



# **Strategic Assessment 2026**

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## Executive Summary

Eastern IFCA undertakes an annual Strategic Assessment which seeks to identify high-priority and business critical work areas to inform an annual refresh of the 5-year business plan. The assessment considered the risks posed to fisheries and by fishing activity to the environment and in particular Marine Protected Areas (MPAs), evaluates risk in the context of existing internal and external mitigants and then identifies further mitigation to address residual risk.

The assessment broadly follows a PESTLE (Political, Economic, Social, Technological, Legal and Environmental) analysis format and is informed by fisheries data analysis, stakeholder views gathered throughout the financial year and the experience from within the IFCA. As an update to the previous year's assessment and a reflection of the progress made with respect to the delivery of Fisheries Management Plans (FMPs), the actions from each plan have been considered within the PESTLE analysis to represent a potential mitigant and opportunity to contribute to the plan's implementation.

Over previous years, management of cockle and mussel fisheries has represented one of the highest risks for the Authority as it sought to replace the management framework provided by the Wash Fishery order 1992 which expired in 2023. Risk reduced in relation to management of public fisheries following confirmation of the Wash Cockle and Mussel Byelaw 2021 in early 2025. However, risk has increased in relation to management of aquaculture following Defra advice that the Several Order application made by the Authority will continue to be significantly delayed.

The risk associated with whelk fisheries also reduced as a consequence of the completion of business critical workstreams identified in previous Strategic Assessments mitigating risks associated with fisheries sustainability.

Management of fishing activities within MPAs presents the highest risk work area and this is underpinned and highlighted by ambitious targets set out in the updated Environmental Improvement Plan (2025). This includes in relation to the remaining 'amber and green assessments' for all fishing activity within Special Areas of Conservation and Special Protection Areas and management of potting activity within the Cromer Shoal Chalk Beds Marine Conservation Zone specifically.

In addition, the emergence of marine biodiversity net gain and the Marine Recovery Fund for compensating the environmental impacts of other infrastructure projects pose a new risk to fishing opportunities where such is achieved at the expense of fishing activity. IFCA involvement in the development of the second Generation East Marine Plan mitigates this risk to an extent.

The continued delay to full implementation of national requirements for Inshore Vessel Monitoring Systems increases risk across all fisheries and compounds the risk associated with the completion of management of fisheries within MPAs as a consequence of relying on less detailed and often qualitative fishing activity data.

Several relevant Fisheries Management Plans have now been published, including for crab and lobster, bass, whelk and cockles, the implementation of which is

underway. This presents new risks and opportunities to ensure that the distinction between small-scale, inshore fisheries and larger offshore operations is adequately reflected in resultant management measures. IFCA contribution is essential to ensure that delivery of FMPs avoids a 'one-size-fits-all' approach and that regional circumstances are taken into account.

Risk associated with the small-scale fin-fish fisheries within Suffolk has increased following continued declines in the number of vessels operating in the fishery. Within the Bass FMP workstream specifically, the associated 'Authorisations Report' identifies areas where fishing opportunities can be enhanced which are reflected in resultant priorities. In particular, consideration of developing a bass drift net trial study has been identified as a new priority which contributes to delivery of the FMP workstream overall.

No emerging fisheries have been identified, however the herring fishery has continued to increase and now represents the fifth largest fishery in the district. Unlike in other areas, octopus have yet to feature significantly in commercial catch.

The assessment has identified one additional priority workstream (relating to a drift net trial study) and revised one existing priorities (relating to management of Wash-based aquaculture). Completed priority workstreams related to the implementation of the Wash Cackle and Mussel Byelaw 2021 have also been removed.

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## Introduction

Eastern IFCA seeks to deliver effective inshore fisheries management in a complex legislative, natural, and economic environment. Inshore fisheries business models range from single-handed operations prosecuting artisanal fisheries in open skiffs launched from beaches to larger-scale, multi-vessel businesses capable of transiting between IFCA districts. Inshore marine ecosystems host a range of nationally and internationally important protected habitats and species varying from the rugged chalk structures off the North Norfolk Coast to the intertidal mudflats of the Wash. In addition, the Government's commitments to well managed fisheries and healthy ecosystems have resulted in the biggest shift in fisheries management in a generation in the form of Fisheries Management Plans, which are in addition to new targets established within the 2025 Environmental Improvement Plan.

As a small organisation with finite resources, the Authority's broad remit and complex operating environment necessitates careful consideration of risks at a strategic level to ensure effective delivery of its duties and other obligations.

Eastern IFCA produces a 5-year rolling Business Plan informed by an annual consideration of priorities via the Strategic Assessment. The Strategic Assessment seeks to identify annual priorities based on risk associated with the key fisheries within the district as well as a broader consideration of potential emerging issues.

## Methodology

The following data and information are used to inform the assessment:

- **Fisheries data** – primarily from the Marine Management Organisation's 'buyers and sellers' dataset which consists of landings records. The dataset incorporates landings into ports within the district and fishing by vessels within the district but which land to ports in neighbouring IFCAs. This is also supported by IFCA datasets for cockles, brown shrimps and whelks which is collected by Eastern IFCA for the management of these fisheries within the district specifically. This data is analysed to identify fishing trends, the emergence of novel fisheries and the economic importance of fisheries within the district.
- **Stakeholder views** – Eastern IFCA logs interactions with stakeholders throughout the year and codifies these for the purpose of analysis. This is intended to provide an insight into the main concerns of stakeholders and identify any changes over time.
- **Impacts to the environment** – This includes outputs from Habitat Regulation Assessments which have been carried out by Eastern IFCA and a matrix of fishing gear / feature interaction developed by Defra to support delivery of the revised approach to managing fisheries in marine protected Areas in England<sup>1</sup>. Evidence relevant to environmental impacts is also provided by IFCA knowledge, IFCA research projects and specific scientific literature.
- **Stock status and fisheries productivity** – This is informed by advice from the International Council for the Exploration of the Sea (ICES), IFCA stock assessments (primarily for cockle and mussel) and general fisheries monitoring (including catch per unit effort and qualitative and anecdotal reports from fishing industry).
- **Wider contextual information** – this is informed by IFCA knowledge of legislative and policy changes, and likely changes, affecting fisheries and the environment. This has also been informed by an analysis of Fisheries Management Plan (FMP) actions. Further, consideration has included analysis of marine licence applications within the district.

The assessment uses the available information identify risks and opportunities using PESTLE (Political, Economic, Social, Technological, Legal and Environmental) criteria. The assessment considers what mitigations are already in place to address

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<sup>1</sup> [Background to the matrix](#)

these risks or align with opportunities and what further mitigation may be required to be considered as new workstreams over the planning period. Typically, where risks are considered 'high', mitigation is likely to be required as a new or existing (not yet completed) 'high priority' workstream. Mitigation associated with 'low' or 'medium' risk may be considered as 'future priorities.' The process also highlights the business critical / 'business as usual' workstreams which are responsible for maintaining a lower level of risk.

### Limitations

The key limitations with the assessment relate to the data available to the Authority to inform the assessment. In particular:

- Stakeholder views are generated primarily through the 'message form' system – an internal system which seeks to capture incidents and issues as well as feedback from our stakeholders to enable analysis and consideration within the planning cycle. However, the key themes raised by our stakeholders often reflect the Authority's engagement priorities for any given year. For this reason, whilst an assessment of message forms is provided (at Appendix 1) and outputs are considered within the Strategic Assessment, the data should be considered in that context.
- MMO data releases for 'buyers and sellers' are used to inform the assessment as they are the only data available to consider economic elements of the fishery. The data set is limited however because certain fisheries (including hand-worked fisheries such as the cockle fishery and where catch is below 30kg per species) do not generate data under this system. However, the time series is significant, and it provides consistent data capable of identifying trends which is useful to the assessment. The caveat being that many small-scale fisheries may not be well reflected in the economic data. A summary of the outputs of fisheries data analysis is at Appendix 2.
- MMO data does not provide spatial resolution to examine fishing activity only within the Eastern IFCA district. Throughout the assessment, fishing data for ICES statistical rectangles 35F0, 35F1, 34F0, 34F1 and 33F1 have been used. This will include fishing activity outside of the district (particularly that in 33F1 and 35F1). The Eastern IFCA district also extends into 32F1 however, only marginally and so data relating to this ICES statistical rectangle was excluded.
- MMO data relates only to commercial fishing activity. There is no formal reporting mechanism for Recreational Sea Angling (RSA), however information from Cefas surveys (which provide general RSA information based on citizen science) has been used to inform the assessment<sup>2</sup>.
- Finally, the data for 2025 was, at the time of undertaking the assessment, still provisional and data relating to the later months of 2025 is likely to be subject to change.

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<sup>2</sup> [Participation, effort, catches, and impact of COVID-19 of sea anglers resident in the UK in 2016-21](#)

The above limitations have existed with relative consistency since the Strategic Assessments begin in 2016 and it is in that context that they continue to be used and are useful, particularly in identifying trends (rather than being relied on to provide accurate absolute totals).

## **Key policy and legislative drivers**

Key Policy and legislative drivers are considered in more detail in the 5-year Business Plan annual refresh but are summarised here as they represent important contextual factors to determine risk.

### IFCA Performance

The IFCA quadrennial conduct and operations report (for 2018 to 2022) was released in February of 2025. The report focusses on stakeholder perceptions of the IFCA's conduct and operations and Government have set out a number of recommendations which reflect the work's findings<sup>3</sup>. In addition, a major new study led by Newcastle University was published in February 2025<sup>4</sup> considered the IFCA's capacity to deliver regional co-management of fisheries in England which also set out recommendations to achieve a 'pathway to change'. Both reports have been carefully considered in the context of the local situation and other research including, for example, 'The importance of rebuilding trust in fisheries governance in post-Brexit England'<sup>5</sup> (Dixon *et al.* 2024). Findings and recommendations have been incorporated into the Business Plan and Strategic Assessment as appropriate including workstreams relating to the IFCA Conduct and Operations Report Recommendations Report Implementation Steering Group (CORRIS).

### Environmental protection legislation

The Environmental Improvement Plan (EIP) 2025<sup>6</sup> sets out updated environmental targets including in relation to the marine environment and fisheries specifically. This includes targets for the protection of Marine Protected Areas, biosecurity and the rejuvenation of saltmarsh, seagrass and oyster reefs. This is reflected in the risk rating provided to associated factors with the analysis below.

### Fisheries Management Plans (FMPs)

FMPs are evidence-based action plans, developed with input from industry and other stakeholders, which set out a range of policies that detail how fisheries will be managed. Several FMPs have now been published and many more are in development. IFCA contribution to the development and delivery of these plans is critical to ensuring locally relevant delivery of national policy which supports sustainable inshore fisheries within environmental parameters.

FMPs include a number of policies which are in the process of being implemented in the short to medium-term including management of whelk fisheries through a national, flexible permit or licencing scheme and an increase in the minimum

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<sup>3</sup> [Inshore Fisheries and Conservation Authorities: conduct and operations 2018 to 2022 - GOV.UK](#)

<sup>4</sup> [Report out on IFCAs performance - AIFCA](#)

<sup>5</sup> The Importance of rebuilding trust in fisheries management in post-Brexit England, Dixon, M., Grilli, G., Stewart, B., Bark, R., and Ferrini, S. 2024: Marine Policy (available [here](#))

<sup>6</sup> [Environmental Improvement Plan \(EIP\) 2025 - GOV.UK](#)

conservation reference size for lobster<sup>7</sup>. More broadly, FMPs also set out data gathering requirements which may be taken into account when delivering research and monitoring projects. Notably, the Bass FMP includes a review of the authorisation system for allowing access to bass fisheries as well as the potential for a scientific trial to consider potentially allowing small scale inshore drift net fisheries. Where relevant, these have been referred to within the assessment.

### 2018-2022 Conduct and Operations Report

Following the publication of the IFCA 2018-2022 Conduct and Operations Report, which set out a number of recommendations, IFCAs have established the Conduct and Operations Report Recommendations Implementation Steering-Group (CORRIS). Through CORRIS, workstreams are identified which will seek to address the recommendation and which will influence the way IFCAs undertake the delivery of their duties.

## **Fishery assessment summaries**

The full analysis for each fishery is at Appendix 3. A summary of the key elements of the analysis is provided below.

### General considerations across all fisheries

Analysis identified several elements which are relevant to most or all of the key fisheries in the District as follows:

- ***Fisheries Management Plans*** –With the exception of the brown shrimp fishery, all key fisheries within the district will be the subject of an FMP. Contribution to the development and implementation of FMPs is considered crucial to ensuring that inshore fisheries and their regional / local variations are fully recognised.

In particular, implementation of the bass, whelk and crab and lobster FMPs pose the greatest threats and most opportunities to associated fisheries within the district. Continued engagement with Defra and the MMO is essential to ensure that implementation of associated measures reflects the local conditions of Eastern IFCA's district and the fisheries therein.

- ***Review of the East Marine Plan*** – The Marine and Coastal Access Act 2009 (MaCAA) required the development of Marine Plans – spatial planning at the regional scale in the marine environment. The East Marine Plan was the first to be developed and is now the first to be reviewed. The review started in 2024 with the agreement of the 'statement of public participation'. Further work has included evidence gathering towards agreeing a vision and objectives. In 2026, the key activities include consultation on draft policies.

Inshore fisheries are in competition with other sea users for space which is compounded by the designation of MPAs with the effect of restricting fishing

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<sup>7</sup> [Summary of responses and government response - GOV.UK](#)

grounds. Inshore fisheries also suffer from a paucity of data which can result in their importance and local benefit to coastal communities being underestimated and marginalised, particularly compared to more economically important national infrastructure. Contribution to the review of the East Marine plan is therefore considered crucial to ensuring that inshore fisheries are recognised for their cultural and economic importance to coastal communities.

- *Conservation of Habitats and Species Regulations 2017* – These regulations require that fishing activities must not detrimentally impact the site integrity of MPAs, and government targets set out in the 2025 EIP requires that fishing activities within MPAs are managed as required via byelaws by 2026. Whilst the highest risk fishing / MPA interactions have been assessed and relevant management developed (primarily via the prohibition of bottom-towed-gear in certain areas), assessments for so called ‘amber & green’ risk interactions are yet to be completed. Given that some 96% of the district includes some form of MPA designation, and that the outstanding assessments are relevant to all key fisheries, completion of this workstream is considered crucial to ensuring effective protection of the environment in line with Government objectives. In addition, measures to protect ‘red-risk’ features in the process of being implemented (the byelaw making process) and this workstream is not therefore complete. The associated risk is mitigated through two existing high priority workstreams, which remain high priorities as a result of the analysis.
- *Inshore Vessel Monitoring Systems (I-VMS)* – I-VMS is a tracking device which can be affixed to vessel to track its movement at sea and is specifically designed to work on smaller (less than 12m) inshore vessels and provide high resolution spatial data. Roll-out of the units took place during 2023, however national legislation to mandate reporting via the devices was not implemented as anticipated during 2024. During 2025, the Marine Management Organisation implemented the requirement via Licence Conditions but a contractual dispute relating to SuccorFish (one of the approved suppliers for I-VMS) has resulted in the cessation of I-VMS data being submitted to the UK Data Hub. As a consequence, limited data is available and the associated risk remains high.

There is also uncertainty whether the expected regulation (Statutory Instrument) will standardise reporting rates for trackers across all vessels inshore (i.e. in relation to vessels 12m and over) to provide a consistent inshore data set and whether the requirements will apply to all inshore fisheries (‘hand-worked’ fisheries like the Wash cockle fishery, for example, may not be included in the national requirement). Finally, it appears unlikely that the requirement will be enforceable by IFCA, which will impact upon the effectiveness of the system in facilitating fisheries management in inshore waters.

These factors are relevant across all fisheries in the district, and the standardisation of reporting rates is considered to be crucial to effective delivery of fisheries management generally and particularly in relation to monitoring closed areas, monitoring whelk and crab and lobster fishing activity and effort management within the shrimp fishery. Therefore, it is considered crucial that consideration is given to the implementation of IFCA byelaws to that effect and particularly to enable the data to be gathered and analysed to inform the completion of 'amber and green' assessments.

