



45th EIFCA Statutory Meeting

To Be Held at:

**Assembly Room, Kings Lynn Town Hall, Saturday Market Place, Kings
Lynn, Norfolk, PE30 5DQ**

Attendance by members of the public will be limited due to the COVID-19 restrictions. Anyone wishing to attend as spectators should contact Eastern IFCA on 07385 769305 or via e-mail: mail@eastern-ifca.gov.uk.

The meeting will be live-streamed on YouTube

**Wednesday
8th September 2021**

1030 hours

Vision

The Eastern Inshore Fisheries and Conservation Authority will lead, champion and manage a sustainable marine environment and inshore fisheries, by successfully securing the right balance between social, environmental and economic benefits to ensure healthy seas, sustainable fisheries and a viable industry



Meeting: **45th Eastern IFCA Meeting**

Date: 8th September 2021

Time: 1030hrs

Venue: Assembly Room, Kings Lynn Town Hall, Saturday Market Place, Kings Lynn, Norfolk, PE30 5DQ

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Revised Agenda

- 1 Welcome – *Chair*
- 2 To accept apologies for absence - *Chair*
- 3 Declaration of Members' interests – *Chair*

Action items

- 4 To receive and approve as a true record, minutes of the 44th Eastern IFCA Meeting, held on 9th June 2021 – *Chair pg4*
- 5 Matters arising (including actions from previous meeting) – *Clerk*
- 6 Membership of the Finance & HR sub-committee – *CEO pg14*
- 7 To receive a report to consider Health and Safety risks and mitigation – *Hd Operations pg15*
- 8 To receive a report on the meeting of the Finance and HR sub-committee held on 3rd August 2021 - *Hd Finance & HR pg20*
- 9 Highly Protected Marine Areas – *Senior MSO (Environment) pg24*
- 10 Annual Report 2020-21 – *CEO pg29*
- 11 Closed Area Byelaw 2021 – Area Proposal – *Senior MSO (Environment) pg30*
- 12 Wash Cockle and Mussel Byelaw 2021 update – *CEO/Senior IFCA (Regulation) pg43*
- 13 Wash Several Order Application - pg48
- 14 Quarterly review of annual priorities and Risk Register - *CEO pg105*

Information items

- 15 CEO update (verbal) – *CEO*
- 16 Operational update - *Head of Operations*
 - a. Marine Protection Quarterly report pg 122
 - b. Marine Science Quarterly report pg133

Any other business

- 17 To consider any other items, which the Chairman is of the opinion are Matters of Urgency due to special circumstances, which must be specified in advance.

J. Gregory
Chief Executive Officer
24th August 2021

Vision

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44th Eastern IFCA Meeting

A meeting of the Eastern IFCA took place on Wednesday 9th June 2021 at 0930 hours in the Assembly Rooms, King's Lynn Town Hall.

Members Present:

Cllr T FitzPatrick	(Chair)	Norfolk County Council
Cllr M Vigo Di Gallodoro	(vice Chair)	Suffolk County Council
Cllr T Adams		Norfolk County Council
Cllr E Back		Suffolk County Council
Shane Bagley		MMO Appointee
Stephen Bolt		MMO Appointee
Ian Bowell		MMO Appointee
Cllr Chenery of Horsbrugh		Norfolk County Council
Kieran Copeland		MMO Appointee
Cllr P Coupland		Lincolnshire County Council
Paul Garnett		MMO Appointee
Justin Rowley		MMO Representative
Cllr P Skinner		Lincolnshire County Council
Inge Smith		MMO Appointee
Mike Warner		MMO Appointee
Stephen Williamson		MMO Appointee

Eastern IFCA (EIFCA) Officers Present:

Jon Butler	Head of Operations
Luke Godwin	Senior IFCO (Regulation)
Julian Gregory	Chief Executive Officer (CEO) & Clerk
Sammy Hornbrey	Marine Science Officer

Minute Taker:

Jodi Hammond

Welcome

Cllr Skinner, as outgoing Chair, opened the meeting by acknowledging it had been a very different year despite which he was confident that by working as a team all issues could be solved.

New Members, Messrs Copeland, Bowell, Ms Smith (MMO Appointees) and Councillors Adams (NCC) & Back (SCC) were welcomed to the meeting.

Members were also reminded the meeting was open to members of the public and was being live-streamed on YouTube.

EIFCA21/16 Item 1: Election of Chair of the Authority

The Clerk to the Authority requested nominations for the role of Chair.
One nomination was received.

Members Resolved to elect Councillor FitzPatrick to the role of Chair of the Authority.

Proposed: Cllr Chenery or Horsbrugh

Seconded: Cllr Skinner

All Agreed

Cllr FitzPatrick took the Chair, he thanked Cllr Skinner for work he did both visibly and behind the scenes on behalf of IFCA, and particularly for the way he handled matters during the Covid-19 pandemic.

EIFCA21/17 Item 2: Apologies for Absence

Apologies for Absence were received from, Ms Roberts (NE Representative), Dr I Hirst (EA Representative), Ms Davey and Messrs Davies, Shaul & Warner (MMO Appointees).

EIFCA21/18 Item 3: Election of Vice-Chair of the Authority

The Chair called for nominations for the role of Vice-chair. One nomination was received.

Members Resolved to elect Cllr Vigo Di Gallodoro to the role of Vice-Chair of the Authority.

Proposed: Cllr Chenery of Horsbrugh

Seconded: Cllr Back

All Agreed

EIFCA21/19 Item 4: Declarations of Members Interest

Messrs Garnett, Bagley and Williamson all declared an interest in items 11, 12 and 13 on the agenda.

EIFCA21/20 Item 5: Declared Pecuniary Interests

Senior IFCO (Regulation) provided members with a presentation on the outcome of further legal advice taken with regard to the management of members interests.

It was clarified that EIFCA take a 'species approach' which essentially meant if a member had an interest in a particular species, they would be given a dispensation to participate in discussion but not to vote.

The reason why such an approach was taken was actually to minimise the occasions when a member is not able to vote because there had previously been a tendency for all those with commercial fishing interests to refrain from voting on all fisheries management measures, even when they did not have a direct interest.

Legal advice had been taken, which confirmed that the approach taken was appropriate. It was also advised that advice may be updated at the next meeting.

Dr Bolt enquired whether this was the same approach across all IFCAs, the response was that each IFCA takes an individual approach. Dr Bolt suggested it might be worth checking what was best practice and contacting the Association to get that applied across all IFCAs. The CEO agreed to raise it at the Chief Officers Group meeting.

Members Agreed to note the content of the report and to continue to adopt a 'species approach' to considering whether members have a conflict in a matter for discussion.

EIFCA21/21 Item 6: Minutes of the 43rd EIFCA Meeting, held on 10th March 2021

Mr Williamson advised his name should have been included at minute EIFCA 21/03 as he declared an interest in items 8,10 & 11.

With this one amendment Members Agreed the minutes were a true record of the meeting.

EIFCA21/22 Item 7: Matters Arising

There were no matters arising which were not included as items on the current Agenda.

The CEO advised that the revised Standing Orders had been put on the Website.

EIFCA21/23 Item 8: Health & Safety Update

Members Agreed to note the content of the report.

EIFCA21/24 Item 9: Report of the Finance & HR Meeting held on 27th April 2021

Members were advised this paper was a matter for noting, it summarised the actions of the previous meeting.

Members Agreed to note the content of the report.

EIFCA21/25 Item 10: Wash & North Norfolk Coast Marine Partnership Memorandum of Agreement

Members had been circulated the paper in advance, no questions were raised.

Members Agreed that the Authority would continue as a member of the Wash and Norfolk marine Partnership and the MoA should be signed.

EIFCA21/26 Item 11: Wash Cockle Fishery 2021

Senior IFCO (Regulation) gave a summary of the steps taken to arrive at the proposed management measures for the 2021 fishery, including a brief overview of the Annual cockle surveys and the steps taken to arrive at the proposed TAC and closed areas.

Referring to the proposed management measures it was noted that although the opening date suggested was 14th June there had been some response to consultation that a later opening date of 21st June would be preferred. There was discussion as to what amount of stock could be lost to Atypical mortality if the opening date was delayed, and whether future fisheries would benefit from areas closed to fishing this year.

Consultation regarding closed areas had not reached a consensus so the decision was made to open one of the proposed areas but keep the other shut.

Proposed opening times had been compiled using well establish principles with the exception of adding in some Sunday openings which would allow fishing on the Holbeach Bombing Range. These days were for vessels targeting that bed only.

Opening of the Wash Restricted Area would not take place until the Byelaw to manage it had gone through, it was expected in the near future, at which time some of the management regulations would be altered.

Members were also asked to give delegated powers to the CEO to allow decisions to be made re management issues in an expedient manner. There were a number of factors to be taken into account during the season, including new regulations, birds, seal haul out sites, and die off of stock, any of which may need to be responded to quickly.

Referring to the closed areas, Mr Bagley acknowledged that zone A was now going to be opened but he requested that zone B be

closely monitored as he had walked on the area the previous day and was concerned about die off. It was noted that whilst A had been opened it was not possible at this time to open B as it was also closed because as it was a seal haul out site, however the area would be monitored, although it as also noted the summer was very busy for the Research team working on the Cromer Shoal MCZ area.

It was questioned whether the Sunday openings could be extended to all open beds, however the CEO advised these dates were specifically reserved for the Bombing Range as the stock is not so easy to fish so fishers would target easier beds and the stock on Holbeach could be lost. In response to the question being raised about fishing Holbeach on other days Senior IFCO Regulation advised the beds could be accessed on later tides when the bombing range was not in use.

Mr Williamson felt with so much dead cockle about it would be difficult to land catches which did not contain a high percentage of shell, he questioned whether a degree of discretion could be applied by inspecting officers. Whilst the CEO could appreciate Mr Williamson's perspective, he had to reiterate the 2 tonne/day limit including the weight of bag, sand, shell etc. Good fishing practice could reduce the quantity of sand and shell and as managers of the fishery it was very challenging to meet the Habitats Regulations and protect MPAs as well as enabling a fishery.

Returning to the question of the opening date, Cllr Adams questioned what the majority decision amongst the industry was. Mr Garnett advised that the information in the Survey summary which stated 1% of the stock was being lost on a daily basis due to Atypical Mortality had caused concern which meant there was some support for an earlier opening. Mr Williamson felt that was probably 25% in favour of the fishery opening on the 14th.

It was requested that an amendment be made to the second recommendation in the paper and the opening date be delayed until 21st June.

Proposed: Cllr Skinner

Seconded; Dr Bolt

All who could vote Agreed

Members Resolved to:

- **Note the responses to the consultation with WFO licence holders, Nominated Representatives and endorse the consideration and proposed actions as the Authority's response to the consultation**

- **Agree to open the cockle fishery within the Wash Fishery Order 1992 on 21st June 2021 subject to receiving favourable conservation advice from Natural England.**
- **Agree to open the whole area of the WFO except for the areas proposed as closed as set out in Appendix 3.**
- **Agree to implement operating times for the fishery as at Appendix 3**
- **Agree to Licence conditions as at Appendix 4**
- **Agree to delegate authority to the CEO, in consultation with the chair or vice-chair, to introduce, vary or revoke management measures for the Wash Fishery order fishery including the open date, areas open or closed to the fishery, the operating times or Licence Conditions, including without 7 days' notice, where it is judged necessary to do so to meet the conservation objectives of the marine protected areas of The Wash or for the sustainability or the viability of the fishery.**
- **Agree subject to the confirmation of the Wash Restricted Area Byelaw 2019 by the Secretary of State, to open the associated fishery in accordance with the operating times set out in Appendix 3.**
- **Agree subject to the confirmation of the Wash Restricted Area Byelaw 2019 by the Secretary of State, to delegate Authority to the CEO in consultation with the Chair or the Vice-Chair, to introduce, vary or revoke flexible management measures under paragraphs 15, 19, 20, 22, 24, 25, 27 and 28 of the Wash Restricted Areas Byelaw 2019 in a manner consistent with the associated Formal Operating Procedure.**
- **Agree to delegate authority to the CEO, in consultation with the Chair or vice-chair, to introduce, vary or revoke licence conditions for the WFO fishery in the event that the revised Wash Fishery Order Regulations are consented by the minister during the 2021 cockle fishery.**
- **Agree to close the cockle fishery within the Wash Fishery order 1992 or the Wash Restricted Area, on the exhaustion of the Total Allowable Catch or to enable the start of the 2022 cockle surveys.**
- **Agree to delegate authority to the CEO, in consultation with the Chair or Vice-Chair, to close the cockle fishery in the Wash Fishery Order 1992 or the Wash Restricted Area, including without 7 days' notice where it is judged necessary to do so to meet the conservation objectives of the marine protected areas of The Wash or for the sustainability or the viability of the fishery.**

Proposed: Cllr Skinner

Seconded: Dr Bolt

All who could vote Agreed

EIFCA21/27 Item 12: Wash Cockle & Mussel Byelaw 2021 update

Prior to discussion Mr Williamson advised members that because of movement within the industry, which he was part of, he would not be making any comment and if preferred he would leave the room. The Chair advised Mr Williamson could remain in the room.

Senior IFCO (Regulation) reminded members that it had previously been agreed to replace the Wash Fishery Order with a Byelaw, there had been a strong sense the industry would prefer a new Order.

At the last Authority meeting members had agreed to 'make' the Byelaw, following which formal consultation had taken place.

As a result of the consultation 117 responses had been received, many of which were copies of similar letters but signed by different individuals.

The main cause for concern amongst the responses related to access to the fishery rather than the byelaw itself. Particular concern was the long-term security, as the byelaw provides more flexibility and can relatively easily be amended there was concern about long-term business plans. All points of contention were provided in the papers for members to consider.

Members were advised that officers had considered the responses and had identified some areas where changes could be made to the byelaw wording which would be more conducive to the industry, but it was felt further dialogue was needed. It was therefore recommended that any decision be delayed until the next Authority meeting when a final version would be brought back.

The CEO added that he could understand the perspective that a byelaw is different to an order, but many issues had already been addressed. For example it was already agreed in principle that access to the fishery would be for a limited number of vessels, and that vessels with an entitlement to a permit would get one each year.

Members Resolved to:

- **Note the response to the formal consultation for the Wash cockle and Mussel byelaw 2021 as at Appendix 2**
- **Agree to endorse the proposed Eastern IFCA position in relation to the responses received as at Appendix 2**
- **Agree in principle to the amendments to the Wash cockle and Mussel byelaw 2021 as set out at Appendix 3**
- **Direct officers to:**
 - **Respond to objectors in accordance with the considerations at Appendix 2**

- **Continue to liaise with respondents and other stakeholders in relation to the objections and measures to manage access to the fisheries; and**
- **Report to the Authority at the next full authority meeting the results of the further dialogue and a final draft of the Wash Cockle and Mussel Byelaw 2021**

Proposed: Cllr Skinner

Seconded: Cllr Vigo Di Gallidoro

All those who could vote Agreed

EIFCA21/28 Item 13: Wash Cockle and Mussel Fisheries policy development

Members were advised that in a bid to alleviate the concerns of fishers with regard to the Wash Cockle and Mussel Byelaw 2021 a process had begun to develop measures to manage access to Wash cockle and mussel fisheries as part of the replacement of the Wash Fishery order 1992. The aim of the process was to achieve a level of access the fishery that was equitable, and which supported the viability of varying business models, the conservation objectives of The Wash and stock sustainability.

Members were provided with a brief summary of the papers which had been previously circulated explaining how a draft aim and set of objectives had gone out for consultation in Nov/Dec 2020 which had resulted in 58 responses which were analysed by officers and used to inform the final aim and set of objectives for managing access to the fisheries. During the process the draft objectives were amended or removed if they were no longer deemed appropriate.

Members Resolved to:

- **Note the content of the report**
- **Agree to the proposed final aim and set of objectives which would guide the development of management of access to the cockle and mussel fisheries in The Wash.**
- **Direct officers to develop the management of access to the fishery, via policies and eligibility criteria, including via consultation with industry as required to achieve the aim and objectives.**

Proposed: Cllr Chenery of Horsbrugh

Seconded; Dr Bolt

All those who could vote Agreed

EIFCA21/29 Item 14: Quarterly Review of Annual Priorities and Risk Register

The CEO advised that whilst New Burden funding had been received for the current year no guarantees had been made for the future. Whilst it was believed funding would be made available in some form it therefore remained on the Risk Register.

Members Resolved to note the report

Proposed: Cllr Chenery of Horsbrugh

Seconded: Cllr Skinner

EIFCA21/30 item 15: CEO Update

The CEO advised members that to celebrate World Ocean Day and the 10th Anniversary of IFCA's AIFCA had produced a series of YouTube Videos which were very complimentary about the role of IFCA's.

Work on the Cromer Shoal MCZ was ongoing. A Project Management Group was established, and further work was continue to establish a wider stakeholder group. As part of this project EIFCA were hoping to Research the extent of rugged chalk as currently the full extent was not properly understood.

AIFCA had held a meeting the previous day, which provided an update on current issues, notes of which would be circulated to members. It was highlighted there was a period of change towards fisheries management.

Dr Bolt added that a report on a study into Highly Protected Marine Areas was available on the Defra website, it was anticipated it would go to consultation later this year with designation in 2022. At this time it was not known if any sites in EIFCA District would be affected.

At this point Cllr Coupland left the meeting.

Mr Bagley expressed concern about HPMA's may prevent the use of bottom towed gear and queried whether historical rights and evidence that it has taken place for many years could be used in mitigation.

The CEO assured members the areas in the EIFCA District would only be recommended for closure if the action was necessary to meeting the Authorities duties.

Association of IFCA Minutes were included for information.

Members Agreed to note the content of the report.

EIFCA21/31 Item 16 – Head of Operations Update

Members Agreed to note the report

EIFCA21/15 Item 15 – Any Other Business

As Cllr Goldson, who had served on EIFCA and its predecessor since July 2009, had not been re-elected Mr Williamson questioned whether it was appropriate to send a letter thanking him for his service.

The Chair advised the timeframe had been too short for this meeting, but it was intended to mark his service at the next Authority meeting.

There being no other business the meeting closed at 1125 hours.

Vision

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Action Item 6

Eastern Inshore Fisheries and Conservation Authority Meeting

08 September 2021

Finance & HR Sub-Committee Membership

Report by: Julian Gregory, CEO

Purpose of Report

To recommend appointment of an additional general member of the Authority to the Finance & HR sub-committee.

Recommendations

It is recommended that members:

- **Agree** to appoint Ms. Inge Smith to the Finance & HR sub-committee

Background

The Authority currently has one sub-committee to deal with all strategic finance and HR matters in accordance with the Scheme of Delegations set out in Chapter 4 of the Constitution and Standing Orders ('the constitution'). Section 11.11 of the constitution provides that all elected members of the Authority will be members of the Finance & HR sub-committee, together with three non-elected members appointed by the Authority.

Report

There are currently two non-elected members who serve on the Finance & HR sub-committee, Dr Stephen Bolt and Mr Steven Williamson. A vacancy therefore exists as a consequence of the departure of Mr Stephen Worrall from the Authority upon completion of his tenure. Ordinarily appointments to sub-committees are done at the June Authority meeting but because three new members had only been appointed a few weeks beforehand it was judged appropriate to leave the appointment until the September meeting. Ms. Inge Smith has indicated that she would be prepared to sit on the Finance & HR sub-committee, and it is recommended that she be appointed.

Financial Implications

Nil

Legal Implications

The appointment is being made in accordance with the Constitution and Standing Orders and is therefore judged to have no risk.

Background Documents

- Eastern IFCA Constitution and Standing Orders

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Action Item 7

45th Eastern Inshore Fisheries and Conservation Authority meeting

8th September 2021

Health and Safety update

Report by: Jon Butler, Head of Operations

Purpose of report

The purpose of this report is to update members on health and safety activity and incidents, risks and associated mitigation over the last reporting period

Recommendations

It is recommended that members:

- **Note** the contents of this report

Background

H&S law requires employers to assess and manage risks and so far as is reasonably practicable, ensure the health, safety and welfare of all its employees and others affected by workplace activities.

The Authority has a declared intent to promote and nurture an appropriate health and safety culture throughout the organisation.

Incidents

The table in *Appendix 1* summarises the incidents that have occurred since the last authority meeting:

There have been no incidents to report during this period

Risks/Mitigation

COVID-19 continues to impact on the way we work. As an Authority we have continued to ensure our assessments, policies and practice are kept up to date to ensure we remain COVID compliant. Officers continue to undertake LFT tests on a twice weekly basis. There have been no incidents of COVID however two officers were required to self-isolate after attending an essential training event due to being 'pinged' by the NHS app

Officers continue to receive COVID vaccinations based on government guidance, which we are keeping a record off.

We continue to work from home and in 'team bubbles' where possible with appropriate PPE. Consideration is being given to how we extend reopening the reception at our Kings Lynn Office Monday to Friday with effect from September.

Appendix 1

Date	Nature of incident	Injury / damage occurred	Action Taken	RIDDOR MAIB Y/N	Investigation complete Y/N	Name of investigating Officer	Follow-up action required Y/N. If Y then what?
No reports							

Appendix 2

Eastern IFCA Health and Safety risks

Risk	Intervention	Residual Risk	Risk rating* (Current)	Risk rating* (Previous)
1. Failure to develop a full suite of risk assessments to cover the range of activity undertaken by Eastern IFCA officers	<ul style="list-style-type: none"> • Introduction of revised management system (policies and process) • Managers tasked to review and develop the suite of risk assessments • Training session on risk assessments for first line managers 	<ul style="list-style-type: none"> • New or unusual activities may be overlooked and not have a risk assessment in place 	Tolerate	Treat
2. Unreported incidents/unilateral decisions with little regard for safe working practices.	<ul style="list-style-type: none"> • Leadership • NCC H&S officer led review of policy and procedure • Training • Equipment • Management systems to capture incidents • Routine agenda items at all meetings at all levels of Authority 	<ul style="list-style-type: none"> • Injury to personnel as a result of failure to acknowledge or adhere to H&S direction and guidance 	Tolerate	Treat
3. Inappropriate conduct of vessels at sea	<ul style="list-style-type: none"> • Leadership • Briefings • Formal training and assessment • Periodic review of performance • Record of personal training inc. refreshers maintained 	<ul style="list-style-type: none"> • Death/injury of personnel/third parties through un-seamanlike operation of vessels at sea 	Tolerate	Treat
4. Whole Body Vibration	<ul style="list-style-type: none"> • Risk awareness training to manage impacts. 	<ul style="list-style-type: none"> • Personal injury from boat movement owing to lower 	Tolerate	Treat

	<ul style="list-style-type: none"> Health monitoring process to be developed. 	resilience as a result of individual physiology		
5. Lone working operations	<ul style="list-style-type: none"> Management scrutiny of any proposal for lone working. Introduction of electronic support means 	<ul style="list-style-type: none"> Failure of devices to give requisite support. Personnel interventions render devices unreliable or unworkable. 	Tolerate	Tolerate
6. Staff injury/long term absence through inappropriate posture at office work stations	<ul style="list-style-type: none"> Information. Training. Risk assessment. Provision of suitable bespoke equipment where reasonable. Access to NCC H&S team. Occupational health assessment KLWNBC H&S specialist advice 	<ul style="list-style-type: none"> Individual failure to adhere to guidance 	Tolerate	Tolerate
7. Staff stress through exposure to unacceptable behaviour of stakeholders	<ul style="list-style-type: none"> Introduction of Unacceptable Behaviour policy Stakeholder engagement plan and activity delivered in pursuit of corporate communications strategy. Dialogue with Stakeholders to ensure appropriate tone of communications Conflict resolution training for “front line” Officers Introduction of Body worn Camera’s and Sky Guard Alarms. 	<ul style="list-style-type: none"> No change in behaviour of some stakeholders. Long term sickness caused by stakeholder hostility 	Tolerate	Tolerate
8. Damage to vehicles, trailers	<ul style="list-style-type: none"> Formal trailer training for unqualified officers 	<ul style="list-style-type: none"> Failure to adhere to training 	Tolerate	Treat

and/or equipment through inappropriate operation.	<ul style="list-style-type: none"> Refreshers for those with previous experience Periodic vehicle maintenance checks training In-house assessment for drivers using unfamiliar vehicles (crew transport, 4x4) 	<ul style="list-style-type: none"> Mechanical failure of vehicle or trailer 		
9. Physical fitness of personnel to undertake arduous duty	<ul style="list-style-type: none"> Staff briefing Management overview to ensure rostered duties are appropriate and achievable Reasonable work adjustments Routine periodic medical assessment (ML5) 	<ul style="list-style-type: none"> Individual health fragilities Individual lifestyle choice 	Tolerate	Tolerate
10. COVID 19	<ul style="list-style-type: none"> Information Guidance Staff Briefing Risk Assessments 	<ul style="list-style-type: none"> Developing understanding of COVID 19 and rapidly changing guidance 	Tolerate	N/A

*

Risk Rating
High
Medium
Low

Risk Treatment	
Treat	Take positive action to mitigate risk
Tolerate	Acknowledge and actively monitor risk
Terminate	Risk no longer considered to be material to Eastern IFCA business
Transfer	Risk is outside Eastern IFCA ability to treat and is transferred to higher/external level

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Action Item 8

45th Eastern Inshore Fisheries and Conservation Authority meeting

Report by: Andrew Bakewell – Head of Finance & HR

Meeting of the Finance & HR Sub-committee held on 3rd August 2021

Purpose of report

To inform members of the key outputs and decisions from the Finance & HR Sub-Committee meeting held on 3rd August.

Recommendations

Members are asked to:

- **Note** the content of the report.

