Title: XXIX: Humber Estuary Fishing Byelaw 2022 IA No: NEIFCA_2022_1	Impact Assessment (IA)
No: NEIFCA_2022_1 C Reference No:	Date: 14/08/2023
Lead department or agency:	Stage: Development/Options
Other departments or agencies:	Source of intervention: Domestic
	Type of measure: Secondary legislation
	Contact for enquiries: David McCandless Chief Officer, North Eastern IFCA
Summary: Intervention and Options	RPC Opinion: Not Applicable

Cost of Preferred (or more likely) Option							
Total Net Present Value	Business Net Present Value	Net cost to business per year (EANDCB in 2014 prices)	One-In, Three-Out	Business Impact Target Status			
£14,254.4	£600	£0m	Not in scope	Non qualifying provision			

What is the problem under consideration? Why is government intervention necessary?

Government intervention is required to redress market failures in the marine environment by implementing appropriate management measures (this byelaw) to conserve features to ensure negative externalities are reduced or suitably mitigated. Implementing this byelaw will support continued provision of public goods and services in the marine environment. Specifically this byelaw will prevent deterioration of the intertidal seagrass beds which are a sub-feature of the Humber Estuary Special Area of Conservation and supporting habitat of the Humber Estuary Special Protection Area.

What are the policy objectives and the intended effects?

To prevent the deterioration of the intertidal seagrass beds feature within the Humber Estuary European Marine Site (EMS);

To further the conservation objectives stated for the Humber Estuary EMS;

To ensure compliance with the Conservation of Habitats and Species Regulations 2017 (as ammended);

To promote sustainable fisheries while conserving the marine environment;

To reduce negative externalities and ensure continued provision of public goods and services.

What policy options have been considered, including any alternatives to regulation? Please justify preferred option (further details in Evidence Base)

Option 0. Do nothing

Option 1. Extend the existing protection afforded to the feature from the current IFCA byelaw to encompass the known distribution of the species

Option 2. IFCA byelaw prohibiting all fishing activity throughout the EMS (full site closure)

Option 3. Voluntary measures

Will the policy be reviewed? It will be reviewed. If applicable, set	review date:	12/Year		
Does implementation go beyond minimum EU requirements?		Yes		
Are any of these organisations in scope?	Micro Yes	Small Yes	Medium Yes	Large Yes
What is the CO ₂ equivalent change in greenhouse gas emissions? (Million tonnes CO ₂ equivalent)		Traded: N/A	Non-t N/A	raded:

I have read the Impact Assessment and I am satisfied that, given the available evidence, it represents a reasonable view of the likely costs, benefits and impact of the leading options.

Signed by the responsible Chief Executive:



Summary: Analysis & Evidence

Description:

FULL ECONOMIC ASSESSMENT

Price Base	PV Base	Time Period	Time Period Net Benefit (Present Value (PV)) (£m)					
Year 2022	Year 2022	Years 10	Low: -£13,854	High: -£14,654	Best Estimate: -£14,254			

COSTS (£m)	Total Tra (Constant Price)	nsition Years	Average Annual (excl. Transition) (Constant Price)	Total Cost (Present Value)
Low	£200		Optional	£13,854.40
High	£1,000		Optional	£14,654.40
Best Estimate	£600		£1,365.44	£14,254.40

Description and scale of key monetised costs by 'main affected groups'

No additional operational costs are estimated for the extension of the Spurn Point Seagrass Area under the revision of this byelaw as it will require no change to monitoring and enforcement. One off costs are not anticipated. Administrative cost for revised and updated signage is estimated between £200 - £1000. Average annual cost to industry is estimated at £1,365.44 (1848kg). There is no monetised cost to recreational fisheries as by definition there is no commercial gain or associated cost.

Other key non-monetised costs by 'main affected groups'

The NEIFCA proposes to use other enforcement bodies such as MMO and the police in order to fully utilise their resources for surveillance and enforcement. These costs cannot be monetised at present as they are requested on an ad hoc basis and costs can vary. Minimal displacement of commercial fishing is anticipated as a result of the intervention as alternative fishing grounds are easily accessible. Potential impact to recreational activities as there is known bait digging in the area.