- Recreational Sea Angling (RSA)

RSA is an important component of fishing activity which contributes to local economies (estimated at £1.5 – 2 billion annually by the 'Sea Angling Diary Project'), to the well-being of those who participate and to the general populations understanding of the environment and environmental protection. Estimates based on the Sea Angling Diary indicate that the majority of fishing mortality of fin fish species within the Eastern IFCA district is as a result of RSA rather than commercial fishing (with some estimates being as high as 90% of fishing mortality being attributable to RSA). This reflects both the low uptake in fin-fish fisheries within the district as well as the importance of RSA. Risk has been revised to reflect these new estimates for RSA fishing.

#### Cockle and Mussel Fisheries

The key cockle and mussel fisheries occur within The Wash (Lincolnshire and Norfolk) and support up to 63 vessels annually, three processing factories (within the district) and wider associated employment and trade (lorry drivers, factory workers etc.). The cockle fishery in particular is crucially important to supporting the King's Lynn and Boston fishing fleets. A number of 'business critical workstreams' are in place to manage this fishery (see Appendix 3, table 1).

The high-risk factors identified for these fisheries are:

- Replacement of the Wash Fishery Order 1992 – Replacement of the Wash Fishery Order 1992 (WFO) to enable regulated and several fisheries within The Wash represented a high risk since 2020. Risk primarily related to failure to implement replacement management mechanisms for the public and private fisheries.

During 2025, the Wash Cockle and Mussel Byelaw 2021 was confirmed by the Secretary of State and implemented, including in relation to the associated Eligibility Policy (for managing access). This mitigation has resolved the risk associated with the public fishery.

The Authority also applied for a new Several Order in 2021 to maintain the Authority's ability to manage private aquaculture in The Wash after the expiry of the WFO in 2023. The application process has been significantly delayed as a consequence of limited capacity within Defra to consider the application

and in November 2025, Defra advised the Authority that a new Several Order was unlikely before the 2027/28 financial year and 'strongly encouraged' the Authority to consider use of a byelaw as an alternative management mechanism. Use of a byelaw as a mechanism for managing private fisheries is completely novel and the timeframes for byelaws are ordinarily circa 2 years in any case. As such, associated risk has increased which primarily reflects the potential for legal challenge in relation to maintaining the current 'interim measures' (which were intended only to be in place temporarily between the expiry of the WFO and the implementation of a new Several Order). Activity levels within Wash aquaculture areas is presently very low however, despite mussel seed being available from The Wash, which is reflected in the level of risk assigned.

- *Cockle and mussel die-off in The Wash* – these fisheries have suffered from 'atypical mortality' since circa 2007 and various attempts have been made to identify the causes. In 2023, Cefas studies identified a novel pathogen as being the likely cause of the die-off in cockles and contributory to the die-off in mussels. The diseases pose a high risk to the sustainability of the fishery and the Wash MPAs for which cockles are an important component. There is also a risk in the context of both cockles and mussels providing food resources for designated birds – *post*).
- *Wash bird and seal species* – The Wash hosts a range of MPA designations including in relation to internationally important bird species, including the Oystercatcher, and nationally important populations of common seals. Associated risk is generally mitigated through the 'business critical workstream' related to managing the Wash fisheries, however, there is evidence that both common seals and oystercatchers are suffering from population declines despite having established mitigation measures embedded into the management of Wash fisheries. These are being further investigated, including via the Coastal Health initiative pilot which is using The Wash as a case study to inform national roll-out. Contribution to this workstream is considered crucial to ensuring that the investigations are informed by the best available evidence and expert knowledge of the fishing industry in The Wash with a view to ensure outcomes (including potential management measures) are proportionate. This will also to an extent mitigate risks relating to higher *E-Coli* levels in The Wash and the concomitant risk posed to the fishery.
- *Review of bivalve shellfish management outside of the Wash and North Norfolk Coast SAC* – The Authority inherited three byelaws relevant to bivalve shellfish fisheries from its predecessor (Eastern Sea Fisheries Joint Committee). All three require review to ensure that they remain appropriate.

## Crab and Lobster Fisheries

Crab and lobster fisheries occur throughout the district, but the North Norfolk Coast fishery constitutes the main fishery. They support generational, culturally important fisheries, contributing to the sense of place and local economy directly (supporting fishing related employment) and indirectly (via tourism, café and restaurants and recreational fishing).

The high-risk factors identified for these fisheries are:

- Management of fishing Activity within the Cromer Shoal Chalk Beds MCZ – the associated ongoing workstream was identified as a high priority workstream in 2021 and seeks to manage the fisheries through an Adaptive Risk Management (ARM) approach. This workstream is considered critical to protecting the MPA from potentially damaging fishing activity and avoiding the need to adopt a more precautionary management approach which would likely cause significant impacts to the fisheries' viability and the local coastal economy as a result.

Key risks associated with the workstream include failure to address uncertainty through research (particularly as a consequence to secure funding), non-compliance with management measures which are intended to reduce risk (including voluntary and mandatory measures) and a highly polarised stakeholder environment.

## Brown Shrimp Fisheries

The brown shrimp fishery occurs throughout the district but is primarily located within the Wash and its surrounding area. The fishery constitutes circa 95% of the UK brown shrimp catch and supports circa 50 vessels annually, with two local processors responsible for processing catch supporting international trade and wider local employment. Shrimp fishing deploys mobile bottom-towed-gear which is typically considered more likely to be damaging to the environment than other gear types. However, shrimp fishing is carefully managed under the Shrimp Permit Byelaw 2018, including in relation to additional permit conditions agreed during early 2026 (increased location reporting rates for vessels over 12m) to ensure that it remains able to operate within acceptable environmental parameters to the extent that it does not impact Wash MPAs (reflected as a business critical workstream).

Shrimp fisheries sustainability risks are primarily mitigated through industry led management via the Marine Stewardship Council Accreditation Scheme, the Authority's contribution to which is considered to be a 'business critical' workstream and already imbedded into business as usual. Risks to protected habitats and species outside of The Wash are mitigated through the 'amber and green' workstream (*ante*).

During 2025, shrimp permit conditions were reviewed and which identified potential fishery viability issues associated with the 'experience requirement'. Initial dialogue

with permit holders identified risk associated with the current requirement and unintended consequences associated with any revisions.

### Whelk Fisheries

Whelk fisheries were, prior to 2014, considered to be a marginal fishery with very low activity. Since 2014, whelk fisheries have consistently constituted one of the top three most valuable fisheries in the district. Managed through the Whelk Permit Scheme 2016 it is imbedded into business as usual via the associated 'business critical' workstreams which provides the main mitigation for risks associated with the fishery including the implementation of management measures to ensure a sustainable fishery. However, the 2024 permit conditions review identified risk associated with stock sustainability within the Wash areas in particular. Such risk was addressed during 2025 through the development of additional management measures, which has reduced associated risk.

### Key finfish species

This group contains the key finfish species targeted within the district, namely, herring, sole, thornback rays, bass, plaice, whiting, smooth hound, cod and sprat. These species constitute the most commercially and recreationally important finfish species in the district. The group is targeted primarily by small-scale fishing operations in the southern part of the district (Suffolk) although fishing activity occurs throughout the district and at varying scales, and these species are often targeted by recreational sea anglers. Primarily, the fishery targets catch using set and drift nets although a minority of vessels also deploy mid-water and bottom towed otter trawls also. Whilst fisheries data suggests it is the least economically important of the key fisheries, the true value of these fisheries is not well reflected. This is primarily because the economic value of RSA is not well understood at a local level and is not included in the value estimate (although likely to be high given that nationally, it is estimated to be worth £1.5 -2 billion per annum) and because small-scale fisheries typically go under-reported as a result of the associated legislation. Importantly, the number of vessels operating within the fishery has continued to decrease and has resulted in a higher risk rating.

The assessment of this group has identified the greatest number of opportunities to enhance the fisheries (Appendix 3, Table 5) to be considered as 'future priorities' (including workstreams associated with RSA) and a new high priority workstream to consider the development of a bass drift net trial study to potentially enhance fishing opportunities.

### Other fisheries

Other species are caught within the district, for the most part as catch in relation to the 'key finfish species' group but at significantly lower levels with a much lower level of risk associated.

The data for these species was analysed to determine any key emerging fisheries in particular, and none have been identified at this time.

The key risk associated with this group relates to potential for impacts on MPAs which is addressed and mitigated by the general 'Conservation of Habitats and Species' priority workstream.

## Outputs

The ongoing and new high priority workstreams identified as required to mitigate high risks are set out below. They are followed by the business critical workstreams – work areas which have been embedded as 'business as usual' and which are required to maintain an acceptable level of risk in relation to associated fisheries. Finally, new and existing 'future priorities' are set out which may be considered as high priority in the future or on the completion of other 'high priority' workstreams or, where there is opportunity, as value added workstreams if they can be incorporated into other 'high priority' or 'business critical' workstreams with limited resource expended.

## Priorities

1. To ensure that the conservation objectives of Marine Protected Areas in the district are furthered through:
  - a. Implementation of management measures for 'red risk' gear/feature interactions (**carried over**).
  - b. Continued implementation of Adaptive Risk Management of fishing activity within the Cromer Shoal Chalk Beds Marine Conservation Zone (**carried over**).
  - c. Completion of 'amber/green' gear/fishing interaction assessments and development and implementation of management measures as required (**carried over**).
  - d. Participation in the 'Coastal Health' pilot of The Wash (**carried over**).
  - e. Habitat mapping in relation to *sabellaria* reef within MPAs outside of the Wash and North Norfolk Coast (**carried over**).
2. Management of cockle and mussel fisheries (wild capture and private) through:
  - a. Develop appropriate management of private shellfish aquaculture within The Wash including consideration of using MaCAA byelaws (**revised priority**).
  - b. A review of relevant byelaws inherited from Eastern Sea Fisheries Joint Committee (**carried over**).
3. Obtaining better fisheries data through:
  - a. Facilitating and contributing to the roll-out of I-VMS by the Marine Management organisation (**carried over**).
  - b. Development of measures (through byelaws and / or permit conditions) to implement standardised reporting rates across all VMS units (**carried over**).
  - c. Consider gathering vessel tracking data through alternative means (in lieu of I-VMS) (**carried over**).

4. Contribute to the development and implementation of Fisheries Management Plans through:
  - a. Supporting the planning / preparation phase (**carried over**).
  - b. Supporting the publication phase including by reviewing and evaluation plans (**carried over**).
  - c. Supporting post-publication phase including implementation (**carried over**)
  - d. Consider the development of a bass drift net scientific trial (**new priority**)
5. Contribute to the development of second-generation Marine Plans through:
  - a. Collaboration with the Marine Management Organisation to seek opportunities to improve data and evidence for inshore fishing activities (**carried over**).
  - b. Stakeholder engagement to raise awareness of marine planning and identify key issues (**carried over**).
  - c. Contributing to policy development by providing expert advice and relaying information from our stakeholders (**carried over**).

#### Business critical workstreams

No new 'business critical' workstreams were included as a result of this assessment.

- Management of shrimp fisheries via Shrimp Permit Byelaw 2018 and associated effort limitation scheme – includes management within the Wash and North Norfolk Coast SAC which mitigates impacts on the associated MPA. During 2025, this will also include a review of the Shrimp Permit Conditions and Eligibility Criteria.
- Shrimp fishery management via the Marine Stewardship Council accreditation scheme – This workstream involves participation and contribution to the industry led management of shrimp fisheries and mitigates risks relating to stock sustainability.
- Study of the Wash Embayment, Environment and Productivity and water quality sampling – this workstream involves monthly sampling to monitor E.Coli levels and 'food availability'. The workstream is required to enable public fisheries and private aquaculture in The Wash.
- Wash cockle and Mussel management – this includes annual mussel and cockle stock surveys, assessments to identify and mitigate potential impacts on Wash MPAs and development and implementation of associated management measures annually.
- Management of Whelk fisheries via the Whelk Permit byelaw 2016 – this workstream includes the monitoring of whelk stock health and development and implementation of management measures via permit conditions as may be required. Whelk permit conditions review (2024) identified that additional measures should be considered to increase compliance with the Pot limitation in The Wash and that the minimum size of whelks should be reconsidered in Suffolk. The latter will likely require additional research activities to identify the Size of Maturity of whelks in Suffolk.

- Assessments for 'unplanned' fisheries – this workstream is dependent on the identification of any 'new' fisheries without established management measures. It potentially includes research (stock surveys, impacts etc.), assessment (if within an MPA) and the development and implementation of management measures as required and the development of a new system for permitting 'prospecting' for mussels within the district.
- Advice in relation to sustainable development – this workstream involves contributing to the Marine Management Organisation's consideration of marine licence applications and advising on potential impacts on inshore fisheries and facilitating dialogue with fishery stakeholders.
- Compliance monitoring and engagement in accordance with the Compliance Risk Register and TCG – This workstream involves the effective deployment of the Marine Protection resource to reduce the risk associated with non-compliance.
- Engagement with Recreational Sea Anglers (RSA) – this workstream involves engagement with RSA during compliance monitoring and seeks to enhance our understanding of RSA activity and reduce the risk of non-compliance.
- Monitoring of district-wide biosecurity risk – this workstream includes the logging and investigation of biosecurity issues detected and consideration of mitigation measures as may be required (including educational engagement and management measures).
- Contribution to the Conduct and Operations Report Recommendations Implementation Steering group (CORRIS) – IFCA's are collaborating nationally to address recommendations and wider findings from the 2018-2022 Conduct and Operations Report, with the CEO Chairing the steering group at this time and contributions to associated workstreams from across the Authority.

#### Future priorities / value added workstreams

The Strategic Assessment also identifies workstreams which would be of benefit in achieving the Authority's main duties in areas where a lesser risk is identified or one which could potentially represent a higher risk in the future. They are noted annually to ensure that they can be considered in future years but also, as some may be achievable in the short-term where they can be addressed alongside business critical or high priority workstreams as 'added value' elements to projects. They do not all necessarily represent workstreams which would be led by Eastern IFCA and may be more feasible as projects run by partners or other groups (community and industry groups for example) facilitated by or with contributions from Eastern IFCA.

#### Fishing data and evidence gathering

- Collaborative working with MMO to develop a 'joined up' approach to gathering fishing data and reduce the burden on fishery stakeholders associated with providing two regulators similar information including potentially through adaptation of the MMO electronic data gathering systems.

- Gather information to improve understanding of wider 'value' of crab & lobster, shrimp and key finfish fisheries.
- Gather information on hand-gathering fisheries throughout the district.
- Develop relationships with RSA to obtain better RSA data.
- Explore options to better reflect understand the local 'value' (economic, societal etc.) of fin-fish fisheries, including RSA within the district.
- Investigate the economic value of RSA fisheries in the District and consider value in developing a RSA strategy
- Investigate use of drones to gather fisheries data (including stock data)
- Investigate use of Artificial Intelligence to facilitate analysis of ROV data.
- Undertake local crab and lobster stock assessments.
- Collaborate with Cefas to develop effective lobster stock assessment data gathering.
- Assessment and trials of alternative shrimp fishing gears which reduce risk to the Wash and North Norfolk Coast MPAs.
- Investigate disturbance impacts on seals from hand-work cockle fishery.

#### Engagement and communications

- Develop biosecurity awareness communications.
- Develop communications on the potential for seed (mussel) fisheries outside the Wash.
- Facilitate knowledge exchange between established and new fishers to pass on knowledge of traditional ways of working.
- Review the ARM Engagement Strategy (to include 'celebrating success' and a proactive approach)
- Consider benefits of consolidating RSA related actions within an Eastern IFCA RSA strategy

#### Fishing opportunities

- Explorer potential for a razor clam fishery in the Wash
- Explore opportunities to enhance the value of Crab catches.
- Undertake assessment of the potential for climate change impacts locally, including in relation to new fisheries and threats to existing fisheries
- Review the mussel fishery management policies (2008) and replace with an updated 'mussel fishery management plan.'
- Explore ways to facilitate industry raising the profile of the local shrimp fishery.

#### Biosecurity

- Develop local biosecurity action plans.

## Conclusions

Overall, the risks identified in the 2025 assessment are broadly consistent with those identified in previous assessments and are mostly mitigated through ongoing high priority workstreams. The key new area of risk relates to the fin-fish fisheries and the delayed introduction of Inshore Vessel Monitoring system requirements (through a national Statutory Instrument).