F&HR 21/27 Minutes of the F&HR Meeting

- Signed as a true record

F&HR21/28 Matters Arising

- Members were advised that the CEO had met with Goodchild Marine to finalise the design of the vessel. The CEO reported the weight issues of fitting a Hiab crane, and permanently carrying Sea Spray which would impact engine choice and performance. The meeting had in general been very productive and, having been shown some of the work being carried out, the CEO was confident about the build.
- Concerns that not being able to carry Sea Spray may impact the type of work the vessel would be able to carry out were addressed when it was advised that a smaller tender carried on board would still enable the full range of duties to be performed.

Finance Matters

Re minute F&HR 21/29 Quarter 1 Payments and Receipts

- Members were advised that the payments in Qtr 1 included annual payments in advance for most notably Insurance, IT Support, AIFCA subs, AIFCA Training Officer
- Levy payments for the year were lower than anticipated as LCC had paid at the end of the previous financial year. There was also a VAT return payment which related to the previous financial year

Members Agreed to:

- **Note** the content of the report

Re minute F&HR 21/30 Quarter 1 Management Accounts

- The Head of Finance & HR advised that these figures were broadly in line with budget with some minor variances which were explained in the accompanying notes.
- Members were advised the figures included unbudgeted expense for the purchase of GPS trackers for vessels working within the area of the Cromer Shoal MCZ.
- Income from EHO sampling would appear in the next qtr.

Members Agreed to:

- **Note** the content of the report.

Re minute F&HR 21/31 Draft Annual Accounts

- Members were advised the Statement of Accounts was only in draft form awaiting completion of the Internal Audit.
- Whilst the Accounts were mostly self-explanatory members were advised that due to a copy and paste error during compilation of the report the table showing Movement in Reserves was in fact that relating to the previous year, actual movement in reserves was explained to members.

Members Resolved to:

- **Approve the Statement of Accounts for submission for external examination**
- **Authorise the Chairman and Chief Executive to sign the Annual Returns before submission to the auditors for review.**
- **Authorise in accordance with the Authority's Financial Regulation 3.4, transfers of funds to and from 'ear-marked' reserves as outlined in the Statement of Movement in reserves for the year ending March 2021.**

Proposed: Cllr Chenery of Horsburgh

Seconded: Cllr Skinner

All Agreed

Re minute F&HR 21/32 Wash Fishery Order Licence Fees

- Members were advised that as a consequence of delays in the change in WFO1992 licence fees being delayed the Chair and Vice Chair had decided that the licence fee for the current season would remain at last years (pre-increase) level.

With 46 Licences already issued the following options were available:

1. increase the Fee for the Licences still to be renewed
2. increase the Fee for all Licences requesting a supplementary payment for the 46 licences already renewed
3. issue the remaining 13 licences at the pre-increase fee (£330)

All of the options were evaluated, and circumstances considered. The Head of Finance was confident that the negative impact on income would be offset by other savings.

Members Agreed to note the decision of the CEO, Chair and Vice Chair to adopt option 3.

Re minute F&HR 21/33 Credit External Audit of Statement of Accounts for year ended 31st March 2020

The delayed completion of the audit was explained by the HoF.

The outcome of the audit was that no issues were found with the Annual Statement.

Members Agreed to Note the report

Re minute F&HR 21/34 Vessel disposal and replacement

The Head of Operations gave members a brief resume of the historical decision to move from one large enforcement vessel to two smaller cabin ribs.

- John Allen (not purpose built) acquired 2013 as a proof of concept for cabin ribs
- Anticipated life 10 years
- Reliability and spares availability are proving to be an issue
- Increased requirement to haul pots
- Buoyant market for used vessels
- Anticipated cost of replacement (Catamaran work boat) £160 - £200k

Members Resolved to:

- **Agree to sell FPV John Allen subject to a valuation being sought as to current market value**
- **Agree to establish a Vessel Procurement Panel comprising the Chair of the Authority, Vice Chair, CEO and Head of Operations**
- **Agree to delegate to the Vessel Procurement Panel authority to oversee and approve the procurement of an enforcement vessel utilising the most appropriate methodology in accordance with relevant procurement legislation and the Authority's Financial Regulations.**

Proposed: Cllr Vigo Di Gallidoro

Seconded: Cllr Skinner

All Agreed

Re minute F&HR 21/35 Exclusion of the Public

Members resolved:

- That members of the public be excluded under Section 100(a)(4) of the Local Government Act 1972 Paragraph 1 of Schedule 12A of the Act.

Re minute F&HR 21/36 HR Update

Head of Finance and HR reported:

- Following referral to Occupational Health advice had been received that the Officer should be considered for early retirement due to ill health.
- Correspondence had been received from Acas relating to a claim of Disability Discrimination. It is not thought that the claim has any merit.

- Previous plans to build a new office had been put on hold as a result of Covid.
- A member of the Marine Science Team had tendered their resignation the previous week.

Members Agreed to:

- **Note** the content of the report

Background Documents

Unconfirmed minutes of the Finance and HR sub-committee meeting held on the 3rd August 2021

Vision

The Eastern Inshore Fisheries and Conservation Authority will lead, champion and manage a sustainable marine environment and inshore fisheries, by successfully securing the right balance between social, environmental and economic benefits to ensure healthy seas, sustainable fisheries and a viable industry



Action Item 9

Eastern Inshore Fisheries and Conservation Authority Meeting

08 September 2021

Highly Protected Marine Areas

Report by: Luke Godwin, Senior IFCO (Regulation)
Judith Stoutt, Senior MSO (Environment)

Purpose of Report

To report on Defra's review of Highly Protected Marine Areas and the associated consultation on designation of such areas as part of a Pilot Scheme

Recommendations

It is recommended that members:

- **Note** the contents of the report;

Background

In June 2019, Defra commissioned a review of the notion of highly protected marine areas (HPMA) for England. HPMA are intended to be the strongest protections for areas of the sea, that allow the protection and recovery of marine ecosystems by prohibiting extractive, destructive and depositional uses and allowing only non-damaging levels of other activities to the extent permitted by international law.

The review was led by former fisheries minister Richard Benyon. It reported in June 2020 with a suite of recommendations, including the designation of a network of HPMA in inshore and offshore waters to complement and enhance the existing network of Marine Protected Areas (MPAs).

In June 2021 Defra published a response to the Benyon review, which agreed with most of the recommendations, including what HPMA should do and that HPMA would be introduced into English inshore and offshore waters.

Report

Government intends to introduce five pilot HPMA by the end of 2022. The identification of pilot sites will be based on ecological, social and economic criteria, with the intention to *"provide the maximum biodiversity benefits while seeking to also maximise associated benefits and minimise impacts to sea users"*.

In July 2021, ecological criteria were published to start the selection of potential HPMA locations. Defra asked JNCC and Natural England, working with Cefas, the Marine Management Organisation (MMO), the Association of Inshore Fisheries and Conservation Authorities and the Environment Agency, to identify potential locations for pilot HPMA based on these criteria. Defra also invited recommendations from third parties. The deadline for proposals was 31st August 2021.

Economic and social criteria will also be used but will be secondary to the ecological criteria and have not been published at this stage. These will be used in the first instance by Defra and the MMO to recommend a shortlist of sites for Ministers to consider. Sites selected will then be subject to public consultation.

The process for the identification and selection of HPMA is set in figure 1.

It was not considered appropriate that Eastern IFCA should propose sites via the 'third party' consultation given our balance of duties (i.e. to balance the social and economic benefits of fishing with the need to protect the marine environment etc.) and present high workloads, including those in relation to managing fishing activity in MPAs. Eastern IFCA is however engaged in the HPMA process via the Association of IFCAs.

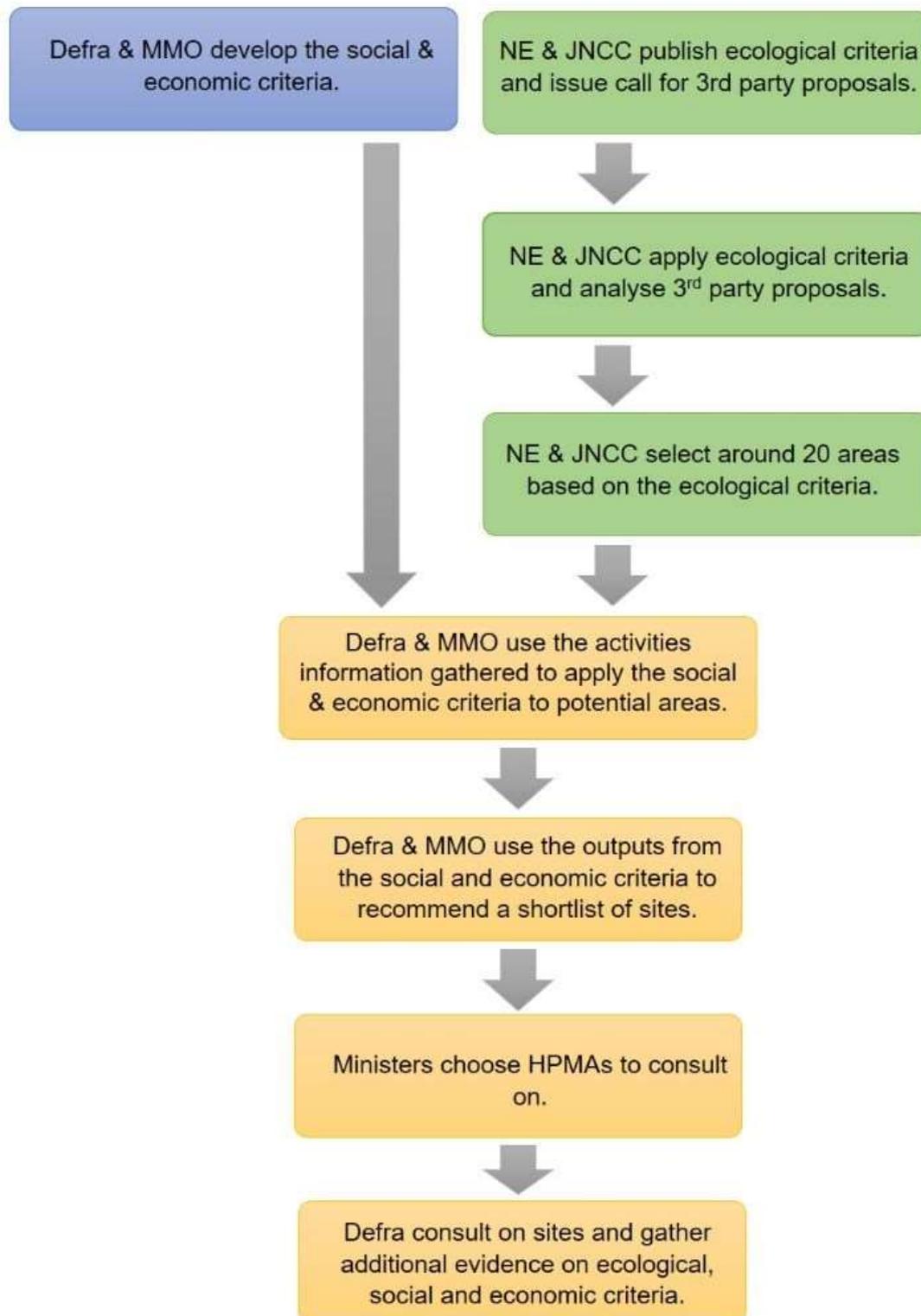
The Benyon Report included a list of sites recommended to the review panel for further investigation by respondents to the call for evidence, Benyon review panel members and Defra's statutory nature conservation advisors. This list included two sites within the District: "The Wash and North Norfolk Coast" and "Cromer". Recognising that officers would be engaging in the process; it was felt appropriate to highlight some initial considerations of HPMA within the district to the Authority.

Potential Social and Economic Implications of HPMA

Consideration of the Benyon Report and Government's response to it indicates that HPMA are likely to be large areas with a minimum diameter of 5km², and potentially encompassing 'entire marine ecosystems' utilising a 'whole site approach' to marine protection. This is, to a degree, at odds with the approach typically taken by the Authority when developing mitigation against fishing impacts on MPAs, which seeks to minimise impacts on industry by only restricting activity to meet the conservation objectives of a site (i.e. our statutory responsibilities) rather than seeking wider benefits. Whilst the potential benefits of doing so, as highlighted by the Government's response to the Benyon Report, are acknowledged, the cost versus benefit of HPMA designation needs to be carefully considered in a local and regional context.

The Eastern region is a heavily utilised marine space, hosting offshore windfarms and aggregate dredging, and the District is also heavily designated for conservation (with circa 95% being covered by a form of marine protected area). Significant areas have already been closed to some forms of fishing, with further closures pending, to mitigate the impacts of fishing within 'standard' MPAs. One notable effect of these closures is the likely prevention of a future pink shrimp fishery, which had historically been economically important locally, because of the closure to shrimp trawling of habitats which support pink shrimps (i.e. *Sabellaria* reef).

Figure 1. The process for identifying potential pilot HPMA's up until the point of public consultation from <https://jncc.gov.uk/our-work/highly-protected-marine-areas/>



In addition, fishing opportunities within the Eastern IFCA district are limited to very few species compared to other IFCA districts. This is due in part to the natural spatial distribution of species, but also the effects of climate change and as a consequence of fisheries

regulations (for example, the restrictions on fishing for bass which has, for some time, been one of only three or four target species available in the District and a vital source of income).

The combination of these factors has had the effect of a 'squeeze' on industry, who are becoming increasingly reliant on fewer species from a limited number of fishing grounds and whom are now less able to diversify across fisheries, as is the mainstay of the inshore fishing model.

Noting the intention of HPMA is to prohibit extractive activities, any sites within the District would require a complete prohibition on fishing. With little opportunity for mitigation by diversification or displacement, the effect of HPMA designation would be significant degradation of the viability for the local inshore fleet. It is considered important that the resilience of the fishing industry should be an important factor in the social and economic criteria for site selection, and that this consideration would potentially lead to the conclusion that HPMA locations within the District are not suitable.

It is also suggested that wider cultural (social) implications should also be considered. In particular, and for example, the wider impact of the loss of commercial fishing from within the Cromer Shoal Marine Conservation Zone would have impacts on tourism which would filter down to economic consequences for a host of services and industry reliant on it. Furthermore, the cultural impact on the community would lead to a loss identity for the coastal communities, with potential significant impacts on wellbeing and heritage.

In addition, it would potentially be beneficial to the success of pilot HPMA designation that social and economic criteria include consideration of the impacts on the local regulators, including the IFCAs. The current workload faced in seeking to effectively manage fishing in MPAs is significant and likely to increase as additional management measures are implemented (requiring compliance monitoring and review) and additional MPAs are designated which in turn require further measures (e.g. the Greater Wash SPA). As above, a significant proportion of the District is designated as some form of MPA already. Whilst it is acknowledged that the intention of HPMA is to enhance the network of MPAs, the impact of adding additional burdens via designating HPMA may detract from the resource which can be allocated to the delivery of current MPA management.

Ultimately, site selection must take into account both the benefits to the environment as well as the impacts on sea users. Officers will feed into the process for site selection as required to provide the local context of HPMA implications and help seek the stated intention of the process to achieve maximum biodiversity benefits whilst minimising impacts of sea users.

Financial Implications

None identified

Legal Implications

None identified

Appendices

Not applicable

Background Documents

- Benyon Review - <https://www.gov.uk/government/publications/highly-protected-marine-areas-hpmas-review-2019>

- Government response to the Highly Protected Areas (HPMAs) review - <https://www.gov.uk/government/publications/government-response-to-the-highly-protected-marine-areas-hpmas-review/government-response-to-the-highly-protected-marine-areas-hpmas-review>
- JNCC website article on HPMAs - <https://jncc.gov.uk/our-work/highly-protected-marine-areas/#choosing-locations-with-ecological-value>

Vision

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Action Item 10

45th Eastern Inshore Fisheries and Conservation Authority Meeting

08 September 2021

Annual Report 2020-21

Report by: Julian Gregory, CEO

Purpose of Report

To present the Annual Report 2020-21 for consideration by members.

Recommendations

It is recommended that members:

- **Approve** the Annual Report 2020-21.
- **Direct** the CEO to publish the report and distribute to Defra.

Background

The Marine and Coastal Access Act 2009 requires Eastern IFCA to produce an Annual Report at the end of each financial year and that a copy of the report be sent to the Secretary of State (via Defra).

Report

Officers have prepared an Annual Report, which is at Appendix 1. The report details the Authority's work over the last financial year, progress against the priorities set for that year and other organisational metrics.

Financial Implications

N/A

Legal Implications

It is a legal requirement for the Authority to produce and publish an Annual Report.

Appendices

Appendix 1 – Eastern IFCA Annual Report 2020-21 available online at:

<https://www.eastern-ifca.gov.uk/wp-content/uploads/2021/08/Annual-Report-2021.pdf>

Vision

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Action Item 11

45th Eastern Inshore Fisheries and Conservation Authority Meeting

08 September 2021

Closed Areas Byelaw 2021 – Area Proposal

Report by: Judith Stouff, Senior Marine Science Officer
Sandra Cowper, MSO (GIS)
Imogen Cessford, Project Officer

Purpose of Report

To present to members proposals for additional closed areas to fishing activity using bottom-towed gear within the Inner Dowsing, Race Bank and North Ridge SAC, as part of the overall programme to manage 'red risk' interactions within marine protected areas within the Eastern IFCA district.

Recommendations

It is recommended that members:

- **Note** the responses to the informal consultation on the proposed closures as at Appendix 1;
- **Note** the rationale and justification for the closures to bottom towed gear, and the provisional impact assessment;
- **Agree** to the inclusion of the proposed closures within the Inner Dowsing, Race Bank and North Ridge SAC as part of the Closed Areas Byelaw 2021 to be formally presented to the Authority in December 2021

Background

Inner Dowsing, Race Bank and North Ridge Special Area of Conservation (IDRBNR SAC) was formally designated in 2017, but the Habitats Regulations applied from 2011 when the site was submitted to the European Commission. The site extends eastwards from close to the Lincolnshire coast at Skegness, north-east and then south-east across the Race Bank area (<https://jncc.gov.uk/mpa-mapper/?zoom=10¢er=0.476,53.231&layerIds=52,43,74,51&baseLayerId=-2&activeFilters=>). This SAC straddles the 6nm administrative boundary. MMO is responsible for managing fisheries beyond 6nm; Eastern IFCA is responsible for managing fisheries within the 0-6nm section. Natural England (within 0-12nm) and Joint Nature Conservation Committee (beyond 12nm) advise fisheries managers of designated feature extent and conservation objectives.

IDRBNR SAC is designated for two features: subtidal sandbanks and biogenic reef: *Sabellaria spinulosa* (*Sabellaria* or Ross worm reef). *Sabellaria* worms form protective tubes out of sand and shell fragments fixed by a natural mucus they secrete. When built adjacent to each other in sufficient numbers, these tubes can form solid, but delicate, structures that stand proud of the seabed by up to tens of centimetres. These biogenic (made by living creatures) structures attract other species for food and shelter, resulting in localised

increases in biodiversity. Where the structures meet certain criteria in relation to their size, density, extent and longevity or recurrence, they are classified as reef. Reefs are granted legal protection when designated as features in Special Areas of Conservation.

Interactions between *Sabellaria* reef and bottom-towed fishing gear are classed as “red risk” under the Revised Approach to Fisheries Management¹, because the reefs are vulnerable to physical damage and loss if struck by a towed trawl or dredge. IFCA (within 0-6nm) and MMO (beyond 6nm) have a duty to manage red risk interactions to ensure the designated features are protected.

In 2013, MMO made three closures to bottom-towed gear in IDRBNR SAC, two of which are within 6nm. MMO consulted on additional closures in the site in spring 2021.

At the 41st Eastern IFCA Meeting in September 2020, the Authority agreed the Closed Areas Byelaw 2020, which included a set of areas within the 0-6nm section of IDRBNR SAC that would be closed to bottom-towed fishing to protect *Sabellaria* reef (Minutes: EIFCA20/24 Item 8). Those closures did not include all the areas advised by Natural England “to be managed as reef” because Eastern IFCA officers were not confident in the feature extent evidence for all of the advised areas.

Following detailed scrutiny of the original evidence for the remaining advised areas, bespoke surveys undertaken in May and June 2021, extensive dialogue with Natural England, and fishery stakeholder engagement, officers are presenting in this paper additional recommendations for closed areas to protect *Sabellaria* reef within IDRBNR SAC. It is intended that these closures will be included in the Closed Areas Byelaw 2021 (CAB 21) when that is agreed by the Authority (anticipated December 2021).

It is acknowledged that the proposed closures constitute additional restrictions on fisheries (primarily shrimp fisheries) that have experienced repeated restrictions over the last decade. The proposals are presented because Eastern IFCA has a legal duty under the Marine & Coastal Access Act 2009 to ensure that fisheries do not hinder the conservation objectives of marine protected areas. Officers carefully design closures to achieve the required conservation benefits with the least possible impact on the viability of fisheries. Information on the potential impacts of the proposals on fishing activities is described later in this paper and will be set out in full in the Impact Assessment to be presented with the Byelaw recommendation in December 2021.

Report

Proposed new areas for closure to bottom-towed gear

Five new closure areas are proposed plus the extension of two previously agreed closures numbered 40 and 51 (EIFCA 20/24 Item 8). The new areas range between 9 and 107 hectares each, and the total new area being proposed for closure is 350ha. This equates to 2.4% of the section of IDRBNR SAC that is in the Eastern IFCA district (3.1% in combination with the previously agreed EIFCA closures in this site). Figure 1 shows the proposed new / extended closure areas (numbered 40, 51, 54, 55, 56, 57 and 58).

1

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/345970/REVISED_APPROACH_Policy_and_Delivery.pdf

Rationale for new closure areas

The proposed closures are required to prevent fishing activities damaging the legally-protected *Sabellaria* reef feature within the 0-6nm section of the Inner Dowsing, Race Bank & North Ridge Special Area of Conservation.

At the time of the previous proposals for closures in this site (September 2020), Authority officers did not have sufficient confidence in the evidence for the presence of the reef feature at the locations considered in this paper to recommend them for closure. This resulted in some of the areas advised by Natural England “to be managed as reef” to be left unmanaged. Officers committed to further scrutinise the supporting data, undertake additional survey work and liaise closely with Natural England to address the evidence concerns.

This additional work – detailed in Appendix 2 of this paper – resulted in Natural England developing an alternative approach to identifying reef for a part of the SAC. Authority officers had challenged the inclusion of a large mixed habitat area (referred to as mosaic habitat) being recorded as “reef”, since much (but not all) of the survey evidence showed an absence of reef. Natural England therefore removed the mosaic area from the core reef approach (the established method for identifying areas to be managed as reef in The Wash & North Norfolk Coast SAC and the inshore part of the IDRBNR SAC). This meant that the core reef approach could not be used in part of the IDRBNR, because there was insufficient data. Natural England developed an alternative approach to identify areas to be managed as reef, using survey data but not the core reef synthesis. The alternative approach resulted in removal of several of the original advised reef areas, but also the addition of new areas advised to be managed as reef.

Figure 1 shows the part of the IDRBNR SAC under consideration. The red polygons show advised reef areas based on the core reef approach. Some of these have previously been agreed for management (shaded grey). Others are recommended for management in this paper (enclosed by purple outline and numbered 40, 57 and 58). The green areas show advised reef areas based on the alternative approach. None of these is currently managed. The green polygons enclosed by purple outline and numbered 51, 54, 55 and 56 are recommended for management in this paper. Two areas, areas numbered 40 and 51, are extensions to areas previously agreed (EIFCA 20/24 Item 8)

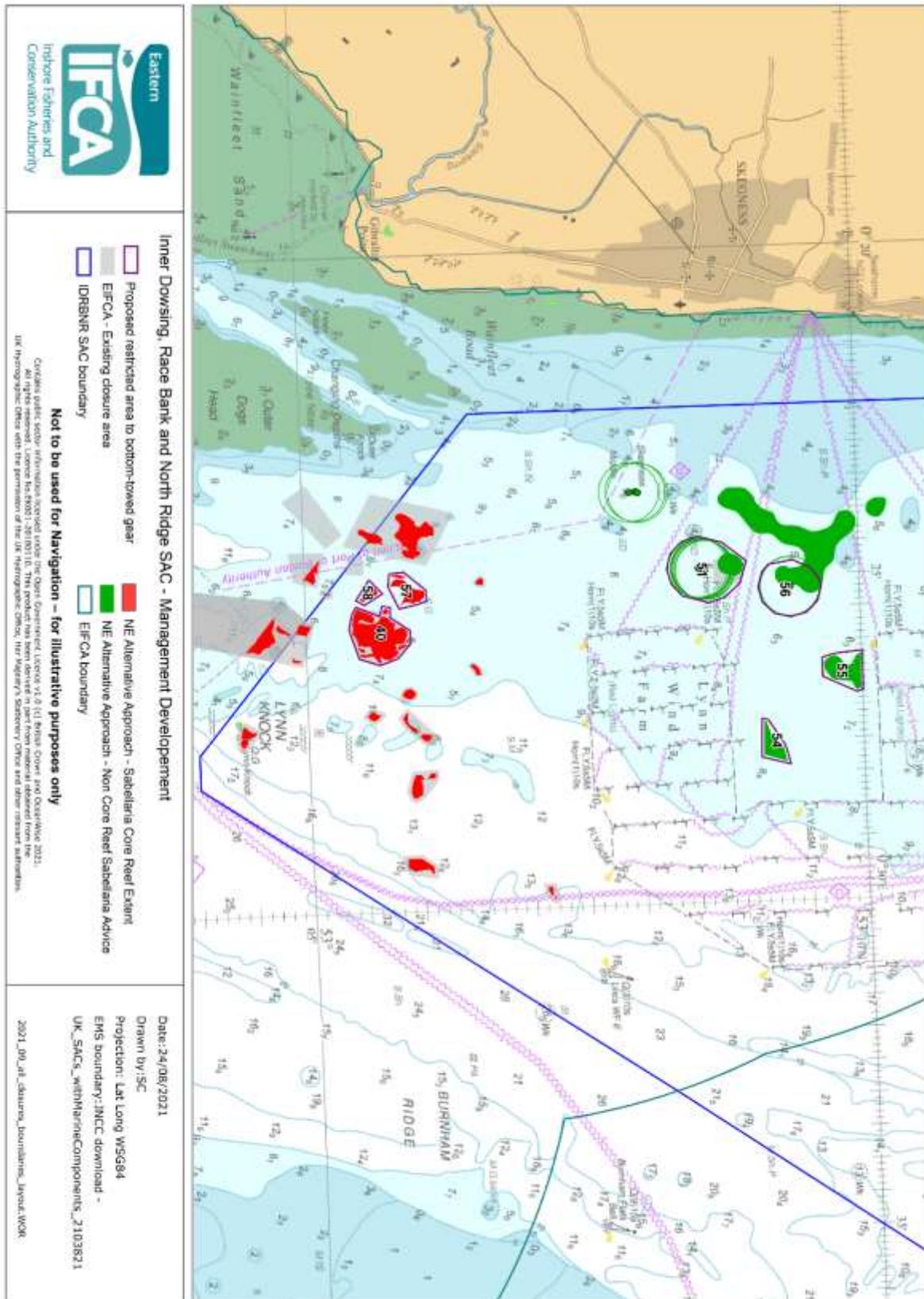


Figure 1. Inner Dowsing, Race Bank & North Ridge SAC – advised management and proposed closure areas.