BENEFITS (£m)	Total Tra (Constant Price)	nsition Years	Average Annual (excl. Transition) (Constant Price)	Total Benefit (Present Value)
Low	Optional		Optional	Optional
High	Optional		Optional	Optional
Best Estimate				

Description and scale of key monetised benefits by 'main affected groups'

No monetised figures are available for the benefits of the recommended closure. However, significant potential benefits are described below.

Other	key	non-monetised	benefits	by	'main	affected	groups	3
		c = 11						

Maximum of 5 lines

Kev	assum	ptions	sensi	itivities	risks

Maximum of 5 lines

Discount rate

BUSINESS ASSESSMENT (Option 1)

Direct impact on bu	usiness (Equivalent <i>i</i>	Annual) £m:	Score for Business Impact Target (qualifying
Costs:	Benefits: Net:		provisions only) £m:
E:			

Evidence Base (for summary sheets)

- 1. Problem under consideration
- 2. Rationale for intervention
- 3. Policy objectives and intended effects
- 4. Evidence base

Impacts of trawling / fishing on seagrass beds

- 5. Sectors affected
- 6. The options
- 7. Analysis of costs and benefits

Analysis of fisheries costs

Analysis of administration and enforcement costs

Environmental benefits

8. Summary

References

Figures

Figure 1: Seagrass distribution and stability at Spurn Point. Data derives from annual surveys undertaken between 2013 and 2021.

Figure 2: Region of the Humber Estuary EMS showing the location of the proposed Spurn Point Seagrass Area

Tables

Table 1: Identified red risks in relation to interaction with intertidal seagrass beds sub-feature/supporting habitat of the Humber Estuary EMS.

Table 2: Annual landings (tonnes) by gear type for ICES rectangle 36F0 for the period 2016 to 2020. (MMO annual statistics 2021)

1. Problem under consideration

- 1.1 The Humber Estuary Special Area of Conservation (SAC) and Humber Estuary Special Protection Area (SPA) together constitute the Humber Estuary European Marine Site (EMS). Mudflats and sandflats not covered by seawater at low tide are a feature of the SAC and a supporting habitat for the SPA. Intertidal seagrass beds (*Zostera* spp.) are a sub-feature of this feature.
- 1.2 When submerged, seagrass beds provide essential fish habitat as nursery areas and when exposed are an important food resource for wintering wildfowl¹. Other ecosystem system services provided by eelgrass include sediment stabilisation and carbon sequestration².
- 1.3 Under the revised approach, NEIFCA introduced the Humber Estuary Fishing Byelaw in 2014 to protect the seagrass feature from potentially damaging fishing activities. The byelaw was revised in 2019 to include a limited trawl permit system to protect subtidal features. The proposed revision to the byelaw relates only to the Spurn Point Seagrass Area.
- 1.4 Annual monitoring of seagrass extent and distribution has been undertaken jointly by NEIFCA and the Yorkshire Wildlife Trust since 2013. Results of these surveys demonstrate the effectiveness of the regulation to date, with recorded expansion of seagrass beyond the existing boundary of the protected area.
- 1.5 In order to ensure continued compliance with the Conservation of Species and Habitats Regulations (2017) (as amended), NEIFCA is proposing to expand the offshore boundary of the Spurn Point Seagrass Area to encompass the known extent of the feature.
- 1.6 This IA has been prepared to outline the costs and benefits of the proposed changes to the byelaw. The IA also indicates why the option being recommended is the preferred option for management. This version of the IA is a draft for public consultation.

2. Rationale for intervention

- 2.1 Inshore Fisheries and Conservation Authorities have duties to ensure that fish stocks are exploited in a sustainable manner, and that any impacts from that exploitation on designated features in the marine environment are reduced or suitably mitigated, by implementing appropriate management measures (e.g. this byelaw). Implementing this byelaw will ensure that fishing activities are conducted in a sustainable manner and that the marine environment is suitably protected.
- 2.2 Fishing activities can potentially cause negative outcomes as a result of 'market failures'. These failures can be described as:
 - Public goods and services A number of goods and services provided by the marine environment such as biological diversity are 'public goods' (no-one can be excluded from benefiting from them, but use of the goods does not diminish the goods being available to others). The characteristics of public goods, being available to all but belonging to no-one, mean that individuals do not necessarily have an incentive to voluntarily ensure the continued existence of these goods which can lead to underprotection/provision.
 - Negative externalities Negative externalities occur when the cost of damage to the
 marine environment is not fully borne by the users causing the damage. In many cases
 no monetary value is attached to the goods and services provided by the marine
 environment and this can lead to more damage occurring than would occur if the users
 had to pay the price of damage. Even for those marine harvestable goods that are