To address the increased risk associate with fin-fish fisheries in Suffolk, a new priority workstream under the FMP high priority is identified which seeks to consider the potential for additional fishing opportunity within the bass fisheries. This workstream will also contribute to MPA related workstreams as it will, is successful, provide data and evidence for fishing impacts relevant to the delivery of MPA assessments throughout the district.

To address the delay in Inshore Vessel Monitoring Systems, the associated high priority workstream has been revised to include the consideration of adopting stand-alone devices and implement requirements via IFCA byelaws.

Focussing available resource into these areas should mitigate the key risks associated with the fishery and represent the key work areas to successfully achieve our main duties and other legislative obligations.

## Appendix 1 - data analysis to identify key fisheries

### 2025 Landed Weight, Value, and Participating vessels by key fisheries and gear

Key fisheries were quantified in the 2023 Eastern IFCA Strategic Assessment, with subsequent assessments providing an overview of these fisheries within the reporting years alongside a wider view of shorter-term changes that may indicate emerging fisheries. The table below is primarily drawn from MMO landings data, with the exception of data for cockles and mussels, which is drawn from Eastern IFCA catch return data and information from the fishing industry. The table presents 2025 data, with percentage Year-on-Year changes from 2024. Finally, 2025 data has not yet been fully finalised for the later months, so some changes to the dataset may occur and the current numbers may represent an under-estimation.

	Fishery	Weight (Tonnes)	YoY Change	Value	YoY Change	Vessels	YoY Change	% of National (2025)
Key Fisheries	Cockle and Mussel*	4270.08	29%	£ 3,202,560.75	1%	50	9%	30% **
	Shrimp	351.49	-26%	£ 1,367,559.33	-35%	27	0%	96%
	Whelk	991.24	24%	£ 1,275,416.85	8%	33	43%	6%
	Crab and Lobster	314.20	-40%	£ 1,255,781.30	-27%	64	-17%	1%
	Key Finfish***	368.80	43%	£ 456,361.89	12%	61	-23%	N/A
Gear Types (Excluding Key Fisheries)	Dredges	0.00	N/A	£ -	N/A	0	N/A	N/A
	Gill nets and entangling nets	0.10	-96%	£ 311.98	-88%	12	-66%	N/A
	Hooks and Lines	0.70	-81%	£ 1,256.66	-56%	11	-45%	N/A
	Miscellaneous Gear	0.00	N/A	£ -	N/A	0	-100%	N/A
	Seine nets	0.00	N/A	£ -	N/A	0	-100%	N/A
	Traps	0.12	-66%	£ 488.13	-40%	8	-38%	N/A
	Trawls	5.42	-25%	£ 5,109.07	2%	23	64%	N/A

\*Cockle and Mussel value is estimated based on average cockle prices reported to Eastern IFCA.

\*\*Cockles landed into the district have typically accounted for ~30% of national landings and recent EIFCA and national dredge figures indicate this remains the case, though national data is poor regarding hand-worked fisheries so an exact figure cannot be provided.

\*\*\*Key Finfish includes: Herring, Sole, Thornback, Bass, Plaice, Whiting, Smoothhound, Cod, Spurdog, & Sprat.

Key fisheries have been grouped where appropriate, with cockles & mussels being combined as they are fished from the same areas using the same techniques and are governed under the same regulations. Similarly, crabs and lobsters are targeted together

in their relevant fisheries and effectively make up a combined catch for industry figures who target them. Finally, the 'Key Finfish' is a group formed with a primary focus on the key catch for the Suffolk fishing industry, which is primarily focused on finfish, but each individual species has reasonably small catch numbers – though as captured below, herring has shown a notable increase in catch over the last 5 years. As such, the important species for the Suffolk industry have been grouped together so the fisheries in that area can be better represented in strategic planning.

This view shows a somewhat mixed picture, with 2025 having been a poor year for the crab and lobster fishery in particular. The shrimp fishery has also shown drops in landed weight and value, largely driven by a poor year for the Wash shrimp fishery. However, the shrimp fishery is notably variable, and low effort years in the Wash fishery enables increased effort in higher-value years. Landings have grown in the cockle and mussel, whelk, and key finfish fisheries, though this has not been reflected in significant price increases in the cockle and mussel fishery, and the whelk fishery increase is likely to be influenced by fishers targeting whelk instead of shrimp. As in previous years, the key finfish increase is mostly driven by Herring, which is broken down in more detail below. It is also notable that mussels specifically have shown a spike in landings, with 138 tonnes logged as landed in 2025. While this is still a low number in an absolute sense, particularly when compared to the 4000 tonnes of landed cockles, 2023 and 2024 showed approximately 30 tonnes each, and increases in mussels come against the backdrop of significantly increased mussel availability, and uncertainty regarding the future shape of management for aquaculture in the Wash, and so have a heightened strategic importance.

The non-key fisheries landings, represented in the bottom half of the table and arranged by gear-types, are exceptionally low. While previous Strategic Assessments noted a strong growth trend regarding hooks and lines, this trend has abruptly reversed in 2025, with landings reducing by 81%. Due to the low numbers across the gear view, no emerging fisheries are being flagged for review at this time.

### **5 Year View – Major Changes**

Alongside the review of the key fisheries, above, an annual review is also undertaken, by individual species, of changes across the most recent 5 years, looking at landed weight, price, and vessel numbers. The goal of this analysis is to identify any emergent issues that would not be captured by looking at the key fisheries; this includes species not captured within the key fisheries, and any major changes within a grouped fishery.

Overall, no concerning trends relating to either significant increases or decreases were identified. Crab landings were very low for 2025 but there does not appear to be an overall declining trend over the past five years and potentially represents an isolated reduction in productivity which, in the historical context of the fishery, is not uncommon or of great concern at this point. However, continued poor productivity in following years may infer sustainability issues within the fishery.

As identified in previous strategic assessments, herring has shown significant increases in landed weight, vessel numbers, and value in recent years. This trend has continued, shown below.

<b>Values</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>
Landed Tonnes	41.91	69.82	123.86	215.61	306.46
Total Value	£24,411.11	£38,913.83	£43,537.88	£96,121.70	£127,130.01
Vessels	20	16	21	32	18

This trend means that in 2024, Herring was the fourth most landed species in the district by weight, up from the fifth, and made up 83% of the key finfish landed weight. Even with these increases it remains only the seventh species by value across the district, and made up only 28% of the key finfish value, below both bass (32% of value and 4% of landed weight) and sole (33% of value and 3% of landed weight). Herring has nonetheless grown as a proportion of the fishery in both landed weight and value. Interestingly, fewer vessels are captured in the dataset as catching herring, following a significant spike in 2024. This may indicate that new entrants to the fishery did not find significant success. Regardless, six very strong years of growth means Herring will continue to be monitored on an ongoing basis, particularly through Eastern IFCA's monthly risk register exercise. It is important to note that the available data is not of sufficient spatial resolution to determine the extent to which the above trend is a reflection of smaller inshore business models or larger offshore catches. Whilst the increasing trend in catch is proportionally large, it does not represent significant catches in absolute terms, and a single large vessel could be responsible for a significant increase in a single year.

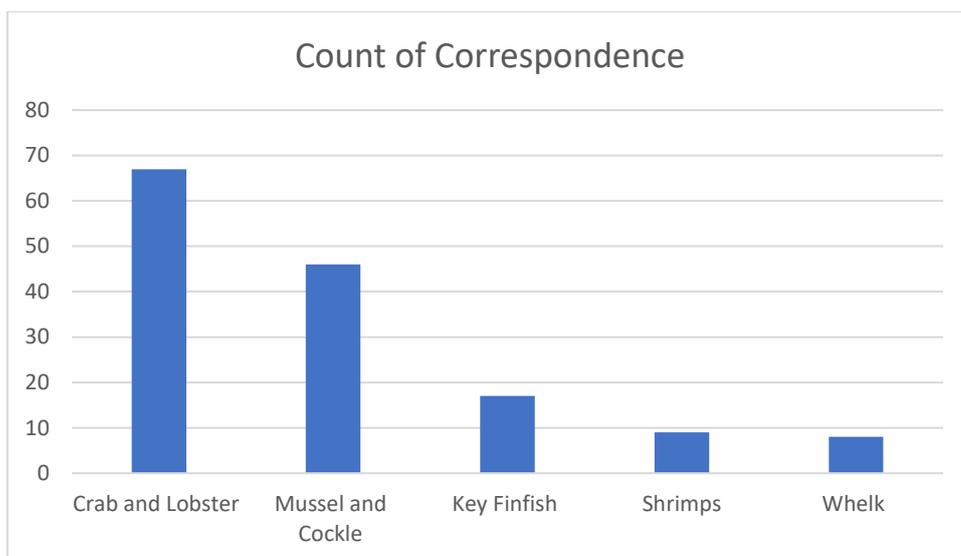
## Appendix 2 – Engagement assessment

### 2025 Message Form Analysis

#### Key Fisheries Analysis

- The information analysed in this assessment is the engagement information gathered by officers via direct contact from stakeholders via telephone calls, letters and emails. It excludes intelligence data (i.e. specific reports of non-compliance with fisheries regulation) and responses to structured consultation (e.g. written objections to byelaws, completed questionnaires etc.). The data is collated in an internal system (the 'message forms' system) and is analysed by reference to the 'key fisheries'.
- Analysis identified that most engagement related to the crab and lobster fishery, almost all of which was associated with the Cromer Shoal Chalk Beds MCZ. This year new mandatory measures were introduced within the MCZ, and the majority of message forms were queries relating to this. Throughout the year mandatory and voluntary measures within the MCZ generated correspondence regarding the requirements. The remainder of the engagement referenced the implementation of the increase in lobster Minimum Conservation Reference Size (MCRS) which officers have continually engaged with industry about.
- Engagement around cockle and mussel fishery also made up a significant proportion of the data; this was largely as a consequence of implementation of the Wash Cockle and Mussel Byelaw 2021 early in 2025. Most of the correspondence for cockle was feedback on the training carried out at the start of the year and feedback about the 2025 cockle fishery, in particular, the emergence of a new cockle bed and the small size of cockles.
- Key finfish species made up some of the engagement in 2025 from both recreational anglers and commercial fishers, which mostly included discussion bass regulations and the impacts of such on small business models including the prohibition on the use of drift nets. Another key species the subject of engagement was Sole including in relation to trawling in Suffolk rivers. Finally, a key concern in these fisheries were the impacts of seal predation impacting the quality and productivity of these fisheries.

Fishery	Count of Correspondence	Percentage of Correspondence
Crab and Lobster	67	49%
Mussel and Cockle	46	34%
Key Finfish	17	13%
Shrimps	9	7%
Whelk	8	6%



### Crab and Lobster Analysis

- Analysis of crab and lobster themes identifies that most communication was driven by a handful of engagement exercises regarding management within the MCZ after new voluntary and mandatory measures were introduced; the pot tag initiative which was launched in January generated correspondence throughout the year including feedback on the roll out, queries and request for more tags; the mandatory use of trackers which came into effect in April, similarly generated correspondence in regards to queries about the use of them and requests for new trackers; a small proportion was concerned with the Inshore Trawling restrictions after a consultation was held to ensure industry were sufficiently considered.
- Concerns around sustainability made up only a small proportion of the engagement data, with some reports of poor catches during 2025, which could represent a potential risk in relation to the potential for stock availability.
- There was also some engagement surrounding Lobster management with the increase in Conservation Reference Size to 90mm over the next three years. Eastern IFCA have been engaging with local fishermen to inform the development of the implementation plan for the measure as well as to raise awareness of the increase.
- There was also a single report of octopus within the district affecting crab catches, however there does not appear at this time to be the same scale of impact regarding octopus as has been seen on the South coast.

### Cockle and Mussel Analysis

- Most correspondence came from a handful of engagement exercises; mostly regarding the management of the fishery through the Wash Cockle and Mussel Byelaw 2021.
- As part of the Wash Cockle and Mussel Byelaw 2021, all permit holders and skippers needed to attend a training course which was held in April. Following this there was some feedback on the course.
- In addition, the implementation of the byelaw during the first half of 2025 generated queries and requests primarily relating to management of access to the fisheries via the Eligibility Policy.
- There was a significant amount of engagement regarding the opening dates of the 2025 fishery, with some concern that the fishery is opening too early and around cockle growth and die-off in relation to opening an early cockle fishery. Similarly, there were also comments about the condition of the beds which were related to comments on which beds should be opened. There was some concern regarding the removal of small cockles from The Wash fishery; this was also a key topic of discussion last year too.

### Key Finfish Analysis

- The majority of finfish correspondence concerned Bass regulations, both for commercial and recreational fishers. Some of this correspondence was driven by engagement drives from our officers to collect more information on recreational activity in Suffolk rivers. The rest came from queries regarding Bass regulations including the prohibition of the use of drift nets to target bass.
- Over a quarter of the correspondence related to recreational fishing within North Norfolk and Suffolk areas. This included queries regarding fishing methods and types of bait. Like last year there was a small concern about the level of commercial fishing for key finfish and the impact this has on recreational fishing opportunities.
- There was some concern in the key finfish correspondence that seals are having an impact on the key finfish fisheries, with fishers seeing a reduction in catch in Suffolk with high predation rates of seals being considered the reason.

### Whelk Analysis

- Most engagement regarding the whelk fishery related to the consultation on new permit conditions rather than general messages.

### Shrimp Analysis

- The main engagement theme within whelk fisheries related to fishing at Gibraltar point regarding the proximity of fishing activity to the shoreline and potential impacts on bird populations via disturbance.
- All other engagement consisted of requests for gear inspections, requests for information on regulations and feedback on the Shrimp Effort Limitation Scheme.

### Other identified risks

- The analysis identified some reports from the public regarding invasive species; (Mitten Crabs, and slipper limpets) and these identifications could pose a risk to a number of fisheries particularly if coupled with other risks such as climate change.
- A proportion of the correspondence in this year's analysis included seals; some concern for the wildlife including a report of dead seals but most of the correspondence was concern over the seals populations and the impact they are having on various fisheries (particularly in Suffolk); these were also reported to us based on the concern they may affect the fisheries.