The closures recommended in this paper, if agreed, will cover most but not all of the areas advised by Natural England to be managed as reef. The areas outside the previous or

current recommended closures are areas where officers consider the evidence shows reef is not present and the seabed habitat is not suitable for supporting *Sabellaria* reef.

Full rationale for the proposed closure areas and the proposed non-closure areas is given in Appendix 2 of this paper (available online at https://www.eastern-ifca.gov.uk/wp-content/uploads/2021/08/2021_09_08_Item_11_Appendix_2.pdf)

Summary of feedback from informal engagement

Officers consulted informally with fisheries stakeholders, to gather information on any activity within the proposed focus areas for management, as part of the CAB21 development to protect the site features of Marine Protected Areas in the Eastern IFCA district. This consultation ran from 27th May to 28th June 2021.

The consultation requested information from fishermen about activity using specific gear types in two key areas: bottom-towed gear within areas of the IDRBNR SAC and netting activity within the Cromer Shoal Chalk Beds Marine Conservation Zone (MCZ). 13 responses to the consultation were received. Most responses were to the questions about netting activity in the MCZ however, some responded to both. 4 responses were received from organisations/fishing societies on behalf of their members. The responses to activity in the MCZ led to that work being delayed as a consequence of higher than anticipated fishing activity and they will be taken into account when the work is progressed.

The level of response to this consultation is low in comparison to the level of activity in these areas. However, the number of responses to the questions about bottom-towed gear in the IDRBNR SAC are consistent with those received in past consultations about previous iterations of the Marine Protected Areas byelaws covering the same site. In addition, other consultation work which has been ongoing alongside this work, for example the replacement of the Wash Fishery Order and the assessment of potting in the MCZ, is likely to have impacted engagement.

A full table of responses and officers' responses to these in more detail, as published on our website and provided to stakeholders, is available below at Appendix 1.

Feedback on Bottom-towed gear Activity in the IDRBNR SAC

To obtain information about activity relevant to the areas considered for closure to bottom-towed gear, the consultation included a chart presenting two management focus areas. Stakeholders were invited to share information about their activity within these areas through description and by plotting on the chart.

The key concerns raised in responses were that the proposed areas included areas previously fished for brown shrimp and used for mussel seed. A consideration of the impact of the proposed closures on these activities is considered in more detail in the provisional assessment of impact below. The identification of these areas as such is consistent with previous consultation for the Closed Areas Byelaw 2020, the paper on these is recommended as a background document below.

More broadly, concerns were also received about the growing scale of closures facing inshore fishermen across the district as a consequence of other marine activities and marine development and conservation efforts. Again, the impact of the proposed closures is considered in more detail below.

Organisational responses raised concerns about the focus areas themselves, centring around the approach to management. One organisational response with a conservation

focus, suggested a whole-site approach as a more appropriate approach to protect the site feature. Conversely, a fisheries-based organisation challenged the evidence base for the identified impact of these gear types within the proposed areas and requested further evidence about impact prior to management considerations.

Our response to these specific concerns is evidenced in the rationale included with this paper and a provisional consideration of the impact of the proposed closures on bottom-towed activity is included below. The full impact assessment will be available for scrutiny when the byelaw is presented to the Authority in December 2021.

Provisional Summary of the Assessment of Impacts on Fishing Activity (IDRBNR)

All fisheries impacts are concluded from the best available evidence of activity within these areas, alongside consideration of the responses from stakeholders. It is anticipated that the best estimates of impact provided below are unlikely to change prior to completion of the formal impact assessment because the data set used will not change.

Costs to Impacted Stakeholders

The proposed closures are found within the ICES rectangle 35FO. The extent of the rectangle covers an area of 3714km². The proposed closed areas cover 3.4973km², less than 0.1% of the total area. A brief assessment of the landings data held for this area shows that the top species fished within 35FO using bottom-towed gear include brown shrimp, cockles, scallops, mussels, pink shrimp, sole, whiting, and cod. Of these fisheries, brown shrimp accounts for over 80% of the activity within 35FO.

35FO includes areas of the Wash, which will account for the records of cockle and mussel activity. Additionally, it is understood that pink shrimp are found in areas of *sabellaria* reef, the landings data reflects that pink shrimp fisheries have not been active within 35FO since 2014, corresponding with the implementation of the first closures of areas of *sabellaria* reef within 35FO.

The landings data held on mussels is for harvestable mussel stock, harvestable mussel fisheries are not known to settle within the proposed focus areas. Seed mussel fisheries, for the purposes of re-laying, are known to have existed within these areas, as identified in the consultation responses. The impact of the proposed closures on future seed mussel fisheries is discussed in more detail below.

The maximum best estimate of total value for *all* activity using bottom-towed gear in an average year within the proposed closed areas is £703.98, 0.1% of the total cost for 35FO. This data is determined using sales notes landings data provided by the MMO covering the period from 2010 to 2020. Data from 2021 is not included due to it being incomplete.

This is a crude estimate based on the landings value data available, it does not include those who may sell their catch directly to the public and therefore do not produce sales notes, however this is thought to be less common with the shrimp fisheries who predominantly sell catch to processors. This estimate of total value (£703.98) also, incorrectly, assumes that value is equally distributed across the area. Therefore it is important to consider these values alongside the VMS data which show evidence of very low activity within the proposed closed areas themselves.

1. Brown shrimp fisheries

Our understanding of shrimp fishing activity, supported by the evidence from VMS data, is that the main density of activity is targeted towards the inshore areas, along the edges of sandbanks or channels (indicated by the contour lines on the charts). Because the proposed

closed areas are situated further off the coast, these areas are less likely to be highly active areas for shrimp. The VMS data supports this hypothesis, with 'pings' highly concentrated in inshore areas and along the sandbanks within the key shrimp areas.

Regarding concerns that the areas are important fishing grounds, it is important to note that stakeholders were provided with management focus areas (see consultation materials at Appendix 2) within which discrete areas are now proposed for closure. Area A particularly, covers a significantly larger area than the discrete areas within it.

Within the part of management focus area A that is closer inshore, there is very low recorded activity over the 12 years of recorded data, in comparison with significant activity outside the area within the same period. Whilst the VMS data is limited, it only 'pings' once every two hours and only applies to vessels over 12m in length, the large data set and the minimal number of pings within the areas (7 pings in comparison to 10,115) lends high confidence to the conclusion that activity in the proposed areas is low. Because these are discrete closed areas of low activity it is unlikely that they will have significant impact alongside the closures already in place. However, it is important that the cumulative effect of closures continues to be monitored to minimise impact on inshore activity.

2. Seed mussel fisheries

Responses to the consultation identified that the proposed management focus areas include areas which have previously been important seed mussel ground. There has not been a seed mussel fishery in this area for a number of years, and initial review of previous active seed-mussel areas suggests that the key areas were north-east of the proposed closed areas, and therefore future seed-mussel fisheries would be unaffected by these proposed closures.

The closures would prevent prospecting for mussel which is understood anecdotally to be achieved using try-nets (small otter trawls). However, should seed mussel be identified within the area, either via non-intrusive survey or by prospecting in the areas adjacent, the potential for a seed mussel fishery remains, subject to the Authority's authorisation, via an exemption to the byelaw (under the Applications and Exemptions Byelaw 2016). Additionally, because the areas are discrete seed-mussel beds may be identified by protrusions of the bed outside the closures.

The ephemeral nature of seed mussel will require quick action for authorisation of a fishery, which may prove a barrier to the fishery being enabled because assessment to conclude that the fishery can continue without impact once identified will need to take place. Therefore the valid concerns raised by industry regarding the potential impact on seed mussel activity remain, and it is likely that the closures will impact seed-mussel ground when implemented if they are within the closures.

However, the placement of the proposed closed areas, as discrete and outside of previously recorded important mussel seed areas, capacity for a seed mussel fishery to be enabled, provides sufficient mitigation to limit the potential impact of the closures, whilst maintaining their intended protective effect.

Costs to Eastern IFCA

Additional compliance activities will be required in addition to education and engagement. The cost implications of such are anticipated to be low-level, with between 4-6 additional sea patrols per year. This is an estimate to be informed by a risk-based approach to compliance related monitoring alongside existing patrols in the area. Monitoring the effectiveness of closures in terms of habitat recovery would require an ongoing programme

of vessel-based survey work, although at this stage it is not established whether this cost would fall to Eastern IFCA. Surveys of the closed areas proposed in the current paper are estimated to require a minimum of ten survey days per year.

Exemption for activities pursuant of Rights in Common

It is proposed that the exemption from the closed areas in relation to specific activities undertaken in exercising a 'Right of Common', in relation to registered common land, is maintained under CAB21. This is a continuation of the exemption which exists under the Marine Protected Areas Byelaw 2018 (and subsequent Marine Protected Areas Byelaw 2019, and Closed Areas Byelaw 2020 iterations that are awaiting submission), after it was concluded that such activities did not pose a risk to site integrity.

Officers have investigated the appropriateness of the exemption in relation to the proposed closures. None of the additional proposed closed areas overlap with common land according to available records. This primarily reflects that most common land is landward of the mean high-water mark. As such, it is proposed that the exemption is maintained in the Closed Area Byelaw 2021.

Exemption from gear to be lashed and stowed within Restricted Areas

Previous iterations of the Marine Protected Areas Byelaw have exempted vessels from ensuring that gear is 'lashed and stowed' in certain circumstances. This exemption only applies to 'beam trawls' and where a vessel has been fishing immediately prior to entering or will proceed so upon exiting the closed area.

Previous consultation which highlighted the need for exemption included responses in which concerns were raised about the safety and logistics of ensuring lashed and stowed gear when transiting the smaller closed areas, given that the nature of the gear enables it to be held in avoidance of the water whilst transiting short distances.

Due to the discrete size of the closed areas proposed here, it is recommended that this exemption is maintained in all the proposed closed areas.

Financial Implications

Provisional financial implications on industry and the Authority have been considered in the report above. These will be made explicit in the formal impact assessment submitted with the Byelaw in December; however it is not anticipated that the provisional assessment outcomes will change in the meantime.

Legal Implications

Due diligence

There is an inherent risk of challenge in making byelaws and this is mitigated through the implementation of due process as per Defra guidance, and through well informed, justifiable and reasonable decisions. As such with the nature of these proposed closures that are required to maintain the integrity of the red-risk features of the IDRBNR SAC site that are vulnerable to activity, the risk element lies with the failure to implement these closures as adequate protection.

Risk mitigation

Risk of Challenge is mitigated through the consideration and management of discrete closed areas informed by thorough assessment and evidence to provide the necessary protective effect for the site feature whilst minimising impact on fishing activity.

Conclusion

Officers consider that the closures proposed in this paper are required to meet duties to protect designated marine habitats. The closures would result in small-scale additional restrictions on certain fishing activities that are already affected by multiple conservation closures as well as other spatial constraints. The proposed closure areas have been designed to provide the required protective effect with the least possible impact on fishing opportunity.

Appendices

Appendix 1 - Table of complete informal consultation responses

Appendix 2 – Rationale for proposed new / extended closure areas and for non-closure areas. Available online at:

https://www.eastern-ifca.gov.uk/wp-content/uploads/2021/08/2021_09_08_Item_11_Appendix_2.pdf

Background Documents

Papers and minutes of the 41st Eastern IFCA Meeting held on 9th September 2020

Appendix 1 – Informal consultation responses and comments

You Said

The proposed management area is important mussel seed ground. These areas are often visited by fishermen looking for mussel beds.

Mussel fisheries are understood by local fishermen to run in cycles, if these areas are closed it could prevent reviving mussel fisheries in the future.

Significant financial investment has been made for mussel seed farming over the years. If these areas are closed this will result in the loss of these investments.

Good shrimp fishing has been achieved historically in the proposed areas for closure. The industry is facing significant closures which will amount to activity no longer being viable.

Our Response

We understand that these areas have, historically, provided seed mussel ground. Our current understanding of mussel seed areas based on historic survey data suggests that the most important mussel grounds were north of the management focus area, which remain open to fishing activity.

There has not been an active mussel fishery in The Wash for several years. The capacity for inshore fishermen to diversify is very important, and Eastern IFCA are working with industry and local partners to regenerate mussel fisheries in our district.

Outside of The Wash (mussel fishing within The Wash is regulated by the Wash Fishery Order 1992), mussel fishing is prohibited without a permit, and all fishing for mussel is prohibited under the 50mm minimum size (Eastern IFCA Byelaws 3 & 4).

Exemptions to these byelaws can be granted at the discretion of the Authority to take seed mussel (Eastern IFCA applications and exemptions byelaw). If seed mussel is found in one of the proposed closed areas, it is at the Authority's discretion to authorise vessels to take the seed for the purposes of relaying. Such authorisation would only be granted where we can show that the activity would not impact on the site.

The closed area would prevent traditional methods of prospecting for mussel; therefore the discovery of the seed beds may be limited. It is under consideration if further mitigation is required to enable assessment of mussel seed beds in these areas.

Where *Sabellaria* reef is found Eastern IFCA are required to close areas to bottom-towed fishing to protect it. These areas have been identified as areas of established reef. To mitigate impact on fishing opportunity, in recognition of the pressures that industry face with increasing limitation, Eastern IFCA are committed to only closing the areas in which there is strong and consistent evidence for established reef. This has resulted in more discrete areas, within the management focus areas presented to stakeholders for consultation, being proposed for closure than would otherwise have been the case with

Any closures would further the existing impacts from wind farms on industry.

The new Shrimp Permit Byelaw 2018 will result in pressure on shrimp grounds in The Wash, so shrimp grounds outside the wash will be vital.

The financial side of a business should not be considered, only the rights of our heritage should be noted.

Small demersal trawlers avoid established reefs at all costs because towing across a reef results in damage to the gear and catch. Therefore these areas can be closed without impacting fishing grounds.

Eastern IFCA should not have to consult on the activity in these areas as they are historic mussel seed areas that should be well known.

less evidence. This is intended to reduce impacts where possible on important shrimp grounds.

The Shrimp Permit Byelaw 2018 will not impose any measures which would increase pressure on shrimp grounds in The Wash. Rather, it is designed to enable shrimp fishing to the extent that it has occurred over the last 10 years, with restrictive measures only coming into effect where activity exceeds historical levels.

Any displacement of activity which may arise as a result of the proposed closures will be taken into account in the impact assessment stage of developing a byelaw. This will be the next step following this consultation.

Eastern IFCA are required under the Marine and Coastal Access Act 2009 (MaCAA) to seek to balance socio-economic impacts of management on fisheries with needs for conservation.

It is because we recognise the importance of these areas historically that we seek to limit any required closures to minimise impact on industry while meeting our required duties to protect the marine environment.

It is understood that the financial value should not be the only factor in consideration of management. The historic and social importance of these grounds for inshore fishermen is considered.

Eastern IFCA seek to limit closed areas to limit impact on the inshore fishing fleet.

It is acknowledged that these areas may already be being avoided due to the reefs' potential to damage gear.

Consultation work is undertaken to build upon our understanding of areas with the expertise from our stakeholders.

Eastern IFCA should produce a map of the feature presence alongside existing closed areas and the proposed closed areas for better understanding of the effectiveness of the proposed measures.

There should be a panel of experienced fishermen assisting Eastern IFCA in the choosing of new closed areas if they are needed.

A whole site approach, or closures covering larger areas, would be more appropriate as protection of the feature because of its scattered and ephemeral nature, and because the site is in unfavourable condition.

New information is often learned in these consultations that can be used to the benefit of industry – making sure that management is accurate and well evidenced. Information about specific activity where it relates to individuals, and the impact of management proposals upon individuals, can only be learned through talking to our stakeholders.

At this stage we are gathering information to inform the precise locations of the closures that are recommended within the management focus areas and to inform our Impact Assessment of such closures.

When the byelaw is presented to the Authority the potential impacts will be highlighted to inform a decision. Stakeholders will have further opportunity to comment at this stage, in formal consultation.

The purpose of these consultations is to provide industry with the opportunity to inform the development of closed areas. This has previously been very successful in the development of earlier closures for protected areas byelaws.

Additionally, Eastern IFCA are an Authority that comprises members appointed for their expertise in the marine environment. Currently there are 3 members of the Authority who are long-standing Wash fishermen who have extensive knowledge of these grounds. Their input, alongside those from the wider industry is essential in informing the development of management.

It is also the case that Eastern IFCA are advised on areas for management by Natural England, the government advisor for the natural environment.

Eastern IFCA are committed to balancing the need to protect the environment with supporting viable and sustainable fisheries.

We follow an approach agreed with Natural England towards the final designation of closed areas. This requires recent and consistent evidence of the feature over time to ensure that closures are only made with the best available evidence. This is to limit impact on our inshore fishing industry who are already severely limited in terms of location and

More evidence should be made available about why these gear types (bottom-towed gear) in these areas require regulation.

species to fish, whilst also ensuring that activity does not compromise the conservation objectives of the site.

Eastern IFCA is responsible for ensuring fishing activities do not threaten the integrity of MPAs, for example by damaging reef and reducing its distribution. *Sabellaria spinulosa* reef is vulnerable to damage from towed, demersal fishing activities, so these types of fishing need to be managed so that they do not interact with the reef feature.

We use risk ratings provided by Defra ('the matrix') to guide our work on managing fishing activity within Marine Protected Areas. The matrix identifies how likely a fishing activity is to cause an impact on different features within Marine Protected Areas. The matrix identifies that use of bottom-towed gear over *sabellaria* reef ('Biogenic reef') is a 'red-risk' activity and therefore closure is the only appropriate mechanism for protection.

At this stage of developing the byelaw, we are seeking evidence from industry about activity. Further evidence of the extent of the feature and impacts will be available for the formal consultation on the byelaw after it is presented to the Authority.

Vision

The Eastern Inshore Fisheries and Conservation Authority will lead, champion and manage a sustainable marine environment and inshore fisheries, by successfully securing the right balance between social, environmental and economic benefits to ensure healthy seas, sustainable fisheries and a viable industry



Action Item 12

45th Eastern Inshore Fisheries and Conservation Authority Meeting

08 September 2021

Wash Cackle and Mussel Byelaw 2021 - Update

Report by: Luke Godwin, Senior IFCO (Regulation)

Purpose of Report

To update Members on the progress made in the development of the Wash Cackle and Mussel Byelaw 2021, and to suggest the next steps to undertake in the replacement of the Wash Fishery Order 1992.

Recommendations

It is recommended that members:

- **Note** the progress made in engagement on the development of access policies for the replacement of the WFO 1992.
- **Agree** to defer the final submission of the Wash Cackle and Mussel Byelaw 2021 until December 2021.
- **Agree** in principle to re-consider separate categories of permits issuable under the Wash Cackle and Mussel Byelaw 2021.
- **Direct** officers to:
 - continue to pursue engagement with industry;
 - continue to liaise with respondents and other stakeholders in relation to the objections to the Wash Cackle and Mussel Byelaw 2021; and
 - report to the Authority at the next full Authority meeting the results of the further dialogue and a final draft of the Wash Cackle and Mussel Byelaw 2021.

Background

Eastern IFCA is the grantee of the Wash Fishery Order 1992 (WFO), a hybrid fisheries Order, which is used to manage public bivalve fisheries (Regulating Order) and private fisheries (Several Order) within The Wash. The WFO expires in January 2023.

The decision to replace the WFO with a byelaw was taken by the Authority at the 39th Eastern IFCA meeting in March 2020. The Wash Cackle and Mussel Byelaw 2021 was agreed to be made by members at the 43rd Eastern IFCA meeting in March 2021.

This decision has generated significant opposition from current WFO licence holders and associated stakeholders. Considerable engagement and consultation has been undertaken since the 39th Meeting to address and seek to resolve concerns.

At the 44th Meeting in June 2021, officers reported on stakeholder responses to the formal consultation on the byelaw. Particular attention was given in the report to the objections that had been received and subsequent changes to seek to resolve or mitigate these objections. Defra guidance provides that the Authority should respond to objections and, where appropriate, liaise with objectors with a view to resolve their concerns. Objections that cannot be resolved do not preclude consent for the Byelaw by the Secretary of State, but the Authority is required to adequately explain why such could not be resolved. Members directed officers to continue to develop the byelaw and present a final version for submission at the 45th Eastern IFCA meeting.

Alongside minor amendments to the Byelaw, three key changes in approach and to the Byelaw itself were outlined at the 44th Meeting. These were:

- To delay the formal submission of the Byelaw pending further progress with the policies to be presented at this 45th Meeting.
- To remove the reference to a Category Two permit, following uncertainty surrounding the ambiguity of its intended use.
- To increase the review period of the flexible management measures in the byelaw from four to six years with additional wording to enhance that effect in the absence of an entitlement provision and in the context of providing the Authority with appropriate flexibility in management, whilst ensuring that such flexibility is not at the expense of the provision of secure and consistent access to the fishery.

Report

The dual approach adopted for the replacement of the Byelaw, which separated the progress of the Byelaw and the development of associated policies, was intended to reduce risk of delay to the implementation of the Byelaw pursuant of the expiry of the WFO in January 2023.

It is acknowledged, however, that the dual approach has raised concerns amongst stakeholders who state that the approach prevents confidence or certainty in the Byelaw because much of the effect of the Byelaw is determined by the policies.

Officers were directed to continue to engage with respondents in relation to the objections, and report on any results of this engagement alongside a final draft of the Wash Cockle and Mussel Byelaw 2021 at this 45th Meeting. Due in part to the complexities involved and in part to the ongoing challenges in engagement with Wash stakeholders, progress on the development of policies has not been as anticipated.

Progress with policy development

Prior to undertaking engagement with stakeholders, officers developed a draft policy to guide the management of access to the cockle and mussel fisheries in The Wash. This policy was drafted within the framework of the overall policy objective and the aim and objectives consulted on with stakeholders and agreed by the Authority at the 44th and 43rd Eastern IFCA meetings respectively.

The draft was intended to form the basis of discussion with stakeholders with a view to agreeing principles from which definitive proposals could evolve. The key points for consideration were:

- How permits will be issued and to whom
- How permits are to be limited
- How we will transition to the new system
- How permits may be issued in consecutive years
- How new permits may be allocated
- How permits may be passed on to working partners or close family members.

The draft principles formed the basis of planned engagement with industry, and they sought to address many of the key concerns that had been raised in consultations and dialogue.

Recognising that the inability to hold face to face meetings as a consequence of the pandemic has hindered engagement with industry members, officers set aside two days to hold meetings with stakeholders at the beginning of July 2021. A meeting space was found which could accommodate up-to 10 individuals in a 'Covid safe' manner to ensure the safety of those attending. This meant that attendance was limited to a maximum of seven stakeholders per meeting and six meetings were planned over the two days.

As well as addressing the Covid safety issues, the small number of attendees was also intended to facilitate open discussion, something that is difficult, if not impossible, to achieve in larger meetings. As such the meetings provided an opportunity for stakeholders to share their perspective on draft policy principles and to enable discussion on objections to the Byelaw and subsequent changes that had been made to resolve these.

Industry members were invited to these meetings via their fishing associations and to encourage participation and ensure that the message was received by all Wash stakeholders, officers worked to share the invitation on the quayside and over the phone.

Initially, interest in attending the meetings was positive. However, it became apparent that many were discouraged from attending and in some cases, it appeared that some were being put under pressure not to attend.

Despite the non-attendance of the majority of Wash stakeholders at these meetings, officers were able to have productive engagement with some stakeholders and also with Members of the Authority that are Wash fishermen. At these meetings, officers presented the key objections that had been received to the byelaw and how these had been sought to resolved, as well as presenting draft policy principles on the issues outlined above.

Subsequent to this, significant progress has been made to further develop the policy ideas. This has included continuation of the 'without prejudice' meetings with the solicitor and consultant representing the 'coalition of interest' of many Wash fishermen, to work through the draft policy content.

It appears that the response to the policy principles from those that have been exposed to them has, in the main, been positive and the intention is to again seek to hold smaller face to face meetings with industry members so that we can be confident that the overall views expressed by the 'coalition of interests' is reflective of the views of all.

