighed down on the seafloor.

### **5.3. Environmental Data**

#### **5.3.1 WFD Status**

Water quality in Crookhaven Harbour is monitored as part of the Water Framework Directive (WFD) Monitoring Programme. The latest round of monitoring results (2013-2018) (EPA, 2019) indicate that Roaringwater Bay (which includes Crookhaven Harbour) has been classified as 'Good' Ecological Status.

#### **5.3.2 Bathing Water**

Bathing water quality is not monitored within Crookhaven Harbour. The nearest site which is monitored for bathing water is Barley Cove (IESWBWC150\_0000\_0200), which for the 2019 period was recorded as being of Excellent Water Quality. Bathing water quality is not monitored at any other adjacent area (<https://gis.epa.ie/EPAMaps/> [accessed on 05/06/2020]).

### **5.4. Statutory Status**

Crookhaven Harbour is situated on the southern edge of the Mizen Peninsula, parts of which are designated as an Special Protection Area, SPA, (Sheep's Head to Toe Head SPA) and two Special Areas of Conservation, SACs, (Three Castle Head to Mizen Head SAC & Barley Cove to Ballyrisode Point SAC). Roaringwater Bay and Islands SAC is adjacent to these sites on the eastern side of Roaringwater Bay.

An Appropriate Assessment screening has been carried out on the aquaculture activities within Crookhaven Harbour and Toormore Bay.

Crookhaven Harbour has not been designated as a Shellfish Designated Area under Directive 2006/113/EC, which sets out physical, chemical and microbiological parameters and regulations for the designation and sampling of Shellfish Designated Waters to protect or improve these waters in order to support shellfish (bi-valve and gastropod molluscs) life and growth, and also provides for the establishment of pollution reduction programmes for designated waters and thus, contribute to the high quality of shellfish products directly edible by man.

#### **5.4.1 Nature Conservation Designations**

##### **Sheep's Head to Toe Head Special Protection Area (SPA)**

Sheep's Head to Toe head SPA lies adjacent to Crookhaven Harbour. It is a large site encompassing the high coast and sea cliffs from Sheep's Head to Mizen Head, Brow Head and Crookhaven in the west and from Baltimore to Tragumna Bay, Gokane Point and the Toe Head peninsula in the east (NPWS, 2015a).

The site includes the sea cliffs, the land adjacent to the cliff edge, an area further inland to the east of Dunlough Bay, and also areas of sand dunes at Barley Cove and Crookhaven. The high-water mark forms the seaward boundary (NPWS, 2015a)

The site supports an internationally important population of breeding Chough *Pyrrhocorax pyrrhocorax*, a Red Data Book species which is listed on Annex I of the E.U. Birds Directive. The Mizen Head cliffs hold some of the highest concentrations of breeding pairs in Ireland (NPWS, 2015a & 2020).

The site also supports a nationally important Peregrine *Falco peregrinus* population and a range of other breeding seabirds including: Fulmar *Fulmarus glacialis*, Herring Gull *Larus argentatus*, Shag *Phalacrocorax aristotelis*, Kittiwake *Rissa tridactyla*, Black Guillemot *Cepphus grylle* and Great Black-backed Gull *Larus marinus* (NPWS, 2015a).

The main Conservation objective for this SPA is focused on maintaining or restoring Favourable Conservation Condition of the bird species listed as SCIs for the site, Chough and Peregrine Falcon (NPWS, 2020).

Figure 5 Surrounding Special Protection Areas



### **Barley Cove to Ballyrisode Point Special Area of Conservation SAC**

This site is situated on the Mizen Head peninsula in the extreme south-west of Co. Cork. It straddles a 10 km stretch of coastline from the Barley Cove inlet to Ballyrisode Point at Toormore Bay (NPWS, 2015b). The site does not include the waters of Crookhaven Harbour.

The site is designated for the presence of a number of habitats and species listed on Annex I & II of the E.U. Habitats Directive (NPWS, 2014a), including:

- Tidal mudflats and sandflats [1140]
- Perennial Vegetation of Stony Banks [1220]
- Salicornia Mud [1330]
- Atlantic Slat Meadows [1410]
- Marram Dunes (White Dunes) [2120]
- Fixed Dunes (Grey Dunes)\* [2130]
- Dry Heath [4030]
- Petalwort *Petalophyllum ralfsii* [1395]

Rocky heath is the dominant habitat, however, the site is most important for the sand dunes and related habitats which occur at Barley Cove, including intertidal flats, sand dunes, saltmarshes and a brackish lagoon. Of particular importance is the fixed dune habitat, and this is one of the few examples of this habitat type in Co. Cork and south Co. Kerry (NPWS, 2015b).

The site has extensive lengths of rocky shoreline, which develop into low cliffs in places. Shingle occurs mostly in sheltered coves. The dominant habitat over much of the remainder of the site is coastal heath, which is of high conservation value. This occurs from the maritime shoreline to the highest point of the site (164 m) (NPWS, 2015b).

There are a number of rare plants associated with the heath habitat including 3 species protected under the Flora Protection Order;

- Hairy bird's foot trefoil *Lotus subbiflorus*
- Pale dog-violet *Viola lactea*, and
- Lanceolate spleenwort *Asplenium billotii*

There are also 4 Red Data Book Species recorded at the site;

- Sea kale *Crambe maritima*
- Green-winged orchid *Orchis morio*
- Bird's foot *Ornithopus perpusillus*, and
- Spotted rock-rose *Tuberaria guttata*

### **Three Castle Head to Mizen Head Special Area of Conservation SAC**

The headlands of Three Castle Head and Mizen Head lie at the end of the Mizen Peninsula in West Cork, which is the most south-westerly part of the Irish mainland. The site is designated for the presence of E.U. Habitats Directive Annex I Habitats Vegetated Sea Cliff [1230] and Dry Heath [4030] (NPWS, 2013 & 2016). This site does not overlap with the proposed aquaculture sites or the waters of Crookhaven Harbour.

The main vegetation on the hills is a peaty heath where grazing restricts the cover of the woody species. Two Red Data Book Species are recorded here spotted rock-rose and pale dog-violet, with pale dog-violet also being protected under the Flora Protection Order (NPWS, 2013).

The site is extremely important for Chough and represents one of the highest densities in the country for this species which is listed on Annex I of the E.U. Birds Directive. The headlands provide nesting areas and feeding grounds for a variety of other seabirds (NPWS, 2013).

### **Roaringwater Bay and Islands Special Area of Conservation SAC**

Roaringwater Bay, Co. Cork, is a wide, shallow bay located on the south-west coast of Ireland. The SAC includes the immediate coastline on the mainland from Long Island to Baltimore, together with the whole bay and most of the islands. Some of the larger islands included are Sherkin Island, Cape Clear Island, Heir Island, Horse Island, Castle Island and Long Island (NPWS, 2014). This site does not include the waters of Crookhaven Harbour.

The site is designated for the presence of a number of habitats and species listed on Annex I & II of the E.U. Habitats Directive, including:

- Large Shallow Inlets and Bays [1160]
- Reefs [1170]
- Vegetated Sea Cliffs [1230]
- Dry Heath [4030]
- Sea Caves [8330]
- Harbour Porpoise *Phocoena phocoena* [1351]
- Otter *Lutra lutra* [1355], and
- Grey Seal *Halichoerus grypus* [1364]

The sedimentary communities in Roaringwater Bay are exceptional. Of particular interest is the extensive bed of the calcareous free-living red alga *Lithophyllum dentatum*, (generally termed maerl, but may be locally known as 'coral'), which is the largest in the country for this species (NPWS, 2014b & 2011).

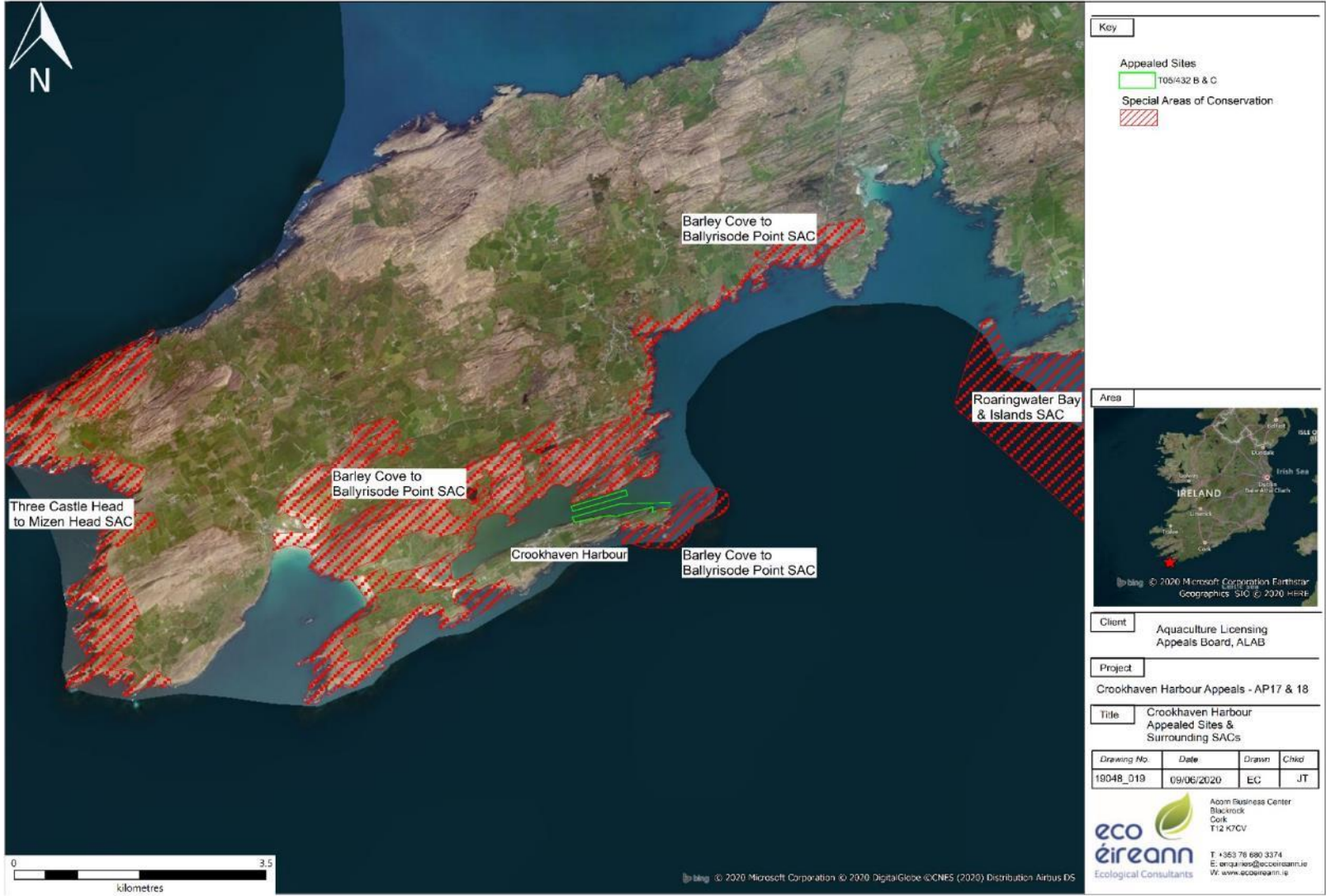
Grey Seal is present at the site throughout the year during all aspects of its annual life cycle which includes breeding, moulting, non-breeding, foraging and resting phases. A minimum population for all ages was estimated at 116-149 in 2005 (NPWS, 2014b).