### Appendix 3 – PESTLE style analysis by fishery

Table 1. Cockle and Mussel Fisheries PESTLE analysis					
Factor	Analysis	Risks	Existing Mitigation (workstreams)	Risk & RAG	Potential additional mitigation

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<p style="text-align: center;"><b>Political</b></p>	<p>Ambitious environmental targets set via the 25 Year Environment Plan and Environmental Improvement Plan 2025 (EIP25)<sup>8</sup>.</p> <p>Government post-implementation review of the Environment Act (scheduled for 2026)<sup>9</sup> in response to the five recommendations from the Office of Environmental Protection.</p> <p>The East Marine Plan is under review to inform its replacement.</p> <p>The Cockle FMP was published in December 2025 and contains actions to ensure delivery of the JFS.</p> <p>Export rules (as a consequence of EU Exit) for live shellfish have precluded exports to the EU of live shellfish from class B waters<sup>10</sup>.</p>	<p>Cockle and mussel fisheries in the district occur generally in a very highly designated and complex MPAs (The Wash) with the potential for pre-cautionary management to detrimentally impact fishing opportunities.</p> <p>Findings from the post-implementation review of the Environment Act lead to further legislative or policy drivers and additional requirements on the Authority.</p> <p>Marine spatial planning has the potential to contribute to additional marginalisation of fishing activity across sea users and particularly in the Eastern region given the high level of nationally important infrastructure activity (including offshore windfarm development).</p> <p>Implementation of the Cockle FMP actions dilute the regional approach to managing local cockle fisheries, impacting the effectiveness of the Authority's own Wash cockle FMP.</p> <p>Mussel seed fisheries in particular are impacted by export rules for live shellfish and have reportedly prevented exploitation of potentially available mussel seed fisheries because of the water classification in The Wash.</p>	<p><b>Wash Cockle and Mussel Surveys and Management (business critical workstream) –</b> Annual, detailed consideration of the fishery's potential to impact associated MPAs is undertaken to ensure no impacts on MPAs. A close working relationship with the SNCB has been established to mitigate necessity of pre-cautionary measures resulting from a lack of evidence. It is unlikely that the current or future government policies and targets will not be met by current workstreams.</p> <p><b>Contribute to the development of second-generation Marine Plans (ongoing high priority workstream) and Advice in relation to risk of conflicts with other marine users (business critical workstream) –</b> Contribution to the development of the second generation East Marine Plan provides potential for inshore fisheries to be well reflected and given due consideration.</p> <p><b>Contribute to the development and implementation of Fisheries Management Plans (ongoing High Priority workstream) –</b> Involvement in the development of the FMP and its implementation reduces risk that national measures impact the local fisheries.</p> <p><b>Study of the Wash Embayment, Environment and Productivity and water quality sampling (Business Critical workstream) –</b> Monitoring water quality provides the information necessary to inform wider (external) decisions on managing water quality.</p>	<p><b>Low</b></p>	<p>Highlight impacts of shellfish export rules to government to address trade barriers.</p>
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<sup>8</sup> [Environmental Improvement Plan 2025 - GOV.UK](#)

<sup>9</sup> [Government response to the Office for Environmental Protection review of implementation of the duty to have due regard to the Environmental Principles Policy Statement in England - GOV.UK](#)

<sup>10</sup> [Exporting or moving live fish and shellfish - GOV.UK](#)

<p style="text-align: center;"><b>Economic</b></p>	<p>Cockles are a high value fishery (circa £3.2m in 2025) and contribute to a significant proportion of the national catch (circa 30%).</p> <p>Those who participate in cockle fishery are typically highly reliant on this fishery for annual income.</p> <p>Despite high stock levels, mussel fisheries are not being prosecuted due to poor mussel condition, poor market conditions (including the prohibition on exporting live shellfish from class B waters) and biosecurity issues in The Wash.</p> <p>Significant employment gained from this fishery: 3 processing factories, ~60 vessels.</p> <p>Landings are highly variable, depending on stock size and uncontrollable variables, such as atypical mortality.</p> <p>There are a range of business models operating in the fishery, from single handed, independent operators to larger, multi-crew, processor owned vessels. Some reports of the fishery not being economically viable under certain circumstances, usually associated with larger vessels which operate in the fishery with higher overheads and in the context of the 2-tonne daily quota.</p> <p>Shellfish aquaculture within the Wash is of limited economic value impacted by poor compliance with management</p>	<p>Significant contribution to local economy risks job losses and local economic damage if fishery performs poorly, particularly given relatively limited fishing opportunities other than cockles in a poor season.</p> <p>Lost opportunity relating to mussel fisheries (public and private fisheries) due to poor market conditions despite high stock levels.</p> <p>Financial reliance on fishery increases risk of non-compliance with regulation particularly in years of low productivity.</p> <p>Potential for annual management measures to disproportionately impact certain business models.</p> <p>Potential for fees to impact the viability of the fishery (the current fee is circa £1100 annually representing the first sale value of a day in the fishery).</p>	<p><b>Wash Cockle and Mussel Surveys and Management (business critical workstream)</b> – annual management measures are carefully considered and consulted on with industry to detect and avoid (so far as is possible) impacts on business models. This includes in relation to application of the Eligibility Policy for managing access to the Wash cockle and mussel fisheries.</p> <p><b>Enforcement and Education (Business Critical workstream)</b> – compliance monitoring and engagement reduces the risk associated with non-compliance.</p> <p><b>Develop appropriate management of private shellfish aquaculture in The Wash (Ongoing Priority workstream)</b>- associated management plan to include requirement to provide economic information. This workstream is significantly delayed however as a consequence of delays in the Defra application process.</p> <p><b>Study of the Wash Embayment, Environment and Productivity and water quality sampling (Business Critical workstream)</b> – Monitoring water quality provides the information necessary to enable a fishery in The Wash.</p>	<p><b>Low</b></p>	<p>None identified</p>
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	<p>measures. The fishery has a high economic potential, particularly in the context of the recent regularity of seed mussel available, but is hindered by poor market conditions including in relation to export (to the EU) rules.</p> <p>Recent fee increases (albeit later than programmed and at a cost to the Authority) have increased overheads. Fees seek circa 50% cost recovery for managing the fishery – overheads generally have increased due to high inflation.</p>				
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<p style="text-align: center;"><b>Social</b></p>	<p>Multi-generational fishery.</p> <p>High levels of interest in the fishery (particularly cockles given the limited investment cost required to operate in a hand-work fishery) but historically there has been very limited opportunity for new entrants.</p> <p>Shellfish aquaculture in the Wash is historical and many 'lay holders' feel a sense of ownership for areas leased to them. However, many are unused and there is interest from those without lays to be provided opportunity.</p> <p>Highly polarised industry views on management in the fishery, annually and in general. This is potentially reflected within the 2018-2022 IFCA Conduct and Operations report.</p> <p>Defra have provided advice to the effect that the Authority's Several Order application to manage Wash aquaculture will be further delayed (2027/28) and strongly encouraged the Authority to consider alternative means of management included a byelaw.</p> <p>Seed mussel fisheries outside of the Wash and North Norfolk Coast SAC are perceived to be inaccessible as a result of inherited byelaws and the legal requirement to assess the impact of such fisheries under the Conservation of Habitats and Species Regulations 2017 which prevent 'prospecting' for mussels.</p>	<p>If fishery stakeholders do not feel invested in the management system for the Wash cockle and mussel fisheries, there may be an increased risk of non-compliance and trivialisation of the management.</p> <p>Replacement of the Wash Several Order with a byelaw has the potential to create a strong sense of feeling as was the case during the replacement of the WFO in relation to the regulated fishery.</p> <p>Managing aquaculture activity using a byelaw is novel and the subject of ongoing legal consideration.</p> <p>Highly polarised views results in dissatisfaction regarding balanced decisions reducing effectiveness of future coms.</p> <p>A procedural barrier to finding and prosecuting seed mussel fisheries outside of the Wash reduces the fishing opportunity with potential economic impacts.</p>	<p><b>Wash Cockle and Mussel Surveys and Management (business critical workstream) –</b></p> <ul style="list-style-type: none"> <li>• Annual development of management measures includes industry consultation and careful consideration of industry views which is published and provided to respondents.</li> <li>• During 2024, the mussel fishery management process was revised to ensure that fishery stakeholders knowledge of mussel beds can be incorporated into survey design.</li> <li>• During 2025, a new system for enabling 'prospecting' for mussels outside of the Wash was developed and implemented.</li> </ul> <p><b>Develop appropriate management of private shellfish aquaculture in The Wash (Revised Priority workstream)-</b> The Authority is actively exploring (including via legal advice) the potential to manage aquaculture without a Several Order.</p> <p><b>Contribution to CORRIS (business Critical Workstream) –</b> Implementation of recommendations from the Conduct and Operations Report will reduce some of the risk associated with negative perceptions regarding IFCA management.</p> <p><b>Contribute to the development and implementation of Fisheries Management Plans (ongoing High Priority workstream) -</b> the workstream includes contribution to the outputs of FMPs which will include contributing to developing an effective cockle forum as required.</p>	<p><b>Low</b></p>	<p>Revisions to the 'Develop appropriate management of private shellfish aquaculture in The Wash' workstream to reflect recent Defra advice.</p>
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	<p>The Cockle FMP (national) includes a workstream to consider the establishment of a Cockle management forum.</p>				
<p><b>Technological</b></p>	<p>Vessels operating in the fishery vary markedly in their capacity, with many highly limited in their range making them more reliant on the area they currently operate within.</p> <p>Inshore Vessel Monitoring Devices have been rolled out nationally and a regulatory requirement to have them fitted and operational has been implemented by MMO licence conditions, with the intended permanent Statutory Instrument being significantly delayed. The current use of Marine Management Organisation fishing licence conditions presents a challenge because the Authority cannot enforce such measures. In addition, a dispute regarding one of the main suppliers has resulted in no data being forwarded to the UK data hub for IFCA use.</p> <p>Three-minute reporting rates do not apply to vessels 12m and over.</p> <p>The annual fishery is highly dependent on sea-going capacity of the Authority in order to undertake surveys to inform stock assessments and a Habitat Regulation Assessment.</p>	<p>Limited capacity to prosecute other fisheries where fishery performance is poor.</p> <p>Potential for MMO to de-prioritise enforcement of IVMS provisions leading to increased non-compliance and impacts on the marine environment and fisheries sustainability.</p> <p>Lack of parity between under and over 12m vessels regards vessel tracking reporting rates has the potential to lead to disparities between management of associated fleets and increased risk of fisheries sustainability and environmental impacts.</p> <p>Potential for the fishery to not open on a precautionary basis if there is a lack of survey data to inform an assessment.</p>	<p><b>Maintenance of sea going assets (Business critical Workstream)</b> – The Authority has invested in a new vessel capable of delivering annual surveys. In addition, the long-time series of data supports a fishery opening without a survey in a single year.</p> <p><b>Implementation of vessel monitoring on all vessels within the district (revised High Priority workstream)</b> – inclusion of vessel monitoring provisions within IFCA byelaws to enable IFCA led enforcement. The revised priority includes consideration of the need to adopt alternative tracking devices within the district where risk is sufficiently high.</p>	<p>Med</p>	<p>Potential to use drones and other technology to facilitate mussel and cockle surveys.</p>

<p style="text-align: center;">Legal</p>	<p>The Conservation of Species and Habitats Regulations 2017 oblige the Authority to prevent any fishing activities which may impact site integrity and where there is uncertainty, the pre-cautionary approach applies.</p> <p>Wash private aquaculture is presently managed under temporary, interim measures pending the confirmation of a new management mechanism.</p> <p>Defra have provided advice to the effect that the Authority's Several Order application to manage Wash aquaculture will be further delayed (2027/28) and strongly encouraged the Authority to consider alternative means of management included a byelaw.</p> <p>Limited regulatory mechanisms to manage cockle / mussel fisheries outside of the Wash.</p> <p>Vessel Monitoring requirements cannot be enforced by the Authority, the national adoption of I-VMS requirements has been hindered by a dispute relating to one of the suppliers resulting in no data being provided and reporting rates for vessels 12m and over remain at once in every 2-hours which is of limited use regards managing small inshore fisheries.</p>	<p>Conservation legislation poses a risk to the fishery and in particular, the adoption of the precautionary principle where there is uncertainty. In particular, there is uncertainty about the impact of fisheries on oystercatcher (designated birds) and common seals within the Wash MPAs and the extent to which fishing activity has contributed to reported die-offs (oystercatchers) and reduced populations (Seals).</p> <p>The fisheries cannot be effectively managed under the interim measures in the longer-term. Delay in replacement with legislation (Wash Several Order) risks impacts to business continuity, particularly with regards to managing access.</p> <p>Byelaws inherited from Sea Fisheries Committees are unlikely to be capable of adequately managing cockle &amp; mussel fisheries outside of the Wash. There is a risk of environmental impact as a result and / or that a fishery could not be opened because of an inability to implement required management measures.</p> <p>Failure to collect vessel monitoring data detrimentally impacts the Authority's ability to effectively manage fisheries (including in relation to</p>	<p><b>Wash Cockle and Mussel Surveys and Management (business critical workstream)</b> – annual surveys and the adoption of well-established management measures mitigate risk of the fishery damaging the Wash MPAs and of not opening as a consequence of the precautionary principle. Management measures are well established and based on years of development and dialogue with fishing industry and SNCB.</p> <p><b>Fisheries Management Plans (Ongoing Priority workstream)</b> – Eastern IFCA is contributing to the development and implementation of FMPs and has the opportunity to inform the potential for impacts and benefits arising from the plans.</p> <p><b>Develop appropriate management of private shellfish aquaculture in The Wash (Revised Priority workstream)-</b> The Authority has applied for a Several order (under the Sea Fisheries (Shellfish) Act 1967 to replace that component of the WFO. However, this workstream is significantly delayed (external factors) although, is also of relatively little economic importance at present (although has high economic potential). This workstream now includes consideration of alternative means of managing Wash Aquaculture following Defra advice regarding the Authority's application.</p> <p><b>Complete Habitat Regulation Assessments in relation to 'unplanned fisheries' (Business critical workstream)</b> – where a fishery is identified outside of The Wash, an assessment will be undertaken to determine if a fishery can be opened, particularly in the context of MPAs. The risk is further mitigated by the power to implement emergency byelaws under s.157 of the Marine and Coastal Access Act 2009 in order to manage a fishery if the need to do so was urgent and not reasonably foreseen.</p> <p><b>Management of cockle and mussel fisheries (wild capture and private) (revised High Priority Workstream)</b> – this priority includes review and revision of inherited</p>	<p>High (on the basis of outstanding high priority workstream)</p>	<p>Investigate the disturbance effect of hand-work fishing activity on seals.</p> <p>Gather information in hand-gathering fisheries outside of Wash.</p>
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		compliance and evidence-based fisheries management decisions).	<p>byelaws which manage cockle and mussel fisheries outside of the Wash.</p> <p><b>Implementation of I-VMS for all fisheries specifically the Wash Shrimp fishery (dependent on partnership working with MMO led project) (revised High Priority workstream)</b> – consideration of implementing provisions for IFCA's to enforce VMS requirements and higher reporting rates for vessels 12m.</p> <p><b>Participation in the national 'Coastal Health' project and the pilot in The Wash (ongoing High Priority workstream)</b> – This workstream includes a Natural England project which is seeking to understand the implications of cockle mortality on bird food models used to inform management of Wash-based fisheries. This mitigates risks associated with meeting legal requirements (conservation objectives) for designated bird species.</p>	
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<b>Environmental</b>	<p>Cockle and mussel fisheries primarily take place in the highly designated and complex Wash MPAs.</p> <p>The fishing methods (hand working for cockles and mussel dredges) are generally considered to be of low environmental impact however non-compliance can cause significant damage and potentially impact the MPA.</p> <p>Both cockles and mussels in The Wash have been exhibiting atypical mortality which has changed the dynamic of the cockle fishery, and it thought to be contributing to poor mussel stocks.</p> <p>The Wash is likely to have a limited carrying capacity and capable of supporting a finite quantity of bivalve shellfish however this is unknown. There have historically been concerns that food availability (for bivalves) has not been able to support wild cockle and mussel populations. Water Framework Directive measures have, in general, led to less organic matter being washed into the Wash embayment potentially reducing the carrying capacity.</p> <p>A trend towards landing small (pre-spawning) cockles has been observed in recent years in conflict with the code of best practice.</p> <p>Mussel fisheries operate under the 2008 fishery 'management policies' which require review and revision in the</p>	<p>The fishery potentially poses a risk to the MPAs it operates in and particularly with regards to designated bird species and common seals (both of which include features which are in decline).</p> <p>The complexity of the Wash MPAs necessitates significant evidence gathering to avoid adopting a precautionary approach, failure to secure adequate evidence risks closure or significant restriction of the fishery.</p> <p>If food availability is limited, and private aquaculture or invasive species (such as slipper limpets and American razor clams which cannot be fished) are reducing the food available to wild commercial shellfish, this poses a risk to the long-term sustainability of the wild stocks.</p> <p>The presence of diseases in cockles and mussels poses a risk to the long-term sustainability of the fishery and impacts of the MPA features reliant on cockles.</p> <p>The mussel fishery management plan (management policies) was developed prior to the understanding of mussel mortality and does not enable effective management in the context of the recent stock recovery in The Wash.</p> <p>The cause of high E-Coli levels in The Wash are not understood and there is a risk that failure to identify such could result in high levels occurring more often with impacts on the fishery and industry viability. The Coastal Health intuitive is using the Wash as a case study to inform</p>	<p><b>Wash Cockle and Mussel Surveys and Management (business critical workstream) –</b> annual surveys and the adoption of well-established management measures mitigate risk of the fishery damaging the Wash MPAs and of not opening as a consequence of the precautionary principle. The workstreams also includes consideration of management in the context of the atypical mortality.</p> <p><b>Study of the Wash Embayment, Environment and Productivity (Business Critical workstream) –</b> monthly monitoring of phytoplankton levels and meat yields are undertaken to monitor food availability and inform management of private aquaculture to mitigate risks relating to food availability. However this does not reduce the risk associated with invasive non-native species (including razor clams and slipper limpets).</p> <p><b>Monitoring of district-wide biosecurity risk (Business Critical Workstream) –</b> A Wash Biosecurity plan is in place which is specifically relevant to the management of the Several fisheries and seeks to avoid introduction of invasive and non-native species and diseases.</p> <p><b>Participation in the national 'Coastal Health' project and the pilot in The Wash (ongoing High Priority workstream) –</b> This workstream includes a Natural England project which is seeking to understand the implications of cockle mortality on bird food models used to inform management of Wash-based fisheries. This mitigates risks associated with meeting legal requirements (conservation objectives) for designated bird species. This workstream also considers water quality which mitigates against associated risk.</p>	<b>High</b>	<p>Seek to investigate the disturbance effect of hand-work fishing activity on seals (seal disturbance)</p> <p>Investigate potential for removal of invasive Razor Clams in The Wash.</p> <p>Review mussel fisheries management plan</p>
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	<p>context of mussel mortality in The Wash.</p> <p>High E-Coli levels have been detected in The Wash and new measures have been brought in (by the Food Standard Agency) to protect public health.</p>	<p>national roll-out and is seeking to address this issue as part of that work.</p>			
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**Table 2. Crab and Lobster PESTLE analysis**