It is relevant to note that having declined to attend smaller meetings some industry members sought to hold a 'whole industry' meeting on the basis that it would be transparent because all views would be heard. Officers expressed reservations about this on two counts. Firstly, experience strongly indicates that large meetings are not conducive to genuine dialogue, not least because less confident voices are simply not heard. Secondly, given the likely number of attendees assurances were sought on the safeguards that would be put in place with regard to Covid19. No such assurances were received so officers did not attend.

It is thought that the emerging policy on access to the fishery will address the concerns of many industry members and may facilitate resolving objections to the Byelaw. However, some objections are likely to remain as their resolution would require a replica replacement of the WFO 1992 itself, which would not be acceptable to the Authority on the basis of the rationale for replacing the Order with a Byelaw.

Progress with the Byelaw

It was anticipated that a final version of the Byelaw would be presented to this Authority meeting. However, due to ongoing dialogue with industry, there are still some elements of the byelaw which would benefit from further development. This will enable further consideration of the key objections of industry, which include the development of the associated access policies. It is proposed that consideration of a final version is deferred until December to enable this and to resolve, so far as is possible, the objections of the industry prior to formally submitting the Byelaw.

So as to mitigate the risk of the byelaw not coming into force when the WFO expires, it is proposed that dialogue with the MMO continues. The MMO have informally reviewed the wording of the byelaw and have suggested some amendments, primarily to aid the reading of the byelaw and improve clarity. This work would have ordinarily been the first step of the formal QA of the byelaw and so is a significant step towards having the byelaw finalised, but without any commitment as a consequence of formal submission.

The MMO have also agreed to have their legal team review the byelaw ahead of formal submission. This would ordinarily be the second step following formal submission of the byelaw. By doing this ahead of full submission, we can identify and resolve any issues with the draft wording prior to the formal QA. By taking this approach it is hoped that progress can be made with what is ordinarily the most time-consuming element of the formal QA process. This is being undertaken in the knowledge that the byelaw is in draft and is not the final version approved by the Authority.

As a result of the dialogue which has taken place with industry members, two key elements have been further developed:

Category Two permits

At the 44th Eastern IFCA meeting, members agreed in principle to remove the 'Category Two' permit from the byelaw. This Category of permit was intended to be used in an innovative way and was intentionally not defined within the byelaw, so as to be a flexible tool for the Authority to use as required. The use of a permit in this way was subject to objection during the formal consultation, in part because there was concern about how we would use the permit now or in the future, given that it was not defined it within the byelaw.

Further dialogue with industry has identified that it is desirable to preserve the legacy position of business models which may not fit with the new model for access to the fisheries. To achieve this a second category of permit may be necessary but given that there would be no disadvantage to industry with such a clearly defined category of permit, it is anticipated that the objections will be resolved.

Permit fee

Wording has been drafted which will split the fee payable into two parts. The proposal is that one part of the fee reflects a persons continued eligibility to a permit, subject to meeting the other criteria set out in policy. The second part would only be payable to operate within any of the Wash Fisheries. This is intended to reduce the cost where permit holders do not wish to participate in a fishery for any given year. Dialogue to date with industry has indicated general agreement with this measure.

It is suggested that officers continue to develop the wording of the byelaw to seek to resolve objections from the formal consultation and to address any feedback from the MMO legal review of the byelaw. The intention would be to bring the final version of the Byelaw to the Authority in December for approval and formal submission to the MMO and Defra.

Financial Implications

None identified

Legal Implications

There is an inherent risk associated with the implementation of regulatory measures. These are mitigated through adoption of due process, primarily in accordance with Defra guidance to IFCA's and our general duties as a public authority.

By seeking further engagement to inform the development of the byelaw and seek to resolve objections, we are mitigating risk of judicial review or public enquiry.

Background Documents

Papers and minutes of the 39th Eastern IFCA Meeting held on 11th March 2021
Papers and minutes of the 43rd Eastern IFCA Meeting held on 10th March 2021
Papers and minutes of the 44th Eastern IFCA Meeting held on 9th June 2021

Vision

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Action Item 13

Eastern Inshore Fisheries and Conservation Authority Meeting

08 September 2021

Wash Several Order 2022: application and fisheries management plan

Report by: Luke Godwin, Senior IFCA (Regulation)

Purpose of Report

To report to members on the Several Order under the Sea Fisheries (Shellfish) Act 1967 to replace the several fisheries element of the Wash Fishery Order 1992 and to seek agreement for the draft fisheries management plan and to submit the application for the Order.

Recommendations

It is recommended that members:

- **Note** the report including the process for applying for a Several Order
- **Agree** in principle to the draft Fisheries Management Plan at Appendix 1
- **Agree** to submit a 'Form of Application' to the Minister to include the draft Fisheries Management Plan for the Wash Several Order 2022.
- **Direct** officers to consult with Natural England and stakeholders in relation to the fisheries management plan

Background

The Authority manages private fisheries within The Wash ('lays') under the Wash Fishery Order 1992 (WFO). Under the WFO, the Authority allocates lays to enable aquaculture and manages such using lease conditions. Management predominantly reflects mitigating impacts on the Marine protected Areas of The Wash but also in relation to fisheries sustainability and industry viability.

The WFO expires in January of 2023 and Members agreed to replace the several fisheries element of WFO with a Several Order under the Sea Fisheries (Shellfish) Act 1967 ("the shellfish Act").

Report

Defra have been made aware of our intention to apply for a Several Order and have provided guidance and an application form template. This includes the process for application which is summarised below:

1. Initial application – Application is made which is primarily the production of a Fisheries Management Plan setting out how the applicant intends to operate

private aquaculture. Once drafted, the Fisheries management plan is submitted, and a Habitats Regulation Assessment is undertaken which requires 'sign off' by Defra. Defra consult internally on the proposal and make an initial decision as whether the application can proceed.

2. Drafting an Order – Defra and Cefas draft an Order and plan respectively, which is provided back to the applicant for consideration.
3. Pre-consultation – The applicant undertakes 'pre-consultation' with relevant stakeholders, Natural England and the Crown Estate. The applicant then seeks to resolve any objections prior to 'formal consultation'
4. Formal Consultation – The draft Order is subject to a 30 day consultation which will start once advertised in Fishing News and local newspapers. Substantive objections must be resolved either by way of 'written confirmation of withdrawal' or by 'Public Inquiry' to make a final resolution on each objection.
5. Laid before Houses of Parliament - If Minister decides to make the Order, such is laid before both Houses of Parliament following the "negative Resolution" process. Consideration of up to 40 days at which point Members of Parliament may force a debate.
6. Approval – Applicant (Grantee) notified of making the Order and such is advertised in same publications as per formal consultation.

A draft Fisheries Management Plan (FMP) has been developed (Appendix 1) and is summarised below.

Fisheries Management Plan

The draft FMP draws on the established measures for operating lays under the WFO. The key changes relate to the process for allocating lays, rather than any technical requirements.

An Aim and objectives are proposed for managing the Several fishery as below.

Aim

To enable and facilitate aquaculture within The Wash which furthers the conservation objectives of The Wash marine protected areas, enhances sustainability of other Wash fisheries and supports economic viability for associated industry.

Objectives

- *Restrict the allocation of lays to persons who are actively fishing within The Wash and who can evidence best practice through submitting a business plan;*
- *Allocate lays on a fair and equitable basis across those eligible on the strength of the application made, taking into account that there is a finite resource which may be oversubscribed;*
- *Allocate lays only in areas of The Wash which can support such without impacting on site integrity of the Wash marine protected areas or the sustainability of wild fisheries resources;*

- *Restrict the allocation of lays to a total area not exceeding the established maximum sustainable within The Wash;*
- *Restrict aquaculture operations using lease conditions to ensure that when returned to the public fishery, they can support natural habitats and species as would ordinarily occur within The Wash;*
- *Monitor operations to ensure that they are compliant with conditions of their issue and the statutory responsibilities of Eastern IFCA and have mechanisms to redress operations which are not compliant.*

Furthering the conservation objectives of The Wash MPAs and fisheries within the draft FMP relies on management of the lays in keeping with the current WFO system. These include:

- Restricting the allocation of lays to areas which do not support protected or supporting habitats;
- Restricting the allocation of lays to areas which do not form part of naturally occurring, wild bivalve stocks at commercially viable densities;
- Restricting the width and number of dredges (mussel dredges) which can be used to prevent damage to the sediments and ensure that, once returned to the public fishery, the area is capable of supporting naturally occurring habitats;
- Monitoring food availability (phytoplankton) within The Wash to ensure that naturally occurring bivalve molluscs have sufficient food resources and implementing further restriction on the density of shellfish within lays where food available is limited;
- Restricting imports of seed from outside of The Wash to ensure compliance with measures to prevent introduction of disease and invasive, non-native species;
- The total area of lays currently issued under the WFO will be the limit for lay holdings under the new Order.

Key to the development of the plan is the concept that Wash fisheries have strong interdependencies. With the decline in the Wash mussel fishery, there is additional reliance and burden on the cockle and shrimp fisheries to provide annual income for the circa 55 vessel fleet which operates within them. The key objective of the Several Order would be to provide for aquaculture within The Wash which could reduce the burden on the wild fisheries. In addition, there is a notable benefit to hosting mussel aquaculture (which is the primary form of aquaculture within the Wash) in that it potentially provides additional spawning stock to contribute towards mussel spawn within The Wash.

However, it is noteworthy that, at the time of implementing the WFO in 1992, the same rationale was put forward yet, the lays in the Wash are underutilised.

This reflects in part the reliance by some on mussel seed (juvenile mussel) being available from within The Wash. However, the last two seed relaying fisheries were not prosecuted by any lay holders and none of the seed removed was used to stock lays in The Wash. This indicates that of the lays granted under the WFO, many are

not being used as intended. It is noteworthy though that some are in more regular use, and these rely on seed from outside of The Wash.

Of those that are being used regularly, their operation includes the use of partnerships between lay holders and lays of greater than 10ha. Restrictions within the WFO preclude this from occurring except where Eastern IFCA has obtained the permission of the Minister as a means of minimising the risk of monopolisation of private fisheries and providing maximum opportunity to Wash fishermen. Whilst it will be important to achieving the Aim and Objectives that as many Wash fishermen have access to lays as possible, enabling partnerships also appears to be important to enable successful operations.

In recent years, widespread settlement of wild cockle spat has included settlement on otherwise dormant lays. The result being that the lay holders have benefited from some cockle spat which would have ordinarily benefited the public (regulated) fishery. There is some concern within industry that some lays are being maintained only on the chance that such wild settlements occur and become the 'absolute property' of the lay holder, as per the Sea Fisheries (Shellfish) Act 1967. Whilst this is contrary to the intention of the Several Fishery, there are no mechanisms within the WFO to mitigate against this or encourage better management of lays towards their intended purpose.

Therefore, the key changes relate to the allocation process of lays which is proposed to occur in two Tranches.

Tranche 1 will facilitate the transition from existing lay holdings (under the WFO) to the lays issued under the Order. Applicants in Tranche 1 will only be able to apply for the re-allocation of a WFO lay and must be eligible for a Wash Cockle and Mussel Permit to be eligible to apply.

Tranche 2 will facilitate the allocation of lays up to the total maximum that can be issued.

The FMP deals primarily with Tranche 1 allocation of lays, and it is anticipated that Tranche 2 lay allocation will take place up to five years after an Order is granted. This reflects that re-allocation of lays as currently allocated will be significantly less resource intensive than 'new' lays and will provide time for the establishment of Tranche 1 measures.

The process for applying for a lay under the WFO was very limited. Applicants had to provide coordinates of an area they considered suitable whilst the Authority then undertook to establish the suitability of the area for lays including a site survey and producing a Habitats Regulation Assessment. More contemporary systems, such as under the Poole Harbour Fishery Order 2015, require additional information from applicants to reduce the burden on the managing authority and ensure that applicants have a credible management plan for operating the lays.

The application and allocation process proposed in the FMP for the new Order is summarised as follows:

- Submission of a business plan by eligible applicants (to include Submission of a business plan to include a method for operating the lay, the company and management structure, predicted aquaculture forecasts, safety planning and biosecurity plans)
- Consideration by the Authority (or appropriately delegated sub-committee) – applications are assessed to determine if they represent a credible business plan.
- Site survey undertaken by an officer of the Authority but facilitated by the applicant (i.e. taken to the site by the applicant)
- Consideration of the site against the FMP (i.e. does the site support protected species or habitats or wild shellfish beds)

The proposed application process constitutes significantly more planning on the part to the applicant than is the case under the WFO. The intention is to encourage best practice, to marginally reduce the burden on the Authority and to limit lay allocation to those who genuinely intend to cultivate shellfish, noting the beneficial impacts on wider fisheries sustainability of this.

In addition, the plan includes a limit on the period of lay allocation to 5 years, after which the Authority would consider re-allocation. Such consideration would take into account the use of the lay during the leased period and whether they met the forecasts made within the original business plan. This would include taking into account if seed fisheries had been available within The Wash and if they were utilised by the lease holder. The intention being to ensure that lays are well managed by the lease holders and where that is not the case, they can be open to allocation to another applicant.

In additions, lease conditions will require lease holders to operate lays in accordance with the key mitigation required. These will include technical restrictions, such as vessel size limits and gear specification and other measures to ensure activity is in keeping with the Aim and Objectives of our management.

A crucial element of this is consideration of revocation of a lay, or part thereof, on the basis that it becomes set with wild shellfish. This has been a key point of contention with industry. It is intended that settlement of wild shellfish on a lay would trigger a review of the allocation of the lay which would take into account the level of demand for lays, the use of that lay in accordance with the business plan and the degree to which wild stocks are likely to continue to settle in that area. Ultimately, the Authority could exercise its discretion as whether to revise the lease with the lay holder.

Next Steps

The intention is to put the draft FMP to informal consultation to inform further development if it is agreed in principle by members.

Ordinarily, a Habitats Regulation Assessment (an assessment of the potential impacts on marine protected areas) is submitted after having produced an FMP and application is made to Defra. However, a draft assessment has been produced and is to be submitted to Natural England imminently so as to reduce the timeframe for completing this step. This is possible on the basis that the Authority has an

established set of mitigation measures in place for managing the Several Fisheries in The Wash.

In addition, 'pre-consultation' is ordinarily undertaken after an Order is drafted by Defra and the FMP has been approved by Cefas. Whilst dialogue may still be required at that point, it is considered beneficial to start informal dialogue with stakeholders in relation to the draft FMP and application at this stage. Consultation for Several Orders typically involves many more stakeholders than would generally be expected for fisheries management measures because it provides exclusive rights to a fishery. For that reason, and so as to shorten the timeframe for consultation and resolution of objections at a later stage, it is recommended that members direct officers to start consultation at this earlier stage.

This work has been significantly delayed as a result of resource requirements in other priority work streams (not least the development of a byelaw and policies which will replace management under the regulating part of the WFO). There is a high risk that this workstream will not conclude in time to establish a Several Order to replace the WFO before it expires. The recommendations for accelerating the process as set out above will mitigate this risk to an extent.

In the case that the Several Order is not in place in time, it is anticipated that the Wash Cockle and Mussel Byelaw 2021 or 'Byelaw 7: temporary closure of shellfish fisheries' can be used to close the areas which constitute lays to the public fisheries in the interim, whilst still enabling access to the lay holders by using an exemption to the closure under the 'Applications and Exemptions Byelaw' (on the basis that such is for breeding or stocking purposes).

Financial Implications

There is likely to be a significant resource cost to undertake the process of application and implementation of a Several Order. There will be a financial cost at the point we have to undertake formal consultation (advertisement in newspapers) which will likely be in the region of several thousands of pounds. In addition, where objections cannot be resolved through dialogue between the Authority and the respondent, it may be that a public enquiry is held, which would be at the cost of the Authority. However, early dialogue on with stakeholders should reduce this associated risk.

Legal Implications

None identified

Appendices

Appendix 1 – Draft Wash Several Order 2022: Draft Fisheries Management Plan

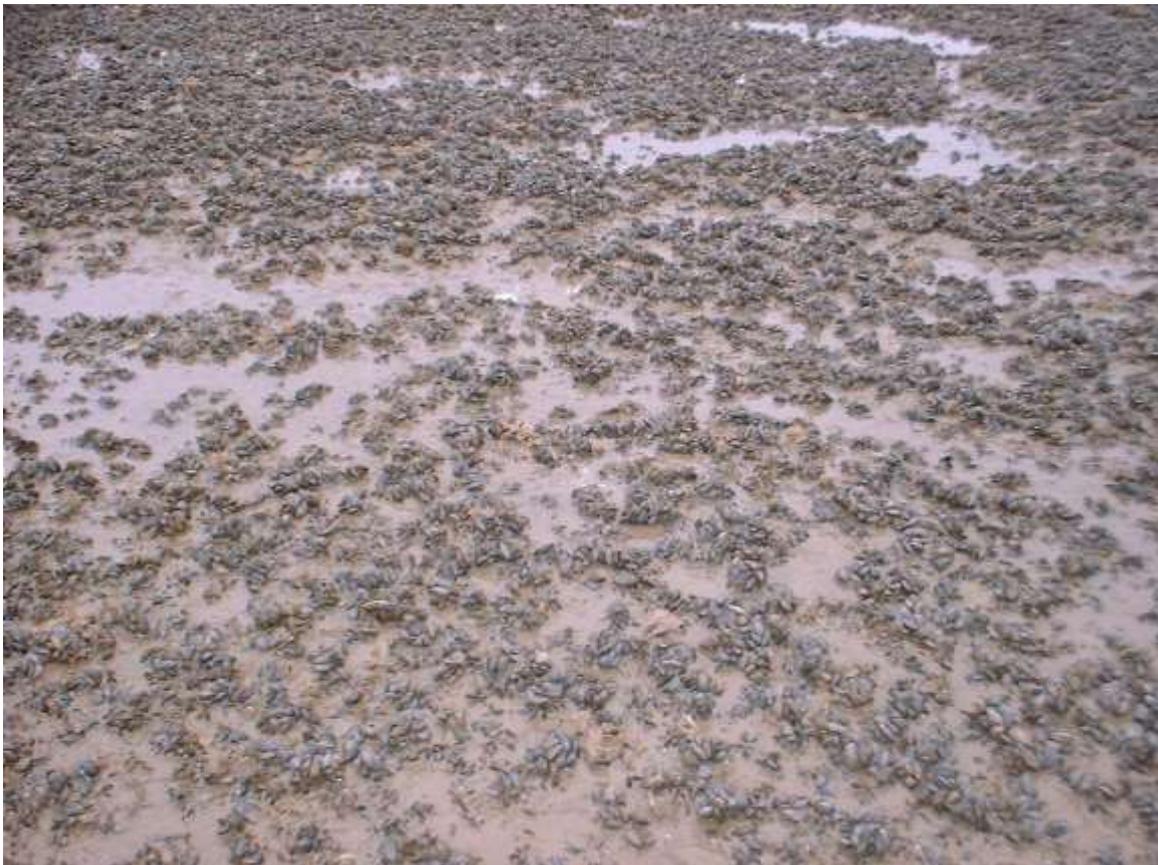
Background Documents

Action Item 10, 39th Eastern IFCA Meeting, 11th March 2020

Appendix 1



The Wash Several Fishery Order (2022) Management Plan (Draft)



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Version	Date	Changes	Officer
1.0	23/07/2021	First draft	RWJ
1.1	18/08/2021	Initial revisions and additions	LG

DRAFT

The Wash Several Order (2022) Management Plan

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DRAFT

1.0 INTRODUCTION

1.1 Objective

Eastern IFCA is applying for a Several Order under the Sea Fisheries (Shellfish) Act 1967. This Order is intended to replace the several fishery aspects of the existing Wash Fishery Order 1992 (WFO) when it expires 3 January 2023. The WFO is a hybrid Several and Regulating Order, which is used to manage the wild and private bivalve mollusc fisheries in the Wash since it came into effect in 1993. Eastern IFCA, and its predecessor, Eastern Sea Fisheries Joint Committee (ESFJC), is the grantee of the WFO. The Regulated aspects of the Wash Fishery Order (1992) are planned to be replaced with a byelaw, so will not be detailed in this plan.

The Wash hosts several important conservation designations and fisheries supporting a fleet of circa 55 vessels. Fishing opportunity is however limited to cockles, brown shrimp and to a lesser extent whelks and mussels. The Wash has historically supported aquaculture and most recently this has involved use of small, inter-tidal areas leased to individuals who lay mussel seed and cultivate it to sell on as adult mussel. Aquaculture can, in of itself, benefit Wash fisheries particularly in relation to wild mussel fisheries, which have been in decline in The Wash, as a means of introducing additional spawning stock into The Wash which would in turn contribute towards wild fisheries.

Aquaculture in The Wash has been underutilised under the Wash Fishery Order 1992. This reflects in part the lack of seed from within The Wash itself and the retention of Lays by persons who are no longer actively engaged in the Wash fisheries. Those more active in the aquaculture operations of The Wash have tended to rely on obtaining seed from outside of The Wash. Overall, aquaculture operations have been very informal and lack more detailed planning which would be expected where lease holders were the holders of the Order themselves.

The Wash Several Order 2022 is intended to provide the continuation of aquaculture within The Wash as a means of reducing the burden and reliance on the other Wash fisheries, to enhance environmental and fisheries sustainability. Eastern IFCA is applying to be the grantee to sub-lease lays to fishers to facilitate aquaculture operations by providing a robust management structure within which the industry can operate in accordance with our statutory responsibilities. More emphasis will be placed on operators to show how they intend to operate within this structure and to evidence this to continue to maintain lay allocation.

Allocation of lays will be limited to those who are active within the Wash molluscan shellfish fisheries and those who provide a credible business plan which evidences responsible fishing operations. Use of the lease will be conditional on operating under requirements which mitigate the potential impacts the environment and fisheries sustainability. Eastern IFCA will monitor and enforce these conditions to ensure compliance and to ensure that the most effective and productive use of lays.

Aim

To enable and facilitate aquaculture within The Wash which furthers the conservation objectives of The Wash marine protected areas, enhances sustainability of other Wash fisheries and supports economic viability for associated industry.

Objectives

- Restrict the allocation of lays to persons who are actively fishing within The Wash and who can evidence best practice through submitting a business plan;

- Allocate lays on a fair and equitable basis across those eligible on the strength of the application made, taking into account that there is a finite resource which may be oversubscribed;
- Allocate lays only in areas of The Wash which can support such without impacting on site integrity of the Wash marine protected areas or the sustainability of wild fisheries resources;
- Restrict the allocation of lays to a total area not exceeding the established maximum sustainable within The Wash;
- Restrict aquaculture operations using lease conditions to ensure that when returned to the public fishery, they can support natural habitats and species as would ordinarily occur within The Wash;
- Monitor operations to ensure that they are compliant with conditions of their issue and the statutory responsibilities of Eastern IFCA and have mechanisms to redress operations which are not.

As a grantee of an Order, the Authority is required to produce a management plan to accompany the application. The objective of this document is to outline the extent of the proposed Wash Several Order (2022) and the management of activity within this defined area.

The Wash Several Fishery Order (2022) is intended to come into force on the date of expiry of the Wash Fishery Order 1992. The proposed Order is granted for a period of 30 years. Eastern IFCA will comply with all of its requirements under the Order and will also endeavour to ensure that lease holders comply.

1.2 Extent of the Wash Several Order (2022)

The Wash Several Order (2022) will enable Eastern IFCA to grant exclusive fishing rights to individuals for the purpose of aquaculture within leased areas called “lays”. The Several Order shall include the entire Wash embayment except that area of the embayment covered by the le Strange Estate. This Order replaces the area formally managed under the Wash Fishery Order 1992 and an area of The Wash which was formally considered to be part of the le Strange Estate but which, as a result of a Supreme Court judgement², become part of the public fishery. Figure 1 highlights the extent of the new Order. The approximate area of the Several Order is 62,430 ha.

