ALAB
An Bord Achomhairc Um Cheadúnais Dobharshaothraithe
Aquaculture Licences Appeals Board

Notice of Appeal Under Section 40(1) of Fisheries (Amendment) Act 1997 (No.23)

APPEAL FORM

Please note that in accordance with Section 40(2) of the 1997 Act this form will only be accepted if delivered by **REGISTERED POST or by hand** to the ALAB offices at the following address: **Aquaculture Licences Appeals Board, Kilminchy Court, Dublin Road, Portlaoise, Co. Laois, R32 DTW5**

Name of Appellant (Block Letters)	JOHN COLLINS B.Sc.(Pharm.)
Address of Appellant	
Eircode	
Phone No.	Email address (enter below)
Mobile No.	

AQUACULTURE LICENCES APPEALS BOARD
25 JUN 2025
RECEIVED

Please note if there is **any change** to the details given above, the onus is on the appellant to ensure that ALAB is notified accordingly.

FEES

Fees must be received by the closing date for receipt of appeals	Amount	Tick
An appeal by an applicant for a licence against a decision by the Minister in respect of that application	€380	
An appeal by the holder of a licence against the revocation or amendment of that licence by the Minister	€380	
An appeal by any other individual or organisation	€150	/
Request for an Oral Hearing* (fee payable in addition to appeal fee) *In the event that the Board decides not to hold an Oral Hearing the fee will not be refunded	€75	/

Fees can be paid by way of Cheque or Electronic Funds Transfer

Cheques are payable to the Aquaculture Licences Appeals Board in accordance with the Aquaculture Licensing Appeals (Fees) Regulations, 2021 (S.I. No. 771 of 2021)

Electronic Funds Transfer Details	IBAN: IE89AIBK93104704051067	BIC: AIBKIE2D

Please note the following:

1. Failure to submit the appropriate fee with your appeal will result in your appeal being deemed invalid.
2. Payment of the correct fees **must be received on or before** the closing date for receipt of appeals, otherwise the appeal will not be accepted.
3. The appropriate fee (or a request for an oral hearing) must be submitted against each determination being appealed.

RL 0156 0157 6IE

The Legislation governing the appeals is set out at Appendix 1 below.

SUBJECT MATTER OF THE APPEAL	
Granting of aquaculture license to Woodstown Bay Shellfish for mussel farm in Kinsale harbour, Co. Cork.	
Site Reference Number: - (as allocated by the Department of Agriculture, Food, and the Marine)	T05-472A
APPELLANT'S PARTICULAR INTEREST Briefly outline your particular interest in the outcome of the appeal:	
Full details of standing and expertise provided in Section 10 of accompanying Grounds of Appeal document.	
GROUNDS OF APPEAL State **in full** the grounds of appeal and the reasons, considerations, and arguments on which they are based) (if necessary, on additional page(s)):	
See attached Grounds of Appeal document	

CONFIRMATION NOTICE ON EIA PORTAL (if required)

In accordance with Section 41(1) f of the Fisheries (Amendment) Act 1997, where an Environmental Impact Assessment (EIA) is required for the project in question, please provide a copy of the confirmation notice, or other evidence (such as the Portal ID Number) that the proposed aquaculture the subject of this appeal is included on the portal established under Section 172A of the Planning and Development Act 2000. (See Explanatory Note at Appendix 2 below for further information).

Please tick the relevant box below:

EIA Portal Confirmation Notice is enclosed with this Notice of Appeal	
Other evidence of Project's inclusion on EIA Portal is enclosed or set out below (such as the Portal ID Number)	
An EIA was not completed in the Application stage/the Project does not appear on the EIA Portal	/

Details of other evidence	

Signed by the Appellant		Date	15 June 2025

Please note that this form will only be accepted by REGISTERED POST or handed in to the ALAB offices

Payment of fees must be received on or before the closing date for receipt of appeals, otherwise the appeal will be deemed invalid.

This Notice of Appeal should be completed under each heading, including all the documents, particulars, or information as specified in the notice and duly signed by the appellant, and may include such additional documents, particulars, or information relating to the appeal as the appellant considers necessary or appropriate."

DATA PROTECTION – the data collected for this purpose will be held by ALAB only as long as there is a business need to do so and may include publication on the ALAB website.

Grounds of Appeal: Licence T05/472A

Appellant: John Collins
Address: 25
Date: 22 June 2025

Legal Framework for This Appeal

This appeal is submitted under Section 40(1) of the Fisheries (Amendment) Act 1997. Under Section 40(4)(b), the Aquaculture Licences Appeals Board must determine this appeal "as if the application had been made to the Board in the first instance." This requires a complete fresh review of the application without deference to the Minister's decision, guided by the cornerstone principle of public interest under Section 7 of the 1997 Act.

The outdated nature of the original 2019 application materials, combined with new environmental evidence that has emerged since then, means the Board cannot lawfully uphold this licence without first obtaining current, comprehensive assessments.

Section 7 of the Fisheries (Amendment) Act 1997 requires the Minister to determine that granting a licence is 'in the public interest.' This is not a neutral test requiring merely the absence of objection but a positive requirement to demonstrate a clear public benefit. The burden lies on the applicant and the Minister to affirmatively prove public interest, not on objectors to disprove it. The overwhelming community opposition, combined with the absence of any demonstrated public support for this specific proposal, fundamentally undermines any claim that this licence serves the public interest.

PART A: FUNDAMENTAL PROCEDURAL FAILURES

1. Critical Error in Protected Species Risk Assessment

The *Risk Assessment for Annex IV Species* submitted in support of this licence application is fundamentally flawed. While the document distinguishes the proposed site T05-472A from the three existing oyster trestle sites in its introduction, the substantive assessment fails to evaluate the actual activity proposed — namely, the cultivation of blue mussel (*Mytilus edulis*) on the subtidal seafloor using bottom-culture dredging methods.

Instead, the assessment focuses on "trestles and activities associated with oyster culture structures" positioned on the intertidal seabed, drawing conclusions based on impacts from intertidal bag-and-trestle oyster aquaculture.