Roaringwater Bay may be one of the most important sites in Ireland for Harbour Porpoise. Harbour Porpoise in Irish waters are largely resident, and observations have shown that they are regular in the waters of Roaringwater Bay. The population was (in 2008) estimated to be 117-201 individuals (NPWS, 2014b).

Roaringwater Bay and Islands is a site of exceptional conservation importance, supporting diverse marine and terrestrial habitats, five of which are listed under the E.U. Habitats Directive. The site is also notable for the presence of Otter, Grey Seal and Harbour Porpoise, and supports important sea bird colonies. The site also supports a large number of plants which are rare or scarce in Ireland, a number of which are listed under the Flora (Protection) Order, 2015 (NPWS, 2014b).



Figure 6 Surrounding Special Areas of Conservation



### 5.4.2 Protected Species

There are a range of protected species recorded in the Harbour, based on records from Biodiversity Ireland in the last ten years, including bees, butterflies, birds, marine mammals, flowering plants and the common lizard *Zootoca vivipara* (<https://maps.biodiversityireland.ie/Map> [Accessed on 12/06/2020]).

#### Birds

**Table 1 Protected Bird Species Recorded within Crookhaven Harbour in the last 10 Years**

Common Name	Species Name	Date of last record	No. of last record	Designation
Barn Swallow	<i>Hirundo rustica</i>	31/12/2011	2	Wildlife Acts; Threatened Species Birds of Conservation Concern – Amber list
Black Guillemot	<i>Cephus grille</i>	06/08/2010	1	Wildlife Acts; Threatened Species Birds of Conservation Concern – Amber list
Black-legged Kittiwake	<i>Rissa tridactyla</i>	06/08/2010	3	Wildlife Acts; Threatened Species Birds of Conservation Concern – Amber list; Threaten species OSPAR Convention
Black-throated Diver	<i>Gavia arctica</i>	31/12/2011	1	Wildlife Acts; Threatened Species Birds of Conservation Concern – Amber list; EU Birds Directive Annex I species
Common Greenshank	<i>Tringa nebularia</i>	31/12/2011	1	Wildlife Acts; Threatened Species Birds of Conservation Concern – Amber list
Common Grasshopper Warbler	<i>Locustella naevia</i>	31/12/2011	1	Wildlife Acts; Threatened Species Birds of Conservation Concern – Amber list
Common Guillemot	<i>Uria aalge</i>	31/12/2011	2	Wildlife Acts; Threatened Species Birds of Conservation Concern – Amber list
Common Linnet	<i>Carduelis cannabina</i>	31/12/2011	1	Wildlife Acts; Threatened Species Birds of Conservation Concern – Amber list
Common Pheasant	<i>Phasianus colchicus</i>	31/12/2011	1	Wildlife Acts; EU Birds Directive Annex II Section I species; EU Birds Directive Annex III Section I species
Common Redshank	<i>Tringa totanus</i>	31/12/2011	1	Wildlife Acts; Threatened Species Birds of Conservation Concern – Red list
Common Shelduck	<i>Tadorna tadorna</i>	31/12/2011	1	Wildlife Acts; Threatened Species Birds of Conservation Concern – Amber list
Common Snipe	<i>Gallinago gallinago</i>	31/12/2011	1	Wildlife Acts; EU Birds Directive Annex II Section I species; EU Birds Directive Annex III Section I species: Threatened Species Birds of Conservation Concern – Amber list
Common Starling	<i>Sturnus vulgaris</i>	31/12/2011	1	Wildlife Acts; Threatened Species Birds of Conservation Concern – Amber list
Common Wood Pigeon	<i>Columba palumbus</i>	31/12/2011	2	Wildlife Acts; EU Birds Directive Annex II Section I species; EU Birds Directive Annex III Section I species
Dunlin	<i>Calidris alpina</i>	31/12/2011	1	Wildlife Acts; Threatened Species Birds of Conservation Concern – Amber list;

				EU Birds Directive Annex I species
Eurasian Curlew	<i>Numenius arquata</i>	31/12/2011	2	Wildlife Acts; Threatened Species Birds of Conservation Concern –Red list; EU Birds Directive Annex II Section II species
Eurasian Oystercatcher	<i>Haematopus ostralegus</i>	31/12/2011	3	Wildlife Acts; Threatened Species Birds of Conservation Concern – Amber list
Eurasian Teal	<i>Anas crecca</i>	31/12/2011	1	Wildlife Acts; Threatened Species Birds of Conservation Concern –Amber list; EU Birds Directive Annex II Section I species; EU Birds Directive Annex III Section II species
European Shag	<i>Phalacrocorax aristotelis</i>	31/12/2011	3	Wildlife Acts; Threatened Species Birds of Conservation Concern – Amber list
European Storm-petrel	<i>Hydrobates pelagicus</i>	06/08/2010	3	Wildlife Acts; Threatened Species Birds of Conservation Concern – Amber list; EU Birds Directive Annex I species
Great Black-backed Gull	<i>Larus marinus</i>	31/12/2011	2	Wildlife Acts; Threatened Species Birds of Conservation Concern – Amber list
Great Cormorant	<i>Phalacrocorax carbo</i>	31/12/2011	2	Wildlife Acts; Threatened Species Birds of Conservation Concern – Amber list
Great Northern Diver	<i>Gavia immer</i>	31/12/2011	1	Wildlife Acts; EU Birds Directive Annex I species
Herring Gull	<i>Larus argentatus</i>	31/12/2011	2	Wildlife Acts; Threatened Species Birds of Conservation Concern – Red list
House Martin	<i>Delichon urbicum</i>	31/12/2011	1	Wildlife Acts; Threatened Species Birds of Conservation Concern – Amber list
House Sparrow	<i>Passer Domesticus</i>	31/12/2011	1	Wildlife Acts; Threatened Species Birds of Conservation Concern – Amber list
Lesser Black-backed Gull	<i>Larus fuscus</i>	04/08/2014	2	Wildlife Acts; Threatened Species Birds of Conservation Concern – Amber list
Little Egret	<i>Egretta garzetta</i>	31/12/2011	1	Wildlife Acts; EU Birds Directive Annex I species
Manx Shearwater	<i>Puffinus puffinus</i>	06/08/2010	6	Wildlife Acts; Threatened Species Birds of Conservation Concern – Amber list
Mew Gull	<i>Larus canus</i>	31/12/2011	1	Wildlife Acts; Threatened Species Birds of Conservation Concern – Amber list
Northern Gannet	<i>Morus bassanus</i>	13/06/2017	17	Wildlife Acts; Threatened Species Birds of Conservation Concern – Amber list
Northern Wheatear	<i>Oenanthe oenanthe</i>	31/12/2011	2	Wildlife Acts; Threatened Species Birds of Conservation Concern – Amber list
Razorbill	<i>Alca torda</i>	31/12/2011	1	Wildlife Acts; Threatened Species Birds of Conservation Concern – Amber list
Red-billed Chough	<i>Pyrrhocorax pyrrhocorax</i>	02/09/2017	6	Wildlife Acts; Threatened Species Birds of Conservation Concern – Amber list; EU Birds Directive Annex I species
Red-breasted Merganser	<i>Mergus serrator</i>	31/12/2011	1	Wildlife Acts; EU Birds Directive Annex II Section II species
Ringed Plover	<i>Charadrius hiaticula</i>	31/12/2011	1	Wildlife Acts; Threatened Species Birds of Conservation Concern – Amber list

Sky Lark	<i>Alauda arvensis</i>	31/12/2011	2	Wildlife Acts; Threatened Species Birds of Conservation Concern – Amber list
Spotted Flycatcher	<i>Muscicapa striata</i>	31/12/2011	1	Wildlife Acts; Threatened Species Birds of Conservation Concern – Amber list
Water Rail	<i>Rallus aquaticus</i>	31/12/2011	1	Wildlife Acts; Threatened Species Birds of Conservation Concern – Amber list

### Bees

Two species of Near Threatened bee species have been recorded in proximity to the Harbour; the large red-tailed bumblebee *Bombus lapidarius* and the moss carder-bee *Bombus muscorum*. Both of which were last recorded in August 2017.

### Butterflies

A number of records exist for threatened and protected butterfly species recorded in proximity to the Harbour, listed below in Table 2.

**Table 2 Recorded Protected and Threatened Butterfly Species within Crookhaven Harbour**

Common Name	Species Name	Date of last record	No. of last record	Designation
Dark Green Fritillary	<i>Argynnis aglaja</i>	24/08/2017	3	Threatened Species: Vulnerable
Gatekeeper	<i>Pyronia tithonus</i>	08/08/2018	4	Threatened Species: Near Threatened
Grayling	<i>Hipparchia semele</i>	01/08/2019	3	Threatened Species: Near Threatened
Marsh Fritillary	<i>Euphydryas aurinia</i>	02/06/2019	1	Protected Species: EU Habitats Directive Annex II Species; Threatened Species: Vulnerable
Small Heath	<i>Coenonympha pamphilus</i>	02/06/2019	3	Threatened Species: Near Threatened
Wall	<i>Lasiommata megera</i>	05/05/2019	16	Threatened Species: Vulnerable

### Flowering Plants

Two plant species listed on the Flora Protection Order (2015) are recorded in proximity to the Harbour, these are spotted rock-rose and the green-winged orchid. The latest recordings of which are from 2019.

### Marine Mammals

A number of marine mammals have been recorded within the Harbour in the last 10 years, see Table 3 below.

**Table 3 Marine Mammal Species Recorded Within Crookhaven Harbour**

Common Name	Species Name	Date of last record	No. of last record	Designation
Bottlenose dolphin	<i>Tursiops truncatus</i>	15/06/2014	1	Wildlife Acts; EU Habitats Directive Annex II & IV species
Common dolphin	<i>Delphinus delphis</i>	26/06/2014	5	Wildlife Acts; EU Habitats Directive Annex IV species
Common seal	<i>Phoca vitulina</i>	04/09/2012	2	Wildlife Acts; EU Habitats Directive Annex II & V species
Grey seal	<i>Halichoerus grypus</i>	19/08/2017	11	Wildlife Acts; EU Habitats Directive Annex II & V species
Minke whale	<i>Balaenoptera acutorostrata</i>	02/06/2013	2	Wildlife Acts; EU Habitats Directive Annex IV species

## Reptiles

In Ireland, the common lizard is protected under the Wildlife Acts (1976 & 2000). The latest records from Biodiversity Ireland show that a single individual was recorded on 02/06/2018.

### 5.4.3 Statutory Plans

#### Cork County Development Plan

The Cork County Development Plan 2014-2020 was adopted by the members of Cork County Council on the 8<sup>th</sup> of December 2014, the Plan sets out an overall strategy for the proper planning and sustainable development of Cork County for a 6 year period (CCC, 2014a). Cork County Council is currently partway through the Public Consultation phase of the preparation of a new County Development Plan for the period of 2022-2028.

A Landscape Character Assessment (LCA) was carried out on the landscapes of County Cork in 2007. This LCA established 76 landscape character areas, which were amalgamated into 16 Landscape Character Types based on similarities. Landscape Character Types which have a very high or high landscape value and high or very high landscape sensitivity and are of county or national importance are considered to be the Counties most valuable landscapes and are designated as High Value Landscapes (HVL) (CCC, 2014a).