² judgement of Mr David Halpern QC sitting as a deputy High Court judge and handed down by the High Court on the 27th July 2018 with the reference John Henry Loose -v- Lynn Shellfish and others: Neutral Citation Number:{2018] EWHC 1959(Ch)

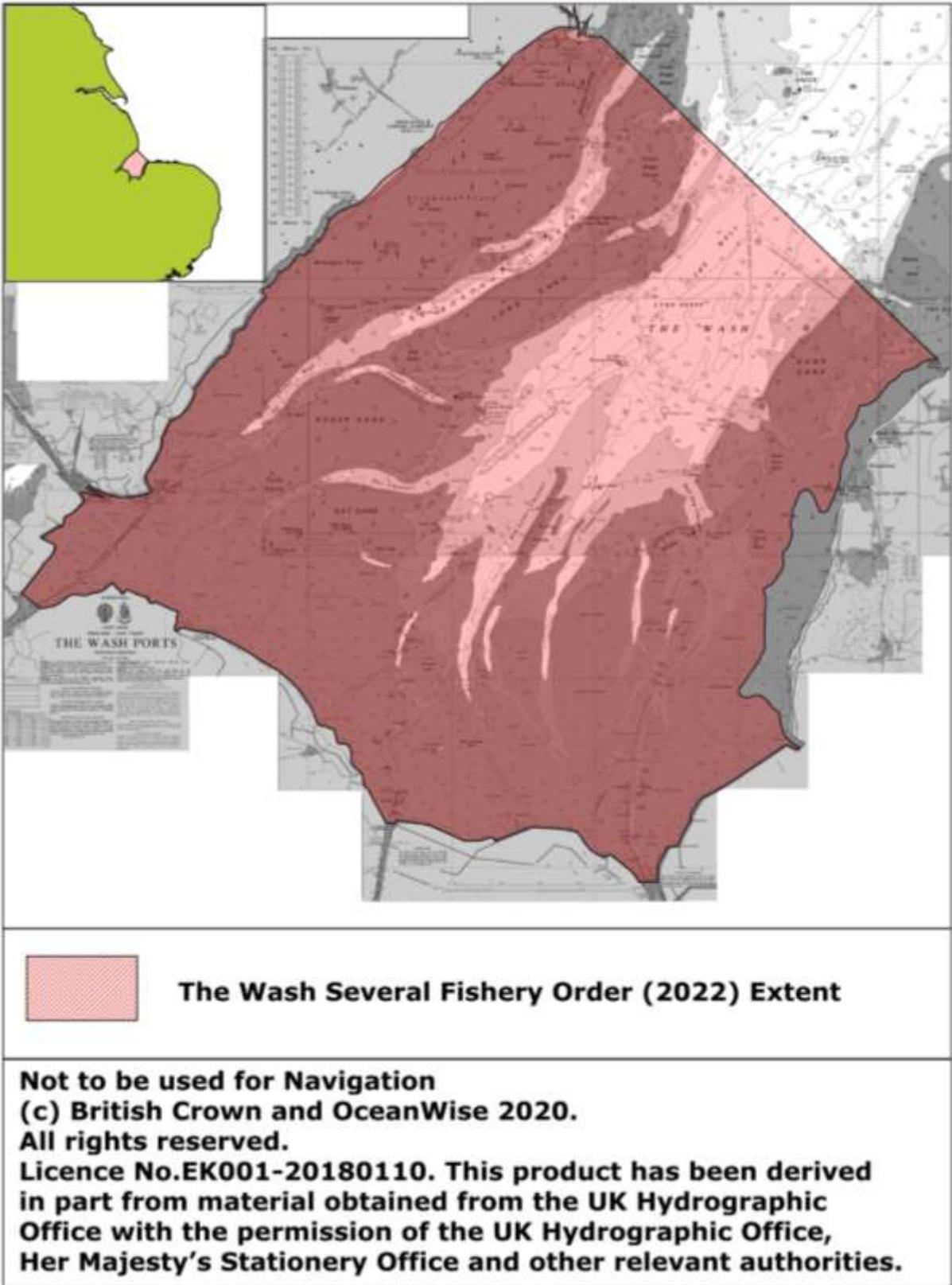


Figure 1 – Chart showing the extent of the Wash Several Fishery Order (2022)

1.3 Species covered by the Order

The “prescribed species” included by the Order are:

- Blue mussel, *Mytilus edulis*
- Common Cockle, *Cerastoderma edule*
- Native Oyster, *Ostrea edulis*
- King Scallop, *Pecten maximus*
- Queen Scallop, *Aequipecten opercularis*
- Carpet shell clams, *Tapes rhomboides*, *Venerupis* spp, *Ruditapes* spp,

Due to concerns associated with the spread of Invasive Non-Native Species, Pacific oyster, *Magallana gigas*, will not be included as a prescribed species of the Wash Several Fishery Order (2022).

Whilst the list above is relatively broad, application for a lay would include consideration of the appropriateness of the species to cultivated including its potential to become established in the area as an invasive, non-native species.

2.0 BACKGROUND

2.1 The Wash

The Wash is situated on the east coast of England, where it separates Norfolk from Lincolnshire. It is the largest embayment in the UK, covering an area of approximately 667 km², roughly 45% of which is intertidal sand and mudflats, interspersed by small creeks and navigable channels. The embayment is predominantly fringed by some of the most extensive salt marshes in the UK, plus stretches of sand dunes at Gibraltar Point and shingle banks at Heacham to Snettisham. In the deeper, central parts of The Wash, there are extensive subtidal sandbanks that serve as important fish nursery ground and biogenic reefs of *Sabellaria spinulosa*.

Four main rivers - the Witham, Welland, Nene and Great Ouse flow into The Wash, providing a hydrological catchment area of 15,920 km² (Cefas, 2013). While The Wash has a 19 km mouth connecting it to the North Sea, these four rivers provide it with estuarine characteristics and a rich supply of nutrients. These nutrients mean The Wash mudflats are highly productive and rich in invertebrate life, including abundant populations of polychaete worms, small crustacea and bivalve molluscs – most notably the cockle and mussel beds that support commercial fisheries. These invertebrate populations in turn provide a food source for internationally important populations of migratory and resident wildfowl and wading birds that frequent the site. The Wash is also an important site for common seals, *Phoca vitulina*; the edges of the sandbanks and mudflats providing key habitat for breeding and hauling-out.

In addition to its ecological importance, The Wash provides access to commercial shipping using the ports of Boston, Wisbech and King’s Lynn and supports some major fisheries. These include some of the most important cockle (*Cerastoderma edule*), mussel (*Mytilus edulis*) and brown shrimp (*Crangon* spp) fisheries in the UK and locally important stocks of brown crab (*Cancer pagurus*), lobster (*Homarus gammarus*) and whelks (*Buccinum undatum*).

2.2 The Wash Fisheries

Historically, shellfish have been harvested from The Wash since at least the 1100s. Until the railway network reached Boston and King’s Lynn in the 1840’s, however, these were mainly subsistence fisheries that only supplied local markets. Once

transport systems opened up markets in other UK towns and cities the Wash fisheries rapidly expanded. By the 1890s, there were approximately 300 boats and over 800 fishermen targeting the Wash shellfish stocks. This rapid expansion proved unsustainable, however, resulting in several stock declines between 1850-1900. In 1894 Eastern IFCA's predecessor, Eastern Sea Fisheries Committee was formed by the Boston and King's Lynn councils to regulate the Wash fisheries. Manpower shortages caused by the two world wars caused these fisheries to decline in importance until they began to recover again in the 1960s. In the 1980s, during a period of modernisation, most of the old wooden boats from Boston and King's Lynn were replaced with larger steel vessels, resulting in a modern fleet of circa 55 boats, each capable of efficiently targeting all the local fisheries. Among them, some have been designed with aquaculture specifically in mind, having large holds and through-hull flushing systems to facilitate the bulk relaying of mussel seed.

During the past twenty years, the main fisheries targeted by the boats from King's Lynn and Boston have been for brown shrimp (*Crangon* spp), cockle (*C. edule*) and mussel (*M. edulis*), while in the past ten years the whelk (*B. undatum*) fishery has become increasingly important. The deeper parts of The Wash also support important brown crab (*C. pagurus*) and lobster (*H. gammarus*) fisheries, mainly targeted by boats from Wells-upon-Sea and Brancaster. Fisheries for pink shrimp (*Pandalus montagui*) and sprat (*Sprattus sprattus*) were both important until the 1990s, but have subsequently declined, mainly due to declining market values and/or quota restrictions.

Until its relatively recent decline over the past ten years, The Wash supported one of the largest mussel fisheries in the UK. Traditionally, mussels were fished from natural beds, but over-exploitation in the 1990s, led to a collapse in stocks that resulted in Eastern Sea Fisheries Joint Committee introducing stringent management measures. The increased protection of natural mussel stocks has led to a new emphasis on mussel cultivation, in place of direct harvesting from natural beds.

2.3 Historic importance of aquaculture in The Wash

Barring a few isolated initiatives to cultivate Pacific oysters (*Magallana gigas*) in The Wash, the majority of the aquaculture has focused on mussels. Mussel cultivation has been carried out in The Wash for at least 100 years, with partially-grown juvenile mussels being deposited directly on to rented areas of the seabed, known as "lays", for growing on to a harvestable size. These lays not only provide the fishermen with a reserve of mussels that help reduce their reliance on the fluctuations of the wild stocks, but those situated on the sheltered edges of sandbanks, close to the river mouths, traditionally provided a source of mussels when the weather was too rough to venture as far as the wild beds. Although the introduction of larger, more sea-worthy vessels in the 1980s enabled boats to venture further afield in rougher weather than had previously been safe to do so, mussel cultivation on the lays grew in importance. This has been due to mussels grown on the lays being better quality than those from the wild beds. Being situated in the eulittoral zone, where they have longer feeding opportunities than those on the wild beds located higher up in the intertidal zone, the mussels deposited on them tend to grow more rapidly than those on the wild beds. This not only helps to produce higher meat-yields, but also cleaner shelled individuals that are free from barnacles. The fishermen's management of the lays also provides a monoculture of uniform size mussels that are easier to process when harvesting. Such is the importance of the lays, since the 1990s, landings of cultivated mussels have greatly exceeded those landed directly from the wild beds.

Traditionally, the lays were stocked with juvenile mussels that had been collected from the wild intertidal beds. Since the 1990's, however, the increasing demand for mussel

seed, coupled with declining wild stocks on the intertidal beds and conservation measures limiting quota, mean the wild beds have not been able to satisfy the several fishery's requirement for seed. Occasionally seed is purchased from other mussel fisheries in the UK, but with the price of mussel seed exceeding £120/tonne, the cost is often prohibitive, or too much of a risk for many fishermen to invest in. Since 2000, fishermen have trialled relaying mussel seed collected from sublittoral beds found along the Lincolnshire and Norfolk coasts and from The Wash. Between 2000 and 2012 this proved a relatively cheap source of seed that didn't threaten the sustainability of the wild intertidal beds. At its peak, some years over 10,000 tonnes were relayed from sublittoral beds into the several fishery. However, since then, windfarm construction site exclusion zones and/or Marine Protected Area conservation measures have prevented access to most of these beds. In the past ten years, limited access to both sublittoral and intertidal beds have starved the several fishery of seed, causing landings from it, and the whole mussel fishery in general, to badly decline.

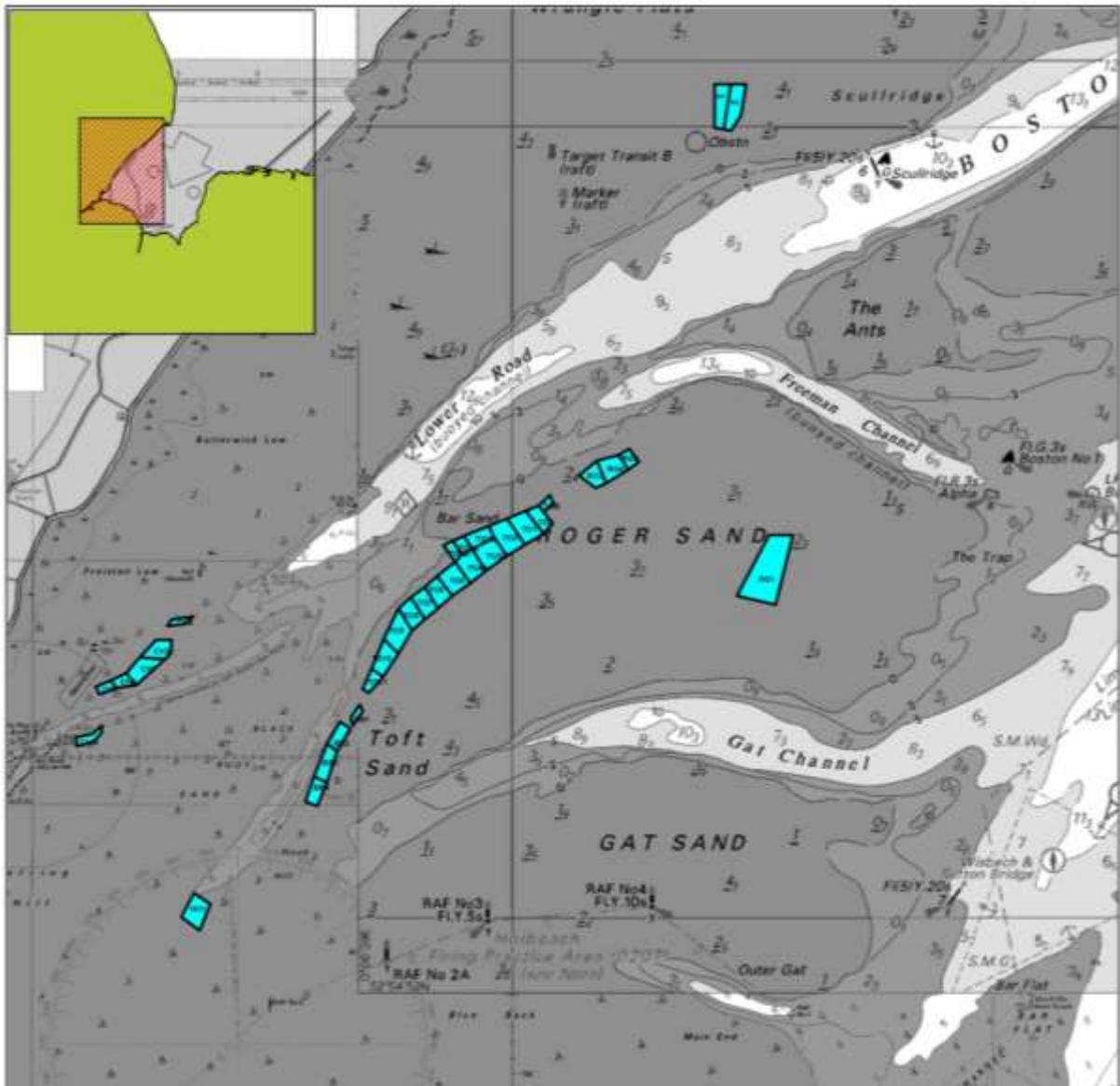
2.4 Wash Fishery Order 1992 Several Fishery

The Wash Fishery Order 1992 (WFO) is a hybrid Regulating and Several Order that grants Eastern IFCA the right of several fishery, and of regulating a fishery for certain (prescribed) molluscan shellfish species (oysters, mussels, cockles, clams, scallops and queens) in The Wash. This allows the IFCA to manage a public fishery on the natural shellfish stocks (the "Regulated Fishery") through a licensing scheme, and to allow the cultivation of shellfish within The Wash on private, leased areas, collectively referred to as the "Several Fishery".

Through the WFO 1992, the Authority sets regulations (for example daily catch restrictions and minimum landing size), which apply only to the Regulated Fishery. The Several Fishery is managed using lease conditions – conditions on which a private lay is provided, and which must be adhered to in order to maintain the right to that lay. Restrictions include technical gear requirements and as well as more administrative conditions.

Following a Review of WFO consents conducted in 2008, Eastern Sea Fisheries Joint Committee agreed to apply a set of additional measures to its management of WFO lays. These relate to the protection of particular biotopes on some of the sands; the risk of Pacific oyster invasion across the site; shellfish productivity in The Wash; and data sharing.

Without ministerial consent, the Order restricts the total area that individual lay holders can lease to 10 hectares. Currently there are 49 WFO leases within the Several Fishery, covering a total of 275 hectares. Figures 2 and 3 show the current extent of these lays. Since 2010 there has been a moratorium on new lays being issued, since which the only new lays that have been issued were those for which applications were already being processed at the time of the moratorium's introduction.



Lays leased under the WFO 1992

Not to be used for Navigation

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Figure 2 – Chart showing the position of the lay ground leased through the WFO 1992 on the west side of The Wash

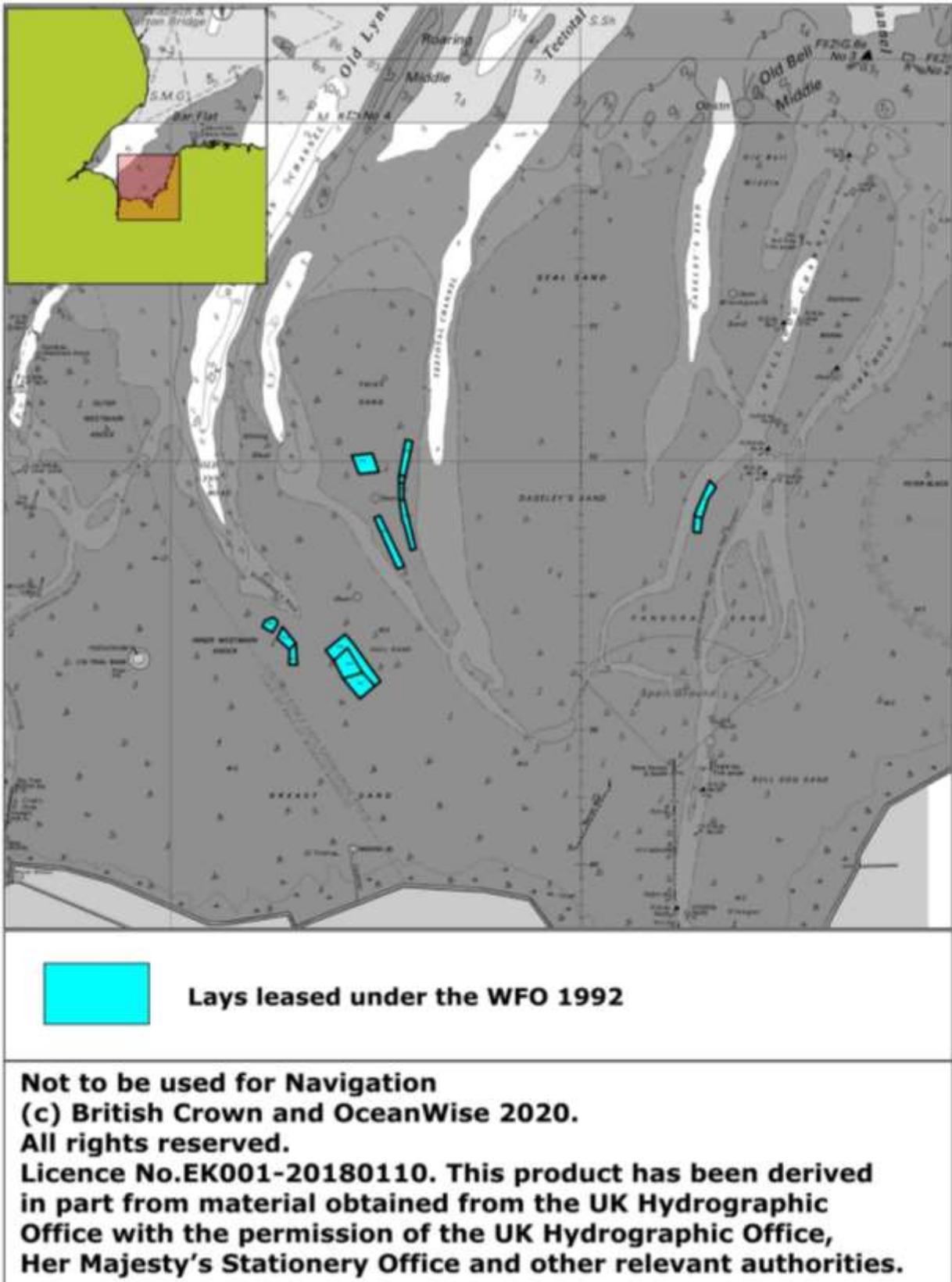


Figure 3 – Chart showing the position of the lay ground leased through the WFO 1992 on the east side of The Wash

2.5 Current methods of aquaculture in The Wash

The majority of aquaculture in The Wash has traditionally been the cultivation of mussels from part-grown seed to harvestable size. Seed mussels, whether sourced from the wild intertidal beds, sublittoral beds or purchased from other UK fisheries, are relayed directly onto the seabed within the leased lays. No structures such as poles, suspended ropes, tables or rafts have historically been used in The Wash for mussel cultivation. Relaying from the wild intertidal beds usually occurs during April and May but can be at any time of the year when sourced from elsewhere. The seed mussel is usually carried loose, or in 1 tonne bags, on the decks of the fishing boats from which it is washed or shovelled overboard while the boat is afloat. Several of the more modern boats now have a “through-hold flushing system” that enables mussels stored in the hold to be pumped directly from the hold into the sea. While discharging the mussel seed, the boat slowly circles so that the seed is scattered across the lay rather than being deposited in heaps. During low water periods following relaying, fishermen will often dry their boats out on their lay to inspect the coverage of seed that has been relayed, ensuring an even distribution by levelling out any heaps and identifying bare areas where further seed can be deposited.

Depending on the size of the seed that was relayed, it can take between one and two years for it to reach harvestable size. During this time fishermen will occasionally inspect their lays to determine how well the mussels are growing, to check the mussels are healthy and to ensure they aren't being poached by other fishermen.

Once the mussels have reached marketable size, harvesting usually takes place between September and April, although peak activity is usually between December and March. The majority of harvesting is conducted during high-water periods using up to two 1m wide Baird dredges. The mussels are usually cleaned, riddled and bagged in situ, so any under-sized mussels are returned immediately to the lay. While the number and size of dredges permitted for use on the lays is restricted, there is no restriction on how much mussel can be harvested during a trip or on the size of the mussels being landed. Towards the end of the fishing season when the stocks on the lays have become depleted, making dredging for them inefficient, some fishermen will handwork the remaining patches during low water periods. This tends to be a low-level activity, involving 2 or 3 fishermen on any particular lay.

Although the majority of aquaculture in The Wash has been mussel bottom-culture, there have been some occasions when cockles have been relayed onto the lays, or when Pacific Oysters have been grown. In the case of the latter, this has entailed growing the oysters in net bags supported above the seabed on steel-framed tables or trellises. Although Pacific oysters are a non-native species in the UK, it was originally believed that UK waters were too cold for them to breed so farming them was allowed. This proved not to be the case, however, and naturalised breeding populations have since invaded many areas, including small populations in The Wash. In most UK areas where Pacific oysters are now farmed, the oysters are grown from triploid gametes which have much lower fertility.

3.0 Statutory responsibilities relating to Aquaculture

When considering the management of a Several Fishery, the Authority has specific legal responsibilities issued through the Marine and Coastal Access Act (MaCAA) 2009 and the Sea Fisheries (Shellfish) Act 1967. As the Wash Several Fishery Order (2022) will overlap with several Marine Protected Areas, the Authority also has responsibilities under the Conservation of Habitats and Species Regulations 2017 (Habitat Regulations) and the Wildlife and Countryside Act (WCA) 1981 to ensure the

Several Fishery is managed in a manner that does not have a significant adverse impact on the integrity of marine protected areas. In addition, the Aquatic Animal Health (England and Wales) Regulations 2009 and WCA include provisions relating to the spread of disease and invasive non-native species which are relevant to management of aquaculture operations.

3.1 The Marine and Coastal Access Act, 2009

IFCAs' main duties and responsibilities are defined in sections (153) and (154) of the Marine and Coastal Access Act (MaCAA) 2009 being:

(153) Management of inshore fisheries

1. The authority for an IFC district must manage the exploitation of sea fisheries resources in that district.
2. In performing its duty under subsection (1), the authority for an IFC district must—
 - a. seek to ensure that the exploitation of sea fisheries resources is carried out in a sustainable way,
 - b. seek to balance the social and economic benefits of exploiting the sea fisheries resources of the district with the need to protect the marine environment from, or promote its recovery from, the effects of such exploitation,
 - c. take any other steps which in the authority's opinion are necessary or expedient for the purpose of making a contribution to the achievement of sustainable development, and
 - d. seek to balance the different needs of persons engaged in the exploitation of sea fisheries resources in the district.

By definition, in sub paragraph (10) of Section (153) “sea fisheries resources” means any animals or plants...that habitually live in the sea, including those that are cultivated in the sea. By definition in sub paragraph (12) of Section (153) any reference to the “exploitation” of sea fisheries resources is a reference to any activity relating to the exploitation of such resources, whether carried out for commercial purposes or otherwise, including...introducing such resources to the sea or cultivating such resources.

IFCAs can apply for the right of a Several Order under the Sea Fisheries (Shellfish) Act 1967 for the establishment, improvement and for the maintenance and regulation of a fishery for shellfish. The Wash Several Fishery Order 2022 is an example of this.

3.2 Marine Protected Areas (MPAs)

Eastern IFCA is a Relevant Authority in the management of MPAs designated under the Habitats Directive and the Wild Birds Directive. These European regulations are in place to protect and support wildlife and/or habitats that are of European importance. Eastern IFCA has a statutory responsibility to ensure that fishing activity does not damage, disturb or have an adverse effect on the wildlife and habitats that EMS's are legally protecting. Any management introduced should contribute to furthering the conservation objectives of the site, so ensuring the integrity of the site is maintained and the site makes a full contribution to achieving the aims of the Directives. This includes the governance of the conservation interests of The Wash and North Norfolk

Coast Special Area of Conservation (SAC) and The Wash Special Protection Area (SPA) when considering any aquaculture practices, current or future.

Section 28G of the Wildlife and Countryside Act (WCA) 1981 (as amended) defines 'section 28G authorities', including Eastern IFCA, who have a duty to take reasonable steps, consistent with the proper exercise of their functions, to ensure compatibility of activity with the conservation and enhancement of SSSI and to further the conservation and enhancement of the flora, fauna or geological or physical features by reason of which the site is of special scientific interest. Eastern IFCA therefore must consider the conservation and enhancement of The Wash SSSI when managing aquaculture within The Wash, to include any proposals for leased grounds under 'The Order'.

3.3 Spread of disease and invasive, non-native species

Under the Aquatic Animal Health (England and Wales) Regulations 2009, Eastern IFCA, as the grantee of the Wash Several order, must apply for authorisation from the Fish Health Inspectorate (the competent authority) in order to operate an 'aquaculture production businesses.' In addition, such operations must meet any conditions imposed under that authorisation including keeping accurate records, following good hygiene practice and complying with any surveillance requirements. The same regulations also require those undertaking aquaculture operation, in the case of the Wash Several Order 1992 being the lay holders, to take steps to report suspicion of a listed disease or increased mortality. Eastern IFCA has responsibility under s.23(3)(d) to ensure that any reports made to them are provided immediately to the Fish Health Inspectorate.

In addition, the WCA requires that persons must not release into the wild, any animals which are not 'ordinarily resident in and is not a regular visitor to Great Britain in a wild state' or any animal listed under Schedule 9 of the Act.

4.0 MARINE CONSERVATION DESIGNATIONS IN THE WASH

The ecological importance of The Wash habitats has been recognised with the site being designated a Site of Special Scientific Interest (SSSI), a Special Area of Conservation (SAC), a Special Protection Area (SPA) and a Ramsar site. Within and surrounding The Wash there are also National Nature Reserves (NRR), Royal Society for the Protection of Birds (RSPB) reserves, and an Area of Outstanding Natural Beauty (AONB) designation.