- traded (such as wild fish), market prices often do not reflect the full economic cost of the exploitation or of any damage caused to the environment by that exploitation.
- Common goods A number of goods and services provided by the marine environment such as populations of wild fish are 'common goods' (no-one can be excluded from benefiting from those goods however consumption of the goods does diminish that available to others). The characteristics of common goods (being available but belonging to no-one, and of a diminishing quantity), mean that individuals do not necessarily have an individual economic incentive to ensure the long term existence of these goods which can lead, in fisheries terms, to potential overfishing. Furthermore, it is in the interest of each individual to catch as much as possible as quickly as possible so that competitors do not take all the benefits. This can lead to an inefficient amount of effort and unsustainable exploitation.
- 2.3 IFCA byelaws aim to redress these sources of market failure in the marine environment through the following ways:
 - Management measures to conserve designated features of European marine site will ensure negative externalities are reduced or suitably mitigated.
 - Management measures will support continued existence of public goods in the marine environment, for example conserving the range of biodiversity in the sea of the IFCA District.
 - Management measures will also support continued existence of common goods in the marine environment, for example ensuring the long term sustainability of fish stocks in the IFCA District.

3. Policy objectives and intended effects

- 3.1 The policy objective pertinent to this IA is to further the conservation objectives of this site by ensuring that the intertidal seagrass beds sub-feature and supporting habitat are protected from the risk of damage from fishing activity.
- 3.2 The intended effects are that the risk of deterioration of the intertidal seagrass beds will be reduced and obligations under Section 9 of the Conservation of Habitats and Species Regulations (2017) (as amended) will be met.

4. Evidence base

- 4.1 In August 2012 Defra undertook a review into the management of fisheries within EMS in order to identify future management required to ensure site features are maintained at favourable condition. This resulted in a revised approach³ to management of fishing in EMS.
- 4.2 As a competent authority, NEIFCA was charged with implementing the revised approach with regard to EMSs within its district. This was done using an evidence based, risk-prioritised and phased basis. Risk prioritisation was informed by a matrix⁴ which categorised the risks from interactions between fishing activity and ecological features. Activity/feature interactions were categorised as red, amber, green or blue. Those classified as red were prioritised for the implementation of management measures by the end of 2013 (regardless of the actual level of activity) to avoid deterioration of designated features.
- 4.3 Using the matrix, the following gear/feature interactions were categorised as 'red' in relation to the intertidal seagrass beds sub-feature/supporting habitat of the Humber Estuary EMS:

Table 1: Identified red risks in relation to interaction with intertidal seagrass beds sub-feature/supporting

habitat of the Humber Estuary EMS.

ary EWS.	_
Fishing gear type	
Towed (demersal)	
Beam trawl (whitefish)	
Beam trawl (shrimp)	
Beam trawl (pulse/wing)	
Heavy otter trawl	
Multi-rig trawls	
Light otter trawls	
Pair trawl	
Anchor seine	
Scottish/fly seine	
Towed (demersal/pelagic)	
Dredges (towed)	
Scallops	
Mussels, clams, oysters	
Pump scoop (cockles, clams)	
Dredges (other)	
Suction (cockles)	
Tractor	
Intertidal handwork	
Hand working (access from vessel)	
Hand working (access from land)	
Miscellaneous	
Crab tiling	
Bait collection	
Digging with forks	

- 4.4 Due to this risk, management of activities was required and the Spurn Point Seagrass Area was established by the Humber Estuary Fishing Byelaw in 2013. The byelaw came into force on 30th January, 2014. The Spurn Point Seagrass Area encompassed the known distribution of seagrass at the site following the initial survey in 2013.
- 4.5 Annual surveys have been undertaken by NEIFCA since 2013 in partnership with the Yorkshire Wildlife Trust. While inter-annual variation in seagrass distribution has been observed, NEIFCA consider there is now sufficient evidence to justify extending the boundary of the Spurn Point Seagrass Area (Figure 1).