This is not a minor oversight but a critical error, as:

- Intertidal oyster farming and subtidal mussel dredging are materially different operations with distinct environmental impact profiles;
- The assessment's methodology, impact pathways, and mitigation measures are irrelevant to the development actually proposed;
- Bottom-culture dredging in subtidal zones presents unassessed risks to Annex IV species such as *Lutra lutra* (European otter), including sediment disturbance, turbidity, and noise;
- The analysis appears to have been adapted from prior oyster aquaculture assessments rather than developed anew for this application.

Under Article 12 of the EU Habitats Directive, any proposed activity likely to affect protected species must be subject to a rigorous, site-specific evaluation. By failing to assess the actual development type in its appropriate ecological context, the Risk Assessment is not legally sufficient and cannot be relied upon in the licensing decision.

2. Procedural and Consultation Deficiencies

Inadequate Public Consultation

Despite the Minister's claim to have considered "issues raised in Public and Statutory consultation," there has been no meaningful engagement with key harbour stakeholders, including:

- Professional marine users and commercial operators
- Diving clubs and underwater photographers
- Kinsale Yacht Club and sailing community
- Local angling associations
- Marine research and conservation groups
- RNLI and emergency services
- Tourism and heritage organisations

Application Timeline Issues

The seven-year gap between the initial application (2018) and the licence grant (2025), without re-consultation, fails to meet the standards of public engagement, particularly given the significant regulatory and environmental changes that occurred during this period.

3. Inadequate Environmental Assessment and Missing Data

Absence of Current Environmental Impact Assessment

No Environmental Impact Assessment screening document is available to the public despite this being a legal requirement for developments of this scale and potential impact. The Board cannot make an informed decision without this fundamental assessment.

Outdated Baseline Data

The application relies on 2019 data that is now six years old. Critical environmental changes since then include:

- New scientific evidence of seagrass (*Zostera marina*) presence in Irish coastal waters, including Cork harbour areas
- Changed water quality conditions in Kinsale Harbour
- Current water quality compliance issues in Kinsale Harbour
- Climate-related changes to marine ecosystems

Critical Discovery: EU Priority Habitat Within Licence Area

Confirmed Seagrass Presence

Recent peer-reviewed research, including national seagrass mapping led by Dr. Robert Wilkes (University College Cork) and published by Beca-Carretero et al. (2024), demonstrates that Irish seagrass meadows are far more extensive than previously documented. This research, combined with citizen science observations through Seasearch Ireland's nationwide marine monitoring programme, has confirmed the presence of seagrass throughout Cork's coastal waters.

Zostera marina (eelgrass) photographed within the proposed T05/472A licence area, demonstrating confirmed presence of this EU priority habitat at the site designated for bottom-culture mussel dredging.

As an active member of Ireland's diving community for over three decades, I can confirm that the photograph above provides **direct photographic evidence of *Zostera marina* (eelgrass) within the proposed licence area itself**. This EU Annex I priority habitat has been documented by experienced local underwater photographers within the waters now designated for industrial dredging operations. (see attached)

Legal Implications of Priority Habitat Presence

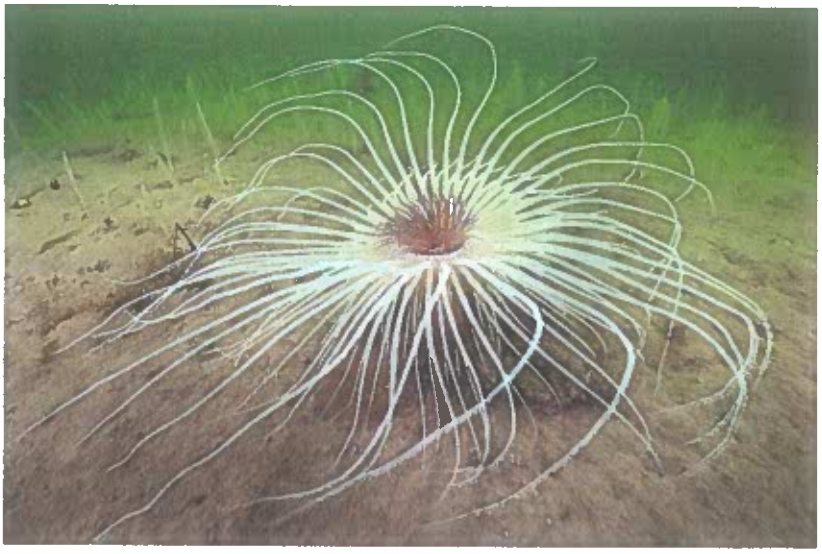
This confirmed presence creates a fundamental legal conflict:

- **EU Annex I priority habitat** documented within the licence boundary
- **Bottom-culture dredging operations** planned across seagrass meadows
- **No appropriate assessment** conducted despite confirmed habitat presence
- **Direct breach** of Article 6 of the EU Habitats Directive

Seagrass (*Zostera marina*) is protected under the EU Habitats Directive due to its exceptional ecological value:

- **Carbon sequestration**: Seagrass meadows store carbon at rates 35 times faster than tropical rainforests
- **Biodiversity hotspots**: Critical nursery habitat for commercial fish species and marine invertebrates
- **Coastal protection**: Natural wave attenuation and sediment stabilisation
- **Water quality improvement**: Natural filtration systems that improve marine water clarity

Additional Protected Species Documentation Gap



Pachycerianthus multiplicatus (Fireworks Anemone) has been observed in Cork coastal waters, demonstrating the presence of this nationally rare species in the regional marine environment.

Recent observations by experienced local divers have documented the presence of the Fireworks Anemone (*Pachycerianthus multiplicatus*) within the regional marine environment. This species is listed in the UK Biodiversity Action Plan as a species of conservation concern and is nationally rare, with only two previously confirmed sites in Ireland.

The species' burrowing habitat makes it particularly vulnerable to dredging activities. The anemone creates permanent burrows in sandy and muddy substrates—precisely the benthic environment targeted for bottom-culture mussel operations. Yet no current benthic survey has been conducted to confirm or rule out its presence in the licence area.