4.1 The Wash & North Norfolk Coast SAC

Covering a total area of 1,078 km², the Wash and North Norfolk Coast Special Area of Conservation (SAC) encompasses The Wash embayment, extensive intertidal sand and mudflats, subtidal sandbanks, biogenic and geogenic reef, saltmarsh and a unique barrier beach system (Natura, 2000).

The following are Annex I habitats that are a primary reason for selection of this site under Article 4(4) of the Directive (92/43/EEC) (JNCC website)

- H1110. Sandbanks which are slightly covered by sea water all the time; Subtidal sandbanks
- H1140. Mudflats and sandflats not covered by seawater at low tide; Intertidal mudflats and sandflats
- H1160. Large shallow inlets and bays
- H1170. Reefs

- H1310. Salicornia and other annuals colonising mud and sand; Glasswort and other annuals colonising mud and sand
- H1330. Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*)
- H1420. Mediterranean and thermo-Atlantic halophilous scrubs (*Sarcocornetea fruticosi*); Mediterranean saltmarsh scrub

Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site are:

- H1150. Coastal lagoons

Annex II species that are a primary reason for selection of this site

- S1365 Harbour seal (*Phoca vitulina*)

Annex II species present as a qualifying feature, but not a primary reason for site selection

- 1355 Otter *Lutra lutra*

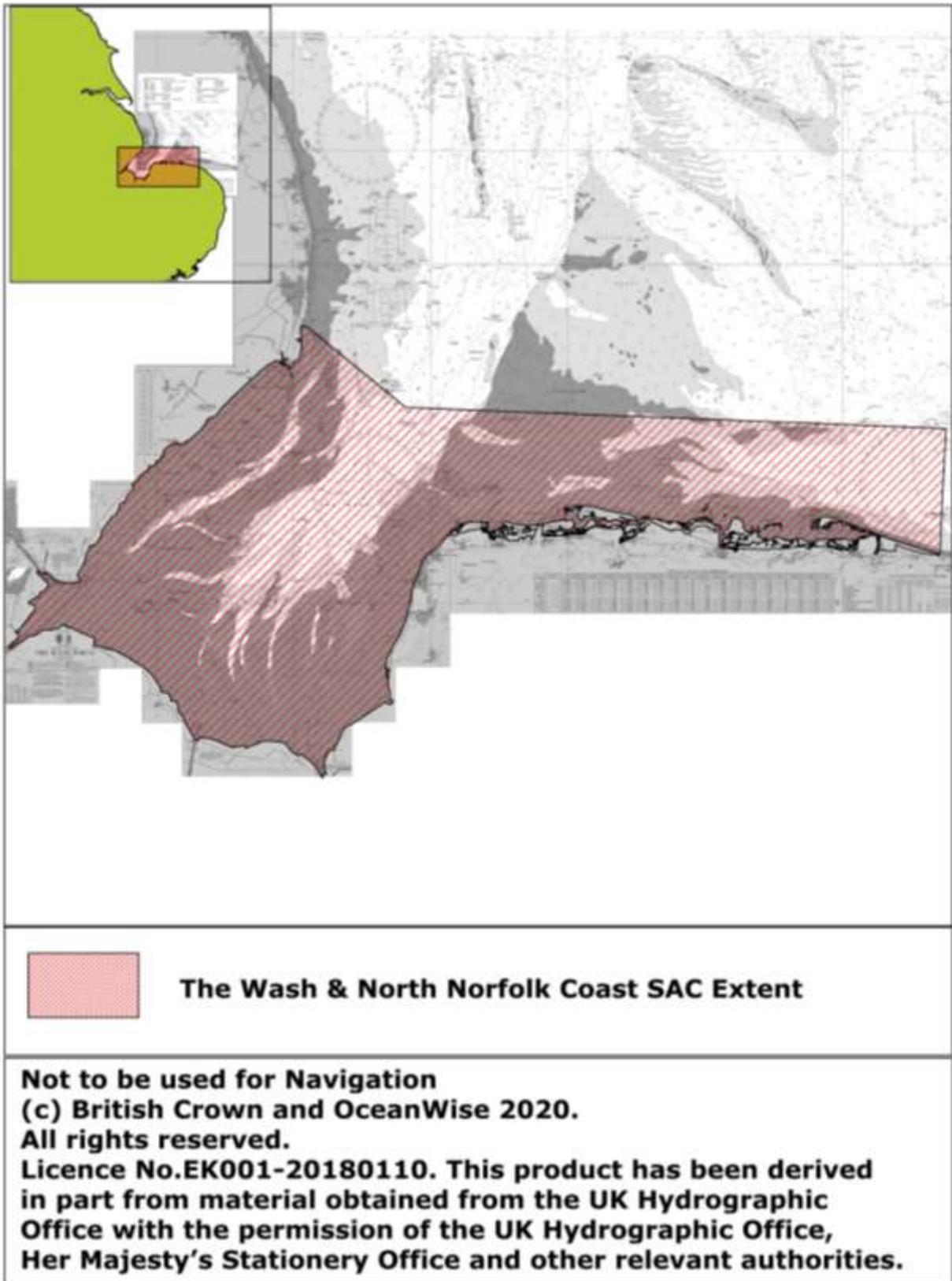


Figure 4 – Chart showing the extent of the Wash & North Norfolk Coast SAC

4.2 The Wash SSSI

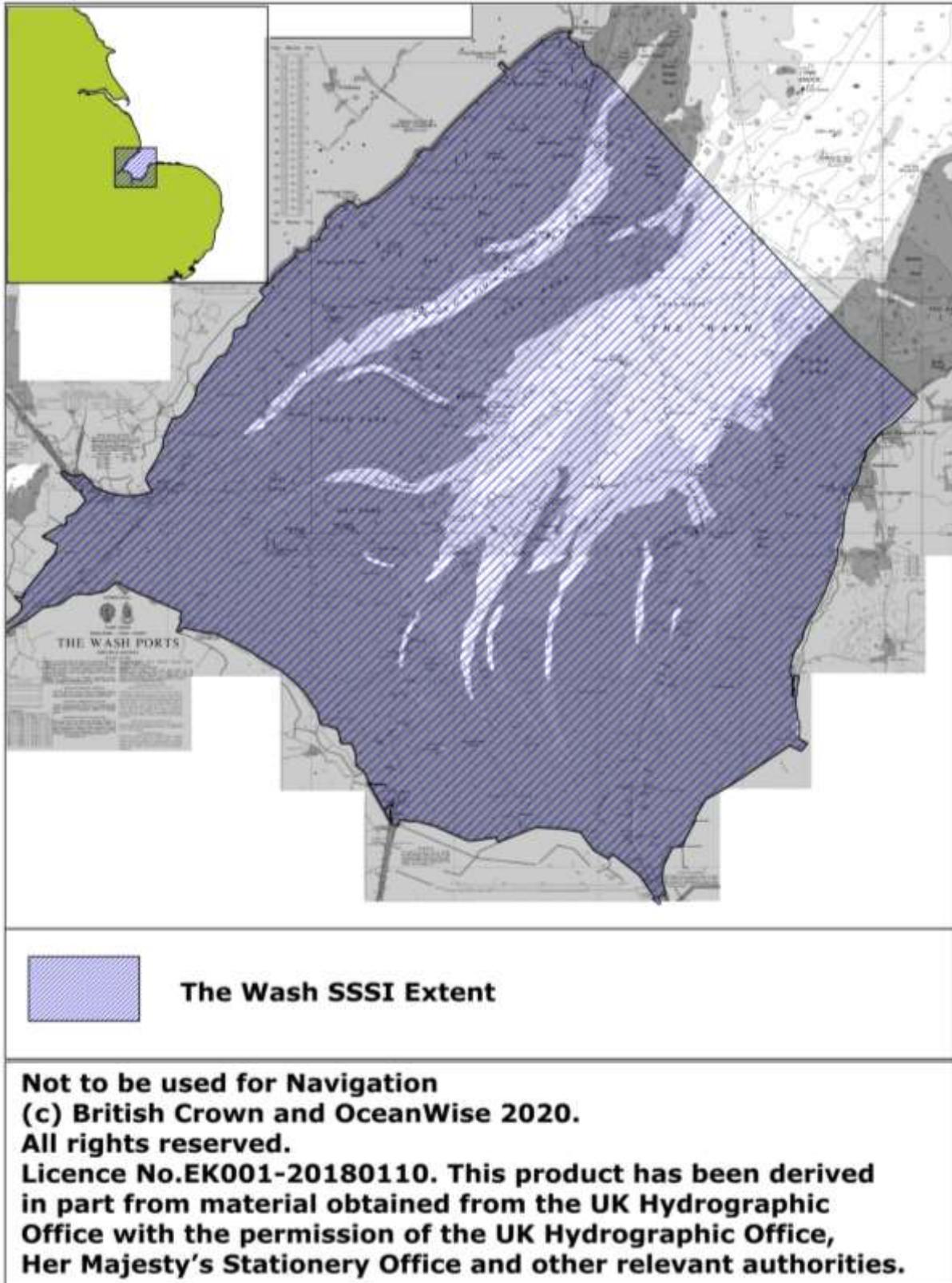


Figure 5 – Chart showing the extent of the Wash SSSI

The whole of The Wash is of exceptional biological interest, for which it has been designated a Special Site of Scientific Interest (SSSI). The SSSI is wholly coincidental with the boundary of The Wash SPA/Ramsar, overlaps in part with the Greater Wash SPA and is wholly contained within The Wash and North Norfolk Coast Special Area of Conservation (SAC) (English Nature, 2005).

The intertidal mudflats and saltmarshes within The Wash represent one of Britain's most important winter feeding areas for waders and wildfowl outside of the breeding season. Enormous numbers of migrant birds, of international significance, are dependent on the rich supply of invertebrate food found on the intertidal mudflats, while the saltmarshes are important breeding zones. In addition, The Wash is also very important as a breeding ground for Common Seals (Natural England, 2020). Reasons for designating the SSSI).

The Wash SSSI has 43 notified features, including:

- 3 species of breeding birds
- 15 species of non-breeding birds
- Common seal (*Phoca vitulina*)
- 4 broad habitats of the designated site
- 21 specific habitats of the designated site

All but one of the above (non-breeding whooper swan) are also designated under one or more of the other European designations (Natural England, 2020).

4.3 The Wash SPA

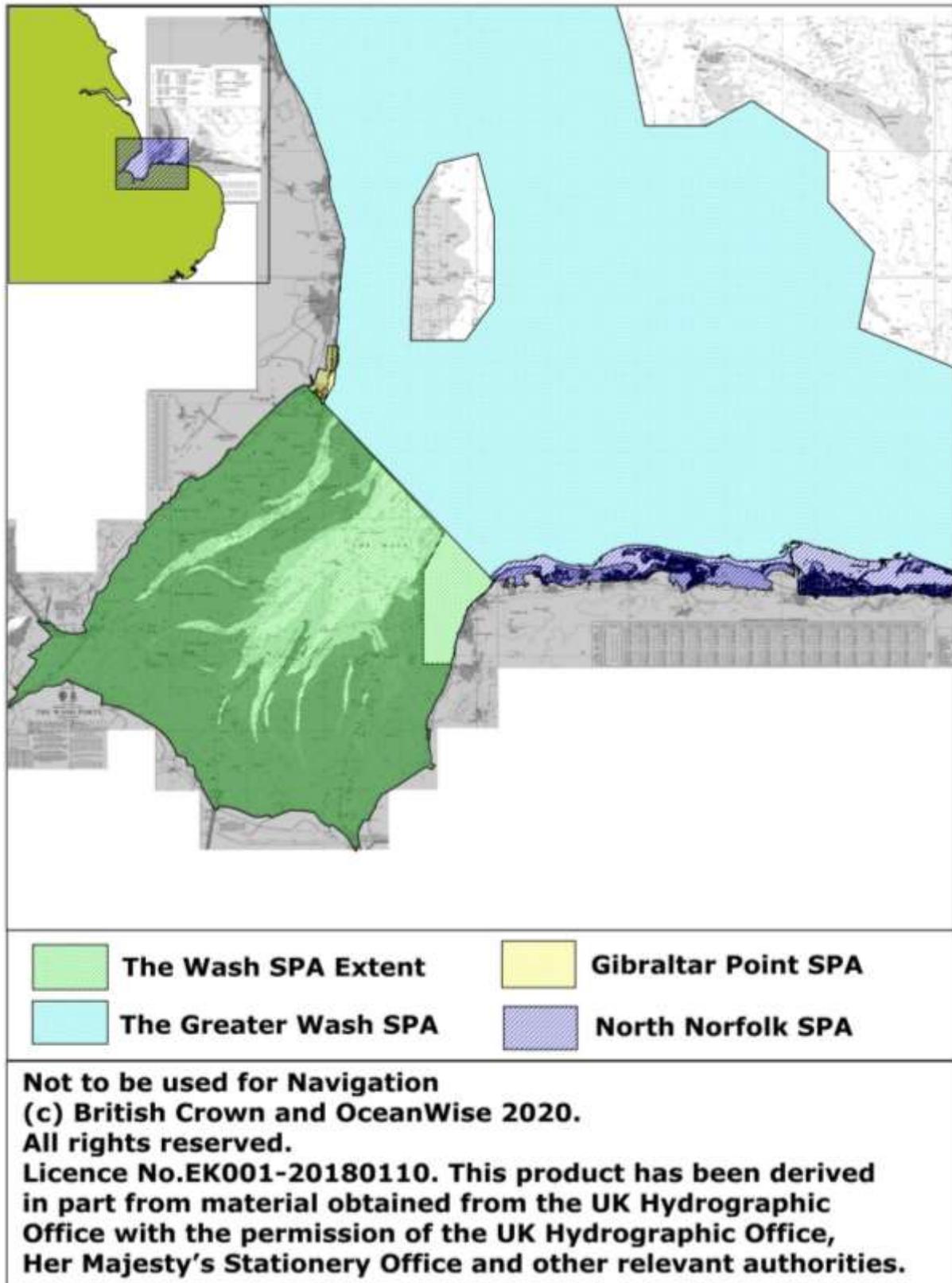


Figure 6 – Chart showing the extent of the SPAs in the proximity of The Wash

The 2014 Wash SPA Citation for EC Directive 79/409 on the conservation of wild birds: Special Protection Area, The Wash (Norfolk & Lincolnshire), describes The Wash as being numerically the most important area in Britain for wintering waterfowl, taking waders and wildfowl together. It is also the most important area in Britain in early autumn for moulting waders and also important to certain wintering passerines, to breeding waders and terns, and to certain seabirds.

The Wash qualifies under Article 4(1) of the Directive 2009/147/EC because it supports:

- 30 breeding pairs of little terns, *Sterna albifrons* (2% of the British population),
- 220 pairs of common terns, *Sterna hirundo* (2%),
- 130 Bewick's swans, *Cygnus cygnus* (3%), in winter.

The Wash qualifies under Article 4(2) as an internationally important wetland by supporting in winter an average of 163,000 waders and also 51,000 wildfowl; and because it supports on average the following internationally important numbers of individual species:

- 17,000 dark bellied brent geese, *Branta bernicla bernicla* (12% of the European wintering population),
- 7,300 pink-footed geese, *Anser brachyrhynchus* (7%),
- 16,000 shelducks, *Tadorna tadorna* (12%)
- 1,700 pintails, *Anas acuta* (2%),
- 24,000 oystercatchers, *Haematopus ostralegus* (3%),
- 5,500 grey plovers, *Pluvialis squatarola* (7%),
- 500 sanderlings, *Calidris alba* (3%),
- 7,500 knots, *Calidris canutus* (21%),
- 29,000 dunlins, *Calidris alpina* (1%),
- 8,200 bar-tailed godwits, *Limosa lapponica* (1%),
- 3,700 curlews, *Numenius arquata* (1%),
- 4,331 redshanks, *Tringa totanus* (5%),
- 980 turnstones, *Arenaria interpres* (2%),

In addition, the site qualifies because of its national importance to other migratory birds. Wintering birds include:

- 3,900 wigeon, *Anas penelope* (2% of the British wintering population),
- 220 goldeneye, *Bucephala clangula* (1%),
- 130 gadwall, *Anas strepera* (3%),
- 830 common scoters, *Melanitta nigra* (2%),
- 260 black-tailed godwits, *Limosa limosa* (6%),

- Several gull species (*Larus*).

The salt-marshes support a diverse breeding bird population, including over 4,000 pairs of black-headed gulls, *Larus ridibundus* (2%), shelducks and numerous wader species. Breeding redshanks occur at exceptionally high densities, and the breeding population of this species is of national importance (The Wash SPA Citation, 2014).

4.4 The Greater Wash SPA

Covering an area of 3,536 km², the Greater Wash SPA is located in the mid-southern North Sea between Bridlington Bay in the north and the Outer Thames Estuary SPA in the south. In the vicinity of The Wash, this SPA's boundary abuts that of The Wash SPA, except where they overlap on the north eastern side of The Wash to encompass the foraging area of Sandwich tern (The Greater Wash SPA Citation, 2018)

The site qualifies under Article 4.1 of the Directive 2009/147/EC by regularly supporting populations of national importance of the Annex I species:

- 1,407 Red-throated diver, *Gavia stellata* (8.3% GB nonbreeding population)
- 1,255 Little gull, *Hydrocoloeus minutus* (No current GB population estimate)
- 3,852 pairs Sandwich tern, *Sterna sandvicensis* (35.0% of GB breeding population)
- 510 breeding pairs Common tern, *Sterna hirundo* (5.1% of GB breeding population)
- 798 pairs Little tern, *Sternula albifrons* (42.0% of GB breeding population)
- 3,449 Common scoter, *Melanitta nigra* (0.6% biogeographic population)

4.5 Gibraltar Point SPA

Covering an area of 422 hectares, the Gibraltar Point SPA is situated on the Lincolnshire coast, just outside of The Wash SPA.

The site qualifies under Article 4.1 of the Directive 2009/147/EC by regularly supporting a nationally important breeding population of:

- 40 pairs little terns, *Sternula albifrons*. (1.7% of the GB breeding population) (The Gibraltar Point SPA Citation, 1992)

It also qualifies under Article 4(2) by regularly supporting internationally or nationally important wintering populations of the following species of migratory wildfowl:

- 8,800 Bar-tailed godwit, *Limosa lapponica*
- 1,140 Sanderling, *Calidris alba*
- 3,980 Grey plover, *Pluvialis squatarola*

4.6 North Norfolk Coast SPA

Extending 40km from Holme to Weybourne, the North Norfolk Coast SPA covers an area of 7,887 hectares and is the fourth most important wetland site for waterfowl in Britain. The site includes a variety of coastal habitats including intertidal mudflats and sandflats, coastal waters, saltmarshes, shingle, sand dunes, freshwater grazing marshes and reedbeds.

The intertidal mud and sand flats support high densities of invertebrates, important for breeding avocet and supporting high numbers of wading birds and wildfowl throughout the year. The shallow coastal waters support large populations of small fish, including

sand eel and sprat, which provide vital food for the tern populations that breed in the vegetated and unvegetated shingle spits, bars and beaches. The site also provides breeding sites for pink-footed geese (*Anser brachyrhynchus*) and dark-bellied brent geese (*Branta bernicula bernicula*). The saltmarsh supports breeding populations of skylark and meadow pipit, which in turn support internationally important breeding populations of marsh harrier (*Circus aeruginosus*). Large numbers of waterbirds use the site throughout the year. In summer the site is important for breeding populations of waders and terns, while in winter the site becomes important for large numbers of geese, sea-ducks, other ducks and waders using the site for roosting and feeding. The site qualifies under Article 4.1 of the Directive 2009/147/EC by regularly supporting breeding populations of national importance of the Annex I species:

- Avocet, *Recurvirostra avosetta*, (30% GB Breeding population)
- Bittern, *Botaurus stellaris*, (5% GB Breeding population)
- Common tern, *Sterna hirundo*, (3.7% GB Breeding population)
- Little tern, *Sternula albifrons*, (13.8% GB Breeding population)
- Marsh harrier, *Circus aeruginosus*, (6.4% GB Breeding population)
- Montagu's harrier, *Circus pygargus*, (GB Breeding population)
- Sandwich tern, *Thalasseus sandvicensis*, (26.4% GB Breeding population)

The site also qualifies under Article 4.2 of the Directive 2009/147/EC by regularly supporting over-wintering populations of:

- Dark-bellied brent goose, *Branta bernicla bernicla*, (3.8% of GB Non-breeding population)
- Knot, *Calidris canutus*, (3.1% of GB Non-breeding population)
- Pink-footed goose, *Anser brachyrhynchus*, (10.6% of GB Non-breeding population)
- Wigeon, *Mareca penelope*, (1.1% of GB Non-breeding population)

The site also qualifies under Article 4.2 for supporting an internationally important over-wintering assemblage of birds. (NATURA, 2000)

For each of the Special Protection Areas listed above, the European Site Conservation Objectives for classified species are:

Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring;

- The extent and distribution of the habitats of the qualifying features,
- The structure and function of the habitats of the qualifying features,
- The supporting processes on which the habitats of the qualifying features rely,
- The population of each of the qualifying features,
- The distribution of the qualifying features within the site.

4.7 The Wash Ramsar Site

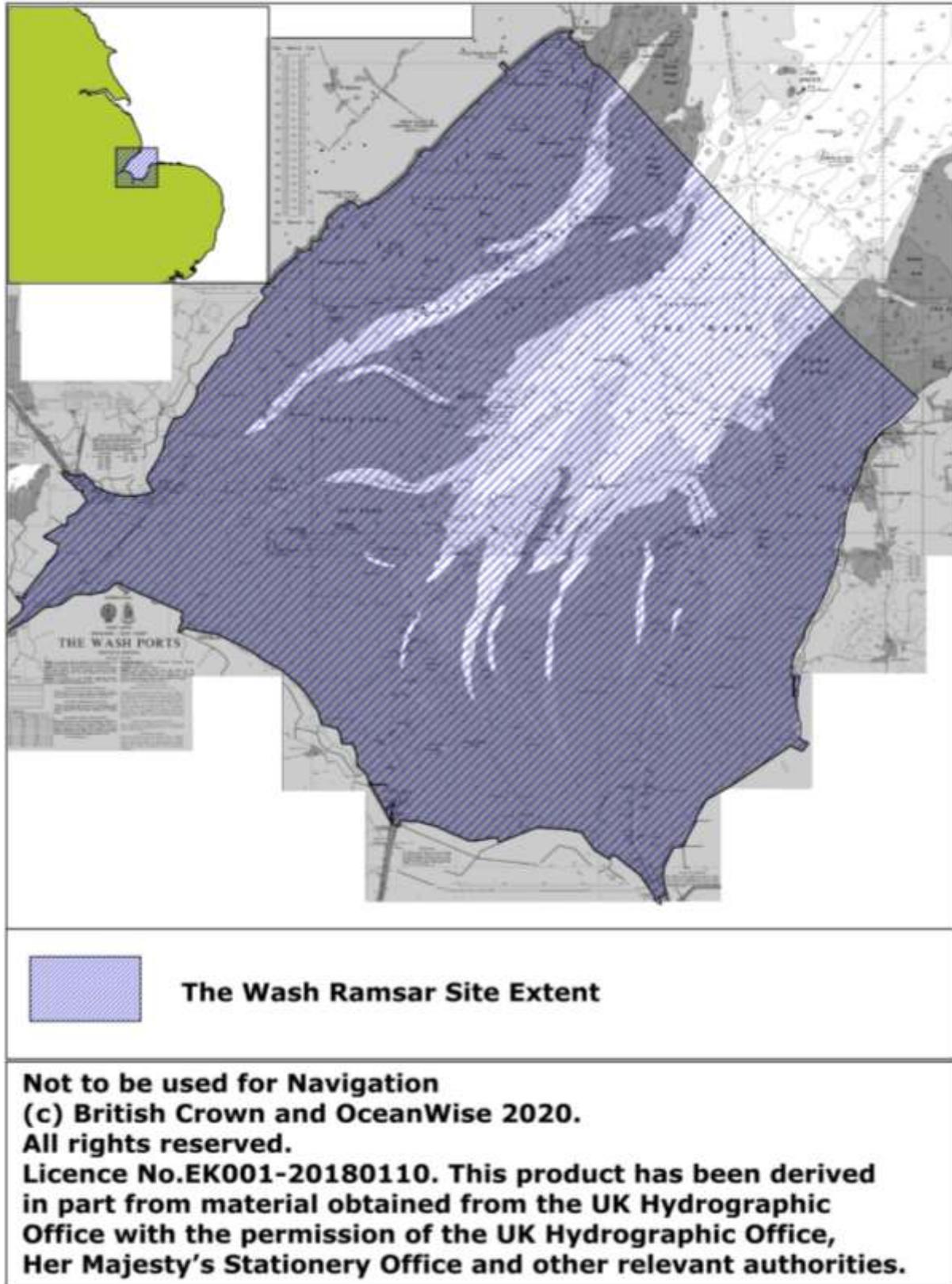


Figure 7 – Chart showing the extent of the Wash Ramsar Site

Ramsar sites are wetlands of international importance designated under the Ramsar Convention. Although they are not officially included in the Natura 2000 network, the UK government has advised they should be given the same level of protection. As the provisions on the Habitats Regulations relating to Habitat Regulations Assessments extend to Ramsar sites, Natural England considers the Conservation Advice packages for the overlapping European Marine Site designations to be, in most cases, sufficient to support the management of the Ramsar interests.