Crookhaven Harbour has been designated as part of the Landscape Character Type Rugged Ridge Peninsulas, which has a Very High Landscape Value and a Very High Landscape Sensitivity and is classified as being of National Importance.

The overall planning policies relating to landscape in County Cork are set out in Chapter 13 Green Infrastructure & Environment (Volume 1). The specific policies relating to

general views and prospects/scenic routes are set out Para 13.7.1 to 13.7.3 and development plan objectives GI 7-1 “General Views and Prospects”, GI 7-2 “Scenic Routes” and GI 7-3 Development along Scenic Routes”.

*GI 7-1 General Views and Prospects – Preserve the character of all important views and prospects, particularly sea views, river or lake views, views of unspoilt mountains, upland or coastal landscapes, views of historical or cultural significance (including buildings and townscapes) and views of natural beauty as recognized in the Draft Landscape Strategy.*

*GI 7-2 Scenic Routes - Protect the character of those views and prospects obtainable from scenic routes and in particular stretches of scenic routes that have very special views and prospects identified in this plan. The scenic routes identified in this plan are shown on the scenic amenity maps in the CDP Map Browser and are listed in Volume 2 Chapter 5 Scenic Routes of this plan.*

*GI 7-3 Development Along Scenic Routes - Require those seeking to carry out development in the environs of a scenic route and/or an area with important views and prospects, to demonstrate that there will be no adverse obstruction or degradation of the views towards and from vulnerable landscape features. In such areas, the appropriateness of the design, site layout, and landscaping of the proposed development must be demonstrated along with mitigation measures to prevent significant alterations to the appearance or character of the area.*

The Plan, in Chapter 6 subsection 11: Fishing and Aquaculture, recognises that commercial fishing and aquaculture represent important economic activity in rural coastal areas. The Plan states that *“Cork County Council will continue to support the sustainable development of the aquaculture industry in order to maximise its contribution to employment and the economic wellbeing of rural coastal communities and recognises the important role aquaculture can play in the diversification of these rural areas”*.

Two scenic routes are identified within the Cork County Development Plan adjacent to Crookhaven Harbour S102 and S103, both are classified as being of Very High landscape value with the key characteristics of land use being agriculture and tourism (CCC, 2014b). See Figure 8, below, for scenic routes and landscape value surrounding Crookhaven Harbour  
(<https://corkcoco.maps.arcgis.com/apps/Viewer/index.html?appid=da57dce5b97747e6bc962902248836fb> [accessed on 19/06/2020])

S102 is described as *“R592 & R591 Regional Roads & Local Roads from Schull via Derryleary to Toormore, Goleen and Crookhaven. Views of Toormore Bay, settlements of Goleen & Crookhaven, the sea and surrounding islands”*

S103 is described as *“Local Road & R591 Regional Road from Lissagriffin by Barleycove, to Brow Head Views of Crookhaven, Barley & Galley Coves, Brow Head, White Strand, surrounding beaches & hills”*

Figure 7 High Value Landscapes of Co. Cork (extracted from the Cork County Development Plan 2014 (CCC, 2014))

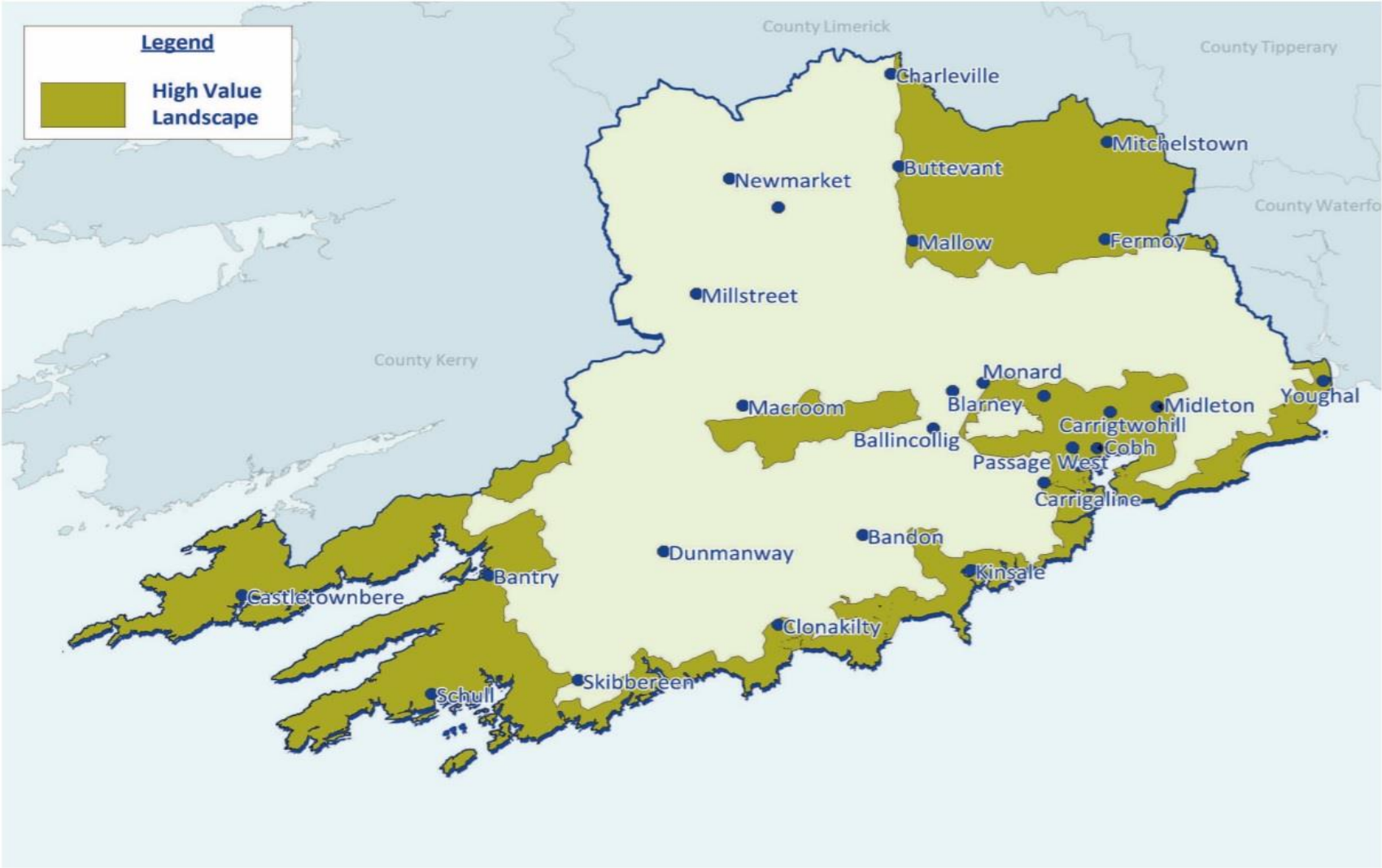
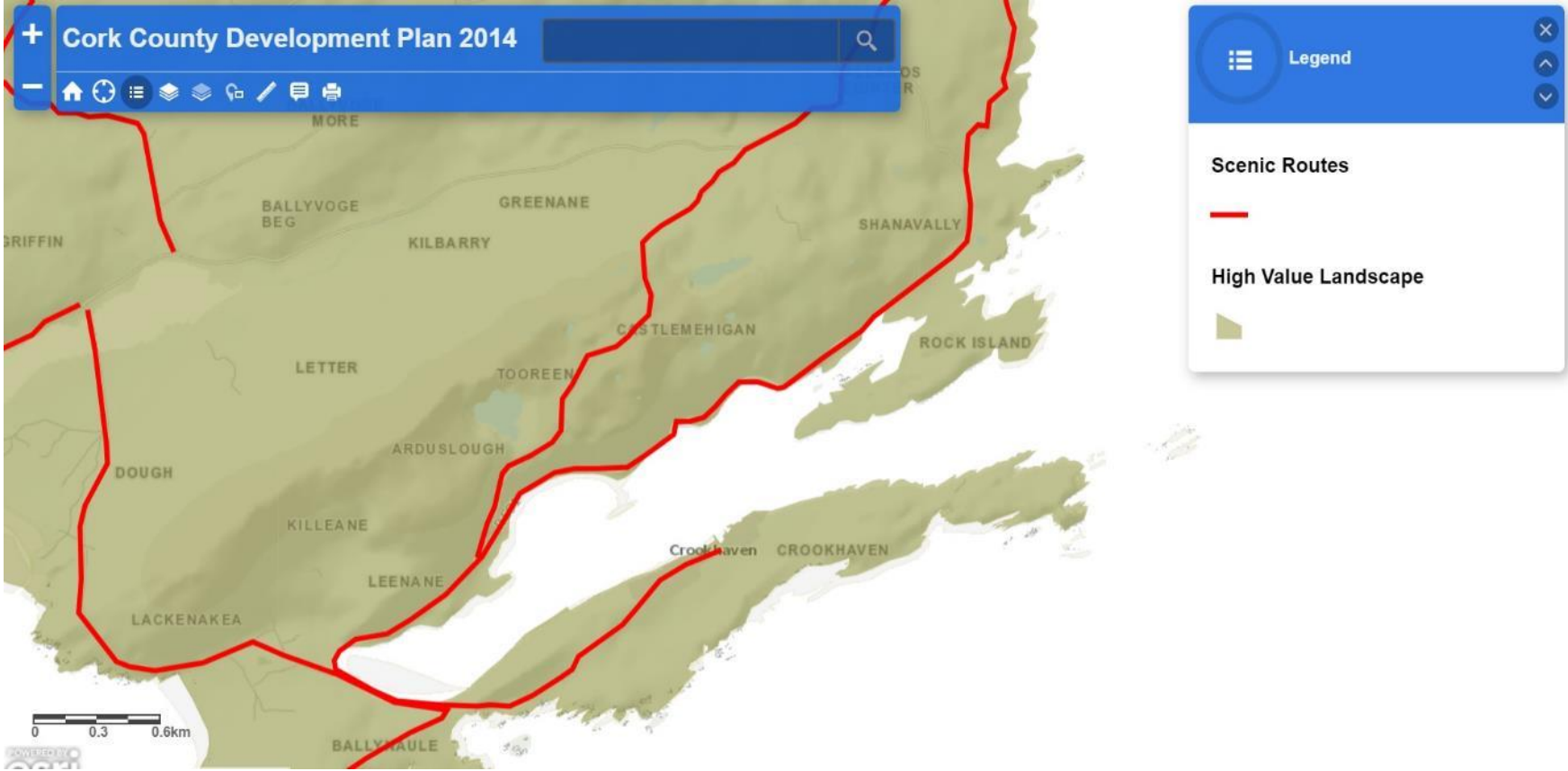




Figure 8 Scenic Routes and High Value Landscape Surrounding Crookhaven Harbour



### **5.5. Man-made Heritage**

A search of the Historic Environment Viewer (Archaeological Survey of Ireland <https://webgis.archaeology.ie/historicenvironment/> [accessed on 08/06/2020]) identified a number of land based features of historical importance in the immediate area of the Harbour, including;

- A series of lookout / signal towers located around the Harbour
- A series of remains from Crookhaven mining complex near the tip of Crookhaven peninsula
- The remains of a church and graveyard on the west side of Crookhaven town
- A series of Rathes and Promontory forts, located on the surrounding hills and cliffs
- Crookhaven lighthouse and the surrounding outbuildings including lighthouse keepers houses and Rock Island Quay.