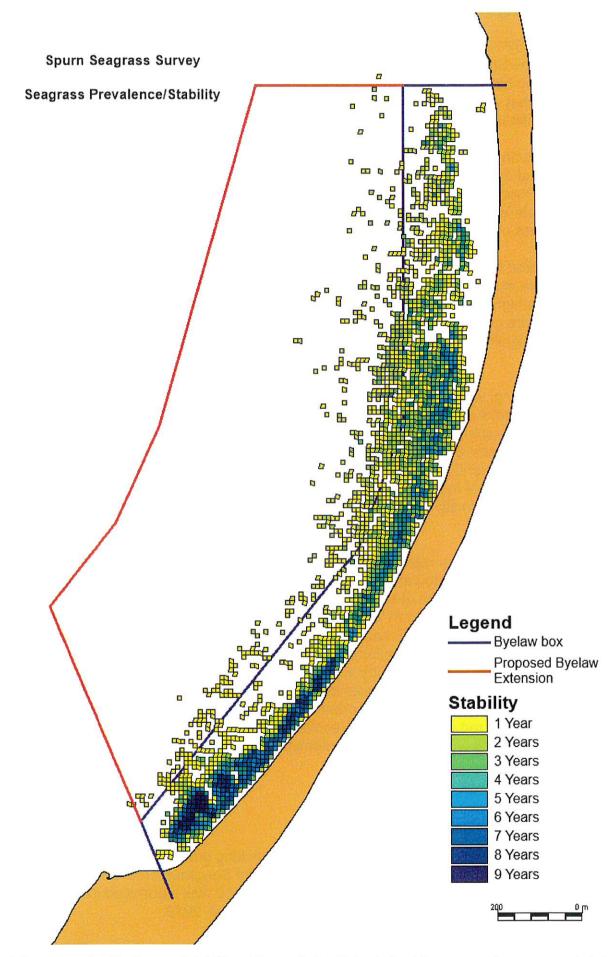


Figure 1: Seagrass distribution and stability at Spurn Point. Data derived from annual surveys undertaken between 2013 and 2021.

Impacts of fishing on seagrass beds

- 4.6 Breen, (2013)⁵ reviews current available research on the impact of fishing activities on European Marine Site sub-features. As part of this review, research has shown that there is a direct correlation between bottom towed fishing gear and damage to seagrass beds. Evidence also suggests that while bottom towed fishing activity is taking place; scope for seagrass recovery is minimal.
- 4.7 Seagrasses are considered highly sensitive to physical disturbance, including that caused by trampling and digging^{6,7,8}. An experimental study of the effects of trampling on *Thalassia testudinum* in Puerto Rico recorded significant decreases in seagrass cover and increases in sand cover. Heavier trampling (50 passes per month for four months) also resulted in reduced rhizome biomass of up to 72% and loss of standing crop of up to 81%⁹.
- 4.8 There is some variation in the level of impact detected within these studies and in the rates of recovery from impact; however the balance of available evidence still strongly suggests that seagrass has a high sensitivity to intertidal handwork, bait digging and crab tiling and that recovery rates are generally slow¹⁰. Expert judgement of the available evidence has concluded that the risk of significant impact is sufficient to require a precautionary categorisation of RED in the Matrix.
- 4.9 Clam harvesting, whereby intertidal sediments dominated by *Zostera noltei* are dug up using a hand blade, in the Ria Formosa lagoon (Southern Portugal) was found to have an adverse effect on vegetative shoot density and total plant biomass, leading to increased fragmentation of the seagrass meadows. Both relatively low and relatively high levels of clam harvesting disturbance (intensity and frequency) resulted in negative effects on seagrass density^{11,12}. An experimental analysis of the effects of recreational clam digging within *Zostera marina* beds in Newport USA resulted in significant reductions in above- and below-ground seagrass biomass¹³.
- 4.10 The observed recovery rates of seagrasses from anthropogenic disturbance are variable, thought in part to be related to variation in intensity, frequency and extent of disturbance, although the recovery potential of seagrass is generally considered to be relatively poor¹⁴. The recovery potential of seagrass from 'foot-based' activities specifically is more uncertain due to the limited number of studies. In Eckrich and Holmquist's (2000)⁹ experimental study of the effects of trampling, recovery was incomplete after seven months and reduced cover was still visually distinguishable at several study sites after 14 months, whilst recovery from the experimental removal of *Z. marina* shoots took between 24 and 30 months¹⁵. Although recovery from the negative effects of a single experimental clam harvesting event on shoot density of *Z. noltei* meadows occurred within 1 month, recovery from the ongoing activity in the Ria Formosa lagoon was considered unlikely due to the intensity and frequency at which it actually occurs¹².