The Wash Ramsar site covers the same extent as The Wash SPA and is encompassed within The Wash and North Norfolk Coast SAC. However, it should be noted that the qualifying features of The Ramsar site include coastal vegetated shingle, coastal sand dunes, and an important assemblage of wetland invertebrates that are not qualifying features of either the SPA or the SAC (Natural England, 2020).

5.0 THE WASH SEVERAL FISHERY ORDER (2022) MANAGEMENT CONSIDERATIONS

Eastern IFCA has been the grantee of the WFO since 1992 under which a management scheme has been established. The proposed management plan seeks to build on the existing measures to enhance the productivity of the Several Fishery whilst ensuring the statutory responsibilities are still met.

5.1 Ensuring compatibility between aquaculture and MPA designations

Eastern-IFCA produced a Habitats Regulation Assessment (HRA), assessing the potential impacts of the proposed aquaculture activities and any mitigating measures, in order to demonstrate compatibility with the overlapping MPA's. The HRA for the Wash Several Fishery Order (2022) considered both the direct impacts that the aquaculture will have on the site's MPA features through such things as displacement, smothering and/or disturbance of protected habitats and species, and also indirect impacts such as potential impacts on the prey of the protected bird species and food availability for the wild shellfish stocks. Section 6.1 of this document provides a description of management measures which will be implemented under a Several Order to mitigate against impacts on site integrity from aquaculture operations. The broad interactions identified in the HRA are described below.

The Wash supports the second largest expanse of intertidal flats, and their associated populations of polychaetes, bivalves and crustaceans, in the UK. As the leased lays are predominantly situated along the sheltered eu littoral zones of intertidal sandbanks and mudflats, there is inevitable interaction between the aquaculture and the Wash and Norfolk Coast SAC Annex I habitat - Mudflats and sandflats not covered by seawater at low tide, in which the natural habitats and supported communities can be smothered by the cultured species. Mitigation is, therefore, in place to limit the total extent of the lays leased through the Order, and to ensure new lays are not situated on sensitive features.

Littoral sediments (mud and sand flats) are also protected under the Wash SSSI as a broad habitat feature, for the various aggregations of breeding and non-breeding bird species that utilise the mud and sandflats for feeding and roosting. These birds are vulnerable to disturbance from human activities, including shellfish gathering, which can lead to reduced time spent feeding, or individuals being restricted to areas with a poor food supply. This is especially so at times when bird populations may be stressed, such as during severe winter weather. Mitigation is, therefore, in place to ensure the distribution, extent and species composition of marine invertebrate communities which they feed upon are maintained within Conservation Objective target thresholds. The key mitigation is ensuring that the extent and distribution of lays does not impact on

the area available to designated bird species for feeding and restricting cultivation methods (primarily gear restrictions and prohibition on installing structures) such that, where lays are returned to the 'public fishery' they are in a state that can still support naturally occurring habitats.

Direct disturbance between the Several fishery and the listed bird species of the Wash SPA has been assessed. This concluded that because the majority of fishing activities on the lays occur over high water periods, those that did occur at low water (including fishermen occasionally inspecting their lays and/or conducting a small amount of hand worked harvesting) would not cause a significant disturbance.

The assessment also considered the impact of the fishery on the associated prey species for the birds listed for the Wash, Greater Wash, Gibraltar Point and North Norfolk SPA's, to ensure the *supporting processes on which the habitats of the qualifying features rely* (e.g. the wild shellfish stocks on the intertidal beds) are not adversely impacted. Mitigation includes ensuring leased ground does not encroach over the wild beds, thereby reducing their natural extent or cause them to be smothered with sediment. Mitigation is also in place to monitor potential issues of food availability for the wild shellfish stocks resulting from competition for resources with the Several fishery.

Harbour seals are an Annex II species of the Wash and Norfolk Coast SAC. The Several fishery is unlikely to have an impact on their prey species, but as the leased lays tend to be situated along the edges of intertidal sand and mudflats, the Several fishery activities could disturb their haul-out sites. Given that the majority of fishing activities on the lays occur over high water periods, those that did occur at low water (including fishermen occasionally inspecting their lays and/or conducting a small amount of hand worked harvesting) would not cause a significant disturbance.

Although the Several Fishery Order lays are situated on the edges of intertidal sand and mudflats rather than subtidal sites, possible interactions with their neighbouring Annex I habitat - Sandbanks which are slightly covered by sea water all the time, have also been assessed as suspended sediment from dredging the lays could cause smothering.

5.2 Ensuring compatibility between aquaculture and other fisheries

The benefits of aquaculture, particularly regarding mussels, has long been recognised in The Wash, facilitating the cultivation of a better-quality product than can be harvested from the wild beds and providing the fishermen with a reserve of stock that can be used to satisfy orders without the dependency on the fluctuations of the public fishery. While there are obvious benefits associated with aquaculture, lays leased through the Wash Several Fishery Order (2022) are essentially "severed" from the public fishery and are placed in private ownership for the duration of the lease. As the creation of these leased areas reduce the extent of the fishing grounds available to other fishermen and users of the site, Eastern IFCA must carefully balance the individual benefits provided by the Several fishery with the loss of public access to those areas. To minimise the loss of potential fishing opportunities within the public fishery, lays can only be leased in areas that do not support commercially viable wild stocks of cockles or mussels at the time of their issue. Further, historic survey data are used to ensure ground is not leased that has formally supported wild beds of these species which would indicate that they could do so again in the near future.

Before issuing new lays, Eastern-IFCA needs to consider whether there will be any impacts on general navigation for other fishermen and users of The Wash. In most cases, the aquacultural practice is to lay mussels directly on the seabed, which doesn't affect most traffic. However, the presence of relayed mussel beds on the edges of

sheltered channels has the potential to interfere with fishermen trawling in those channels when targeting the brown shrimp fishery. Prior to issuing new lays, Eastern-IFCA consults with the local fishermen's associations who can raise any concerns they may have about the placement of a new lay.

Although the majority of the aquaculture in The Wash involves relaying mussels onto the seabed, there have been occasions when tables or trellises have been placed on lays for growing oysters and, elsewhere, mussels are frequently grown on suspended ropes, poles or rafts. Such structures, if used in the Several fishery, would have a much greater impact on navigation and trawl fisheries. Prior to consenting the use of such structures, Eastern IFCA would consult widely with all other users of the site to highlight any concerns. Additionally, the placement of such structures would also require a Marine Management Organisation (MMO) licence.

As the wild beds within the public fishery are frequently used as a source of mussel seed for the Several fishery, Eastern-IFCA needs to consider and minimise the impact that the removal of this seed has on those wishing to fish the public mussel fishery. In recent years, however, this has not presented a problem because the harvestable-sized (45mm) mussels on the wild beds are of insufficient quality for direct sale to the market. Instead, the general practice for most mussel fishermen in The Wash is to relay seed from the public fishery onto their lays, where a better-quality product can be grown. However, because both the cockle and mussel stocks in the public fishery contribute towards the bird-food requirements, the removal of mussel seed from the public fishery could impact on the size of the cockle fishery. Eastern-IFCA, therefore, only open the public beds for seed relaying when specific stock target thresholds have been achieved.

To ensure that areas granted as lays are capable of returning to a natural state, Eastern-IFCA applies three key management measures. These are:

- dictating the maximum dredge width,
- the maximum number of dredges, and
- the maximum vessel length that may be used.

These management measures are reflected in the management measures for the Regulated fishery within the same area and are assessed as not likely to impact the habitats or species (either designated or supporting) under The Wash MPAs.

5.2.1 Food availability

In 2008 high proportions of the adult cockle stocks throughout The Wash suffered high mortality rates in what was the start of a prolonged period of annual mortality events that has continued to present times. In 2007, prior to the first die-off, the biomass of shellfish in The Wash, including wild cockles and mussels on the intertidal beds, combined with the cultivated mussels on the lays were at an historic peak. When initial sampling found no pathogens in the cockles that could explain the die-offs, it was considered whether inter- and intra-specific competition for food could have exceeded the food availability carrying capacity. A review of the existing lay consents conducted in 2008 calculated that when at full capacity of 100t/ha, cultivated mussels could be responsible for up to 28% of filter feeding in The Wash. In 2009 ESFJC commenced a long-term programme to monitor phytoplankton levels in The Wash, deploying a data buoy in the Central Wash to collect continuous water temperature, salinity, turbidity and chlorophyll-a readings. The programme also included collecting additional monthly sonde readings from various sites around The Wash and mussel meat yield samples from four stations. Additionally, a number of specific projects also monitored

phytoplankton levels on a finer scale around the Toft lays, where the highest volume of mussel cultivation occurred. These studies identified a localised depletion in chlorophyll levels directly over the lays, compared with the upstream measurements, but that the high levels of mixing throughout the waters in The Wash help to ensure that despite localised depletion of chlorophyll levels directly over the cultivated mussel beds, phytoplankton availability away from the lays is not restricted. The study recommended that further monitoring be undertaken of chlorophyll-a levels over natural shellfish beds, but cautiously concluded that mussel cultivation at current levels was unlikely to be impacting natural cockle and mussel populations by limiting their food supply. Further studies conducted by Cefas on phytoplankton assemblages in The Wash also cautiously concluded that at current levels the cultivated mussels in the Several fishery was not having an impact on phytoplankton assemblages.

Subsequent to the phytoplankton monitoring programme commencing, further moribund samples of cockles from The Wash were found to be infected with three species of *Haplosporidian* parasites. While these have not been conclusively proven to be the cause of the cockle die-offs, the samples provided strong circumstantial evidence that the *Haplosporidian* infections may be a major contributory factor in the observed mortalities. Since 2010 the mussel stocks in The Wash have also suffered unusually high mortalities. These were initially attributed to the presence of the intestinal copepod parasite, *Mytilicola intestinalis*, but subsequent studies have found no correlation between the incidence of this parasite and mortalities. Further studies are presently being conducted with Cefas to better understand both the cockle and mussel die-offs, but it is suspected there may be a number of factors that could be contributing towards the problem. As food availability could be among them, Eastern-IFCA continues to monitor phytoplankton and mussel meat yields in The Wash and maintains the moratorium introduced in 2010 of new lays being issued. Should phytoplankton and mussel meat yields fall below target thresholds, mitigation described in Appendix 1 of this plan shall be implemented to reduce grazing pressure from mussels on the Several fishery lays.

5.3 Ensuring compatibility between aquaculture and biosecurity

As the Several fishery lays can be stocked from other fisheries outside of The Wash, there is a significant risk of introducing disease and locally absent species into The Wash through this movement of live shellfish. Eastern IFCA has produced a Biosecurity Plan covering the full extent of the Wash Several Fishery Order (Eastern-IFCA Biosecurity Plan, 2020). This identifies the biosecurity risks associated with the Several fishery and describes the mitigation in place to prevent the spread of diseases and non-native invasive species into The Wash.

It is prohibited to relay shellfish from outside The Wash onto the lays without prior consent from Eastern IFCA. Applications to move shellfish into The Wash are considered on a case-by-case basis and consider the following:

- The disease status and history of the area the shellfish originate from;
- Monitoring mortality and what to do if shellfish disease is suspected;
- Known invasive non-native species in the area the shellfish originate from;
- Whether the supplier of the shellfish operates a biosecurity plan.

Under the lease agreements, all lay holders will be required to monitor shellfish mortality on their lays within six weeks of having relayed new mussel onto a lay (or at least once per year if no new seed has been added in that time). Any suspicion of

mortality or shellfish disease within lays will be reported to the Fish Health Inspectorate (FHI). This includes reports of any sign of infection in shellfish, if shellfish are dying in larger numbers or more than normal and/or if shellfish are affected by unusual deaths. To encourage reporting of suspicions, Eastern IFCA has produced a standard form to monitor and report mortality incidents and provide some advice of signs and symptoms for lay holders to be aware of.

5.3.1 Invasive, non-native species

Although most of the aquaculture in The Wash has involved mussels, elsewhere Pacific oysters (*Magallana gigas*) are a commonly farmed species, which on a few occasions have also been grown in The Wash. The Pacific oyster, however, is defined as an invasive non-native species and is categorised as a 'medium risk' under the Water Framework Directive by the UK Technical Advisory Group and a 'moderate risk' by the GB Non-Native Species Secretariat. Pacific oyster, therefore, will not be included as a prescribed species of the Wash Several Fishery Order (2022).

As part of the application process, Eastern IFCA will assess the risks associated with the species to be cultivated. For species not native to the UK, consideration will be given as to whether cultivation can be done in such a way so as to mitigate risk of the species spreading to or invading from the lay. Ordinarily, a lay will not be granted where a risk exists.

5.4 Socio economic considerations

The Wash hosts a relatively stable fleet of around 55 vessels which rely primarily on the cockle and brown shrimp fisheries. Historically, the same fleet was also reliant on mussel fisheries which have since declined. Since 2015, a limited number of vessels have also participated in Wash whelk fisheries and a very limited number of vessels also participate in crab and lobster fisheries within The Wash. The interdependencies of these fisheries are crucial to maintaining sustainability, particularly in relation to the shrimp fishery which has the potential to be fished too early and with too much effort at times when the cockle fishery is less productive.

At the time of implementation, the WFO 1992 identified aquaculture within the Wash as a means of reducing the burden on the on these wild fisheries. At that time, there was still a productive mussel fishery which also supplied mussel seed for lays within The Wash. Since the decline of the Wash mussel fisheries, the availability of seed has also declined (although is typically more available than harvestable mussel) which has resulted in a decline in the use of lays. Whilst it is recognised that some business models will rely on lays only when seed is available within The Wash, the last two seed relaying fisheries were not prosecuted by any lay holders and none of the seed removed was used to stock lays in The Wash. This indicates that of the lays granted under the WFO, many are not being used as intended. It is noteworthy though that some are in more regular use, and these rely on seed from outside of The Wash.

Of those that are being used regularly, their operation includes use of partnerships between lay holders. Restrictions within the WFO preclude this from occurring except where Eastern IFCA has obtained the permission of the Minister as a means of minimising the risk of monopolisation of private fisheries and providing opportunity to the most possible Wash fishermen. Whilst it will be important to achieving the Aim and Objectives that as many Wash fishermen have access to lays as possible, enabling partnerships is also important to enable successful operations.

In recent years, widespread settlement of wild cockle spat has included settlement on otherwise dormant lays. The result being that the lay holders have benefited from some cockle spat which would have ordinarily benefited the public (regulated) fishery. There is some concern within industry that some lays are being maintained only on

the chance that such wild settlements occur and become the ‘absolute property’ of the lay holder, as per the Sea Fisheries (Shellfish) Act 1967. Whilst this is contrary to the intention of the Several Fishery, there were no mechanisms within the WFO to mitigate against this or encourage better management of lays towards their intended purpose. More modern Several Orders and their associated Fisheries Management plans require a greater investment in the planning and use of private fisheries. As with The Poole Harbour Fishery Order 2015, applicants for lays are required to submit business plans which set out how the applicant intends to undertake aquaculture operations. On considering whether to re-allocate private fisheries, the grantee (Southern IFCA) considers the extent to which lease holders achieved the intentions of these plans. Table 1 below summarises the key measures within the lay allocation process and how this will contribute towards more productive private fisheries and fisheries sustainability throughout the Wash.

Measure

Applicants must hold a Wash Cockle and Mussel Byelaw Permit

Submission of a business plan to include a method for operating the lay, the company and management structure, predicted aquaculture forecasts, safety planning and biosecurity plans.

Restrict the allocation of lays to 10ha per person or business interest except where special case is made for larger lays

Use of lays will be restricted to 5 years and re-allocation will be considered taking into account how the operations met the business plan

Rationale

Permit holders will be active participants within the Wash cockle and mussel fisheries. This will ensure that lays are allocated to those who rely on other Wash-based fisheries, reducing the burden on these by providing an alternative means of income via aquaculture operations.

This would represent significantly more than was required for apply for a lay under the WFO. The intention is to encourage better business practices and to ensure that the allocation finite area of lays available (which would be unlikely to support a lay for all Wash fishermen) is to those most likely to utilise it.

This is a continuation of an established measure within the WFO with the caveat that larger lays can be granted at the discretion of the Authority noting that the most successful lays have included larger sites involving multiple lay holders.

Lease periods will be for no more than 5 years, after which the re-allocation will be considered by the Authority. In assessing the strength of an application for re-allocation, the Authority will consider if the applicant managed the lay in accordance with the plan submitted in their original application. This will include consideration of whether lay holders utilised seed mussel fisheries which were open within The Wash.

5.5 Lay allocation

Lay Allocation will be considered in two tranches.

Tranche 1 (transition) will consider reallocation of lays issued under the Wash Fishery Order 1992. The intention is to allocate lays to business models which have relied on the opportunity to use lays, as a means of reducing reliance on the other Wash fisheries.

Tranche 2 will consider new entrants to the several fishery and will prioritise those persons or business models which rely on other Wash fisheries, in accordance with the aims and objectives.

5.5.1 Tranche 1 (Transition)

Tranche 1 consider applications from lay holders under the Wash Fishery Order 1992. Only lay holder will have opportunity to apply for the same lay under the Wash Several Order 2022.

Application criteria and eligibility

The Authority, or an appropriately delegated sub-committee will consider the allocation of lays under tranche 1 subject to the production of documentation outlined in this section at the time of application.

Eligibility

To be eligible to apply for a lay in Tranche 1, a person must:

- Be the lease holder of a lay under the Wash Fishery Order 1992 at the time of application; and
- Must hold a permit to fish under the Wash Cockle and Mussel Byelaw 2021;
- Have submitted an application meeting the application criteria.

Application Criteria

Applications must be submitted by [date to be confirmed] and include a business plan setting out the following:

- **Executive summary** providing an overview of your proposed business and plans.
- **Methodology** to include:
 - Target species to be grown and harvested
 - Details of suppliers of seed for laying;
 - Details of buyers / target markets for harvested products
 - Specification of vessel / platform to be used; and
 - Details of equipment used in laying of seed and harvesting.
- **Company and management structure**
 - Details of the lease holder and any other personnel involved in aquaculture operations
 - Details of any partnerships between other lease holders (noting that additional consent is required where any partnership involves the use of more than 10ha of lays)
- **Forecasts**
 - Projected quantities of seed to each species to be broken down into annual forecasts for the lease period (up to 5 years)
 - Kg/year seeding forecast; and
 - Kg/year harvesting forecast
- **Safety**
 - A safety plan, including relevant risk assessments for operations at sea and the appropriate measures in place for the proposed activity
 - Evidence that persons taking the vessel to sea meet the requirements of the Merchant Shipping (Fishing Vessels) Regulations 1983

- **Biosecurity plan** to provide details of how the lease holder will ensure that operations are consistent with best practice and the legal requirements

Allocation of lays under Tranche 1

The allocation of lays under Tranche 1 will be under two stages:

- Stage 1 considers the business plan
- Stage 2 considers the suitability of the application area as a lay

Stage 1 - The Authority, or an appropriately delegated sub-committee will assess each application on its own merits taking into account our statutory responsibilities under:

- The Marine and Coastal Access Act;
- The Wash Several Order 2022;
- The Sea Fisheries Shellfish Act 1967;
- The Conservation of Habitats and Species Regulations 2017;
- The Wildlife and Countryside Act 1981;
- The Aquatic Animal Health Act 2010; and
- The Eastern Inshore Marine Plan

Particular consideration will be given to:

- Credibility of the business plan;
- The potential impacts on:
 - the sustainability of the wild fisheries of The Wash;
 - the site integrity of Wash Marine Protected Areas;
 - the viability of fishing business models which operate within The Wash
- The size of the lay – ordinarily, the Authority will not grant lays to a person or business interest which is larger than 10ha however consideration will be given to such requests where a case is made for such in the application.

Stage 2 – For lay applications approved at stage 1, Officers will assess the suitability of the area to host a lay using all available data and a using the results of a site visit and survey.

A site visit and survey must be undertaken in order to determine if the application area is suitable to host a lay, in accordance with the criteria in this section, associated Habitats Regulation Assessment and other statutory responsibilities. Applicants are required to take an Officer of the Authority onto the application area to facilitate a site survey. In particular, the survey will:

- Identify if any wild shellfish stocks are present on the area
- Identify the habitats and species present within the site

The results of the survey will be considered by officers to determine its suitability against the following criteria:

- The Area does not presently host, and has not recently hosted, commercially viable bivalve mollusc stocks;
- The Area does not contain any protected species or habitats or species or habitats which support the conservation objectives of the Wash Marine Protected Areas.

Maintenance of a lease

Leases will be issued for no more than 5 years and all fishing operations must be in accordance with the conditions set out below. Failure to adhere to these conditions may, at the absolute discretion of the Authority or an appropriately delegated sub-committee, result in the termination of the lease.

Reallocation of a lease after 5 years will be at the absolute discretion of the Authority or an appropriately delegated sub-committee and in accordance with the process set out below (re-allocation of Tranche 1 leases).

The Authority reserves the right to amend the conditions of this plan and the lease conditions as may be required to meet the Authority's statutory responsibilities.

Conditions to maintain a lease

- The Authority receives annual fee within [time frame]
- Annual reporting against business plan
- No wild shellfish settlements
- Carried out activity in accordance with lease conditions and business plan

Lease conditions

These will be developed to include the restrictions which act as mitigation against potential impacts on The Wash MPAs and fisheries sustainability in addition to meeting the aim and objectives of this FMP.

Re-allocation of tranche 1 leases

Where a lease has expired, the lease holder may apply for re-allocation of the same for up to a further 5 years. The documentation required for application will be as per that required for Tranche 1 lease allocation and will also require a 'lease holder operations report' which will consider activity against the original business plan which will highlight where outputs from the lay have not met the expectations of that plan and what measures will be taken to address these.

The reallocation of lays will take into account the following:

- Wild shellfish settlements
- Success of operations against the business plan, taking into account appropriate variables
- Any additional environmental constraints including but not limited to the Marine protected Areas of The Wash and sustainability of wild fisheries within The Wash.
- The needs of all persons engaged in Wash based fisheries including viability of fisheries

- Any of the Authority's statutory requirements
- The reliance of some business models and plans on seed from The Wash and the availability during the lease period of such seed.

5.5.2 Tranche 2

Tranche 2 allocation considers applications of lays up to the maximum total permitted within the Several Fishery which remains after Tranche 1. Application for Tranche 2 lays will open be accepted from 1 January 2027 to 28 February 2027. The process and criteria for Tranche 2 lay allocation will be set out in the 2026 review of this Fisheries Management Plan.

5.6 Compliance and sanctions

5.6.1 Compliance monitoring

Eastern IFCA will integrate the order within its risk-based, compliance framework. Section 166(1) of MaCAA (2009) sets out that an IFCA officer has the powers to enforce any Order made under the Shellfish Act (1967) and whilst enforcing the Order an IFCA officer has common enforcement powers.

5.6.2 Sanctions

Any rights holder under the Order who contravenes any conditions set out in the lease issued by Eastern IFCA may, at the discretion of the Authority, have the lease revoked and any lays shall return to the possession of the Authority as detailed in the lease.

6.0 THE WASH SEVERAL FISHERY ORDER (2022) MITIGATION MEASURES

6.1 Aquaculture and MPA designations

Management requirement	Mitigation	Description
Ensure the Several fishery does not have a significant impact on the Annex I habitats of the W&NNC SAC	Proposed activities allowed under the new Several Order shall undergo a Habitats Regulations Assessment to ensure they will not have a significant adverse impact on the designated Annex I habitats of the site	The Several fishery lays are all situated in the lower eulittoral edges of sand banks and mudflats, which is predominantly of the SAC Annex I habitat - <i>Mudflats and sandflats not covered by seawater at low tide</i> . The interaction between the Several fishery activities and this habitat have been assessed for disturbance from abrasion, penetration and smothering which concluded were not significant at existing levels of lay extent. There is currently a moratorium on further lays being issued which will prevent the overall extent increasing beyond current level. Should new lays be issued in the future, they would need to be individually assessed with bespoke HRAs.
Ensure the Several fishery does not have a significant impact on the Annex II species of the W&NNC SAC	Proposed activities allowed under the new Several Order shall undergo a Habitats Regulations Assessment to ensure they will not have a significant adverse impact on the designated Annex II species of the site	The W&NNC SAC has two Annex II designated species, of which only the harbour seal is present in the vicinity of the Several fishery lays. The HRA concluded that the Several fishery wouldn't have an impact on their prey species, which is not mussels. While there is potential for low water activities on the lays to disturb seal haul-out sites, mitigation is in place to prevent lays being leased on known haul-out sites and the HRA concluded low water activities on the existing lays would not cause significant disturbance to harbour seals.
Ensure the Several fishery does not have a significant impact on the designated SPA and SSSI species	Proposed activities allowed under the new Several Order shall undergo a Habitats Regulations Assessment to ensure they will not have a significant impact to the prey species of the SPA and SSSI species.	The intertidal shellfish stocks in The Wash are an important food source for many of the site's designated SPA and SSSI bird species. Eastern-IFCA conduct annual surveys of the wild intertidal cockle and mussel stocks in The Wash to inform fisheries management decisions. Prior to fisheries opening on the public beds, assessments are undertaken to ensure sufficient shellfish will remain on the public beds to satisfy the bird food requirement. While the cultivated mussels on the lays are also preyed upon by birds, these stocks are not included in the assessments, so whatever shellfish stocks are present on the lays are superfluous to the bird food requirement. The HRA,

Proposed activities allowed under the new Several Order shall undergo a Habitats Regulations Assessment to ensure they will not cause a significant disturbance to the designated SPA and SSSI species

therefore, concluded that the Several fishery would not have an adverse impact on bird prey species.

Direct disturbance between the Several fishery and the listed bird species of the Wash SPA has been assessed. This concluded that because the majority of fishing activities on the lays occur over high water periods, those that did occur at low water (including fishermen occasionally inspecting their lays and/or conducting a small amount of handworked harvesting) would not cause a significant disturbance.