Fundamental Assessment Failure

The licensing determination proceeds with approving industrial dredging operations across:

- **Confirmed EU priority habitat** (seagrass meadows) documented within the site
- **Potential nationally rare species habitat** requiring precautionary assessment
- **No site-specific benthic surveys** to map habitat distribution
- **No appropriate assessment** under Article 6 of the Habitats Directive

This represents a catastrophic failure of environmental assessment obligations. Under EU law, any plan or project likely to have significant effects on Annex I habitats must undergo appropriate assessment **before** licensing decisions. The confirmed presence of priority habitat within the licence area triggers mandatory assessment requirements that have been completely ignored.

The precautionary principle demands that licensing be suspended pending comprehensive habitat mapping and appropriate assessment of impacts on confirmed priority habitats and potentially rare species populations.

Unassessed Impacts on Adjacent Special Protection Area

NPWS Designations Viewer showing Sovereign Islands SPA (004124) in relation to Kinsale Harbour, demonstrating the proximity of the licence area to this designated Special Protection Area.

Sovereign Islands SPA Connectivity

The NPWS map above clearly demonstrates that the proposed licence area lies in close proximity to the Sovereign Islands Special Protection Area (SPA 004124), designated under the EU Birds Directive. This SPA, covering 28.698 hectares, protects important seabird populations including Cormorant (*Phalacrocorax carbo*) and other marine-dependent species.

The relatively shallow waters of the licence area provide critical foraging habitat for these protected birds, which regularly commute between their roost/nesting sites on the Sovereign Islands and feeding areas within Kinsale Harbour. The functional connectivity between the SPA and the licence area is evident from the short distance and the continuity of suitable marine habitat.

Foraging Habitat Degradation

Bottom-culture dredging operations would significantly impact this functionally linked foraging habitat through:

- **Sediment suspension** reducing water clarity essential for visual predators like cormorants

- **Benthic habitat destruction** eliminating prey species (crabs, fish, marine worms)
- **Noise disturbance** from dredging vessels disrupting feeding behavior
- **Exclusion zones** preventing access to traditional foraging areas

Assessment Gap Under EU Birds Directive

Despite the clear functional connection between the SPA and the licence area as foraging habitat, no assessment has been conducted of:

- Current bird usage patterns within the licence area
- Seasonal foraging intensity and preferred feeding zones
- Impact of dredging operations on prey availability and water clarity
- Cumulative effects with other harbour disturbances

This represents a further breach of assessment obligations under the EU Birds Directive. European Court of Justice case law confirms that SPAs protect not only the designated sites themselves but also **functionally linked habitat** essential for the protected species, including foraging areas regularly used by SPA birds.

4. Water Quality and Cumulative Impact Concerns

Current Wastewater Treatment Non-Compliance

Kinsale Harbour faces ongoing water quality challenges from documented wastewater treatment failures. Current EPA compliance monitoring reveals systematic breaches at Kinsale WWTP, including:

- Chemical Oxygen Demand (COD) exceedances above licensed limits
- Carbonaceous Biological Oxygen Demand (cBOD) failures
- Suspended solids violations
- Orthophosphate limit breaches

The facility lacks ultraviolet disinfection processes before discharge, raising particular concerns for downstream shellfish harvesting areas. This occurs within a broader national context, where over half of Ireland's licensed treatment plants consistently fail to meet EPA standards, and 16 towns still discharge raw sewage daily as of 2024.

Regulatory Assessment Inadequacy

The licensing decision relies on 2009 WFD risk assessments that are now technically obsolete under contemporary EPA practice. At 16 years old by 2025, this data spans multiple River Basin Management Plan cycles and predates significant regulatory changes, including the transfer of water services to Irish Water (2014) and updated Water Framework Directive implementation.

The EPA's current Water Quality Monitoring Programme (2022-2027) emphasises contemporary data, with typically 3-year assessment periods for determining ecological status. Current EPA practice requires recent water quality status assessments rather than historical data for determining licensing compliance.

Public Health Risk Assessment Gap

The proposed mussel farm lies downstream of documented sewage discharge points, yet no current assessment has been provided of:

- Current WWTP compliance with discharge licence conditions
- Interactive effects between wastewater discharges and proposed filter-feeding operations
- Risk of pathogen accumulation in mussels intended for human consumption
- Potential for nutrient loading to exacerbate existing eutrophication pressures

Lack of Cumulative Assessment

No cumulative impact assessment has been provided, despite the presence of existing licensed aquaculture operations undergoing renewal (T05-530A, B, C) and the new mussel farm application (T05-472A) within Kinsale Harbour. Contemporary environmental assessment cannot adequately evaluate combined impacts based on 2009 baseline data that predates current regulatory standards and ongoing compliance failures.

The licensing decision fails to demonstrate that current water quality conditions can support additional filter-feeding aquaculture development without compromising existing shellfish water quality standards or public health protection, particularly given documented treatment plant non-compliance and absence of UV disinfection processes.

5. Invasive Species Risk from Mussel Seed Importation

Documented Seed Stock Decline and Import Dependency

BIM's documentation confirms the decline of Irish Sea seed mussel stocks and the increased reliance on imported seed from areas with an elevated risk of invasive species. The BIM Discussion Document (2020) acknowledges that 'poor recruitment to the mussel seed beds led to a period of significant decline' and notes ongoing challenges with seed availability.

The 2024 BIM Alien Species Report documents serious biosecurity incidents, including the detection of the Chinese Mitten Crab (Eriocheir sinensis) in Morecambe Bay following the movement of seed mussels to Carlingford Lough in 2020. This invasive species of Union Concern was subsequently detected in Waterford estuary, demonstrating the real and ongoing risk of invasive species transfer with mussel seed movements.