No features of historical significance were recorded within the boundaries of the proposed aquaculture sites T05 / 432 B & C.

A search of the WreckViewer application <https://www.archaeology.ie/underwater-archaeology/wreck-viewer> [accessed on 08/06/2020] found that there were no recorded shipwrecks within Crookhaven Harbour, however there were 9 located around Mizen Head and 14 located along the coast of the Mizen Peninsula.

### **6.0 Section 61 Assessment**

A section 47(1)(a) request for additional information, to help determine the appeal, was issued by the ALAB to the appellant, the Crookhaven Fishermans Association Ltd, in relation to several points, outlined below;

- 1) Proposed location and specification of cages and longlines within each site, to include a detailed layout, map and further details on cage specifications, to include anchoring methods, if any, to enable the Board to assess whether the proposed locations of the cages and longlines within the sites has the potential to give to rise to navigational hazards.
- 2) Details of how long-line removal during the off-season will be accomplished, in terms of what will remain onsite year-round, e.g. anchors, ropes, surface marker buoys, etc.
- 3) An up-to-date independent survey and updated map indicating the current pipeline location, to enable the board to assess whether the proposed locations of cages and longlines within the sites has the potential to impact the pipeline.

The Appellant's response dated the 30<sup>th</sup> July 2021 provided details as to the requested points above. Details of the response are provided in the relevant sections below, with the specification, layout and structure details provided in Figures 11-17.

### 6.1. Site Suitability

Crookhaven Harbour is a large sheltered picturesque Harbour which is a popular tourist and sailing destination in the summer months. Crookhaven Harbour is an area of existing unused aquaculture licences for bottom scallop culture, which due to the nature of bottom culture will not be visible from the shore at any stage of the tide. The Harbour is not classified as a Shellfish Designated Area under the EU Directive 2006/113/EC, meaning the Harbour is not monitored for physical, chemical or microbiological parameters required for shellfish products directly edible by man.

The proposed sites T05/432 B (6.06ha) and T05/432 C (14.5ha) are located in the mouth of the Harbour, running parallel to the relatively narrow Harbour entrance, see Figure 9 below.

The proposed deployment of longlines on both sides of the mouth of the Harbour has the potential to significantly reduce the area for safe navigation into the Harbour for all users, however, it has been proposed by the appellant that these longlines will only be in place for c. 6 months of the year from December – May/June (Indicated within the appeal documents) thereby avoiding the peak times of marine leisure and tourism activities. This suggested timeline was not confirmed by the appellant following a Section 47 Request for further information, whereby the appellant stated that - Various strains of seaweed are grown at different times of the year resulting in varying off seasons but regardless of same, long lines ropes and floats will be removed in their entirety when not in use.

The appellant has suggested that he is willing to drop the appeal for T05/432B in favour of licensing T05/432C, to reduce the potential impact on safe access to the Harbour.

A number of comments were raised during the Statutory and Technical Consultations, while no objections or comments were received during the Public Consultation.

**Table 4 Technical and Statutory Consultation Observations and Comments**

Technical Consultation	
Authority	Comments
Marine Engineering Division, MED	The Med have noted that there will be no visual impact from the proposed development of bottom culture using cages at both the sites. However, they have stated that the proposed floating longlines will likely restrict safe access to the Harbour and conflict with the significant marine leisure activities which take place within the Harbour. The MED also note that the proposed bottom culture cages have potential to conflict with an existing subsea pipeline and suggest that bottom culture without the cages is advisable.
Marine Survey Office, MSO	The MSO have raised navigational concerns as both sites extend over an existing subsea pipeline. They have proposed a specific licence condition covering specific MSO matters should the site be licensed. <i>"The Minister's determination in respect of this licence is conditional upon immediate full compliance by the Licensee in respect of all requirements and conditions which are imposed under the relevant legal provisions applicable to the Marine Survey Office."</i>
Sea Fisheries	The SFPA have no objections to the issuing of Licence T05/432 B, as this would have no

Protection Authority, SFPA	impact on local sea fishing operations. However, they have noted that T05/432 C could potentially impact on local sea fishing for shrimp as shrimp pots are routinely set in this area.
<b>Statutory Consultation</b>	
<b>Authority</b>	<b>Comments</b>
Marine Institute, MI	<p>The MI has no objection to the renewals and reviews of these licences. They state that given the location, nature and scale of the aquaculture activities, there will be no significant impacts on the marine environment and the quality status of the area will not be adversely affected.</p> <p>They note the sites are not located within a Shellfish Designated Waters Area and the implications of this should be considered in the licencing process.</p> <p>The MI made 2 recommendations for licensing conditions:</p> <ul style="list-style-type: none"> <li>• That the initial source of seed for both the Scallops and seaweeds be approved by DAFM</li> <li>• And that the Licencee be required to draw up a contingency plan, for the approval of DAFM, which will identify methods of removal of any introduced non-native invasive species as a result of the operations of the site</li> </ul>
Commissioner's of Irish Lights, CIL	<p>Have no objections to the proposed developments, however, they state that site T05/432B should not impede access in any way to the lighthouse quay on Rock Island.</p> <p>They note that there should be no obstructions of any kind on the seabed and no moorings or marker buoys should be placed on the sites and that the licence holder has no special rights regarding anchoring in the licenced area.</p>
Department of Culture, Heritage and the Gaeltacht, DCHG	<p>Commented on the AA screening report, where they noted that no servicing areas (i.e. equipment storage / disposal areas) were proposed. They stated that any servicing area should not be inside the adjoining Annex I habitats and should not be in an area where they will have an impact on the adjoining Annex I areas.</p> <p>The DCHG recommended that due to the extensive maritime history of the area that an Underwater Archaeological Impact Assessment (UAIA) be carried out as the proposed activities have the potential to impact underwater cultural heritage in the area.</p>
Department of Agriculture, Food & the Marine, DAFM comments on DCHG observations	DAFM state that the proposed sites are to be licenced for bottom culture only with no structures permitted and the applicant proposes to harvest by hand diving rather than dredging therefore a UAIA is not required in this instance.
Inland Fisheries Ireland, IFI	Have no objection to the proposed sites and request that only native seed stock species are used and that all necessary measures to ensure biosecurity are undertaken.
Bord Iascaigh Mhara, BIM	Did not provide observations in relation to these sites
Department of Housing, Planning and Local Government, DHPLG	Provided no observations in relation to the proposed sites
An Taisce	Provided no observations in relation to the proposed sites
Cork County Council	Provided no observations in relation to the proposed sites
Irish Water	Provided no observations in relation to the proposed sites
Faillte Ireland	Provided no observations in relation to the proposed sites
Udaras na Gaeltachta	Provided no observations in relation to the proposed sites

Figure 9 Appealed Aquaculture Sites in Crookhaven Harbour





Figure 10 Highlighting the Proposed Sites in Relation to the Subsea Pipeline

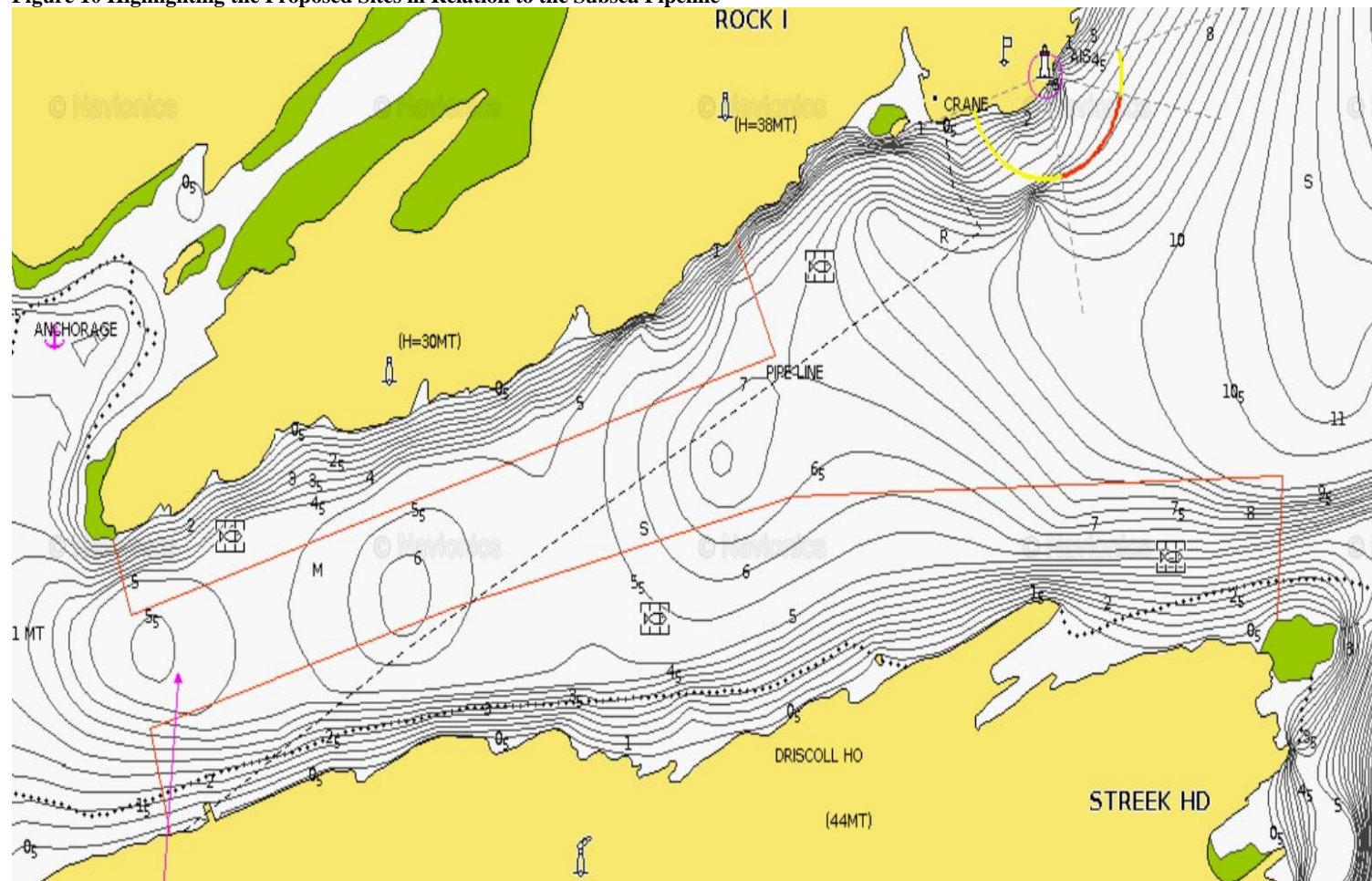
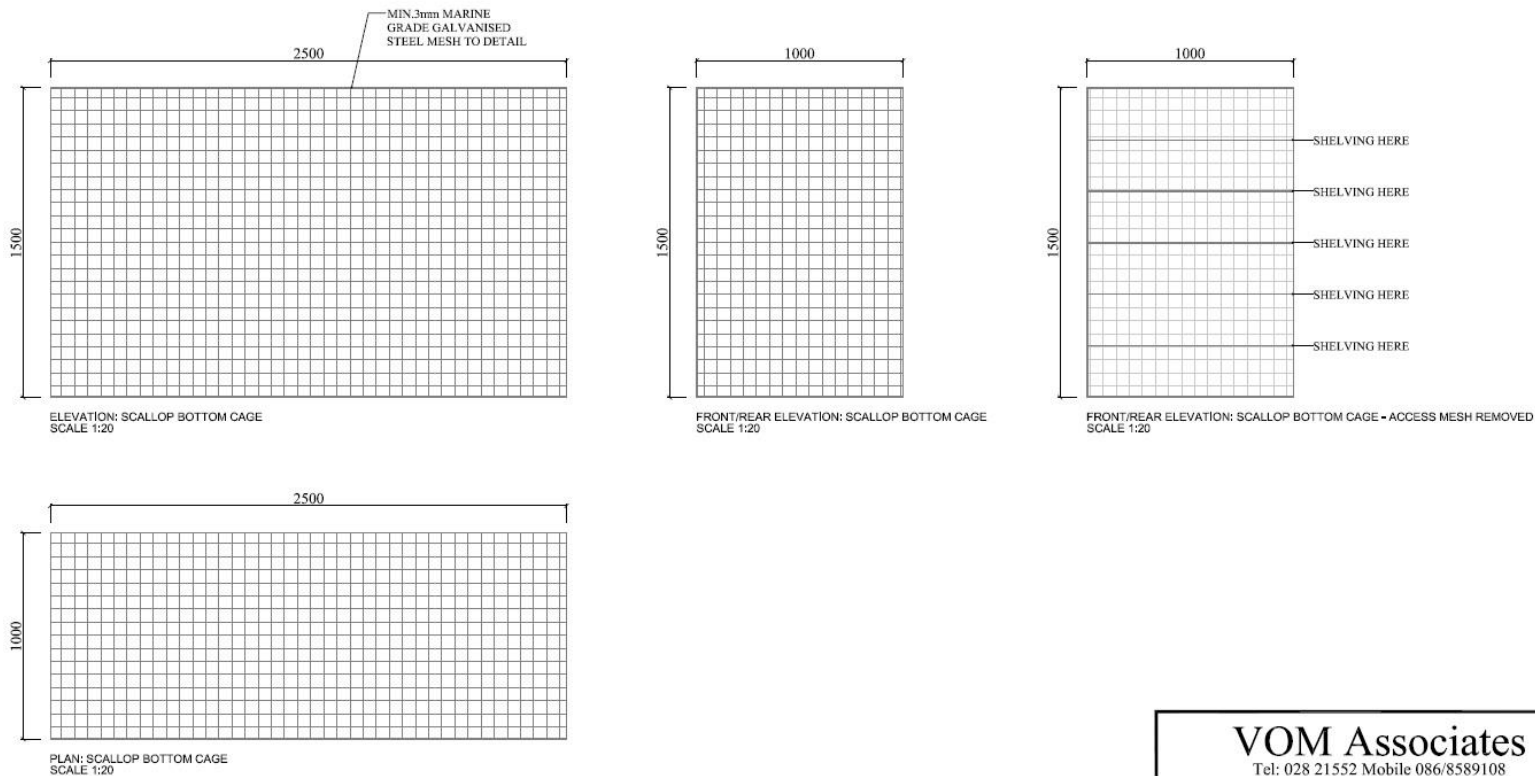