Factor	Analysis	Risk	Existing Mitigation (workstreams)	Risk & RAG	Potential additional mitigation
Political	<p>Negative articles and negative media coverage surrounding management within the MCZ.</p> <p>Ambitious environmental targets set via the 25 Year Environment Plan and Environmental Improvement Plan 2025.</p> <p>Government post-implementation review of the Environment Act (scheduled for 2026) in response to the five recommendations from the Office of Environmental Protection.</p> <p>The East Marine Plan is under review to inform its replacement.</p>	<p>Polarised stakeholders are dissatisfied by a balanced approach to managing the fishery (particularly in the Cromer Shoal MCZ) leading to reputational risk – potential to impact relationships with governing bodies/ partners / funders.</p> <p>Risk of impactful precautionary management measures for the protection of the environment at the expense of the fishery.</p> <p>Findings from the post-implementation review of the Environment Act lead to further legislative or policy drivers and additional requirements on the Authority.</p> <p>Marine spatial planning has the potential to contribute to additional marginalisation of fishing activity across sea users and particularly in the Eastern region given the high level of nationally important infrastructure activity (including offshore windfarm development).</p>	<p><b>Adaptive Risk Management (ARM) of Cromer Shoal Chalk Beds MCZ (Ongoing High Priority workstream)</b> – collaborative management of the fishing activity (which lends itself to the ‘co-management’ objective in the Fisheries Act 2020 which is also aligned with s.154 of the Marine and Coastal Access Act 2009 and SCNB advice. ARM includes adoption of an engagement strategy to mitigate risks regards polarised stakeholders so far as possible.</p> <p><b>Advice in relation to risk of conflicts with other marine users (Business critical)</b> – Contribution to the consideration of marine licencing applications provides potential for inshore fisheries to be well reflected and given due consideration.</p> <p><b>Contribute to the development and implementation of the Second Generation East Marine Plan (ongoing High Priority workstream)</b> – this workstream includes contribution to the development of the 2<sup>nd</sup> generation East Marine Plan with a view to ensure that local, inshore fisheries are well reflected.</p>	Medium	<p>Proactive dialogue and engagement with community leaders</p> <p>Evidencing success in delivering ARM – published updates, reports etc.</p>

<p style="text-align: center;"><b>Economic</b></p>	<p>The landed weight and value of both crab and lobster is high although it is also known to be an under-representation of the true total because of reporting criteria.</p> <p>Fishers targeting crab and lobster tend to be reliant on this fishery for the majority of their economic income.</p> <p>Known data gaps in economic importance of fishing grounds within MCZ – national data sets do not provide sufficient data (economic &amp; spatial).</p> <p>Information received about an increase in market demand for crab containing roe.</p> <p>Rising overheads including the price of bait.</p> <p>The productivity of the crab and lobster fisheries declined in 2025 (compared to 2024).</p> <p>North Norfolk Coast fisheries contribute to 'sense of place' and culture of the area – coastal communities have economic reliance on fishing culture (e.g. tourism).</p> <p>Natural Capital contribution of Cromer Shoal Chalk Bed habitats are unknown.</p> <p>Marine Conservation Society's 'good fish guide' rates the fishery as 'needs improvement' and does not take into account local conditions of the fishery relying on the stock assessment for the Southern North Sea.</p> <p>Edible crab and lobster have shown a steady increase in price per kilo annually.</p>	<p>Financial reliance on fishery increases risk of non-compliance with regulation which is compound by rising overheads. Risk of non-compliance creates risk to the fishery, the environment, economy and socially.</p> <p>Poorer fishery performance in 2025 impacts resilience of crab and lobster fishing business models.</p> <p>Increased demand for crab containing roe increases the risk to fisheries performance and long-term sustainability.</p> <p>'Good Fish Guide' rating potentially impacts the marketability of local crab catches, reducing its value.</p> <p>Increase in Lobster MCRS may detrimentally impact inshore fishers, particularly those with a limited range or operating around the North Norfolk Coast because there is limited scope to make up for losses by fishing for other species.</p> <p>Without external funding, the continuation of the ARM project, particularly in relation to the keystone Natural Disturbance Study research project, is at risk which could result in the Authority having to take a more precautionary approach to management with further economic impacts on local fishing businesses.</p>	<p><b>Adaptive Risk Management (ARM) of Cromer Shoal Chalk Beds MCZ</b> – seeks to mitigate risks to the environment and limit economic impacts on local fishing industry. Includes a potential workstream to determine economic importance of inshore MCZ areas and wider societal value of the MCZ. This workstream also includes identifying external funding streams to support the project.</p> <p><b>Enforcement and Education</b> – compliance monitoring and engagement to build qualitative evidence on the importance of inshore fishing grounds. Targeted information gathering regards 'roe crab' within engagement framework.</p> <p><b>Crab and Lobster Byelaw 2023</b> – includes provision to permit edible crab waste (i.e. cooked offal) to be used as bait to reduce bait costs (lobsters, whelks).</p> <p><i>N.B. The authority engaged with the MCS 'Good Fish Guide' during 2024 who consulted on changes to scores associated with the fishery. This highlighted the potential for the associated score to increase. MCS ultimately decided to keep the fishery under review for 12 months before making a decision on the score. The score change related primarily to management of the fishery over the Cromer Shoal MCZ. The MCS delayed planned updates to the scores in 2025 and dialogue is ongoing.</i></p> <p><b>Fisheries Management Plans</b> – Facilitate the implementation of an increased lobster MCRS including through dialogue with fishermen.</p>	<p style="text-align: center;"><b>Medium</b></p>	<p>Explore potential to enhance the value of landed catch (facilitate or contribute to Fisheries Improvement Plan and / or trademarking 'Cromer Crab') or as added benefit to delivery of ARM.</p> <p>Collaboration with Marine Management Organisation to develop spatially relevant datasets for economic data.</p> <p>Undertake local stock assessments to inform 'Good Fish Guide' rating within Eastern IFCA district and engage in dialogue with MCS GFG.</p>
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	<p>Implementation of increased MCRS for lobsters is underway (1mm increase per year up to 90mm).</p> <p>Failure to secure external funding to support the ARM project.</p>				
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<p style="text-align: center;"><b>Social</b></p>	<p>The crab and lobster fishery on the North Norfolk Coast and within the Cromer Shoal Chalk Beds MCZ is of cultural importance to coastal communities. Societal value of the Cromer Shoal Chalk Bed MCZ is broadly unquantified however.</p> <p>Multigenerational fishery with an aging demographic (many reportedly retiring in next 5-10 years) – industry concern regards lack of small scale fishing industry coming through to replace resulting in larger scale operations over traditional grounds.</p> <p>Highly polarised stakeholders in relation to management of potting fishery within the Cromer Shoal MCZ leading to dissatisfaction with 'balanced approach'.</p> <p>Information received from industry suggests that inshore areas in the MCZ (linked to the rugged chalk) are more productive and crucially important to smaller scale fishing activities.</p> <p>New regulation as a result of ARM and national FMP workstreams in combination with anticipated enforcement of I-VMS within the same financial year could lead to 'consultation fatigue' and confusion.</p>	<p>Loss of traditional / small scale fishing knowledge and skills.</p> <p>Less ownership / husbandry of the fishery potentially resulting in increased risk of impacts (sustainability / habitats).</p> <p>Conflict with and between stakeholders can cause negative media coverage (reputational risk) and undermine ARM within the Cromer Shoal Chalk Beds MCZ.</p> <p>Management decisions not informed by broader understanding of societal value of the fisheries and the MCZ risks unintentional social impacts.</p> <p>Fishery stakeholders become dissatisfied with extent of regulations and / or find it difficult to come to terms with cumulative changes to the detriment of compliance which increases the risk of damage to the environment and fisheries sustainability.</p>	<p><b>Adaptive Risk Management (ARM) of Cromer Shoal Chalk Beds MCZ</b> Collaborative and balanced approach to managing the fisheries within the MCZ supported by an Engagement Strategy. Also includes management measures (Cromer Shoal Chalk Beds MCZ) which could enhance / inhibit new entrants – the matter to be considered during consultation on relevant measures under the byelaw. Also includes potential for a societal value study to inform ARM and wider management. This included a review of the Engagement Strategy during 2024 to reduce risk.</p> <p><b>Enforcement and Education (business critical workstream)</b> Provides routine engagement with potentially impacted fishery stakeholders and supported by engagement / reference materials as required.</p>	<p style="text-align: center;"><b>Medium</b></p>	<p>Explore potential for knowledge exchange to capture traditional ways of working and pass on knowledge to new starters.</p>
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<p style="text-align: center;"><b>Technological</b></p>	<p>Vessels operating in the fishery vary markedly in their capacity (range in particular) making them more reliant on the area they currently operate within.</p> <p>Smaller inshore operators often do not have electrical generators or navigational equipment.</p> <p>Inshore Vessel Monitoring Devices have been rolled out nationally and a regulatory requirement to have them fitted and has been significantly delayed. The current use of Marine Management Organisation fishing licence conditions presents a challenge because the Authority cannot enforce such measures. In addition, a dispute regarding one of the main suppliers has resulted in no data being forwarded to the UK data hub for IFCA use.</p> <p>Three-minute reporting rates do not apply to vessels 12m and over.</p> <p>Evidence gathering within MCZ reliant on under-water ROV operation, which is impacted by weather and sea going capability and highly resource consuming video analysis.</p> <p>Limited technological opportunities to reduce impacts of potting on Cromer Shoal Chalk Beds MCZ identified.</p>	<p>Potential for smaller scale operators to be disproportionately impacted by new regulation as a result of limited capacity and range.</p> <p>Inshore vessels are less capable to adapt to comply with new regulations, including those associated with ARM. Non-compliance risks increase impacts on the MCZ and conflict with other stakeholders.</p> <p>Potential for MMO to deprioritise enforcement of IVMS provisions leading to increased non-compliance and impacts on the marine environment and associated fisheries sustainability.</p> <p>Lack of parity between under and over 12m vessels regards vessel tracking reporting rates has the potential to lead to disparities between management of associated fleets and increased risk of fisheries sustainability and environmental impacts.</p> <p>A lack of high spatial resolution fishing activity data jeopardises the delivery of ARM through a lack of evidence to support ongoing assessments and a failure to monitor and evidence compliance with relevant measures.</p> <p>Evidence gathering using under-water ROV detracts from delivery in other workstreams with various associated risks. Timescales to analyse data potentially not compatible with delivery of ARM.</p> <p>If fishing gear modifications are required to reduce impacts to the MCZ but cannot be identified or are too costly to action (by the</p>	<p><b>Adaptive Risk Management (ARM) of Cromer Shoal Chalk Beds MCZ) (ongoing priority workstream)</b> – Includes implementation of a byelaw which can require gear modifications to minimise damage to MCZ. Gear modification trials to be undertaken through this project. Project has also obtained navigational aids for fishers within MCZ to aid compliance.</p> <p><b>Implementation of I-VMS requirements for all fisheries</b> – continued facilitation of the I-VMS roll out including distribution of information and dialogue with MMO (lead organisation for I-VMS).</p>	<p><b>High (on the basis of outstanding high priority workstreams)</b></p>	<p>Explore use of AI to analyse ROV video evidence to reduce resource requirement.</p>
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		industry), the MCZ is at risk of damage and the fishery is at risk of closure.		
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<p style="text-align: center;"><b>Legal</b></p>	<p>Legal obligation to ensure sustainable fisheries and further the conservation objectives of MCZs (S.153 &amp; 154 of Marine and Coastal Access Act 2009).</p> <p>Vessel Monitoring requirements cannot be enforced by the Authority, the national adoption of I-VMS requirements has been hindered by a dispute relating to one of the suppliers resulting in no data being provided and reporting rates for vessels 12m and over remain at once in every 2-hours which is of limited use regards managing small inshore fisheries.</p> <p>Eastern IFCA has submitted the Cromer Shoal Chalk Beds Byelaw 2023 and the Crab and Lobster Byelaw 2023 for confirmation (via the MMO formal quality assurance process). The former will represent a significant shift in management of crab and lobster fisheries on the North Norfolk Coast.</p> <p>Defra have published the Crab and Lobster FMP which is seeking to harmonise management and ensure the fishery meets the objectives set in the Fisheries Act 2020, the 25 Year Environment Plan and the Environmental Improvement Plan 2025. This is likely to result in regulatory changes, potentially including increased MCRS for edible crabs.</p> <p>Implementation of increased MCRS for lobsters is underway (1mm increase per year up to 90mm) is being achieved via MMO licence conditions which the Authority cannot enforce.</p>	<p>The Authority's legal requirement to further the conservation objectives of the MCZ override the general duties of fisheries management. Ultimately, if ARM does not provide mitigations in the form of technical measures, and research identifies that the site's conservation objectives are being hindered, more impactful management measures may be required which risks detrimentally impacting the fishery significantly across a number of factors.</p> <p>Failure to collect vessel monitoring data detrimentally impacts the Authority's ability to effectively manage fisheries (including in relation to compliance and evidence-based fisheries management decisions).</p> <p>Byelaw provisions risk impacting the economic viability of the fishery.</p> <p>Harmonisation of minimum conservation reference sizes for crabs will be economically detrimental to the crab fisheries in the Eastern IFCA district which has been internationally recognised as justifying a smaller MCRS (of 115mm) including via an exemption to European measures historically.</p> <p>Implementation of the increased MCRS for lobster is hindered because IFCOs cannot enforce the measures.</p> <p>The increase in minimum size for crawfish and lobsters is not reflected in the Minimum sizes byelaw 2019 making the provision ultra vires (because IFCAs cannot implement management measures which are less stringent than national measures). For this reason, any action</p>	<p><b>Adaptive Risk Management (ARM) of Cromer Shoal Chalk Beds MCZ (Ongoing High Priority Workstream)</b> – ARM reduces the risk of implementing disproportionately impactful management measures on a precautionary basis. Includes implementation of a byelaw which enables the Authority to implement flexible management measures after undertaking an impact assessment and consultation with industry to mitigate the risk of unintended or excessive impacts where not required.</p> <p><b>Fisheries management Plans (Ongoing High Priority Workstream)</b> – Eastern IFCA is contributing to the development and implementation of FMPs and has the opportunity to inform the potential for impacts and benefits arising from the plans. This will include revision of the Authority's byelaws as required including the Minimum Sizes Byelaw 2019 with respect to lobster and crawfish.</p> <p><b>Implementation of I-VMS requirements for all fisheries (revised High Priority Workstream)</b> – consider implementing regulation to require standalone reporting devices.</p>	<p><b>High (on the basis of outstanding high priority workstreams)</b></p>	<p><b>None identified</b> (risk mitigated through existing workstreams)</p>
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	<p>The Sea Fisheries (Amendment) (No. 2) Regulations 2024 increased the minimum Conservation Reference Size for crawfish to 110mm in 2024.</p>	<p>taken by IFCOs in this regard could be challenged on a point of law. In addition, without revision of this byelaw, the new MCRS does not apply to recreational fishing.</p>			
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<p style="text-align: center;"><b>Environmental</b></p>	<p>The potting fishery within the Cromer Shoal MCZ imposes a low risk of hindering the conservation objectives in the short-term but impacts cannot be ruled out over time. The evidence base informing the associated assessment and SNCB advice is very limited.</p> <p>Cefas stock assessments indicate that the Southern North Sea stock of crab is being exploited beyond the associated maximum limits to achieve MSY but is stable and there is noted uncertainty noted in the model and data used. There is a strong upward trend in crab landings since 2010 although this is partly driven by a peak in 2019. Landings into Cromer specifically show a declining trend since 2019.</p> <p>Lobster data is significantly lacking and associated stock assessments carry high uncertainty. Landed weights of lobster show a downward trend over time, driven primarily by reductions in landed catch into Wells, Cromer and Grimsby. It is noteworthy also that the number of vessels operating from Grimsby and catching lobsters have conversely increased significantly although catch landed into this port will primarily come from outside of the Eastern IFCA district.</p> <p>Eastern IFCA has not been able to conduct a local assessment since the transition between data gathering forms (issued by the MMO) due to a lack of data. National data collection through the 'catch-app' does not provide the required accuracy or spatial resolution to inform MCZ management.</p> <p>Fishery stakeholders have reported shifts in the timing of the starting of the crab season indicating that it is starting sooner than is ordinarily expected.</p> <p>Engagement with stakeholders also identifies concerns about poor stock performance (crabs) and that increasing water temperatures, potentially as a consequence of climate change, is changing the seasonality of the crab fishery and the ultimate consequence of this is not well understood.</p> <p>Crab and Lobsters are generally caught with pots and traps at a commercial scale within the district (with crab tiling for bait being the</p>	<p>There is the potential that the fishery will hinder the conservation objectives of the MCZ which also risks implementation of a more precautionary approach (potentially to the detriment of the viability of the fishery).</p> <p>In lieu of local stock assessments, and better fisheries data (including effort estimates), the fishery appears to be operating at a level beyond Maximum Sustainable Yield, although this was not reflected in previous local assessments undertaken. Taking action to manage the fishery (including on a pre-cautionary basis), risks economic impacts which are potentially not proportionate.</p> <p>A shift in the start of the season could indicate the effects of climate change given that the crabbing season is strongly associated with water temperature.</p> <p>Potting is not currently considered likely to impact <i>Sabellaria</i> features within MPAs, however, recent MMO assessments have concluded the potential for impacts, and which may necessitate management within the district.</p> <p>Climate change driven changes to the ecosystem risk detrimentally impacting and displacing naturally</p>	<p><b>Adaptive Risk Management (ARM) of Cromer Shoal Chalk Beds MCZ (Ongoing high priority workstream)</b> – includes research projects to determine the extent of damage caused by potting and whether it is sufficient in scale to hinder the conservation objectives of the MCZ. Management measures are adopted as voluntary measures or flexible permit conditions which can be revised dynamically on the basis of new evidence.</p> <p><b>Completion of amber/green gear/feature interactions and development / implementation of management measures where required (Ongoing high priority workstream)</b>– In particular in relation to the impacts of potting on <i>Sabellaria</i> reef. This workstream is now delayed and has missed associated government deadlines.</p> <p><b>Monitoring of district-wide biosecurity risk (Business Critical Workstream)</b> – to identify emerging risks and potentially mitigate against them collaboratively with stakeholders. Does not fully mitigate biosecurity risks as it does not include consideration of actions to address the risks.</p> <p><b>Fisheries management Plans (Ongoing High Priority Workstream)</b> – an important component of FMPs is mitigating the impacts of climate changes and seeking to ensure fisheries are</p>	<p>High (on the basis of outstanding high priority workstreams)</p>	<p>Undertake local stock assessments to inform Cefas stock assessments and potential future management measures.</p> <p>Include consideration of climate change (water temperature in particular) impacts on the crab and lobster fisheries as part of local stock assessment.</p> <p>Collaboration with Cefas / industry to inform development of alternative assessment methods for lobster.</p> <p>Research and develop biosecurity action plan including potential solutions to known non-native species which could threaten local fishers.</p> <p>Consider implementing IFCA catch return forms to gather data required to inform MCZ and fisheries assessments.</p>
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	<p>only other form of fishing known within the district) and which are typically considered to be of low impact with the exception of within the Cromer Shoal Chalk Bed MCZ. However, the MMO have recently consulted on the prohibition of potting over the biogenic reef feature <i>sabellaria</i> sp. reef within the inner Dowsing, Race Bank and North Ridge SAC.</p> <p>Reports have been received of spider crabs being present within edible crab fishing grounds.</p>	<p>occurring systems and potentially risk the established fisheries.</p>	<p>resilient to such, potentially mitigating the associated risk.</p>		
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**Table 3. Shrimps PESTLE analysis**