The application's failure to specify seed stock origin creates significant concern given BIM's documented evidence of:

- Decline in domestic Irish Sea seed sources
- Increased reliance on imports from high-risk areas
- Recent invasive species detections linked to seed movements
- 45 alien or cryptogenic species identified in Irish aquaculture areas (2010-2022)

These factors combine to create an unquantified biosecurity risk that requires assessment under EU Regulation 1143/2014. No screening, quarantine, or monitoring protocols have been specified despite clear evidence of elevated risk from recent seed import activities.

PART C: CONFLICTS WITH EXISTING USES & PUBLIC INTEREST

6. Conflict with Existing Beneficial Uses

Documented Recreational Activities

The licence area encompasses waters routinely used for:

- Recreational diving and underwater photography
- Small craft navigation and anchoring
- Sailing instruction and yacht club activities
- Commercial and recreational angling
- Marine heritage and ecological observation

Critical Marine Access Point

Kinsale Harbour serves as one of Cork's most accessible and protected marine environments, making it invaluable for:

- Scientific observation and documentation of marine life
- Educational diving activities
- Safe small-boat operations in all weather conditions
- Marine photography and research
- RNLI emergency response operations

Emergency Response and Navigation Safety Impacts

Based on seven years of experience as an RNLI helm conducting emergency operations in these waters (2006-2013), I can attest that the proposed 23.1626-hectare exclusion zone, combined with periodic dredging operations during harvest seasons, would create significant maritime safety hazards:

- Critical emergency response corridors would be obstructed, potentially increasing response times to maritime emergencies by 15-20 minutes in adverse weather conditions
- The exclusion zone encompasses key anchoring and shelter areas used by small craft during sudden weather changes
- Dredging operations and sediment plumes would reduce underwater visibility for emergency diving operations
- Harvest-period vessel activity would create navigation hazards, particularly for sailing vessels and emergency response craft operating under sail power during engine failure scenarios

No Marine Navigation Risk Assessment has been conducted in consultation with the RNLI, Harbour Master, or Coast Guard to evaluate these safety implications. This represents a fundamental failure to assess risks to human life and maritime safety.

The Minister's decision states that "Public access to recreational and other activities can be accommodated by this project" but provides no evidence of how periodic large-scale

dredging operations and seasonal exclusion zones can coexist with these established marine activities.

7. Economic and Tourism Impact

Kinsale's marine tourism economy is a significant component of the local economy, driven by activities such as sailing, diving, observing marine wildlife, and heritage tourism. The town's reputation as Ireland's premier sailing destination depends critically on maintaining water clarity, aesthetic appeal, and unrestricted access to harbour waters.

The visual impact of 23 hectares of aquaculture development, including:

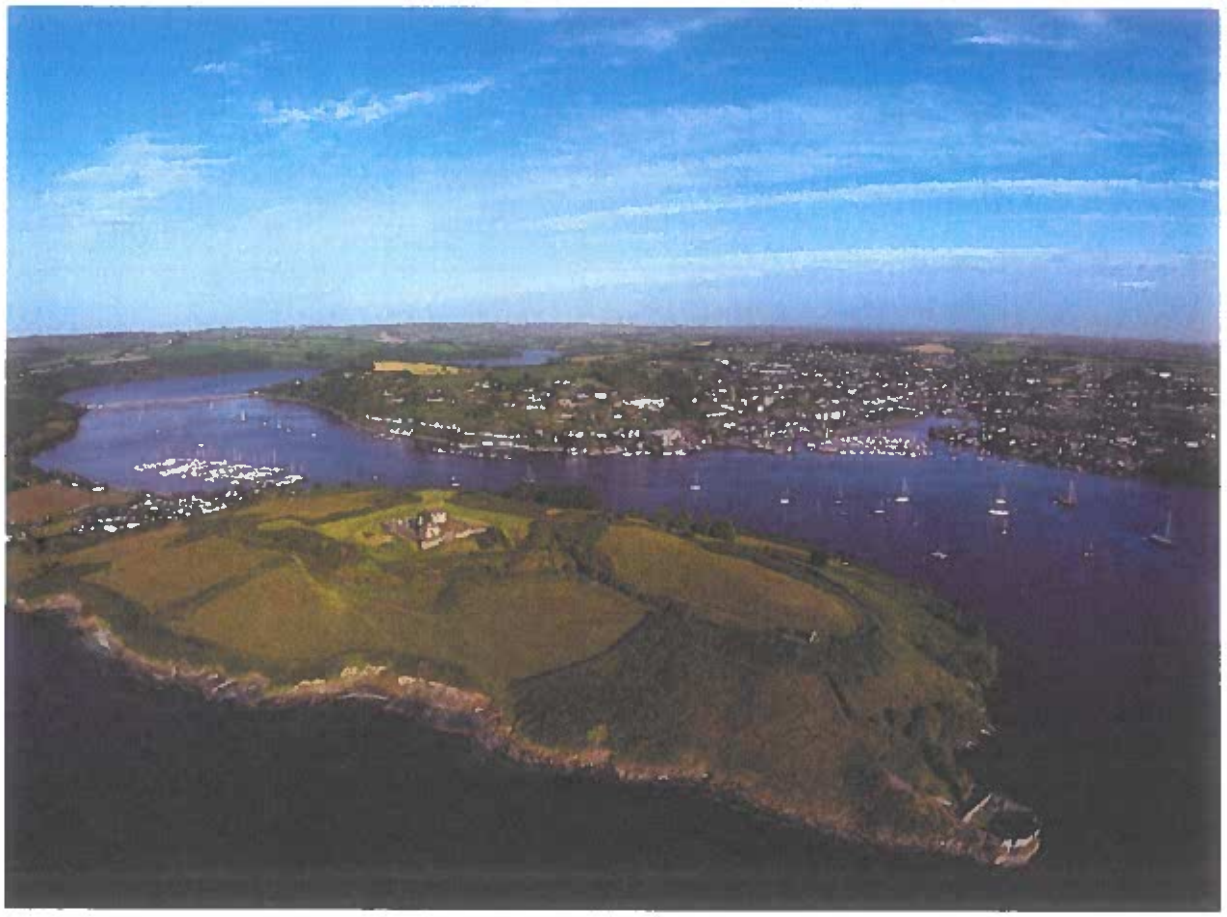
- Periodic dredging operations creating sediment plumes during harvest seasons
- Vessel access for harvesting operations affecting scenic harbour views
- Exclusion zones preventing traditional recreational use
- Seasonal disruption to water clarity and aesthetic appeal

No Economic Impact Assessment has been conducted to quantify the potential loss of tourism revenue, employment in the hospitality sector, or Kinsale's competitive position relative to other sailing destinations.