5. Sectors affected

Commercial fishing industry

- 5.1 While the extension represents a loss of potential fishing ground, NEIFCA is not aware of any commercial fishing effort in the vicinity of Spurn Point Seagrass Area since the byelaw was first introduced. Trawling management within the wider EMS was introduced in the first byelaw revision in 2016. This revision came into force on 15th August, 2019.
- 5.2 Trawling management consists of a limited trawl permit system for those with historic track records of landings from within the EMS. There are a total of 2 permit holders, none of which currently fish near the Spurn Point Seagrass Area.

Recreational fishing sector

5.3 The area is regularly used by bait diggers. Since the byelaw was first introduced access to the site has been severely restricted due to the loss of the road at Spurn Point. Anecdotal reports suggest that current bait digging activities are focussed to the north of the Seagrass Protection Area and beyond the outer (lower shore/west) boundary. It is anticipated that bait diggers will be the sector affected most by the current proposal.

6. Options considered

6.1 As part of Defra's revised approach, the preferred management tools are IFCA byelaws within 0 to 6nm. The Humber Estuary EMS straddles the border between Eastern IFCA and North Eastern IFCA which extends to the east from Haile Sands Fort, on the south side of the estuary mouth, to the 6nm limit. This byelaw would only apply to the North Eastern IFCA portion of the EMS.

Option 0: Do nothing – This option would involve retaining the current boundary of the Spurn Point Seagrass Area. This option would mean that risks to the site from damaging activities would not be addressed and that obligations under Defra's revised approach and Article 6 (2) of the Habitats Directive would not be met.

Option 1: IFCA byelaw to prohibit potentially damaging gears and methods over the intertidal seagrass bed sub-feature/supporting habitat with appropriate buffering.

Option 2: IFCA byelaw prohibiting potentially damaging gears and methods throughout the North Eastern IFCA area of the Humber Estuary EMS (full site closure) – Prohibiting all fisheries related activities throughout the NEIFCA portion of the Humber Estuary EMS is not necessary to achieve protection of the intertidal seagrass bed sub-feature/supporting habitat and would result in unnecessary economic loss for fishermen using other parts of the EMS. Therefore, this option is not considered further.

Option 3: Voluntary measures – This option would involve the development of voluntary codes of practice to protect the sub-feature/supporting habitat. NEIFCA has considered this option in light of Better Regulation Principles, which require that new regulation is introduced only as a last resort, and Defra's revised approach, under which there is an expectation that management measures will need to be regulatory in nature to ensure adequate protection is achieved. It is the opinion of NEIFCA that due to the sensitivity of the sub-feature/supporting habitat and the risk that even low levels of interaction could lead to its deterioration, voluntary measures are not considered appropriate in this case.

As options 2 and 3 are not suitable in this instance, option 1 is therefore considered in the costs and benefits analysis.