Factor	Analysis	Risk	Existing Mitigation (workstreams)	Risk & RAG	Potential additional mitigation
<p><b>Political</b></p>	<p>Ambitious environmental targets set via the 25 Year Environment Plan and Environmental Improvement Plan 2025.</p> <p>Government post-implementation review of the Environment Act (scheduled for 2026) in response to the five recommendations from the Office of Environmental Protection.</p> <p>The East Marine Plan is under review to inform its replacement.</p> <p>The Joint Fisheries Statement did not include reference to shrimp fisheries as requiring a Fisheries Management Plan.</p>	<p>Risk of impactful precautionary management measures for the protection of the environment at the expense of the fishery. Particularly outside of the Wash and North Norfolk Coast SAC where there are limited management measures in place.</p> <p>Findings from the post-implementation review of the Environment Act lead to further legislative or policy drivers and additional requirements on the Authority.</p> <p>Marine spatial planning has the potential to contribute to additional marginalisation of fishing activity across sea users and particularly in the Eastern region given the high level of nationally important infrastructure activity (including offshore windfarm development).</p> <p>The UK shrimp fishery is almost exclusively within the Wash and North Norfolk Coast, diminishing the need for a national plan. However, there is the potential that the fishery becomes marginalised from a policy perspective as a result. The risk is particularly high with respect to consideration of the fishery with regards to the Marine Spatial Prioritisation programme and Marine spatial planning generally.</p>	<p><b>Effort monitoring within the Wash SAC and North Norfolk Coast including, and permit scheme administration (business critical workstream)</b> – The Authority manages Shrimp fishing within the Wash &amp; N. Norfolk Coast through a flexible permit byelaw which enables the introduction, variation or revocation of management measures to address the needs of the fishery and the environment and enables adaption in the context of policy change.</p> <p><b>Completion of amber/green gear/feature interactions and development / implementation of management measures where required (Ongoing High Priority Workstream)</b> – Completion of the outstanding assessments within the district will mitigate this risk although could result in additional management measures and restrictions on the fishery.</p> <p><b>Advice in relation to risk of conflicts with other marine users (business critical workstream)</b> – Contribution to the review of the East Marine Plan provides potential for inshore fisheries to be well reflected and given due consideration.</p> <p><b>Contribute to the development and implementation of second generation East Marine Plan (ongoing High Priority Workstream)</b> – this workstream will ensure that the importance of the shrimp fishery will be reflected in the 2<sup>nd</sup> Generation East Marie Plan</p>	<p><b>Low (but High in relation to delivery of Amber and Green assessment)</b></p>	

<p style="text-align: center;"><b>Economic</b></p>	<p>Wash brown shrimp is nationally significant, accounting for ~95% of shrimp fished in UK waters.</p> <p>The shrimp fishery supports between 30 and 58 vessels annually although showing a general decline since 2010. Shrimp is processed by three local factories supporting tertiary employment. First sale value of catch was £2.7m in 2023 across 34 vessels.</p> <p>The fishery supports diversification of Wash fishing business models to maintain business continuity where other fisheries perform poorly (particularly cockles).</p> <p>Increased overheads and operating costs were impactful during 2021 to 2023, in particular, fuel and energy costs.</p> <p>The price per kilo of shrimp has shown a gradual increase over time and a significant increase in 2023 (almost twice the average price per kilo).</p> <p>The main fishery is reportedly reliant on retaining the MSC accreditation to provide access to markets.</p> <p>Landings are highly variable year-to-year, depending on shrimp populations and market demand.</p> <p>Shrimp catch represents, on average, circa 45% of annual landed catch of those who target it. There are few other species to target in poor performance years (cockles and whelks primarily).</p>	<p>The relative importance of the fishery to Wash-based industry is significant and poor performance risks significant impacts to livelihood and maintaining the infrastructure to facilitate the fishery (i.e. processors).</p> <p>The natural variability of the fishery and the increased overheads represents a risk to business continuity, particularly in the context of there being very few other available target species locally.</p> <p>Management measures or poor fisheries performance which do not enable inshore fishers to diversify into the fishery as needed risks impacting business models, particularly if the Wash cockle fishery performs poorly.</p> <p>Poor fisheries performance could drive non-compliance given economic reliance of most business models, particularly with regards to the Shrimp Effort limitation scheme.</p> <p>Failure to adhere to MSC requirements could result in loss of accredited status, damaging the reputation and economic viability of the fishery.</p>	<p><b>Shrimp Fishery Management (MSC accreditation) (business critical workstream)</b> – The industry led management plan which secured shrimp accreditation from the Marine Stewardship Council includes management of the stocks to reduce the risk of continued poor performance as a result of fishing activity and monitoring and analysis of fishing data which mitigates economic risk to an extent.</p> <p><b>Effort monitoring within the Wash SAC and North Norfolk Coast including, and permit scheme administration (business critical workstream)</b> –The shrimp effort limitation scheme seeks to not limit access to the fishery so as to enable diversification of inshore fishers but is a flexible management mechanism which can be amended to suit the particular needs of the fishery as informed by routine monitoring.</p>	<p style="text-align: center;"><b>Medium</b></p>	<p>Economic assessment of shrimp fishery to determine extent of economic reliance and better understand the different business models which rely on access to the shrimp fishery, including outside of The Wash and North Norfolk Coast.</p>
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	<p>There is little information about the economic importance of shrimp fishing outside of the Wash and North Norfolk Coast SAC.</p>				
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<p style="text-align: center;"><b>Social</b></p>	<p>The fishery is, to an extent, self-regulated via the MSC shrimp accreditation, with measures primarily implemented by processors refusing to purchase shrimp from non-compliant vessels.</p> <p>Whilst self-regulation via market control is often seen as preferable to implementing regulation, there is concern from some stakeholders that buyers have significant control of the fishery.</p> <p>A range of business models exist within the Wash shrimp fishery; some are wholly reliant on the fishery, others rely on it very occasionally as something to diversify into if other fisheries perform poorly.</p> <p>Outside of The Wash, the fisheries are very small scale, some operating hand-deployed shrimp trawls.</p> <p>The effort limitation scheme (implemented by Eastern IFCA) also intends to utilise co-management to manage effort within environmental parameters in the first instance.</p> <p>The fishery is of national importance given that it represents circa 95% of UK shrimp landings.</p> <p>Environmental NGOs typically regard any bottom towed gear as a threat to marine habitats.</p> <p>The fishery is of local, cultural importance and historically included a pink shrimp fishery which is no longer present due to market conditions and restrictions on fishing over areas of <i>Sabellaria</i> reef,</p>	<p>Where fisheries performance is poor, the self-regulatory system could favour certain business models over others.</p> <p>Additional restrictions, partialy on access to the fishery, could impact business continuity of stakeholders who rely on shrimp as a fishery to diversify into rather than on a regular basis.</p> <p>As a consequence of the range of business models within the fishery, measures which restrict the fishery are likely to result in uneven impacts across the different business models.</p> <p>Small scale fisheries outside of the Wash and North Norfolk Coast risk being marginalised and impacted by other sea use developments, particularly because they do not typically generate fishing data as a consequence of their small scale.</p> <p>Inshore fishing business models typically require the ability to diversify into various fisheries and the experience requirement may impact such for fishers who do not meet the requirements.</p>	<p><b>Shrimp Fishery Management (MSC accreditation) (business critical workstream)</b> – Eastern IFCA works collaboratively with the industry led accreditation scheme and isa member of the Shrimp Fisheries Assessment Working Group. Where market failures are detected which inhibit the fishery with respect to the Authority’s main duties, management measures (byelaws) may be considered).</p> <p><b>Effort monitoring within the Wash SAC and North Norfolk Coast including, and permit scheme administration (business critical workstream)</b> – Management of shrimp fishing in accordance with the effort limitation scheme will include consultation with wider industry and consideration of impacts across business models to seek to minimise impacts on any one in particular. The permit conditions underpinning this management are to be reviewed during 2025. Specific consideration can be given to the ‘experience requirements’ and potential impacts.</p> <p><b>Advice in relation to risk of conflicts with other marine users (Business critical)</b> – Contribution to the review of the East Marine Plan provides potential for inshore fisheries to be well reflected and given due consideration.</p>	<p><b>Low</b></p>	
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	<p>further diminishing the species available to inshore fishermen in the area.</p> <p>Stakeholders from outside of the Wash and North Norfolk Coasts have expressed concern that current 'experience requirements' in place under Category 1 Shrimp permits (to fish within The Wash and North Norfolk Coast SAC) are excluding them from entering the fishery.</p>				
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Technological</p>	<p>A dispute regarding one of the main IVMS suppliers has resulted in no data being forwarded to the UK data hub for IFCA use.</p> <p>Alternative fishing gears are known to exist which potentially reduce the extent of the interaction with sensitive habitat but previous attempts to investigate such have been unsuccessful.</p> <p>Fishing vessel life spans vary, but there is a general trend for vessel sizes to increase once replaced.</p>	<p>Potential financial impact if eligible shrimp fishermen have not installed I-VMS via the national roll out grant scheme at the time associated regulation comes into effect.</p> <p>Failure to obtain data from IVMS devices due to dispute with supplier risks higher levels of non-compliance and a failure to collect fishing activity data to enable effective management of the fishery.</p> <p>Gear modification or alternative gear types could reduce the need for effort limitations.</p> <p>Increased vessel size and capacity could increase the impact of the shrimp fleet overall on sensitive habitats.</p>	<p><b>Implementation of I-VMS for all fisheries specifically the Wash Shrimp fishery (dependent on partnership working with MMO led project) (Ongoing Priority workstream)</b> – The situation with the roll out of I-VMS is being followed and the Authority is working collaboratively with the MMO to facilitate the SI coming into effect.</p> <p><b>Effort monitoring within the Wash SAC and North Norfolk Coast including, and permit scheme administration (business critical workstream)</b> – Monitoring of shrimp fishing effort includes monitoring vessel and gear replacement to mitigate the risk of technological creep increasing the impact (footprint) of the fishery. The byelaw which underpins the effort limitation scheme includes a provision which enables the Authority to harmonise VMS reporting rates as necessary.</p> <p><b>Implementation of I-VMS for all fisheries specifically the Wash Shrimp fishery (dependent on partnership working with MMO led project) (revised Priority workstream)</b> – Consider the need to adopt alternative devices within the fishery to obtain required data.</p>	<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Med</p>	<p>Investigate potential gear modifications or alternative gear types which reduce interaction with sensitive features.</p> <p><b>Consider roll-out of vessel monitoring systems outside of I-VMS (i.e. separate trackers).</b></p>