The Board is respectfully requested to require a comprehensive Tourism and Recreation Impact Assessment, including an analysis of current marine tourism revenue, an assessment

of the visual impact on the heritage landscape between the Forts, an analysis of displacement effects on recreational marine users, and an evaluation of reputational risk to Kinsale's tourism brand.

8. Visual and Cultural Landscape Impacts



Heritage Landscape and Protected Designations

The licence area lies within a complex landscape of overlapping environmental and heritage protections. James Fort is designated as a proposed Natural Heritage Area (pNHA 001060), covering 11.523 hectares, while the broader maritime landscape encompasses the heritage corridor between James Fort and Charles Fort - integral elements of Cork Harbour's protected maritime heritage landscape.

NPWS Designations Viewer showing James Fort proposed Natural Heritage Area (pNHA 001060), demonstrating the licence area's location within a landscape of multiple environmental and heritage designations.

Multiple Protection Failures

The licensing determination fails to adequately assess impacts on this protected heritage landscape, where the proposed development would occur within sight lines of:

- **James Fort pNHA** (001060) - Proposed Natural Heritage Area designation
- **Charles Fort** - National Monument and key heritage structure
- **Historic maritime corridor** - Protected viewscape between the forts
- **Functional connectivity** between heritage sites and marine environment

Cumulative Heritage Impact

The infrastructure required for bottom-culture mussel farming would significantly impact this protected viewscape through:

- **Visual intrusion** of harvest vessels within the historic maritime setting
- **Sediment plumes** affecting water clarity in heritage landscape views
- **Industrial activity** disrupting the peaceful, historic character of the area
- **Navigation infrastructure** altering the traditional seascape between the forts

Assessment Gap

No Heritage Impact Assessment has been conducted despite the licence area's location within this sensitive heritage landscape. The determination proceeds without considering:

- Visual impact on pNHA designation and its conservation objectives
- Effects on the setting and context of National Monuments
- Cumulative impact on the maritime heritage corridor
- Consistency with heritage landscape conservation policies

9. Failure to Demonstrate Public Interest

Overwhelming Community Opposition

The granting of this licence has generated unprecedented public opposition from the people of Kinsale, who must live with its consequences. Evidence includes:

- Over 4,980 signatures on the petition opposing the licence (exceeding 50% of Kinsale's population)
- Multiple appeals lodged with this Board

- Public demonstrations, including the documented protest at Kinsale Harbour on 13 June 2025, taken by this Appellant (original camera file available)
- Extensive concerns voiced across social media platforms

In contrast, Woodstown Bay Shellfish Ltd has provided no evidence of equivalent public support within Kinsale for their proposal.

Government Policy Contradiction

The licence directly contradicts stated Government policy objectives:

- **Cork County Development Plan 2022-2027**: Emphasises sustainable recreational use and integrated coastal zone management
- **National Maritime Transport Policy**: Prioritises multi-use harbour development
- **Ireland's Marine Protected Area Strategy**: Commits to protecting coastal and marine biodiversity

The licensing process has shown no regard for these clearly stated policy objectives supporting sustainable harbour use.

10. Appellant's Direct Interest and Expertise

I am a registered pharmacist and healthcare provider, and, along with my wife, have operated Collins Kinsale Pharmacy in the heart of the town since 1992.

I am also a qualified diver (since 1985), a former PADI Open Water Scuba Instructor, and an award-winning underwater photographer. During my seven years as an RNLI crew member and helm (2006-2013), I developed an intimate knowledge of Kinsale Harbour's waters, currents, and conditions through numerous emergency response operations. I have explored and documented Ireland's coastal marine life for over three decades, including regular dives in Kinsale Harbour and nearby waters since the 1980s.

My photographic work has been widely published — notably in SubSea, Ireland's national diving magazine, where I remain a regular contributor — and served as the basis for my 2006 book, *Cool Waters, Emerald Seas*, published by Cork University Press. This book was one of the first of its kind to focus on the unique beauty and fragility of Irish subtidal ecosystems, combining personal narrative with ecological observation. My most recent book, *Kinsale: Light and Time* (2023), also published by Cork University Press, extends this environmental documentary work above water, chronicling four decades of change in Kinsale Harbour and town.

This multifaceted perspective — as a healthcare professional, marine safety expert, and lifelong observer of the marine environment — provides me with a grounded and informed view of the risks posed by this proposed development. I bring not only local knowledge but also professional expertise in risk assessment, as well as a documented commitment to safeguarding marine biodiversity, water quality, and public health in Kinsale Harbour.

Direct impacts on my legitimate interests:

- **Underwater marine activities**: Regular diving and underwater photography in the licence area would be disrupted by dredging operations and sediment plumes
- **Published research and documentation**: My ongoing work documenting marine life in Kinsale Harbour depends on maintaining water clarity and benthic habitat integrity
- **Community health concerns**: As a pharmacist, I am concerned about potential water quality impacts affecting public health
- **Emergency response knowledge**: As a former RNLI helm with seven years of emergency response experience in these waters, I can attest that the proposed exclusion zones and periodic harvest operations would significantly compromise emergency vessel access and response times in critical situations, potentially putting lives at risk

These elements, taken together, give me a direct, legitimate interest in this appeal and standing to challenge this licence on both environmental and procedural grounds.

11. Conclusion and Request for Further Assessment

This appeal demonstrates that the licence fails to meet the public interest test required under Section 7 of the 1997 Act. The overwhelming community opposition, inadequate environmental assessment, conflict with established recreational uses, and procedural deficiencies each independently provide grounds for refusal.