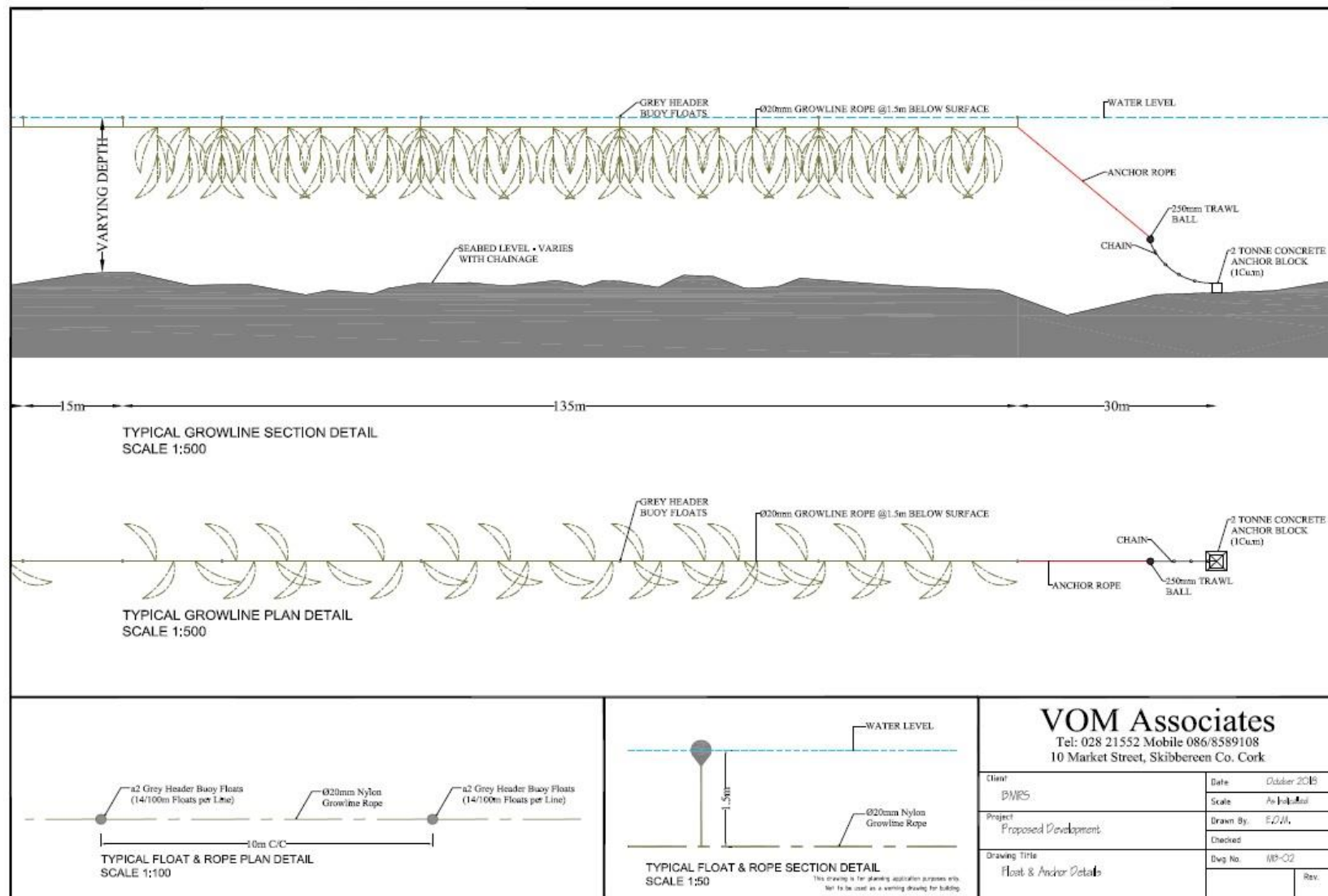
Figure 11 Proposed Scallop Cage Dimensions



This drawing is for planning application purposes only.  
Not for use as a construction document without the Institution's approval.

<b>VOM Associates</b> Tel: 028 21552 Mobile 086/8589108 10 Market Street, Skibbereen Co. Cork		
Client	Crookhaven Fishermen's Association Ltd.	
Date	February 2019	
Scale	1:20	
Project	Proposed Development - Crookhaven	
Drawn By:	EJW	
Checked		
Drawing Title	Typical Scallop Bottom Cage Details	
Dwg No.	500-01	Rev.
		01