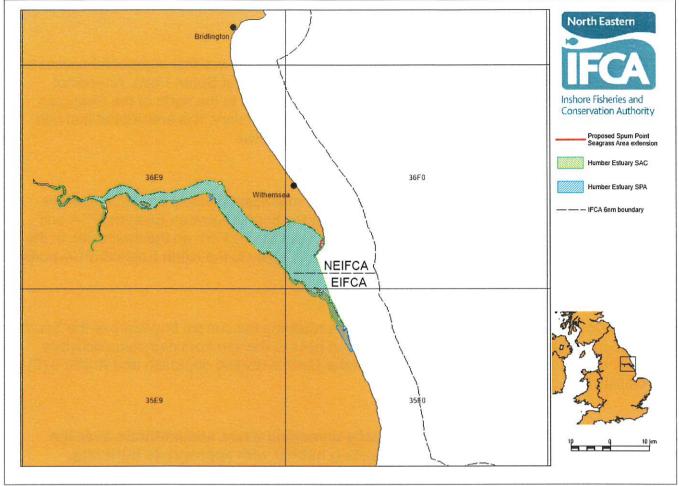


Figure 2: Region of the Humber Estuary EMS showing the location of the proposed Spurn Point Seagrass Area

7. Analysis of costs and benefits

Analysis of fisheries costs

- 7.1 The proposed extension to the Spurn Point Seagrass Area lies entirely within the ICES reporting rectangle 36F0 (Figure 2). Economic costs to fisheries have been based on landings data attributed to this rectangle only (Table 2).
- 7.2 The largest contribution to landings originating from rectangle 36F0 can be attributed to the static potting fishery for lobster and edible crab with vessels operating from key regional ports including Bridlington, Hornsea, Withernsea and Grimsby. Vessels operate in the 0-6nm zone of the Holderness Coast, as well as outside the district with significant grounds extending beyond 6nm. Potting in the region targets mixed to coarse rocky ground and ground edges, the habitats used by the target species. The area of the proposed byelaw is mud and sand flats not considered suitable for these species and Officers are not aware of any fishers using pots in this area. It is assumed that no potting takes place within the proposed extension area and pot landings are not considered further in this analysis.
- 7.3 Demersal seines are prohibited in the district under **Byelaw IV Seine net, draw net or** 'Snurrevaad': Prohibition of. Similarly, dredging in the district is restricted to designated areas off North Yorkshire under **Byelaw XXIII Scallop Dredging Byelaw**, therefore any dredge landings for 36F0 will not originate from within the district. Depth restrictions for netting within **Byelaw XVIII Fixed Engine Byelaw 2016** preclude any netting within the vicinity of the

proposed extension area. As such, only landings captured by beam trawl, otter trawl and gears using hooks are considered further in this analysis.

- 7.4 The total area for rectangle 36F0 is 3,655 km². The current Spurn Point Seagrass Area covers an area of 0.34 km² and the proposed extension would increase this area to 1.1 km². As such, the loss of fishing grounds as a percentage of the whole reporting rectangle is equivalent to 0.02%.
- 7.5 Based on the factors outlined above only landings data for the following gear types were used in the cost analysis; beam trawl, otter trawl and gears using hooks. Using the average annual value and live weight records, the cost to the industry is estimated at 1848.8 kg with a value of £1365.44.

Table 2: Annual landings (tonnes) by gear type for ICES rectangle 36F0 for the period 2016 to 2020. (MMO annual statistics 2021)

2016 2017 2018							
Gear category				017			
	Weight (t)	Value (£)	Weight (t)	Value (£)	Weight (t)	Value (£)	
Beam trawl	7.57	39,537	1.12	4,702	1.33	5,797	
Demersal seine							
Dredge	108.87	273,242	372.42	901,772	509.87	1,185,558	
Drift and fixed nets	1.16	3,484	1.91	4,287	0.64	1,857	
Gears using hooks	6.72	14,031	0.88	1,723	3.25	8,865	
Otter trawl	0.10	185			161.03	86,474	
Pots and traps	3608.63	9,118,543	3444.48	10,227,330	3108.87	9,831,696	
Grand Total	3733.06	9,449,023	3820.82	11,139,815	3785.00	11,120,246	
Goor catogory	2019		2020		Average annual		
Gear category	Weight (t)	Value (£)	Weight (t)	Value (£)	Weight (t)	Value (£)	
Beam trawl	0.77	1,548	10.58	19,573	4.28	14,231	
Demersal seine	4.83	17,723	12.00	26,208	8.41	21,966	
Dredge	104.32	218,537	53.43	100,131	229.78	535,848	
Drift and fixed nets			3.79	4,016	1.88	3,411	
Gears using hooks	2.30	6,140	1.82	5,803	2.99	7,312	
Otter trawl					80.57	43,329	
Pots and traps	3318.37	10,681,942	3065.25	8,856,813	3309.12	9,743,265	
Grand Total	3430.58	10,925,889	3146.88	9,012,544	3583.27	10,329,503	

Analysis of administration and enforcement costs

7.6 As the changes to the byelaw are limited to a boundary change for the Seagrass Protection Area, no additional administration or enforcement costs are anticipated.