To enable informed decision-making, the Board must require the following current, site-specific assessments:

1. Environmental Impact Assessment, including benthic survey, water quality monitoring, and protected species assessment
2. Current EPA compliance data for Kinsale WWTP and stormwater discharge points
3. Marine Navigation Risk Assessment in consultation with RNLI, Harbour Master, and Coast Guard
4. Tourism and Recreation Economic Impact Assessment
5. Cumulative Impact Assessment, including all existing and proposed aquaculture in the Cork Harbour system

6. Corrected Annex IV Species Risk Assessment specific to bottom-culture dredging operations
7. Invasive Species Risk Assessment and Biosecurity Plan specifying seed stock origin and quarantine protocols
8. Archaeological and Cultural Heritage Impact Assessment of seabed areas
9. Public consultation plan with documented engagement of all affected stakeholder groups

Without these fundamental assessments, the Board cannot fulfil its statutory obligation to determine this appeal 'as if the application had been made to the Board in the first instance'.

The Board is respectfully requested to:

1. Require a comprehensive, current environmental impact assessment
2. Conduct proper public consultation with affected harbour users
3. Assess cumulative impacts with existing activities
4. Consider the documented public opposition
5. **Refuse the licence as contrary to the public interest**

The precautionary principle, enshrined in Article 191 TFEU and reflected in Irish environmental law, mandates that where scientific uncertainty exists regarding ecological risks, regulatory decisions must err on the side of environmental protection. The outdated environmental data, unassessed risks to protected species, and absence of current impact assessments create precisely the scientific uncertainty that triggers precautionary obligations.

The failure to require an Appropriate Assessment in light of confirmed *Zostera marina* beds within the licence area, and the proximity to SPA 004124, contravenes Article 6(3) of the Habitats Directive (Council Directive 92/43/EEC). This provision mandates that an Appropriate Assessment be carried out "for any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon." These confirmed environmental conditions unequivocally meet the threshold for such assessment, and the omission constitutes a material breach of EU and Irish environmental law.

Submitted by: John Collins
Date: 22 June 2025

(see also attached Seagrass survey by Dr. Tim Butler)

Survey of Seagrass Beds in Kinsale Harbour, Co. Cork

Dr. Tim Butter, Cork Sub Aqua Club

23 June 2025

Introduction

Seagrass meadows are a keystone habitat. They constitute biodiversity hot spots. They have a high capacity to absorb atmospheric carbon dioxide. And the root system stabilizes inshore sediment and can reduce coastal erosion.

Seagrass is a marine flowering plant rather than a seaweed. Seaweeds are algae and have a relatively simple structure. Seagrass, however, has a complex structure that includes roots and flowers. There are many seagrass species globally, but the sub-tidal seagrass that occurs in Irish waters is *Zostera marina*. It grows in soft muddy/sandy sediments typically at depths of 2 to 5 metres below low water mark, in areas that are protected from disturbance from winter storms. It generally occurs in sheltered bays and inlets. Once established, the plants grow quite densely with their horizontal root system stabilising the sediment. The seagrass then forms dense beds or meadows.

Seagrass has long been known as a shelter for many species of marine animals, including a wide variety of molluscs, crustaceans, sea anemones and fishes. Many species of direct commercial importance use seagrass beds, including lobster and cod. It is also used by a large number of "bait fish" species such as sandeel and sprat, that are vital components of the wider marine food web.

In recent years interest has grown in the ability of seagrass to sequester atmospheric carbon which is then locked up within the root system of the seagrass meadow. It has been estimated that seagrass can absorb carbon at a rate 35 times faster than the same area of tropical rainforest (Enormous underwater meadows planted in the UK to fight climate change | Euronews).

However, seagrass meadows are a habitat under threat. There is no data on seagrass losses in Ireland, but in the UK, for example, it is estimated that 92% of seagrass cover has been lost, primarily due to pollution and disturbance from human activities. Seagrass is easily damaged by dredging, for example. There is therefore a need to document and protect our remaining areas of seagrass.

Seagrass Surveying

Over the past four years, Cork Sub Aqua Club (Cork SAC) has built up considerable experience in the surveying of seagrass beds through citizen science initiatives. This

survey work started with the seagrass beds in Oysterhaven Bay, the location where Cork SAC moors it's dive boat. Seagrass had been observed at Oysterhaven during training dives from the shore adjacent to the Coastguard Station. Seagrass was known to have high biodiversity value and considerable value as a sink for atmospheric carbon, and it was these factors that prompted the investigation into the local seagrass beds.

Initial work concentrated on the seagrass bed closest to the shore at Oysterhaven. This work included mapping the extent of the seagrass bed, an assessment of the health of the seagrass plants and the meadow as a whole, and survey of the biodiversity of the seagrass by divers trained to observe and record biodiversity and habitat types.

Assessment of aerial photographs of Oysterhaven Bay suggested that the presence of seagrass beds might be identified from these images. This theory was proved when two more seagrass beds were identified within Oysterhaven Bay by this process and confirmed by snorkelers and divers from Cork SAC. Examination of aerial photographs of Kinsale Harbour suggested that seagrass beds might be present here as well. In June 2025, Cork SAC undertook a number of dives and snorkels in Kinsale Harbour and these have confirmed the presence of significant seagrass beds.

Method

While the extent of the seagrass beds in Kinsale Harbour could be estimated for aerial images, this was accurately confirmed by snorkelers using hand held Garmin GPS devices. The GPS was in a watertight bag on the surface while the snorkelers worked together to trace the outer edge of the seagrass beds.

Divers undertook surveys of the biodiversity of the seagrass beds, recording the marine life using still and video photography.

Results

The GPS data was used to generate the extent of the seagrass beds (Figure 1). The seagrass beds are situated south of James Fort and between The Dock Beach and Charles Fort, lying to the west of the navigation channel into inner Kinsale Harbour. The GPS data will be made freely available for public access.

Biodiversity surveys indicate a rich and varied seagrass bed. Figures 2 to 11 show examples of the marine life present.