Figure 12 Proposed Longline Specifications





**Figure 13 Proposed Float and Cage Layout Specifications**

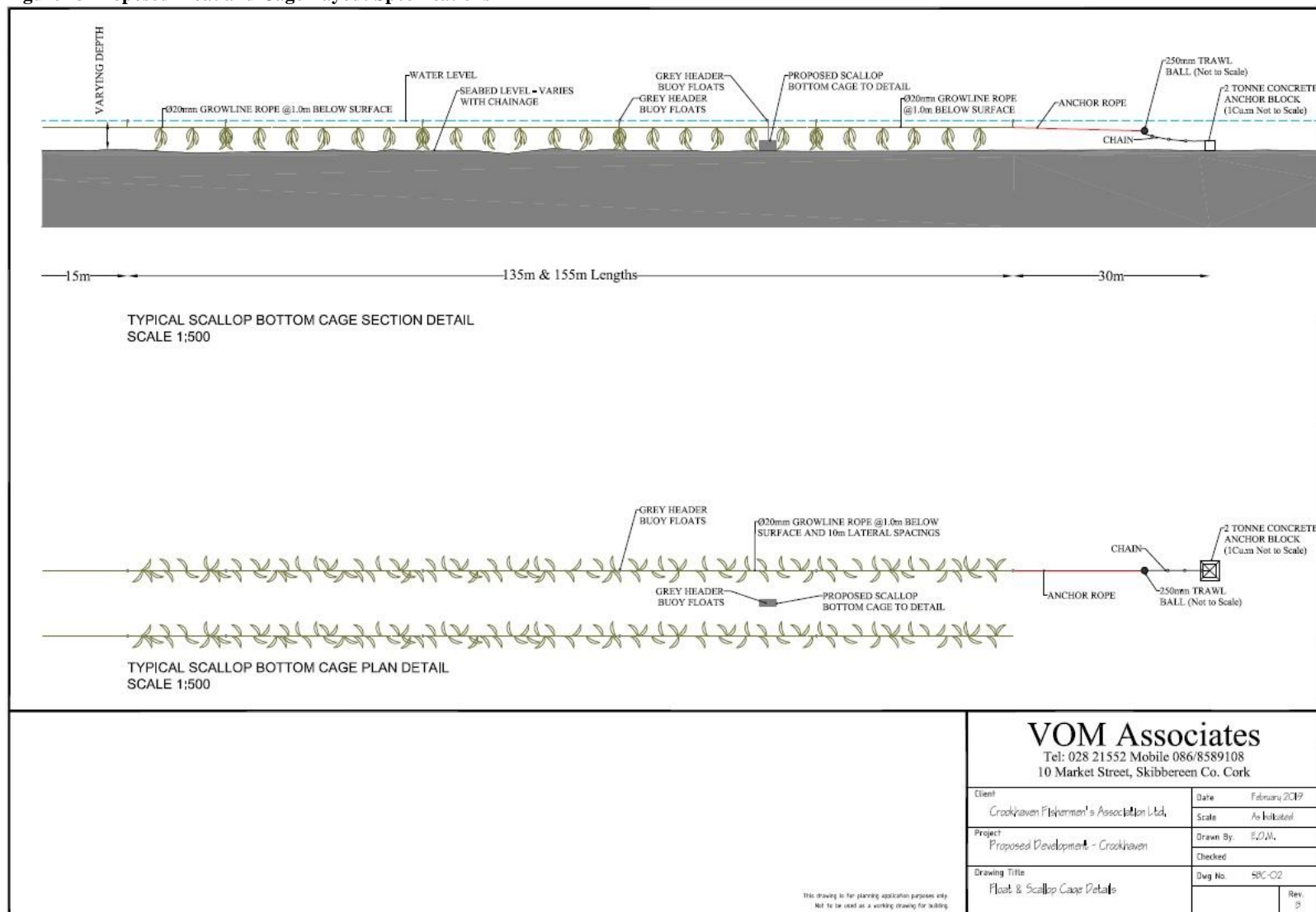


Figure 14 Proposed Cage Structure 1



Figure 15 Proposed Cage Structure 2





Figure 16 Proposed Site Layout T05/4312B

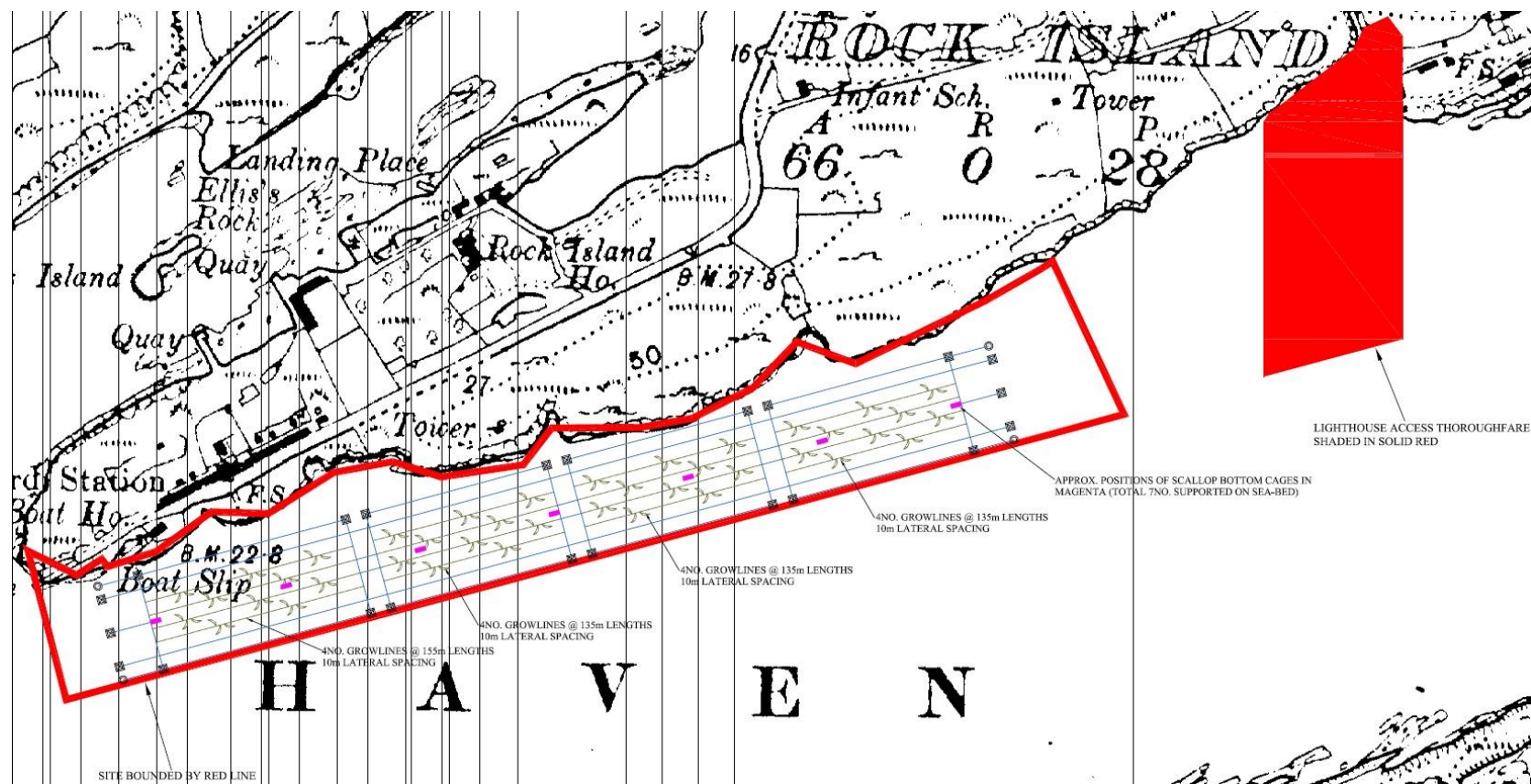
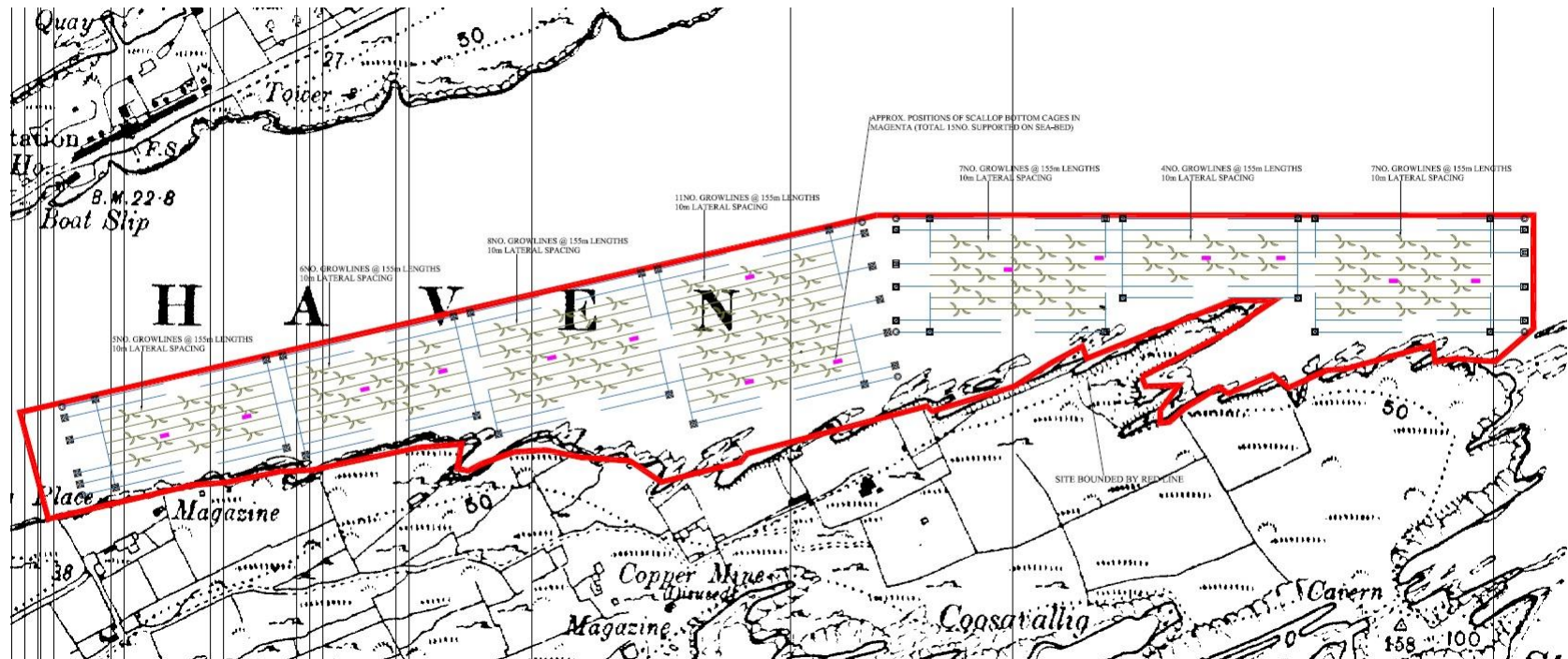


Figure 17 Proposed Site Layout T05/432C



## **6.2. Other Uses**

### **6.2.1 Marine Leisure Users / Navigation**

Crookhaven Harbour is a major sailing and tourist hub during the summer months. The Crookhaven Harbour sailing club (<http://crookhavenhsc.com/>) operate throughout July and August within the Harbour, with sailing courses, racing events and a regatta in August.

The proposed deployment of longlines on both sides of the mouth of the Harbour has the potential to significantly impact a number of private slipways and piers located on both sides of the Harbour, with 4 located along the southern side and 3 along the northern side all of which have the potential to be negatively impacted.

The appellant has indicated within the initial site application that the proposed longlines will be set up in December and harvested / removed in May / June, thereby only being present for 6-7 months of the year, prior to the start of the main sailing / marine leisure activity season. The appellant has also indicated within his appeal that he is willing to mitigate any potential concerns over safe access and navigation within the Harbour by dropping the appeal for site T05/432B, thereby alleviating the potential impact on other users of the Harbour.

It is considered that the proposed timeline could be incorporated into a provisional licence condition, whereby the appellant will be required to remove all longlines from the proposed sites by an agreed date (which could be agreed with stakeholders in the area i.e. the Crookhaven sailing club and other marine users, thereby promoting a shared sustainable use of the Harbour by all parties). Should the longlines be licenced it is recommended that a UAIA be carried out on the proposed sites as per recommendations from the DCHG.

The appellant provided the following response to the Section 47 request for details of how long-line removal during the off-season will be accomplished, in terms of what will remain onsite year-round, e.g. anchors, ropes, surface marker buoys, etc.;

- Various strains of seaweed are grown at different times of the year resulting in varying off seasons but regardless of same, long lines ropes and floats will be removed in their entirety when not in use.
- The long line ropes, poly-steel ropes and longline float buoys will be stored away from the site and foreshore.
- Mooring blocks and chain will remain in place on the seabed.
- The mooring blocks and scallop cages will be marked by surface marker buoys so that they can be seen.
- The sites navigation aids, IALA Special Marker Buoys (SMB's) (specifications attached) will remain on the site all year as an aid to navigation.

### **6.2.2 Subsea Pipeline**

A subsea pipeline is located within the bounds of the proposed aquaculture sites running from the eastern edge of Crookhaven village to the lighthouse complex on Rock Island, supplying freshwater to the lighthouse and other dwellings on Rock Island.

The appellant has indicated, within the appeal documents, that the pipeline is well-known to the appellant, as he helped put it in place in the mid-1990s. The appellant has indicated that the pipeline can be detected and easily avoided when placing the proposed cages and mooring anchors for the proposed longlines.

An independent archaeological survey has been carried out within the bounds of the site by Donal Boland, Maritime Archaeologist, using sidescan sonar to identify the location of the subsea pipeline. Results of this survey have been provided to the ALAB as part of the Section 47 (1)(a) request. The identified location of the pipeline is provided below in Figure 18.

The appellant has indicated within the Section 47 response that all structures on the seabed i.e., anchor blocks and cages will be located a minimum of 10 metres from the pipeline and that the pipeline is clearly visible on the seabed aiding the safe placement of equipment. The appellant states that this 10-meter zone will ensure that the pipeline will not be impacted in any way by the positioning of the long line anchor blocks or cages. It is the considered opinion of the technical advisor that this setback area would be feasible and would not significantly limit the location of the mooring blocks in relation to the site layout.

**Figure 18 Subsea Pipeline Location Identified by Sidescan Sonar**



### **6.3. Statutory Status**

There are no specific statutory or development plans for Crookhaven Harbour. Aquaculture is however considered under the Cork County Development Plan (CCC, 2014). Within the Plan it states that the Council aim *“to support the sustainable development of the aquaculture industry in order to maximise its contribution to employment and the economic wellbeing of rural coastal communities and the economic wellbeing of the County.”*

An Appropriate Assessment screening has been carried out on the proposed aquaculture sites in relation to the surrounding Natura 2000 sites. This screening assessment determined that no Likely Significant Effects on the SCIs or Qualifying Interests of the adjacent Natura 2000 sites from the development of the proposed sites.