Environmental benefits

7.7 Habitat: Dwarf eelgrass (*Zostera noltei*) and many other species of seagrass are a habitat-forming species which provide a range of ecosystem services. Intertidal seagrass beds act as nursery grounds for many fish species including commercially important species such as Atlantic Cod and Pollock by providing shelter from adverse environmental conditions (e.g. strong currents) and predation^{16,17}. Water temperature within seagrass beds is generally higher which may facilitate faster growth for juvenile fish and these habitats provide refuge for a number of invertebrate species therefore offering an increased prey availability¹⁶.

- 7.8 Food source for migratory bird species: The Humber Estuary European Marine Site (HEEMS) is designated due to the designated intertidal mudflat habitats, a feature which supports migratory bird assemblages by offering abundant food sources. Eelgrass itself has also been noted as an important food source for several bird species including; coots (*Fulica atra*), swans (*Cygnus* spp.), dabbling ducks (*Anas* spp.) and brent geese (*Branta bernicla*)¹⁸.
- 7.9 Coastal protection: Seagrass beds play an important role in coastal protection through their ability to influence the hydrodynamic environment by stabilizing the sediment, reducing current velocity and dissipating wave energy¹⁹.
- 7.10 Seagrass meadows are also cited for their role as blue carbon habitats, due to their ability to sequester and store large quantities of carbon in seagrass biomass and in the rhizosphere. The rhizosphere is a term used to describe the thick subsurface mats made up of rhizomes which are the subterranean part of the plant²⁰. Sequestration rates for carbon in seagrass has been estimated to range from an average of 5.1 g C_{org} m⁻² yr⁻¹ (in Greenland) to an average of 33 g C_{org} m⁻² yr⁻¹ (in Denmark)²¹.

8. Summary

- 8.1 The results from annual monitoring of the extent and distribution of seagrass (*Zostera noltei*) at Spurn Point (2013 to 2021) has evidenced the expansion of seagrass beyond the existing boundary of the protected area. Therefore, NEIFCA proposes extending the offshore boundary of the Spurn Point Seagrass Area to encompass the known extent of the feature and provide buffering for the continued expansion of seagrass expected to occur in the coming years.
- 8.2 Research reviewed has identified seagrass to be highly sensitive to physical disturbance whether that be from commercial fishing methods, trampling, digging or other anthropogenic activities. Although, recovery rates of seagrasses in response to anthropogenic disturbances can vary due to factors such as intensity, frequency and extent of disturbance, literature suggests seagrass recovery rates to be generally low with adverse effects seen on shoot density and total plant biomass in some studies.
- 8.3 An annual average cost to industry of 1848.8 kg and value of £1365.44 was estimated based on landings data attributed to ICES rectangle 36F0 for the following gear types; beam trawl, otter trawl and gears using hooks. Landings from all other gear types were excluded due to existing restrictions in place by NEIFCA byelaws and the unsuitability of the ground for target species or operating certain gear types. A transition cost for revised and updated signage is estimated within the range of £200 £1000. The environmental benefits of protection of seagrass beds have been described in a qualitative manner within the evidence base, as it is not possible to accurately assess the monetary value.
- 8.4 Under s155 of MaCAA 2009²², NEIFCA has a responsibility to manage the exploitation of sea fisheries resources in their district, ensuring the sustainable exploitation of sea fisheries resources whilst balancing social and economic benefits with the need to conserve the marine environment. The categorisation of the Humber EMS as red risk following the revised approach prioritises this area for the implementation of management measures. The proposed extension of the protected seagrass area in Spurn Point will prevent deterioration of the *Zostera noltei* beds, and thereby meet NEIFCA's obligations under Section 9 of the Conservation of Habitats and Species Regulations (2017).

References

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