<p style="text-align: center;"><b>Legal</b></p>	<p>The Shrimp Permit Byelaw 2018 is in effect and has been fully implemented.</p> <p>The Conservation of Habitats and Species Regulations 2017 requires that fishing activity does not detrimentally impact site integrity of MPAs.</p> <p>Vessel Monitoring requirements cannot be enforced by the Authority, the national adoption of I-VMS requirements has been hindered by a dispute relating to one of the suppliers resulting in no data being provided and reporting rates for vessels 12m and over remain at once in every 2-hours which is of limited use regards managing small inshore fisheries.</p>	<p>Failure to harmonise reporting rates between I-VMS and VMS+ will limit the benefit of I-VMS generally, as a significant proportion of fishing activity within inshore region is undertaken by vessels larger than 12m and will not have I-VMS. A lack of data presents a significant risk to the continuation of the fishery in The Wash given the highly sensitive habitats and requirement to monitor, to a very high spatial resolutions, fishing activity over these habitats.</p> <p>Restrictions which may have economic impacts on the fishery may have to be imposed to prevent impacts to site integrity of associated MPAs.</p>	<p><b>Implementation of I-VMS for all fisheries specifically the Wash Shrimp fishery (dependent on partnership working with MMO led project) (Ongoing Priority workstream)</b> – Whilst the Shrimp Permit Byelaw has been used to implement a requirement for 3-minute reporting across all permitted vessels, some IVMS units are not reporting the UK data hub. As such, consideration will be given to alternative devices.</p> <p><b>Effort monitoring within the Wash SAC and North Norfolk Coast including, and permit scheme administration (business critical workstream)</b> – the fishery is managed via the Shrimp permit Byelaw and associated effort limitation scheme to ensure compliance with the Habitat Regulations.</p>	<p><b>Low</b></p>	<p>None identified (<i>risk associated with IVMS data is addressed in 'technology' section</i>).</p>
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<b>Environmental</b>	<p>Shrimp stocks are highly variable annually but stable over-time and very resilient to long-term impacts of overfishing. Shrimp fishing effort is not managed by Eastern IFCA but is self-regulated via an industry led accreditation Scheme.</p> <p>Shrimp beams (a type of bottom towed gear) interact with the seabed and have the potential to detrimentally impact seabed habitats. The main shrimp fishery operates in a heavily designated MPA (The Wash).</p> <p>One of the main suppliers is not forwarding IVMS data to the UK data hub.</p> <p>Reports of recreational beam trawling in Suffolk</p> <p>Natural England have revised their advice with regards to managing <i>Sabellaria</i> reef within one MPA to the effect that a more precautionary approach is required. <i>Sabellaria</i> reef and bottom-towed-gear is a red-risk interaction which requires the pressure to be removed (i.e. closure to areas supporting the feature). This primarily effects shrimp beam trawling (the primary use of bottom-towed-gar in the district). The revised advice is on the basis that an adaptive risk management approach is no longer appropriate because of a lack of monitoring of <i>Sabellaria</i> reef by Eastern IFCA within the associated MPA.</p>	<p>Highly resilient stocks supported by harvest control rules (implemented by the industry in relation to the accreditation) presents very low risk to stocks.</p> <p>Interaction between bottom-towed shrimp nets and seabed has potential to damage protected habitats within MPAs, particularly in the Wash Special Area of Conservation (SAC) and cause damage through by-catch.</p> <p>Adequate fisheries data to inform continuous monitoring of the effects of shrimp fishing on the associated MPAs is required to meet the obligations under the habitats Regulations and ensure the integrity of MPAs. Failure to secure this data risks the requirement to adopt a precautionary approach and implement further restrictions the fishery, impacting industry viability.</p> <p>Recreational shrimp fishing using towed gear has the potential to impact the integrity of MPAs. This is of particular risk given that the Shrimp Permit Byelaw 2018 is not applicable to recreational fishing and because the scale of the activity is unknown.</p> <p>The revised NE advice requires revisions to the MPA Byelaw 2021 (not yet in effect) with respect to the associated MPA. The advice may be relevant to other MPAs also, leading to a requirement for either further monitoring or further closures).</p>	<p><b>Shrimp Fishery Management (MSC accreditation) (business critical workstream)</b> – Eastern IFCA works collaboratively with the industry led accreditation scheme and isa member of the Shrimp Fisheries Assessment Working Group. Where market failures are detected which inhibit the fishery with respect to the Authority’s main duties, management measures (byelaws) may be considered.</p> <p><b>Implementation of I-VMS for all fisheries specifically the Wash Shrimp fishery (dependent on partnership working with MMO led project) (revised High Priority workstream)</b> – The Authority has implemented a requirement for all permitted vessels to have on board a functioning VMS device (IVMS or VMS+) and for reporting rates to be 1 in every 3-minutes. However, the revised priority includes consideration of an alternative device to mitigate risk associated with one of the main suppliers not forwarding data to the UK data hub.</p> <p><b>Effort monitoring within the Wash SAC and North Norfolk Coast including, and permit scheme administration (business critical workstream)</b> – the fishery is managed via the Shrimp permit Byelaw and associated effort limitation scheme to ensure compliance with the Habitat Regulations.</p> <p><b>Completion of amber/green gear/feature interactions and development / implementation of management measures where required (Ongoing High Priority Workstream)</b> – Completion of the outstanding assessments within the district will mitigate this risk although could result in additional management measures and restrictions on the fishery, including on recreational fishing activity.</p>	<b>High (on the basis of outstanding High Priorities)</b>	<p><b>Habitat mapping workstream to include <i>Sabellaria</i> reef monitoring in relevant MPAs and/or revised closures for the protection of the feature.</b></p> <p>Investigate the extent of recreational shrimp trawling throughout district to inform the need to implement associated management measures.</p> <p><b>Consider roll-out of vessel monitoring systems outside of I-VMS (i.e. separate trackers).</b></p>
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<b>Table 4. Whelk Fisheries PESTLE analysis</b>					
<b>Factor</b>	<b>Analysis</b>	<b>Risk</b>	<b>Existing Mitigation (workstreams)</b>	<b>Risk &amp; RAG</b>	<b>Potential additional mitigation</b>

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<p style="text-align: center;"><b>Political</b></p>	<p>Ambitious environmental targets set via the 25 Year Environment Plan and Environmental Improvement Plan 2025 which include delivery of management measures in all MPAs by end of 2024).</p> <p>Government review and revision of the Environment Act (scheduled for 2026) in response to the five recommendations from the Office of Environmental Protection.</p> <p>The East Marine Plan is under review to inform its replacement.</p>	<p>Risk of impactful pre-cautionary management measures for the protection of the environment at the expense of the fishery.</p> <p>Marine spatial planning has the potential to contribute to additional marginalisation of fishing activity across sea users and particularly in the Eastern region given the high level of nationally important infrastructure activity (including offshore windfarm development).</p>	<p><b>Advice in relation to risk of conflicts with other marine users (Business critical)</b> – Contribution to the review of the East Marine Plan provides potential for inshore fisheries to be well reflected and given due consideration.</p> <p><b>Completion of amber/green gear/feature interactions and development / implementation of management measures where required (Ongoing High Priority Workstream)</b> – Completion of the outstanding assessments within the district will mitigate the risk of disproportionate pre-cautionary measures to an extent although could result in additional management measures and restrictions on the fishery. In particular, with respect to use of whelk pots over biogenic reef habitats.</p> <p><b>Contribute to the development and implementation of the Second Generation East Marine Plan (ongoing High Priority workstream)</b> – this workstream includes contribution to the development of the 2<sup>nd</sup> generation East Marine Plan with a view to ensure that local, inshore fisheries are well reflected</p>	<p><b>Low</b></p>	<p>None identified</p>
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<p style="text-align: center;"><b>Economic</b></p>	<p>Fishery is of high economic importance locally, supporting 32 vessels in 2023, with an average total annual first sale value of £1.6m. Whelks are also processed within the district with tertiary local economic benefits.</p> <p>The fishery in its current form is relatively novel, having previously been a more marginal fishery prosecuted only during winter months.</p> <p>Vessels which target whelk are typically highly reliant on whelk landings as a proportion of their total income (on average, 67%).</p> <p>Analysis of catch and effort data indicate that the fishery is relatively stable however there are concerns .</p> <p>The increased minimum landing size for whelk within the Eastern IFCA district is potentially impacting the viability of the fishery in Suffolk, where it is reported anecdotally that the size of maturity is less than within Norfolk and Lincolnshire.</p> <p>Eastern IFCA has submitted an amendment to the byelaw prohibiting the use of edible crab for bait which would permit the use of cooked offal.</p>	<p>Given the high reliance on the fishery and its contribution to supporting local processing facilities, poor productivity could have significant local economic impacts and the loss of local processing infrastructure.</p> <p>A decline in LPUE will reduce the profitability of catch, (particularly in the context of higher overheads as a result of inflation etc.) and increase the risk of non-compliance with measures (particularly the pot limitation and the minimum size).</p> <p>A disproportionately high minimum size for whelk potentially limits the local inshore fleet from diversifying into the fishery and detrimentally impacts business continuity and reduces resilience of associated business models. This was highlighted as a key risk during the 2024 review of whelk permit conditions.</p> <p>Use of cooked edible crab offal as bait will potentially reduce bait costs and increase catches, potentially increasing LPUE.</p>	<p><b>Development of measures to address the sustainability of whelk stocks (Business critical workstream)</b> – whelk fisheries are monitored routinely to inform the need for management measures which can be implemented via the Whelk Permit Byelaw 2016. The management mechanism enables flexible management measures to meet the needs of the fishery and mitigates the risk associated with impacts arising from declines in stocks. However, in lieu of an effective stock survey, the monitoring relies primarily on monitoring LPUE which can cause a lag between identifying an issue and the stocks having been over fished.</p> <p>The above workstreams includes investigation into the size of maturity of whelks to determine its appropriateness.</p>	<p style="text-align: center;"><b>Medium</b></p>	<p>Consider alternative methods for monitoring whelk stocks</p> <p>Seek out opportunities to identify and promote markets for other available species (e.g. herring) within the district to reduce reliance on key species.</p>
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<p style="text-align: center;"><b>Social</b></p>	<p>Non-compliance within the whelk fishery is one of the key concerns of industry.</p> <p>Mixed views on the sustainability of the whelk fishery from the perspective of industry.</p> <p>Concerns raised about the minimum size for whelk and the impact on fishers in Suffolk.</p> <p>Conflict between fishermen, particularly over whelk fishing grounds and in relation to disturbing fishing gear.</p>	<p>Compliant fishers may become dissatisfied if they perceive non-compliance to go undetected and without recourse. Increases likelihood of conflict and non-compliance.</p> <p>Inability to reassure stakeholders that the fishery is sustainable risks disenfranchising stakeholders, reducing buy-in to existing measures and increasing the likelihood of impacts from non-compliance.</p> <p>Conflict between stakeholders increases the likelihood of economic impacts (lost gear, lost fishing grounds etc,) and reduces likelihood of collaborate approach to managing fisheries. Increases tendency towards market failures and increased likelihood of impacts on fisheries sustainability.</p>	<p><b>Development of measures to address the sustainability of whelk stocks (Business critical workstream)</b> – whelk fisheries are monitored routinely although the outputs from monitoring are not routinely published. Publishing outputs may increase stakeholder confidence in the measures and the compliance activities which support them.</p>	<p><b>Low</b></p>	<p>None identified</p>
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<p style="text-align: center;"><b>Technological</b></p>	<p>Inshore Vessel Monitoring Devices have been rolled out nationally. However, the national requirement to have them fitted and operating is significantly delayed.</p> <p>Engagement has identified that rotary riddles are now being deployed within the fishery.</p>	<p>Potential financial impact if eligible fishermen have not installed I-VMS via the national roll out grant scheme at the time associated regulation comes into effect.</p> <p>Failure to implement I-VMS through national legislation reduces the ability of the Authority to effectively monitor compliance and fishing effort. This is a particularly high risk within the whelk fishery given that the 2024 review of whelk permit conditions identified that non-compliance with the pot limitation was a significant risk to fisheries sustainability.</p> <p>Implementation of I-VMS requirements nationally will significantly reduce risk associated with other factors (particularly environmental). The significant delays to the national requirement coming into effect has increased the associated risk in the context of the high-risks associated with the Whelk fishery in The Wash.</p> <p>The use of rotary riddles presents a risk primarily because of conflicting evidence regarding the potential impact of their use, with some evidence to suggest they increase mortality of bycatch conflicting with evidence that they are beneficial overall. The level of risk is mitigated at this time by the low level of adoption of the technology, with only one vessel thought to be using it at this time.</p>	<p><b>Implementation of I-VMS for all fisheries specifically the Wash Shrimp fishery (dependent on partnership working with MMO led project) (Ongoing Priority workstream)</b> – The situation with the roll out of I-VMS is being followed and the Authority is working collaboratively with the MMO to facilitate the SI coming into effect. However national roll-out is now significantly delayed.</p>	<p><b>High</b></p>	<p>Investigate the potential for rotary riddles to impact the whelk fishery.</p> <p><b>Consider roll-out of vessel monitoring systems outside of I-VMS (i.e. separate trackers).</b></p>
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<p style="text-align: center;">Legal</p>	<p>Defra have published a Whelk FMP which will potentially result in novel management regimes to manage whelks at a national level.</p> <p>Vessel Monitoring requirements cannot be enforced by the Authority, the national adoption of I-VMS requirements has been hindered by a dispute relating to one of the suppliers resulting in no data being provided and reporting rates for vessels 12m and over remain at once in every 2-hours which is of limited use regards managing small inshore fisheries.</p> <p>The Conservation of Habitats and Species Regulations 2017 requires that fishing activity does not detrimentally impact site integrity of MPAs.</p> <p>Whelk permit conditions are due for review in 2024.</p> <p>Increased levels of non-compliance detected.</p>	<p>Whelk stocks are thought to be highly localised and benefit from a regional / local level of management. National level management risks causing unintended economic or environmental impacts if management is harmonised without considering the local context.</p> <p>Potential for MMO to deprioritise enforcement of IVMS provisions leading to increased non-compliance and impacts on the marine environment and fisheries sustainability.</p> <p>Lack of parity between under and over 12m vessels regards vessel tracking reporting rates has the potential to lead to disparities between management of associated fleets and increased risk of fisheries sustainability and environmental impacts.</p> <p>Potting is not currently considered likely to impact <i>Sabellaria</i> features within MPAs, however, recent MMO assessments have concluded the potential for impacts and which may necessitate management within the district, particularly in the context of the target to remove all damaging activities from MPAs by end of 2024.</p> <p>Non-compliance with permit conditions risks impacting the sustainability of the fisheries and impacting the environment.</p>	<p><b>Development of measures to address the sustainability of whelk stocks (Business critical workstream)</b> – Measures to require vessel trackers were agreed by the Authority in 2025 and are to be implemented in 2026. This addresses risk associated with the disparity between vessels under and over 12m as it requires all permitted vessels to have onboard functioning trackers which report at 3-minute intervals. It does not address the risk associated with the dispute with a VMS supplier which results in no data being provided to the UK data hub however. .</p> <p><b>Fisheries management Plans (Ongoing high priority workstream)</b> – Eastern IFCA is contributing to the development and implementation of FMPs and has the opportunity to inform the potential for impacts and benefits arising from the plans. This may include implementing addition regulatory measures to meet the aims of the FMP.</p> <p><b>Implementation of I-VMS for all fisheries specifically the Wash Shrimp fishery (dependent on partnership working with MMO led project) (revised priority workstream)</b> – Consider requiring vessel tracking devices separate to I-VMS.</p>	<p style="text-align: center;">Low</p>	
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<p style="text-align: center;"><b>Environmental</b></p>	<p>Stakeholder concerns have been raised regarding stock sustainability, and recent monitoring indicates that the stocks may be declining. The confidence in catch return data is reduced however due to suspected non-compliance and overall landings are showing a general increase. The Wash whelk fishery has been identified as being of a high risk. The risk is in part associated with non-compliance with pot limitations.</p> <p>Potting fisheries may impact biogenic reef features within MPAs although no such assessment has been undertaken within the district as of yet.</p> <p>Reports of the whelk fishing season starting later in the year, potentially due to unseasonably high water temperatures.</p>	<p>Whelks are particularly sensitive to over-fishing being slow growing and of low mobility – stock replenishment can be slow and has historically resulted in a ‘boom and bust’ fishery, prior to the introduction of management measures to control effort. Stock collapse would have large scale impacts on fishing livelihoods and the associated tertiary employment (lorry drivers, processors, bait providers etc.).</p> <p>Impacts on biogenic reef can have dipropionate large impacts on general biodiversity and the integrity of associated MPAs.</p> <p>The potential impacts of climate change are generally unknown with regards to whelks.</p>	<p><b>Development of measures to address the sustainability of whelk stocks (Business critical workstream)</b> – Following a review in 2024, the Authority agreed to additional measures (permit conditions) in 2025 which will be implemented during 2026.</p> <p><b>Completion of amber/green gear/feature interactions and development / implementation of management measures where required (Ongoing High Priority Workstream)</b> – Completion of the outstanding assessments within the district will mitigate this risk although could result in additional management measures and restrictions on the fishery, including on recreational fishing activity.</p>	<p style="text-align: center;"><b>Medium</b></p>	<p><b>Implementation of additional measures in The Wash to reduce risk associated with over-fishing.</b></p>
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**Table 5. Key Finfish Fisheries (Herring, Sole, Thornback, Bass, Plaice, Whiting, Smoothound, Cod, Sprat) PESTLE analysis**