The R591 passes along the northern shore of Crookhaven Harbour and is classified as being part of two scenic routes, the S102 & S103. The proposed sites will be visible for c. 2km stretch of this regional road around Granny Island, however they will only be visible as floating buoys (similar to the existing mooring buoys within the Harbour) from this



vantage point, with the longlines and growing seaweeds only visible through the water from a height.

It is the considered opinion of the Technical Advisor that given the low levels of proposed aquaculture within the Harbour and the results of the AA screening process, that the proposed sites (in terms of uncontained bottom culture) would have no significant detrimental impact on the statutory status of the Harbour. However, the licencing of the proposed longlines will potentially impact on the scenic amenity of the Harbour.

#### **6.4. Economic Effects**

It is the considered opinion of the advisor that the operation of these sites could provide a positive effect to the local and regional economy. Through the provision of year-round employment, provision of local produce to local markets and indirectly through the provision and development of a long-term sustainable business providing investment capital to the region.

#### **6.5. Ecological Effects**

##### ***6.5.1 Particle Suspension / Benthic Communities***

Scallops are filter feeders and they feed on suspended particulate matter. They selectively ingest phytoplankton and other organic material (e.g. small zooplankton and bacteria) and dispose of inorganic and larger organic matter in pseudofaeces, which is excreted into the water column. Typically, the faecal and pseudofaecal pellets will fall to the sea floor and may cause localised organic enrichment.

The level of enrichment is a function of, inter alia, density of culture, water depth, current speed, the quantity of suspended particulate matter in the water column, or a combination of these.

Where some enrichment (from biodeposition) in the water can be beneficial, over enrichment can be detrimental and can lead to a change in the natural biogeochemistry reducing natural / native species richness and at times anoxic conditions can occur proving fatal to local organisms.

It is the considered opinion of the technical advisor that these appealed sites will not pose a significant impact on the benthic communities or the overall biodiversity of the site, where the levels of aquaculture within the Harbour are low and the build-up of excess organic matter beyond the footprint of the sites is not considered likely.

##### ***6.5.2 Non-native Species***

The movement of stock and equipment in and out of the water can encourage the transport of non-native and / or invasive species either through the introduction via seed and / or from boats / vehicles moving between sites.

The appealed sites propose to cultivate native species (Scallops in cages and seaweeds on longlines). The appellant intends to source scallop spat from a hatchery in Mulroy Bay Co. Donegal or through the collection of local spat and seeded seaweed string will be procured from the Bantry Marine Research Station.

It is the considered opinion of the technical advisor that there is no significant impact posed by this application with regards to the introduction of the non-native species into Crookhaven Harbour. As the proposed species to be cultivated are all native species and seed will be sourced within Ireland. Biosecurity measures will be implemented as part of the Fish Health Regulations Council Directive 2006/88/EC (which is transposed into Irish Law) to prevent the spread of disease and non-native species, which are accounted for within the licencing conditions.

### **6.5.3 Shading**

Scallops, as filter feeders, can alter the zooplankton and phytoplankton abundance and communities in the water column and therefore the overall productivity of a site. It may decrease the turbidity of the water, increasing light penetration through the water column. This increase in light penetration may be beneficial to some species such as eel grass (*Zostera* spp.). Conversely, the proposed cages may cause shading to the seabed, decreasing the light penetration, thereby negatively impacting the growth of vegetation such as eelgrass.

It is the considered opinion of the advisor that the appealed sites will not pose a significant impact on the vegetative benthic communities, where the levels of aquaculture within the Harbour are low and sensitive eelgrass communities are not recorded within the bounds of the sites, thereby not negatively impacted by the proposed development.

## **6.6. General Environmental Effects**

The establishment of filter feeding Scallops and seaweed cultivation could potentially improve the water quality within the Harbour by removing suspended particles and excess nutrient input from agricultural runoff and wastewater discharges. The physical placement of mooring anchors and cages will potentially increase the local biodiversity of the site by providing varied areas within the water column for marine species to settle and develop upon.

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

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

## **6.7. Effect on Man-made Heritage**

There is no predicted impact on known terrestrial or marine man-made heritage sites located around Crookhaven Harbour. However, due to the extensive maritime history of

Crookhaven Harbour potential exists for an impact on undiscovered marine heritage sites, from the physical placement of cages and mooring anchors on the seabed.

It is the considered opinion of the Technical Advisor that should these sites be licenced, for bottom culture via cages and longlines, then an Underwater Archaeological Impact Assessment (UAIA) should be carried out inline with the recommendations from the Department of Culture, Heritage and the Gaeltacht.

## 6.8. Section 61 Assessment Conclusions

### Site Suitability

*The site under appeal is **suitable for the intended purpose** for the following reasons;*

- 1. The aquaculture application was a renewal / review application, indicating that the sites have previously been in use for aquaculture, thereby indicating the suitability of the site for scallop aquaculture.*
- 2. Technical advice is to the effect that there will be no significant impact on the marine environment and the quality status of the area will not be adversely affected.*
- 3. Bottom culture via cages would not negatively impact on the scenic amenity of the area, as these would not be visible at any stage of the tide.*
- 4. The deployment of floating longlines at the proposed sites has the potential to negatively impact the scenic amenity of the area. However, the lines are proposed by the appellant to only be in place for up to six months of any year (Dec- May/June) during a period when numbers of people utilising the area is significantly lower and they will only be visible as uniform grey buoys (similar to and less noticeable than the extensive existing orange mooring buoys within the Harbour) from most vantage points. With the lines and growing seaweeds only visible on direct passage by boat and from a height on the cliffs directly above.*

*The site under appeal is **not suitable for the intended purpose** for the following reasons;*

- 1. The proposed deployment of longlines on both sides of the mouth of the Harbour has the potential to significantly reduce the area for safe navigation into the Harbour for all users, however, the appellant initially proposed that these longlines will only be in place for c. 6 months of the year from December – May/June (Indicated within the appeal documents) thereby avoiding the peak times of marine leisure and tourism activities. Although this suggested timeline was not confirmed by the appellant following a Section 47 Request for Further Information, whereby the appellant stated that – ‘Various strains of seaweed are grown at different times of the year resulting in varying off seasons but regardless of same, long lines ropes and floats will be*

removed in their entirety when not in use'. This lack of confirmation of the proposed timeline leads to the conclusion that there is a **high likelihood** that the proposed sites will be operational during the summer months. The appellant has suggested that he is willing to drop the appeal for T05/432B in favour of licensing T05/432C, to reduce the potential impact on safe access to the Harbour.

### Other Uses

The proposed development will **potentially have a significant adverse impact on the possible other uses or users** of the area for the following reason;

1. The access route through the Harbour entrance will be significantly narrowed should both proposed sites be licenced, therefore affecting all other users of the Harbour attempting to avail of the safe anchorage within the Harbour. However, the Applicant has stated within the initial site application that the seaweed longlines will only be present from December to May/June in any one year, therefore avoiding the peak tourism season and the busy sailing season, potentially reducing the potential impact significantly. Following a Section 47 Request for further information the appellant has not confirmed that these longlines will be removed during this period.
2. The proposed deployment of longlines on both sides of the mouth of the Harbour has the potential to significantly impact a number of private slipways and piers located on both sides of the Harbour, with 4 located along the southern side and 3 along the northern side all of which have the potential to be negatively impacted by the proposed development.

The appellant has suggested that he is willing to drop the appeal for T05/432B in favour of licensing T05/432C, to reduce the potential impact on safe access to the Harbour. This mitigation would likely reduce the potential impact on safe access and navigation within the Harbour.

There were no objections to the proposed developments lodged by the public during the public consultation phase.

### Statutory Status

The proposed development has **no impact on the statutory status** of the area for the following reason;

1. The proposed sites are not located within a designated area, with the adjacent designated sites being terrestrial in nature with no potential impact source from the proposed sites, and no pathway to / or receptor within the designated sites.

2. *The qualifying interests of the surrounding SPA, Chough and Peregrine Falcon are unlikely to be negatively affected by the proposed development.*

*The proposed development has potential to negatively impact the scenic amenity of the Harbour for the following reason;*

1. *The proposed deployment of floating longlines has the potential to impact on the scenic amenity of the Harbour. However, these longlines will only be visible as floating buoys from most vantage points, with the lines and seaweeds only visible from a height.*

### *Economic Effects*

*There is a **significant positive effect** on the economy of the area for the following reasons:*

1. *The licensing of the proposed sites for both scallop and seaweed aquaculture will provide continuous year-round employment in the locality, which is predominantly tourism based and therefore seasonal in nature.*
2. *The licencing of the proposed sites may attract further investment capital into the region, through the development of seaweed aquaculture and its subsequent products and extracts.*

*There is potential for a **negative effect** on the economy of the area for the following reasons:*

1. *The licensing of the proposed sites has the potential to negatively impact on marine leisure and recreational activities, including sailing, within the Harbour and so could potentially reduce the number of incoming tourists/ marine leisure users to the area thereby potentially reducing seasonal income for local businesses.*

### *Ecological Effects*

*There is a **non-significant positive effect** on the natural habitats, wild fisheries and fauna and flora of the area as a result of the proposed operation for the following reasons;*

1. *The addition of physical structures to the proposed sites will provide locations for marine organisms to settle and develop upon, thereby potentially increasing the local biodiversity of the proposed sites.*
2. *Build-up of faeces and pseudofaeces within the Harbour is considered unlikely due to the low levels of proposed aquaculture within the Harbour.*

### General Environmental Effects

There are **non-significant positive general environmental effects** as a result of the proposed development for the following reasons;

1. The establishment of filter feeding Scallops within the Harbour could potentially reduce the suspended particles in the water column, allowing more light to reach the seabed, consequently allowing for the development of local biodiversity, such as eelgrass or kelp beds.
2. The establishment of seaweed cultivation within the Harbour could potentially reduce the impact of nitrification and other nutrients of the surrounding waters of the Harbour, caused by agricultural run-off and urban discharges, thereby improving local water quality within the Harbour.
3. The placement of physical structures on the seabed can potentially alter the benthic habitats in terms of species disturbance and distribution, however at the scale proposed within these applications this is considered to be localised to the areas of the structures and considered not likely to affect the overall benthic habitats within the Harbour.
4. The placement of physical trestles on the seabed can also increase localised biodiversity as the structures themselves will act as anchors in the water column for marine organisms where none had existed previously.

### Man-made Heritage

There is **no effect on the surrounding known terrestrial or marine man-made heritage** of value in the area as a result of the proposed operation for the following reasons;

1. They are located on the surrounding areas of headland and will not be directly or indirectly impacted by the proposed development
2. There is no recorded marine man-made heritage within the boundaries of the proposed sites.

There is **potential for the proposed sites to have a negative impact on unknown marine man-made heritage sites** in the area as a result of the deployment of cages and mooring anchors for longlines on the seabed. A UAIA, recommended by the DCHG, should be carried out prior to deployment, should these sites be licenced for bottom cage and longline cultivation.

### **6.9. Confirmation re Section 50 Notices**

There are no pertinent matters which arise in the Section 61 assessment which the Board ought to take into account which have not been raised in the appeal documents and it is not necessary to give notice in writing to any parties in accordance with section 50 (2) of the 1997 Act.