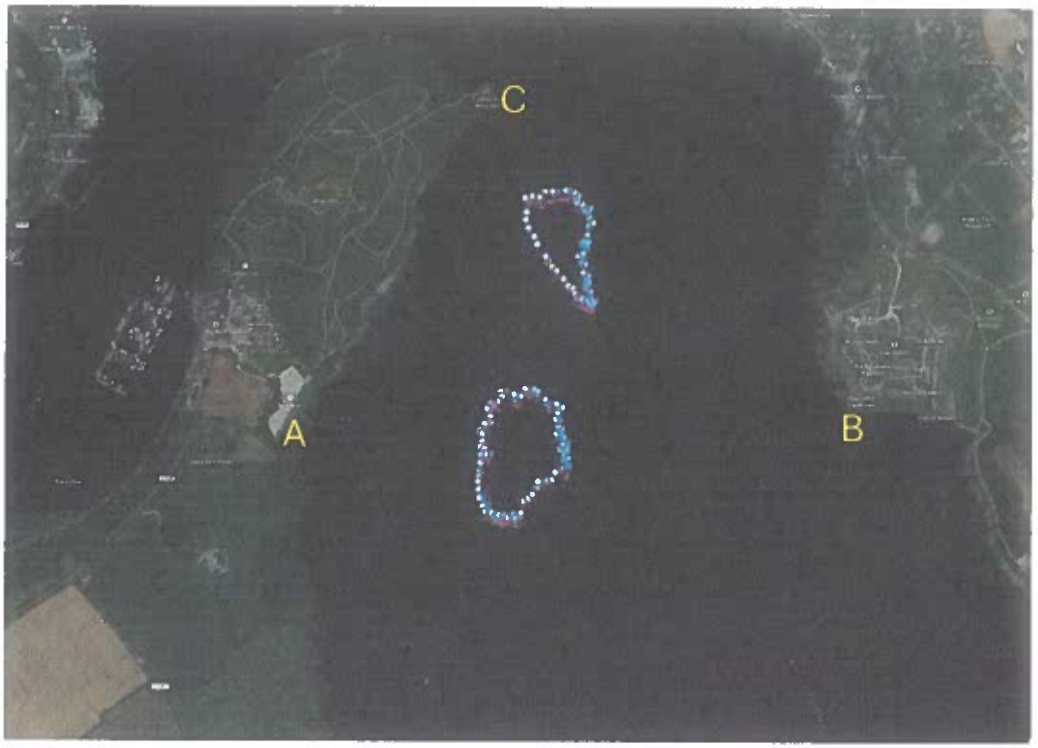


Figure 1. Extent of seagrass beds in Kinsale Harbour, between the Dock Beach (A), Charles Fort (B), and James Fort (C).

Figure 2. Seagrass bed in Kinsale Harbour. There is a yellow pipefish just right of centre.

Figure 3. Long-legged spider crab in seagrass.

Figure 4. Peacock worm in seagrass bed in Kinsale Harbour.

Figure 5. Sea Hare in seagrass. The Sea Hare is a type of marine mollusc.

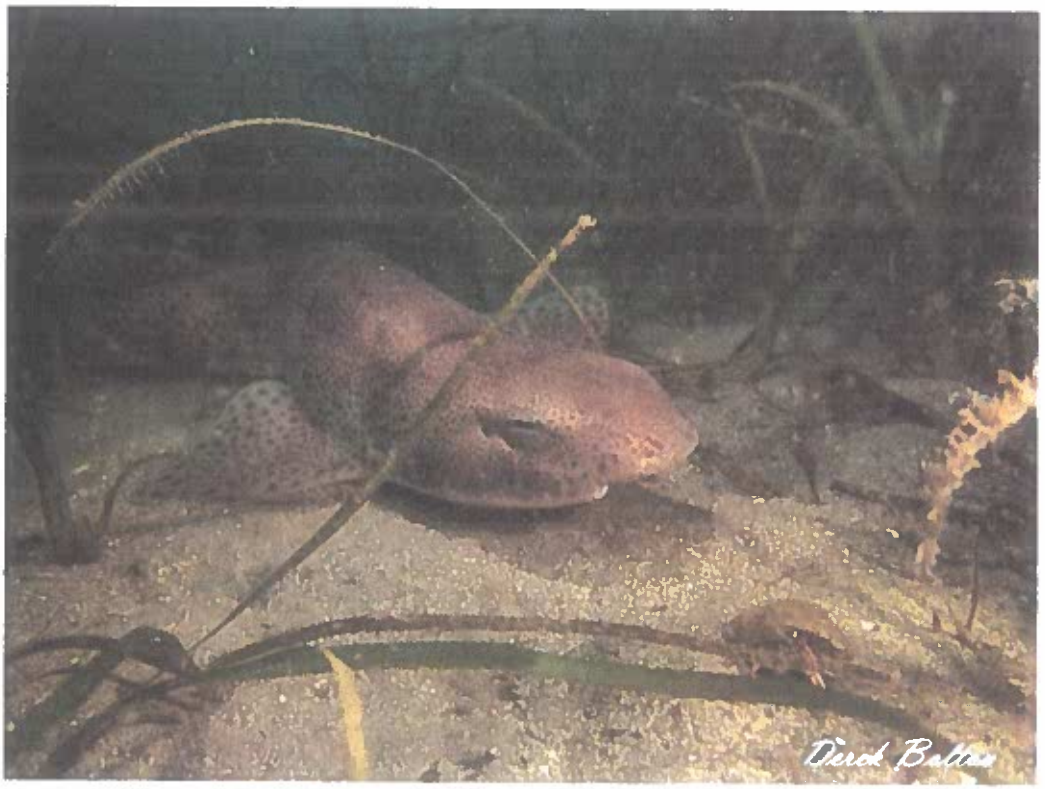


Figure 6. Lesser-spotted Catshark (Lesser-spotted Dogfish) and Hermit Crab.

Figure 7. Detail of head of Snake Pipefish. This species is a specialist inhabitant of seagrass beds.

Figure 8. Hermit Crab in Kinsale Harbour seagrass. The furry appearance of the shell is due to a tiny animal called a hydroid that only grows on the shells of hermit crabs.