Factor	Analysis	Risk	Existing Mitigation (workstreams)	Risk & RAG	Potential additional mitigation
<b>Political</b>	<p>Ambitious environmental targets set via the 25 Year Environment Plan and Environmental Improvement Plan 2025.</p> <p>Government review of the Environment Act (scheduled for 2026) in response to the five recommendations from the Office of Environmental Protection.</p> <p>The East Marine Plan is under review to inform its replacement.</p> <p>Development of measures to deliver marine biodiversity Net Gain and compensation for impacts from nationally important infrastructure projects through the Marine Recovery Fund including by offsetting impacts from other sea users by reducing fishing pressure.</p>	<p>Risk of impactful precautionary management measures for the protection of the environment at the expense of the fishery.</p> <p>Marine spatial planning has the potential to contribute to additional marginalisation of fishing activity across sea users and particularly in the Eastern region given the high level of nationally important infrastructure activity (including offshore windfarm development) and the low economic value (first sale value) of this group in particular.</p> <p>Potential for fishing opportunities to be reduced to compensate for detrimental impacts from other plans or projects. This is of particular concern within this fishery given the limited number of available target species and the higher impact associated with the gear used in this fishery (particularly in relation to beam trawling).</p>	<p><b>Advice in relation to risk of conflicts with other marine users (Business critical)</b> – Contribution to the review of the East Marine Plan provides potential for inshore fisheries to be well reflected and given due consideration. This will include consideration of economic &amp; wider benefits of the associated fisheries not captured by economic fisheries data presently and contribution to the review and development of a replacement East Marine Plan.</p> <p><b>Completion of amber/green gear/feature interactions and development / implementation of management measures where required (Ongoing High Priority Workstream)</b> – Completion of the outstanding assessments within the district will mitigate the risk of disproportionate pre-cautionary measures to an extent although could result in additional management measures and restrictions on the fishery. In particular, with respect to use of whelk pots over biogenic reef habitats.</p> <p><b>Contribute to the development and implementation of the Second Generation East Marine Plan (ongoing High Priority workstream)</b> – this workstream includes contribution to the development of the 2<sup>nd</sup> generation East Marine Plan with a view to ensure that local, inshore fisheries are well reflected</p>	<b>Medium</b>	<p>Explore options to better understand the 'value' (economic, societal etc.) of commercial and Recreational fin-fish fisheries within the district to inform and influence policy development in relation to biodiversity net gain and compensatory measures for nationally important infrastructure projects.</p>

<p style="text-align: center;"><b>Economic</b></p>	<p>The value of landed catch shows a downward trend since 2010 (primarily as a consequence of a sharp decline between 2010 and 2014), however, year-on-year increases since 2023 of circa 30% have been observed.</p> <p>Fishing data relating to this group potentially under-represents the actual landing and economic value given that many operators are small scale and sell directly to the public and do not therefore generate economic fisheries data. Conversely, it may also represent some larger scale fishing operations occurring offshore which are not relevant to the district. As such there are noted limitations to this dataset and the outputs for this part of the assessment.</p> <p>Key finfish species price per kilo typically fluctuates seasonally but generally show an upward trend over time and a partial strong increase during 2023.</p> <p>In Suffolk particularly, these fisheries also contribute to the sense of place and is of cultural importance, likely generating economic benefits (e.g. from tourism) as a result although these are poorly understood.</p> <p>Herring catch has continued to increase in price per kilo during 2025 but the North Sea herring quota will decrease by 30% for 2026 (compared to 2025).</p> <p>The species within this group also represent important Recreational fisheries (particularly Bass) with some estimates indicating that some 90% of fin-fish fishing mortality is as a consequence of RSA activity. The extent RSA activity contributes to the economy are not well understood at a local scale.</p>	<p>The general downward trend in vessels operating in the fishery and catch indicates that the fisheries may generally be in decline.</p> <p>Limited economic understanding of the fishery presents a risks that future management may have unintended consequences.</p> <p>Increased value of herring catch could lead to sudden increases in effort and potentially increases risk of non-compliance with fisheries legislation, particularly in the context of reduced herring quotas.</p> <p>The first sale value of fin-fish fisheries does not the wider importance of the fisheries, and this risks the fishery not being taken into account in national policy development, particularly in relation to the Bass FMP.</p> <p>The low economic value and low number of target species available to fin-fish fishers reduces business resilience which is compounded by the prohibition on drift-netting for bass.</p>	<p><b>Compliance monitoring and engagement in accordance with the Compliance Risk Register and TCG (business critical workstream)</b> – Compliance activities reduces the risk of non-compliance through monitoring to inform targeted enforcement action and engagement with industry to ensure buy-in with management measures.</p> <p><b>Engagement and education with RSAs (business critical workstream)</b> – compliance activities and management with RSA inform the general understanding of the fisheries and mitigate the associated risk to an extent in combination with national RSA studies (e.g. the ‘Sea Angling’ projects including the 2012 and 2021 reports).</p> <p><b>Fisheries management Plans (ongoing high priority workstream)</b> – given that all the associated species feature in a current or future FMP (as listed within the Joint Fisheries Statement), risks associated with the fisheries generally can be mitigated against through collaboration on the development of associated FMPs. In particular, contribution to the development of implementation plans for the Bass FMP will ensure that local fisheries are appropriately reflected.</p> <p><b>Consider development of a bass drift net trial within the district to gather evidence regarding the risk posed to fisheries and the environment (new priority workstream)</b> – a scientific study to consider the impacts of drift net fishing would provide evidence in relation to impacts on other gears (likely to include fixed nets) and would inform wider HRAs.</p>	<p><b>High</b></p>	<p>Detailed analysis of fin-fish fisheries and report on reasons for general decline.</p> <p>Explore options to better reflect the ‘value’ (economic, societal etc.) of fin-fish fisheries within the district.</p> <p>Explore potential for increasing the value of local catch.</p> <p>Undertake a more detailed economic assessment of these fisheries.</p> <p><b>Consider the development of a drift net study (under the FMP priority workstream).</b></p>
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<p style="text-align: center;"><b>Social</b></p>	<p>Whilst the finfish fisheries are of lower total economic value compared to other key fisheries, they support on average more vessels (67 on average annually since 2010) and business models can be highly dependent on relatively low catches of high value species (particularly Sole and bass).</p> <p>The number of vessels operating in this fishery shows a strong downward trend.</p> <p>In Suffolk particularly, the local fishing industry is also thought to contribute to the sense of place and is of cultural importance.</p> <p>Environmental NGOs typically regard any bottom towed gear as a threat to marine habitats – use of demersal otter trawls represent circa 22% of the catch associated with this fishery, albeit by 6 vessels on average.</p> <p>RSA contributes to the well-being of those involved and the sense of place, particularly around rivers and estuaries. Message form analysis identified some concerns that RSA's contribution in this way is not fully recognised.</p>	<p>Relatively economically small fisheries risk becoming marginalised in policy and national management with the potential for detrimental impacts on a high number of business models reliant on the small-scale fisheries.</p> <p>Disproportionality negative characterisation of fin-fish fisheries in the context of using bottom-towed-gear and partially in the context that associated Habitat regulation assessments have yet to be completed.</p> <p>Increased participation in RSA activity has potential benefits for environmental protection, well-being and contribution to local economies, particularly in coastal communities. Increased RSA activity also increases the need for engagement activity to promote compliance with byelaws.</p>	<p><b>Fisheries management Plans (ongoing high priority workstream)</b> – given that all the associated species feature in a current or future FMP (as listed within the Joint Fisheries Statement), risks associated with the fisheries generally can be mitigated against through collaboration on the development of associated FMPs and in particular, by ensuring that the business models which operate in this fishery are recognised therein.</p> <p><b>Completion of amber/green gear/feature interactions and development / implementation of management measures where required (Ongoing High Priority Workstream)</b> – Completion of the outstanding assessments within the district will mitigate the risk of disproportionately negative perceptions about bottom-towed fishing gear.</p> <p><b>Compliance monitoring and engagement in accordance with the Compliance Risk Register and TCG (business critical workstream)</b> – Compliance activities reduces the risk of non-compliance through monitoring to inform targeted enforcement action and engagement with industry to ensure buy-in with management measures.</p>	<p><b>Medium</b></p>	<p>Explore options to better understand the local 'value' (economic, societal etc.) of fin-fish fisheries, including RSA within the district.</p> <p>Consider development of an Eastern IFCA RSA strategy if benefits can be identified beyond that provided in other areas (e.g. gathering better data about stocks in rivers)</p>
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<p style="text-align: center;"><b>Technological</b></p>	<p>Vessel Monitoring requirements cannot be enforced by the Authority, the national adoption of I-VMS requirements has been hindered by a dispute relating to one of the suppliers resulting in no data being provided and reporting rates for vessels 12m and over remain at once in every 2-hours which is of limited use regards managing small inshore fisheries.</p>	<p>Potential for MMO to deprioritise enforcement of IVMS provisions leading to increased non-compliance and impacts on the marine environment and fisheries sustainability.</p> <p>Lack of parity between under and over 12m vessels regards vessel tracking reporting rates has the potential to lead to disparities between management of associated fleets and increased risk of fisheries sustainability and environmental impacts.</p>	<p>Implementation of I-VMS for all fisheries specifically the Wash Shrimp fishery (dependent on partnership working with MMO led project) (Ongoing Priority workstream) – The situation with the roll out of I-VMS is being followed and the Authority is working collaboratively with the MMO to facilitate the SI coming into effect.</p>	<p><b>Low</b></p>	<p>None identified</p>
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<p style="text-align: center;"><b>Legal</b></p>	<p>The fisheries are regulated nationally including through technical conservation measures and TACs and quota legislation, with limited IFCA management.</p> <p>All species are to be considered via an FMP.</p> <p>Bass FMP has been published.</p> <p>The Conservation of Habitats and Species Regulations 2017 requires that fishing activity does not detrimentally impact site integrity of MPAs.</p> <p>Vessel Monitoring requirements cannot be enforced by the Authority, the national adoption of I-VMS requirements has been hindered by a dispute relating to one of the suppliers resulting in no data being provided and reporting rates for vessels 12m and over remain at once in every 2-hours which is of limited use regards managing small inshore fisheries.</p> <p>Mesh size requirements for sprat fishing are considered to be impacting the viability of the fishery.</p> <p>The use of drift nets remains prohibited for targeting bass, further limiting fishing opportunities for small-scale fisheries.</p>	<p>Small-scale, artisanal fisheries risk being marginalised at a EU / national level when considering management measures.</p> <p>The bass FMP is unlikely to result in changes to management in the short-term with more exploratory actions set out for the immediate future. Failure to contribute to the implementation of the plan risks a lack of representation from the small-scale fisheries within the district and potentially impactful outputs as a result.</p> <p>There is a legal requirement that fishing activities must not detrimentally impact the conservation objectives of MPAs. Application of the precautionary principle with regard to low evidence fisheries potentially risks disproportionate detrimental impacts (costs) to small-scale fishing operations.</p> <p>Failure to harmonise reporting rates between I-VMS and VMS+ will limit the benefit of I-VMS generally, particularly with respect to managing mobile gear within MPAs (potential to led to disproportionately impactful pre-cautionary measures).</p> <p>Sprat landings have increased, potentially as a reflection of the performance of the fishery although there is limited understanding of this fishery within the district given its small scale. If there is the potential for a viable fishery, this could present an additional species for inshore fishers to diversify into and dipropionate prohibitive mesh sizes</p>	<p><b>Fisheries management Plans (ongoing high priority workstream)</b> – Eastern IFCA is contributing to the development and implementation of FMPs and has the opportunity to inform the potential for impacts and benefits arising from the plans. This may include implementing addition regulatory measures to meet the aims of the FMP and facilitation of evidence gathering to ensure that the local / regional bass fisheries are taken into account. Contribution to the implementation of the Sprat FMP will mitigate associated risk.</p> <p><b>Completion of amber/green gear/feature interactions and development / implementation of management measures where required (Ongoing High Priority Workstream)</b> – Completion of the outstanding assessments within the district will mitigate the risk to an extent (dependant on available data) of disproportionate pre-cautionary measures to an extent although could result in additional management measures and restrictions on the fishery.</p> <p><b>Implementation of I-VMS requirements for all fisheries (revised High Priority Workstream)</b> – consider implementing regulation to require standalone reporting devices, standardise reporting rates across all vessel sizes and enable IFCA enforcement of the measures.</p>	<p><b>High (on the basis of outstanding High Priority Workstreams)</b></p>	<p><b>Consider the development of a drift net study (under the FMP priority workstream).</b></p>
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		presents a risk to the associated fishing opportunities.			
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<p style="text-align: center;"><b>Environmental</b></p>	<p>The majority of catch is taken using midwater otter trawls (49%) and demersal otter trawls (22%). However, the vast majority of vessels operate in the fishery using nets (gill nets, drift nets) and longlines, with only 6 vessels on average deploying bottom towed otter trawls.</p> <p>In general, the gear deployed in these fisheries have limited impact on habitats, with the exception of bottom-towed otter trawls.</p> <p>The potential impact of prohibited drift nets for targeting bass is not well understood from the perspective of small-scale, inshore fisheries, with some reporting that the impact of the prohibition is disproportionate to the benefits which are perceived rather than evidenced.</p> <p>Use of rivers as nursery areas in the District is not well understood, particularly bass which are likely to now use some rivers and estuaries as nursery areas as the population appears to have shifted north following the northward progression of the thermocline, presumably as a consequence of climate change.</p>	<p>Bottom-towed-gear has the potential to impact habitats within designated MPAs and impact biodiversity generally.</p> <p>Nets and long-lines have higher potential for bycatch including of bird species.</p> <p>The prohibition of drift nets for targeting bass impacts the fishing opportunities for small-scale inshore operators disproportionately because the potential environmental impacts (on bycatch etc.) are not well understood in the context of smaller fisheries.</p> <p>Assessments to determine the level of impact are not complete.</p> <p>Failure to undertake assessments and implement management measures during 2024 risks the fishery not meeting Environmental Improvement plan targets.</p> <p>Sudden increases in in landed weight of herring, cod and smoothound indicate greater availability (particularly for cod) and better market conditions which may lead to further increases in effort and risks to sustainability of the fisheries.</p> <p>Potential for commercial and non-commercial netting activity to impact marine mammal populations through by catch</p>	<p><b>Completion of amber/green gear/feature interactions and development / implementation of management measures where required (Ongoing High Priority Workstream) –</b> Completion of the outstanding assessments and implementation of relevant management measures within the district will mitigate the risk for impacts on the environment.</p> <p><b>Fisheries management Plans (ongoing high priority workstream) –</b> given that all the associated species feature in a current or future FMP (as listed within the Joint Fisheries Statement), risks associated with the fisheries generally can be mitigated against through collaboration on the development of associated FMPs. This includes in relation to bass nursery areas in rivers for which there are specific actions.</p> <p><b>Consider development of a bass drift net trial within the district to gather evidence regarding the risk posed to fisheries and the environment (new priority workstream) –</b> a scientific study to consider the impacts of drift net fishing would provide evidence in relation to impacts on other gears (likely to include fixed nets) and would inform wider HRAs.</p>	<p><b>High on the basis of outstanding High Priority Workstreams)</b></p>	<p>Develop relationships with RSA to obtain more fisheries data, including consideration of the added value of developing an RSA strategy.</p> <p><b>Consider the development of a drift net study (under the FMP priority workstream).</b></p>
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		<p>(particularly in the Southern North Sea SAC) and impact stocks of species which use rivers (e.g. bass nursery areas) – netting activity in rivers has the potential to have a disproportionately negative impact on wider fish stocks.</p>			
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