## **7.0 Screening for Environmental Impact Assessment.**

On the 11<sup>th</sup> October 2013 The then Minister for Agriculture Food and the Marine, Simon Coveney, considered a number of proposed aquaculture activities within Roaringwater Bay including 43 mussel sites, 25 oyster sites, 1 mussel & oyster site, 1 mussel & seaweed site, 7 mussel, oyster, scallop, urchin & seaweed sites and the 2 appealed scallop sites (T05/432 B & C). The Minister determined that these aquaculture sites are not likely to have significant effects on the environment and that an EIS is not required (<https://www.agriculture.gov.ie/media/migration/seafood/aquacultureforeshoremanagement/aquaculturelicensing/ministerialconsiderationforeis/cork/RoaringWaterBayAssessment111013.pdf> [accessed on 19/06/2020])

Aquaculture is listed as an Annex II Project under the EU EIA Directive 85/337/EEC, however, where this form of aquaculture depends on natural processes for production and supply of feed (i.e. extensive) an EIA Screening process is deemed not required (Ireland as a Member State Guidance). Therefore, it is the conclusion of the advisor that an EIA Screening (formally EIS) is not required in this instance in line with Ministers Guidance.

## **8.0 Screening for Appropriate Assessment.**

The Marine Institute on the behalf of the Department of Agriculture, Food and the Marine have in July 2019 conducted an Appropriate Assessment Screening for the proposed aquaculture activities within Crookhaven Harbour and Toormore Bay in relation to the surrounding Special Protection Areas (SPAs) and Special Areas of Conservation (SACs); these being Sheep's Head to Toe Head SPA (Site Code: 004156), Barley Cove to Ballyrisode Point SAC (Site Code: 001040) and the Roaringwater Bay & Islands SAC (Site Code: 000101) (<https://www.agriculture.gov.ie/media/migration/seafood/aquacultureforeshoremanagement/aquaculturelicensing/appropriateassessments/cork/CrookhavenandToormoreNaturaScreeningforAquaculture050719.pdf> {accessed on 19/06/2020})).

It is the considered opinion of the Technical Advisor that full Appropriate Assessment is not required in this instance. Where the AA screening has not identified any likely significant effects as a result of the proposed development on the adjacent Natura 2000 sites, Sheep's Head to Toe Head SPA and Barley Cove to Ballyrisode Point SAC. Whereby, there were no identified potential pathways between potential sources of impact and the potential receptors (SCIs and Qualifying Interests of the Natura 2000 sites).



### **9.0 Technical Advisor's Evaluation of the Substantive Issues in Respect of Appeal and Submissions/Observations Received**

With respect to the substantive issues raised by the appellant the below comments reflect the considered opinion of the advisor based on best available information:

<b>Issue</b>	<b>Appellant Comments</b>	<b>Advisor Comments</b>
<i>Economic</i>	<i>The appellant states that the licencing of the proposed sites will generate year-round employment opportunities in an area which primarily relies on seasonal income from tourists.</i>	It is the considered opinion of the Technical Advisor that the proposed sites will benefit the local economy, through the development of direct employment and the potential increase in external investment into seaweed culture and its by-products.
<i>Business Continuity</i>	<i>The appellant states that the growing of seaweed will provide supplemental income to the company over the long scallop growing season, through scallop mortality events and in the event of theft of Scallops from the seabed.</i>	It is the considered opinion of the Technical Advisor that the growing season for seaweeds is much shorter than the growing season for Scallops and so the development of seaweed culture will provide supplemental income over the extended scallop growing season and potentially offset the losses incurred through scallop mortality and theft events within the Harbour
<i>Business Development</i>	<i>The appellant states that a local sustainable source of hatchery seaweed plantlets have been sourced from the Bantry Marine Research Station and that potential buyers of the seaweed product have been identified, allowing for future development of the Crookhaven Fisherman's Association.</i>	It is the considered opinion of the Technical Advisor that there is an increased demand for seaweeds and their by-products worldwide, and so the development of seaweed aquaculture will provide increased growth potential for the business in the future.
<i>Departmental Communication</i>	<i>The appellant states that during the initial application process they made clear to the Department that they were willing to address any navigational and visual impact concerns raised. And subsequently acquiesced with a Departmental request to redraw Site T05/432 D to allow for public access to a local pier. No requests were made in relation to Sites T05 / 432 B &amp; C.</i>	It is the considered opinion of the Technical Advisor that the Esubmission Document provided by DAFM in relation to sites T05/432 B & C, notes that "as per statutory requirements, copies of the observations received during the consultation process were forwarded to the applicant for comment". To which the applicant did not provide a response.

Issue	Appellant Comments	Advisor Comments
<i>Public Consultation</i>	<i>The appellant states that no submissions were lodged as to navigational or visual impact concerns during the public consultation period</i>	No observations or submissions were received during the allotted timeframe for public consultation in relation to the Appeal for sites T05/432 B & C. This potentially shows that the development plans are supported in the locality or that the locality were not aware of the proposals.
<i>Navigation</i>	<i>The appellant states that the appealed sites are shallower than the main navigational channel and will not interfere with access to the Harbour. The appellant states that the proposed scallop cage dimensions are such that they will not interfere with any boats that inadvertently stray into the aquaculture area</i>	The proposed sites are more shallow than the main navigation channel, considering the depth of the proposed sites and the dimensions of the proposed scallop cages it is considered that the deployment of cages on the seabed will not impact on navigation to and from the Harbour. However, if both sites were to be fully licensed (scallop cages and longlines) the remaining area for safe navigation would be significantly reduced to <100m for a distance of c.800m along the Harbour entrance. The existing safe navigation channel is currently c350-400m wide at the Harbour entrance and c.200m wide at the narrowest point (at the south-western tip of Rock Island).
<i>Other Users</i>	<i>The Appellant states that the Crookhaven Harbour Sailing Club, which actively use the Harbour in the summer, have no objection to the developments. The appellant also states that the proposed development will not impact on any other existing beneficial use of the Harbour.</i>	Interestingly there were no objections to the proposed development lodged during the public consultation phase. As suggested in the initial application for the proposed sites, the longlines will only be present on the site from December to May/June in any one year. Therefore, avoiding the main tourist and marine leisure season potentially significantly reducing the potential impact. Although this proposed timeline was not confirmed by the appellant within the Section 47 request for further

Issue	Appellant Comments	Advisor Comments
		information.
Visual Impact	<i>The appellant states that the only visual impact from the proposed development will be an increased number of buoys, which will be of uniform size, regular in deployment, small and of a uniform grey colour. The appellant compares these proposed buoys to the many mooring buoys present within the Harbour which are various sizes, colours and dimensions and area visible from all vistas</i>	The longline structure will only be visible as a uniform line of buoys from the majority of vantage points across the Harbour, however, the lines and growing seaweeds will be visible from a height.
Mitigation	<i>The appellant states that, as the Minister in his determination expressed that there would be a negative impact upon visual amenity and navigation by the granting of both sites T05/432 B &amp; C for longline cultivation, then the appellant in mitigation of these concerns is willing to accept longlines on Site T05/432 C only, if the boards deems this appropriate.</i>	It is considered that the reduction in proposed area suggested by the appellant would significantly reduce the potential impact on navigation.
Subsea Pipeline	<i>The appellant states that subsea pipeline was lain down in the mid-1990s and has now sunk deep into the silty sediment of the Harbour. However, it can easily be identified and avoided when laying any heavy mooring structures or scallop cages and that this is what the appellant would do should the sites be licenced for such.</i>	The appellant has provided an independent survey of the location of the subsea pipeline and has reiterated that pipeline is visible on the seabed and that all underwater anchors or cages will be placed a minimum of 10m from the pipeline.
Improved Environment and Water Quality	<i>The appellant states that the proposed development of seaweed longlines and scallop cages, will help improve the water quality, reduce erosion and improve fish recruitment in the Harbour by offsetting the carbon burden and the discharged waste from the town.</i>	<p>It is considered by the Technical Advisor that this was not one of the reasons for refusal of the longlines and cages, however considering the low levels of aquaculture in the Harbour is likely to have a positive impact on water quality rather than a negative.</p> <p>Scallops are filter feeding organisms which siphon planktonic organisms</p>

Issue	Appellant Comments	Advisor Comments
		<p>from the water column and excrete faeces and pseudofaeces back into the water column. This faeces and pseudofaeces can build up in the locality of the cultivation areas and at times, in areas of dense culture can cause problems such as seston depletion where the levels of planktonic organisms are too low to support naturally occurring native species. Given the low level of aquaculture activity within the Harbour it is considered that a detrimental impact on the water quality due to the over consumption of planktonic organisms from filter feeding organisms (Scallops) is unlikely to occur.</p> <p>It has been shown that the cultivation of seaweed absorbs significant amounts of nutrients from the water column, such as nitrogen and phosphorous, which can help combat the nitrification and acidification of our oceans caused by agricultural run-off and wastewater discharges, thereby improving local water quality and potentially improving fish recruitment.</p>

## **10.0      Recommendation of Technical Advisor with Reasons and Considerations.**

It is the considered opinion of the Technical Advisor that the license for longlines on site T05/432B be refused, as per the mitigation measures proposed by the appellant to reduce the potential impact on safe navigation to and from the Harbour and the potential negative impact on the potential other users of the Harbour.

The proposed timeline indicated by the appellant within the license appeal whereby the longlines will be removed during the peak season has not been confirmed by the appellant following the Section 47 request for Further Information. Although it was confirmed that when not in use the longlines will be removed, the timing of this was not provided. Due to this lack of confirmation of a fixed timeline it cannot be guaranteed that the longlines will be removed for the peak marine leisure season and so the potentially significant negative impact of the proposed floating longlines within site T05/432C on the safe access and navigation to the Harbour should be considered by the Board.

It is considered that scallop cultivation on the seabed via cages on both sites T05/432 B & C could be licensed, so long as the 10m buffer is maintained between underwater structures and the subsea pipeline. It is considered that the proposed structure of the proposed cages is suitable and should be entirely self-anchoring, with no additional anchoring methods required.

A draft site layout plan has been submitted by the appellant for approval.

## **11.0      Draft Determination Refusal /or Grant**

It is recommended that the Board refuse the application for floating longline cultivation of seaweeds on site T05/432B, as per the applicant's recommendation of mitigation towards safe navigation to and from the Harbour. Consideration should be given to the licensing of the floating longlines within Site T05/432C, although the timing of the annual removal of the longlines within this site should be confirmed, as the timing of this removal will determine the potential impacts of this development on safe access and navigation within the Harbour.

It is recommended that the Board grant the proposed licences for bottom scallop cultivation using cages in both sites following approval of the submitted draft site layout plan

**Technical Advisor:** Eoin Cussen, Ecologist, EcoÉireann

**Date:** 08/09/2021

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## **Appendix A – Site Photographs**

**Photo 1:** View of Crookhaven Harbour from the south west, facing the Harbour entrance



**Photo 2:** View of Site T05/432 C, with Rock Island Light House on the left.



**Photo 3:** View of Site T05/432 C, facing the Harbour entrance



**Photo 4:** View of Site T05/432 C, facing the Harbour entrance





**Photo 5:** View of T05/432 B, from T05/432 C



**Photo 6:** View of eastern portion of both proposed sites



**Photo 7:** View of western portion of both proposed sites



**Photo 8:** View of Rock Island and area of proposed site T05/432B





**Photo 9:** View of used existing moorings in Crookhaven Harbour



**Photo 10:** View of unused existing moorings in Crookhaven Harbour





**Photo 11:** View of Site T05/432C from Rock Island



**Photo 12:** View of western portion of T05/432B from Rock Island



**Photo 13:** View of eastern portion of T05/432B