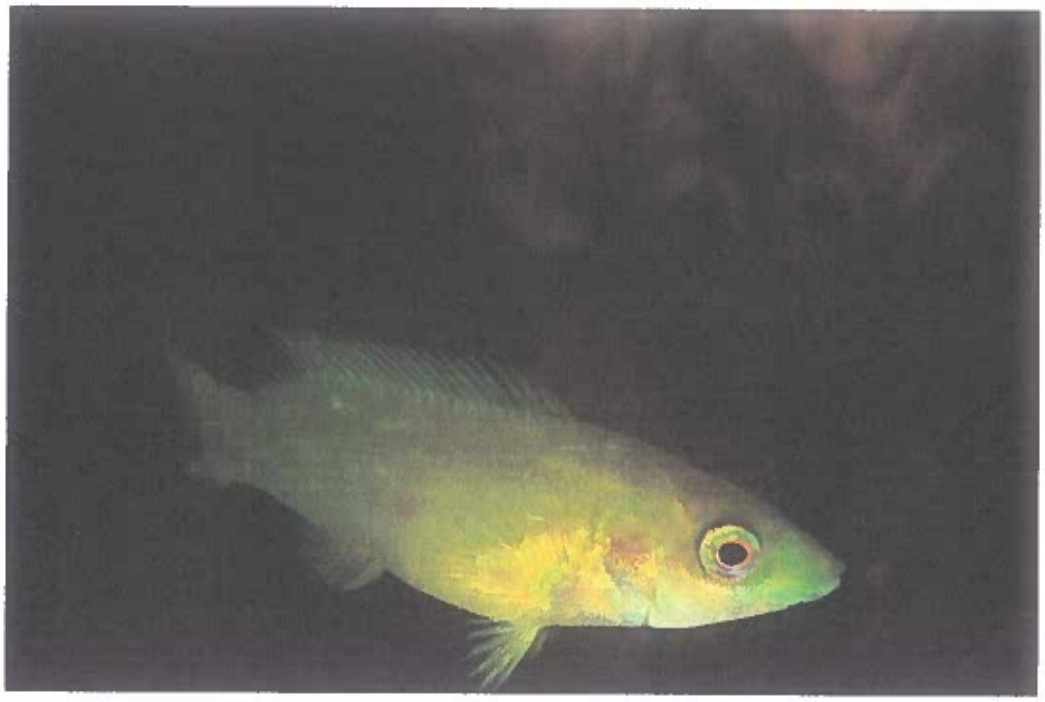


Figure 9. Juvenile Ballan Wrasse. The adults live on rocky reefs, but as with many fish species, the juveniles grow in the shelter of the seagrass bed.

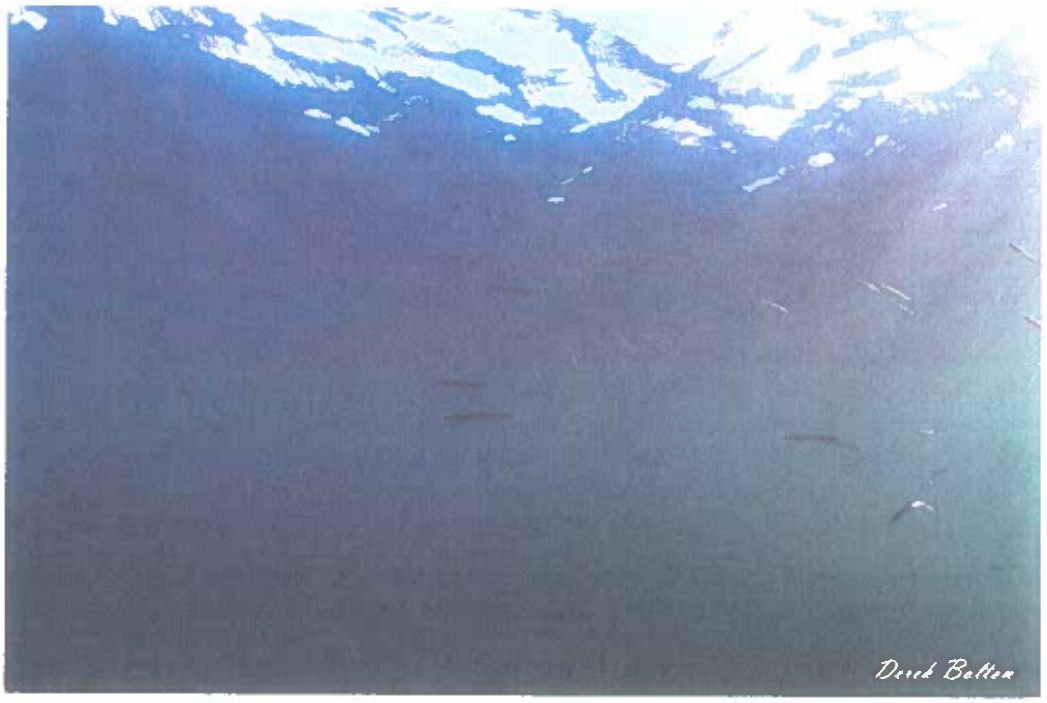


Figure 10. A shoal of sandeel swimming over the seagrass in Kinsale Harbour. These fish are eaten by a wide range of seabirds, marine mammals, and larger fish, but initial growth is often in seagrass.

Figure 11. Snakelocks Sea Anemone – a common species in seagrass beds.

Conclusions

There are two areas of seagrass bed within Kinsale Harbour.

The plants within these beds appear to be healthy with dense growth of plants and little smothering (epiphytic) growth. This would be indicative of a growing bed that can sequester atmospheric carbon.

The seagrass contains high biodiversity. This includes seagrass specialists such as pipefish, juveniles of fish species that live in offshore habitats as adults, and adults and juveniles of commercially important species.

Seagrass bed habitat has been widely lost around the Irish coast due to human activity. It is important that this vital keystone habitat in Kinsale Harbour be preserved into the future.