Management policies developed for the public fisheries aim to ensure the distribution, extent and species composition of marine invertebrate communities which the birds prey upon are maintained within Conservation Objective target thresholds.

6.2 Aquaculture and public fisheries interactions

Management requirement	Mitigation	Description
Seek to balance the different needs of persons engaged in the exploitation of sea fisheries resources in the district.	Restriction on the size and duration of lay leases	<p>Eastern-IFCA seeks to enable a successful Several fishery that balances the needs of those involved in the Several fishery and those involved in the public fishery. For this, there needs to be fair and equitable access to the Several fishery, on a scale that is not detrimental to the users of the public fishery or that allows a monopoly.</p> <p>Lays can be applied for and issued to any person, but without written consent from the minister, the total area and duration of leases is restricted:</p> <ul style="list-style-type: none"> • Maximum total area of leases – 10 hectares • Maximum duration of any lease – 5 years
Minimise loss of fishing opportunities to public fishery	Lays will not be leased on ground that supports wild beds of cockles or mussels	<p>New lays will not be issued (or existing lays re-issued) on ground that supports, or historically supported, wild beds of cockles or mussels. This is achieved by:</p> <ul style="list-style-type: none"> • Conducting biotope surveys within and surrounding any proposed lays to confirm the absence of wild stocks prior to the new lay being issued. • Conducting an examination of historic survey GIS data to determine whether the area historically supported wild stocks that might currently be absent. • Consultation with all the local fishermen’s associations to highlight concerns they may have that the lay will encroach on wild beds. <p>In addition, lease conditions will include a cause which triggers a review of the lease allocation where settlement of wild stocks occur within a lay. The Authority will assess the suitability of the lease to continue taking into account the level of demand for lays, the use of that lay in accordance with the business plan and the degree to which wild stocks are likely to continue to settle in that area. Ultimately, the Authority could exercise its discretion as whether to revise the lease with the lay holder which could result in revocation of the lay, or part thereof.</p>

Shellfish shall not be relayed from the public fishery in quantities that will have a detrimental impact on the public mussel fishery

Shellfish shall not be relayed from the public fishery in quantities that will have a detrimental impact on the public cockle fishery

Minimise the potential impacts the Several fishery could have on the private fishery

Application of similar vessel and gear restrictions in the Several fishery as the public fishery

Minimise any navigational impacts the activities in the Several fishery could cause

Several fishery lays must not cause a navigational hazard or significant navigational impact to other users of The Wash

Due to the poor quality of mussels on the wild beds, few are harvested direct for market, minimising the impact of mussels taken for relaying to the Several fishery. Further, a high proportion of the fishermen able to partake in the public mussel fishery are existing lay holders.

To facilitate sustainability, mussel fisheries (either for direct harvesting or relaying seed) will not reduce mussel stocks on the wild intertidal beds below:

- 12,000 tonnes total stock,
- 7,000 tonnes adult stock (mussels $\geq 45\text{mm}$ length)

Survey data informs the permissible size of annual harvestable and relaying fisheries.

As both the cockle and mussel stocks in the public fishery contribute towards the bird-food requirements, the removal of mussel seed from the public fishery could impact on the size of the cockle fishery when stocks are low. To minimise this risk, mussels shall not be relayed from the public fishery in quantities that would result in the wild stocks falling below the above thresholds.

Although lays are the private property of the lease holder, they are only leased for 10-year periods. It is important, therefore, that during the period of lease, the lay holder does not conduct activities that could cause damage that extends beyond the lease period. Fishing gear used on the lays must, therefore, be of an approved design, compatible with that used in the public fishery. Further, to minimise the risk of errant behaviour from lay holders causing damage to the public fishery, three public fishery technical measures are also applied to the Several fishery. These are:

- Maximum dredge width of 1.0m
- Maximum of 2 dredges
- Maximum vessel length of 14.0m (oal)

Because the general aquacultural practice is to lay mussels directly on the seabed along the edges of inter-tidal sandbanks, the risk of causing a navigational hazard is considered to be minimal due to them being a low-elevation soft surface. The

Placement of structures such as poles, suspended ropes, tables, trellises and rafts within Several fishery lays will require formal consent

presence of the mussels could, however, have a navigational impact on other fishermen wishing to access a sandbank with limited water clearance, or for fishermen trawling for brown shrimps along the edge of sandbanks. Prior to issuing new lays, Eastern-IFCA consults with the local fishermen's associations, providing an opportunity for such concerns to be highlighted.

There have been occasions when tables or trellises have been placed on lays for growing oysters and, elsewhere, mussels are frequently grown on suspended ropes, poles or rafts. Such structures, if used in the Several fishery, would have a much greater impact on trawl fisheries and could be a navigational hazard. Prior to consenting the use of such structures, Eastern-IFCA would consult widely with all other users of the site to highlight any concerns. Additionally, the placement of such structures would also require a Marine Management Organisation (MMO) licence, the application for which would consider the navigational hazards caused to other users of the site.

6.3 Aquaculture and species sustainability

Management requirement	Mitigation	Description
<p>Ensure the Several fishery does not have a significant impact on the sustainability of the wild shellfish beds</p>	<p>Lays will not be leased on ground that supports wild beds of cockles or mussels</p>	<p>Leasing lays on existing wild beds of shellfish would not only restrict the public access to those beds but could also reduce the sustainability of the wild fisheries if wild stocks were smothered or prevented from re-establishing within leased areas. New lays will not be issued (or existing lays re-issued) on ground that supports, or historically supported, wild beds of cockles or mussels. As described above, this will be achieved by conducting surveys in the vicinity of proposed lays, examining historic survey GIS data and consultation with the local fishermen’s associations to ensure new lays are not leased on wild beds.</p>
	<p>Mussel seed shall not be relayed from the public fishery in quantities that will have a detrimental impact on the sustainability of the wild intertidal mussel stocks.</p>	<p>Eastern-IFCA conducts annual stock assessment surveys on the wild intertidal mussel beds to inform the annual management measures for the mussel fisheries (harvestable and relaying).</p> <p>The following management measures are applied to the public mussel fisheries to facilitate sustainability:</p> <ul style="list-style-type: none"> • Mussel fisheries (either for direct harvesting or relaying seed) will not reduce mussel stocks on the wild intertidal beds below the following thresholds: <ul style="list-style-type: none"> ○ 12,000 tonnes total stock, ○ 7,000 tonnes adult stock (mussels ≥45mm length) ○ 5,000 tonnes juvenile stock (mussels <45mm length) • Mussel seed fisheries from the public intertidal beds will be limited to a Total Allowable Catch of 20% of the overall juvenile biomass and a daily vessel quota of 8 tonnes per day. • Mussel fisheries must not reduce the average biomass of mussels on individual beds below 25 tonnes/ha • When available, priority will be to open beds that are either sublittoral or are considered vulnerable to being lost/ephemeral rather than established intertidal beds.
	<p>Cockles shall not be relayed from the public fishery in quantities that will have a</p>	<p>Cockles have previously only been relayed onto Several fishery lays in small trials rather than commercial quantities. However,</p>

detrimental impact on the sustainability of the wild intertidal cockle stocks.

should relaying cockles become more prevalent in the future, the following measures would safeguard the sustainability of the wild cockle stocks.

- **Eastern-IFCA conducts annual stock assessment surveys on the wild intertidal cockle beds to inform the management measures for the cockle fishery.**
- **Rather than having a separate TAC for a cockle relaying fishery, any cockles harvested for relaying would be taken from the harvestable fishery TAC and be part of the vessel's daily 2-tonne quota.**
- **To facilitate sustainability, the cockle fishery is subject to the following management measures:**
- **Cockle fisheries will not reduce stocks on the wild intertidal beds below the following thresholds:**
 - **11,000 tonnes total stock,**
 - **3,000 tonnes adult stock (cockles ≥ 14 mm width)**
- **Cockle fisheries from the public intertidal beds are limited to a Total Allowable Catch of 33% of the overall adult cockle biomass and a daily vessel quota of 2 tonnes per day.**
- **Areas supporting densities of Year-0 juvenile cockles exceeding 1,000/m² are subject to spatial closures**

Shellfish stocks within the Several fishery lays should not impact on the food available for the wild shellfish stocks

Eastern-IFCA undertakes regular monitoring of phytoplankton levels and mussel meat yields in The Wash. Trigger thresholds for these are in place, which if not achieved would indicate a decline in food availability below critical levels. Failure to meet these thresholds would result in action to reduce grazing pressure from the lays, including the removal of mussel where stocking densities are already too high (see Appendix 1).

6.4 Aquaculture and biosecurity

Management requirement	Mitigation	Description
Introduction of disease and/or invasive non-native species with shellfish acquired from fisheries outside of The Wash	The Wash Fishery Order and The Wash Restricted Area Biosecurity Plan (2020 – 2025)	The Biosecurity Plan identifies the risks of introducing disease or non-native species associated with the movement of shellfish from outside of The Wash and details measures aimed at preventing these from occurring. When determining whether consent shall be granted, Eastern-IFCA consider the following: <ul style="list-style-type: none">• The disease status and history of the area the shellfish originate from;• Known invasive non-native species in the area the shellfish originate from;• Whether the supplier of the shellfish operates a biosecurity plan.
	Prohibition on relaying shellfish from outside The Wash onto the Several Fishery Order lays without prior consent from Eastern-IFCA.	
	Shellfish mortality monitoring	Under the lease agreements, all lay holders are required to monitor shellfish mortality on their lays within six weeks of having relayed new mussel onto a lay (or at at least once per year if no new seed has been added in that time). Any suspicion of mortality or shellfish disease within lays will be reported to the Fish Health Inspectorate Eastern-IFCA has produced a standard form to monitor and report mortality incidents and provide some advice of signs and symptoms for lay holders to be aware of.
	Prohibition on culturing Pacific Oysters (<i>Magallana gigas</i>)	Pacific Oysters (<i>Magallana gigas</i>) will not be a listed species of the Wash Several Fishery Order (2022), so their culture will be prohibited

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8.0 Appendices

8.1 Appendix 1 – Food availability mitigation measures

At an Eastern-IFCA Full Authority meeting in January 2015, the members were asked to agree to adopt mitigation measures relating to food availability associated with the Several fishery lays. The following report, describing those measures, was appended to the meeting papers.

Annex 3 - Mitigation measures

Eastern IFCA will use its monitoring program SWEEP³ to detect changes in two indicators of grazing pressure – chlorophyll and meat yields (see box 1). It is proposed that if these metrics reach a certain level over a certain time period it will trigger management action in the form of a reduction in stocking density of lays.

The rationale is that, should natural variability of primary production reach certain low levels whereby it is unlikely to be able to sustain the biomass of shellfish in The Wash; a reduction of the biomass of cultivated shellfish would be enforced proportional to the amount required to make up the shortfall in primary production. There is considerable potential cost of removing mussels from lays prior to them having reached marketable size and a large degree of uncertainty regarding the potential for cultivated mussels to have an impact on wild shellfish through competition of food resource. As such, trigger levels will reflect only a significant decrease in food availability.

Box 1. Indicators

Chlorophyll – measured as Relative Florescence Units. RFU can infer chlorophyll concentrations with additional analysis. Most of the literature regarding carrying capacity refers to Chlorophyll concentration in the unit Chla ug L⁻¹ however accurate estimates of chlorophyll concentrations are not obtainable in the field using a sonde. Cefas process water samples taken from sites where sonde data is collected. Chlorophyll concentrations can be inferred from RFU if regression provides a significant correlation. It is suggested that initially, RFU will be used as an indicator of chlorophyll concentration as sonde data is available immediately after the deployment in the field, allowing a more immediate reaction to changes in chlorophyll levels. The potential use of laboratory derived chlorophyll concentrations will be assessed.

Meat yield – mussel samples are processed (by boiling and removing meats) and an estimate of the proportion of meat to total weight is recorded. This is used as a proxy for condition – higher meat yields infer a greater condition. Methods used in the available literature involve drying meats to obtain a dry weight however Eastern IFCA does not have the capacity to process mussels in this way.

For both of these metrics there is little comparable literature primarily as different methods are used.

There are three elements to this process;

1. Monitoring of chlorophyll and mussel condition at three sites in The Wash (fig.1);
2. Assessment of grazing pressure taking into account current stocking density of mussel lays; and
3. Reduction in permitted stocking density of lays based on an assessment of grazing pressure, including the removal of mussel where stocking densities are already too high.

1 - Monitoring

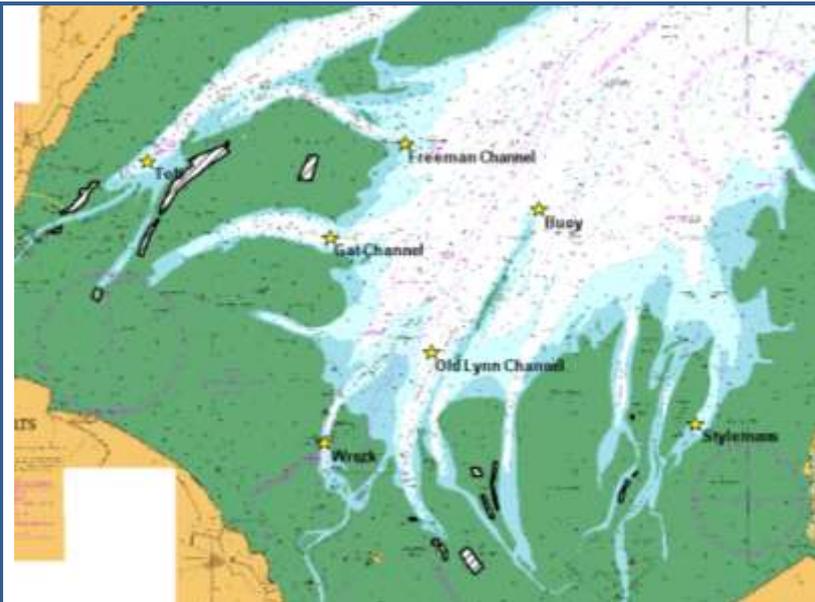


Figure 1. Distribution of water sampling sites across The Wash as per the SWEEP. Mussel samples are also taken at three of the sites to assess mussel condition; the Wreck, Toft and Thief sample sites.

Chlorophyll and mussel condition data are collected monthly. Data is input into a database which assesses if thresholds have been reached according to the following rules.

Phase 1 – Thresholds

The data collected through SWEEP thus far (from 2010 to 2013) has been assessed. Meat yields vary across the three sites – generally the mussels collected from the Wreck site have a greater meat yield than the Toft and Thief site. Growth rates and condition

of mussels will vary across The Wash due to natural variability and factors such as immersion time and temperature (which are also likely to vary across sites). With regard to mussel condition, it is proposed that sample site specific trigger levels should be imposed to reflect this variability.

There is no available literature applicable to the method used to indicate condition as per SWEEP. As such, the trigger levels are solely based on the SWEEP data which has been collected by Eastern IFCA. Minimum recorded values of meat yield at each site are the current trigger level.

With regards to chlorophyll related trigger levels, there is no available literature which relates carrying capacity or food availability with Relative Fluorescence Units. Inglis *et al* (2000) suggests chlorophyll concentrations in the range of <math><0.5\text{ug L}^{-1}</math> represents very poor growing conditions which can result in a loss of condition. RFU values of 0.2 equate to chlorophyll concentrations of circa 0.5 to 0.9 chl ug L⁻¹ (according to 2014 hand sonde data).

The suggested trigger levels are as follows:

Site	RFU	Meat yield
Wreck	<math><0.2</math>	<math><11.5\%</math>
Toft	<math><0.2</math>	<math><9.0\%</math>
Thief	<math><0.2</math>	<math><8.7</math>

Table 1. monthly trigger levels for the three monitored sites

Should RFU and meat yield reach these levels at two or more sites in the same month of monitoring an assessment of the grazing pressure (see below) will be carried out. If this assessment concludes grazing pressure is greater than primary production, lay holders will be informed that initial trigger levels have been reached.

If the trigger levels are reached again in the following month, another grazing pressure assessment will be undertaken, and the proportion reduction required to balance estimated primary production and grazing pressure will be estimated. Lay holders will be informed that, they may

need to reduce stocking density in a maximum of two months' time.

If trigger levels are reached for a third consecutive month lay holders will be given a final notice to reduce stocking density to reflect the findings of the grazing pressure assessment.

Justification

Mussel condition

Mussels are known to feed on a range of seston including both algal and non-algal organic matter. Non-algal organic matter has been shown to make up a significant part of the diet of mussel (ref) and the significance of non-algal organic matter in the diet of mussels is thought to show a strong relationship with the 'quality' of that matter (ref). To fully understand food availability in The Wash, measurements of non-algal organic matter would need to be factored in. However, there is no scope for the inclusion of this type of assessment as part of existing monitoring.

As such, including mussel condition (meat yield) as one of the two indicators of food availability provides for a more robust method for describing the risk to the wider shellfish stocks. Where both chlorophyll and mussel condition are below agreed thresholds, there is a greater risk that food is at least in part having an impact on shellfish within The Wash.

Shellfish condition, usually inferred from the relationship between the weight of the 'meat' and total weight, is known to vary spatially and temporally and particularly in relation to environmental factors – for example in relation to changes in current velocity (Strohmeier *et al* 2008), temperature and food availability.

In the field, mussel condition has been shown to exhibit seasonal trends in condition (Orban et al 2002, Okumus & Stirling 1998 and Dare & Edwards 1975). Temperature and food availability are thought to have strong influences on condition (Dare & Edwards 1975).

Mussels have been shown to lose condition after spawning (Okumus and Stirling 1998). However this is more pronounced in larger individuals. Mussels in the size range 45-50 mm do not show such a pronounced reduction in condition – this is reflected in the data from sampling in The Wash where no trends have been observed⁴ (size range for samples is 45-50mm). In addition, mussel condition is thought to reduce in relation to both temperature and food availability between October and March – mussels losing 30-50% of their flesh weight (Dare & Edwards 1975).

From the data collected through SWEEP, no distinct seasonal trends can be seen. In addition, mussel condition has not shown any statistical relationship with chlorophyll levels (Jessop *et al* 2012). This is most likely a reflection of the limited sampling effort and high degree of variability in condition. As such there is no predictable condition (meat yield) against which a trigger level can be benchmarked. Instead, the minimum recorded meat yield for each site is initially being used as the threshold for each sample site.

Mussels will lose 30-50% of flesh weight through the seasonal variations and as a result of spawning (Dare & Edwards 1975) and can survive a loss of flesh weight (through starvation) of up to 78% (Kautsky 1982). Therefore, trigger levels for each site reflect a reduction in meat yield in the range of 78-50%. Currently, the minimum recorded meat yield at each site represent values within this range (Wreck = -50.9%, Toft = -66.8%, Theif = -63.6%) when compared to the highest recorded meat yield – thus producing a precautionary threshold. For all of the sites, reductions in meat yields represent a loss of condition greater than that which is considered 'normal' but can be recovered from if these conditions are not prolonged.

Phytoplankton concentration

There is a wide range of literature which explains the relationship between bivalve mollusc populations and phytoplankton – particularly with regard to bivalve controlled systems (i.e. primary production is limited by grazing pressure). Food depletion through grazing pressure can have wider ecosystem level effects if removal (grazing pressure) is greater than tidal exchange or primary production. Chlorophyll concentration in The Wash shows a 'normal' double peak trend i.e. a spring and autumn bloom indicative of a healthy system. Light attenuation (lower in higher turbidity), temperature and nutrient levels are likely to have a limiting effect on primary production to greater or lesser extents over the year showing seasonal trends.

Monitoring phytoplankton within The Wash has taken place since 2009 using a combination of a stationary sonde (the buoy sonde) and spot samples using a hand sonde deployed at various locations once per month. Sonde data records phytoplankton in terms of Relative Florescence Units which are not easily comparable to chlorophyll concentration in terms of Chl a $\mu\text{g L}^{-1}$ which is the standard used in all available literature.

The sonde itself has a built in algorithm which estimates Chl a $\mu\text{g L}^{-1}$ which can provide more instantaneous data than using laboratory based estimates (using water samples) but with less accuracy. According to data collected by the hand sonde in 2014, an RFU of 0.2 relates to an approximate chlorophyll concentration (chl a $\mu\text{g L}^{-1}$) of 0.5 – 0.9, the relationship between RFU and chl a $\mu\text{g L}^{-1}$ is not linear. Hand sonde data for 2010 and 2011 for (the two most complete data sets) show RFU values dropping below 0.2 only during December.

Growth rates of bivalve molluscs are dependent on several environmental factors; immersion time, water temperature and turbidity in addition to food availability. That said, generic guidelines produced by Inglis *et al* (2000) indicate that, chlorophyll in the range of 1-2 $\mu\text{g L}^{-1}$ (i.e. greater than an RFU of 0.2) represent moderate growing conditions if spring blooms are present during the year. Concentrations between 0.5 and 1 $\mu\text{g L}^{-1}$ are unlikely to result in a loss of condition but represent poor growing conditions, concentrations <0.5 $\mu\text{g L}^{-1}$ can result in a loss of condition if prolonged.

A trigger level of 0.2 RFU is proposed as this represents the threshold below which growing conditions are poor but crucially, if not prolonged, mussels will recover condition.

Summary

Reaching either of the trigger levels at a single site is unlikely to be a reflection of a genuine issue relating to food availability as a result of food depletion. In both cases, reaching the above explained trigger levels is within the realms of natural variation and, given the limited sampling effort could also be a reflection of sampling errors.

If a combination of trigger levels for RFU and meat yield is reached at two sites then there is the potential that food is limiting growth and condition of mussels - prolonged exposure to these conditions could have wider ecosystem level impacts on the shellfish populations in The Wash.

The extent to which reductions in the stocking density of shellfish lays is required is determined through an assessment of grazing pressure in The Wash.

2. Grazing pressure assessment

A simple model is used to determine the extent to which stocking density is reduced.

The model considers how long it would take (in days) for the quantifiable biomass of filter feeders in The Wash (i.e. mussels, lay mussels and cockles) to remove the standing stock of phytoplankton. This is quantified as follows:

Feeding rates in terms of chlorophyll per individual per hour have been estimated in the field by Kotta and Molhenberg (2002) – a range is presented which is likely to reflect other environmental conditions such as temperature and seston concentration including a proportion intake of non-algal organic matter. Feeding rates are adjusted to take into account the mean length of mussel and cockle in The Wash using the following formula:

$$GL = G_{20} \times L^2 / 20^2$$

Where GL = Grazing rate at length and G_{20} = grazing rate at a length of 20mm. Grazing rate estimates as per Kotta and Molhenberg were also used for estimates of cockle grazing.

The standing stock of phytoplankton is estimated by scaling up the concentration of chlorophyll (using a mean from field samples) by the estimated volume of water within 2 meters depth.

Taking into account feeding rates an estimate of the time taken to remove the standing stock of phytoplankton is then estimated. This number (days) is then compared to an estimated cell doubling time (3-14 days) depending on the season (see table 2).

The quantified biomass of cockles and mussels in The Wash will make up only a portion of grazing pressure – other bivalves (*Maccoma* etc), polychaetes and zooplankton will also graze on phytoplankton (although zooplankton will likely graze on phytoplankton within a smaller size range than other filter feeders). The contribution of the quantified shellfish within The Wash to the total grazing pressure is unknown – it is currently set at a cautious 50%.

Where the grazing pressure (represented in days) is less than 50% of the estimated cell doubling time for the season (table 2), reductions in the stocking density of mussels on private lays will be adjusted. The change in biomass which results in the grazing pressure aligning with 50% cell doubling time will represent the proportion reduction in stocking density across all lays in The Wash.

Mechanics of this model is presented below.

Table 2 – indicative parameters for grazing pressure model

Season	Chlorophyll concentration* (Chl a ug L ⁻¹)	Grazing rate (ug chl ind ⁻¹ h ⁻¹)	Cell doubling time (days)
Winter	0.5 (low)	Low	14 (low)
Spring	5 (high)	High	3 (high)
Summer	0.5 (low)	Med	14 (low)
Autumn	2 (medium)	Med	9 (med)

* Chlorophyll concentrations from field samples will be used – the concentrations presented above are indicative of what is found in The Wash and aligned with Inglis et al (2000) thresholds for mussel growth.

Table 3 – Indicative outputs using the proposed model for estimating grazing pressure

All quantified shellfish within The Wash (43,640 tonnes of mussel and 19,319 tonnes of cockle)			
Concentration of chlorophyll (Chl ug L ⁻¹)	Estimated standing stock of phytoplankton (ug)	Time (hrs) to reduce standing stock of phytoplankton to zero	
		Grazing rate of shellfish* chl ug ind ⁻¹ hour ⁻¹	
		Low	High
0.5	6.25E+11	2372.954	196.6707872
2	2.5E+12	9491.817	786.6831487

5	6.25E+12	23729.54	1966.707872
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* Grazing rate ranges vary for species; mussel = 0.10125 (low) to 2.025 (high) chl ug ind⁻¹ hr⁻¹, cockle = 0.0008 (low) to 0.0156 (high) chl ug ind⁻¹ hr⁻¹. Estimates on the number of individuals within The Wash were calculated using an average weight for the 2014 cockle survey (cockles) and the average weight of mussels (perr's comms R. Jessop).

Using the above outputs from the grazing pressure model a comparison can be made between the grazing pressure and doubling time of phytoplankton in The Wash.

Assuming constant grazing rates and an immersion time of 16 hours, the scenario highlighted in table 3 would result in depletion of the standing stock of phytoplankton in 593 (low grazing rate) to 49 (high grazing rate) days. Grazing rates will vary by season, estimates will be used as per table 2.

Compared to even the slowest cell doubling time (14 days), grazing pressure in this scenario would not be considered limiting.

Limitations

The approach outlined above is a very simplistic model. The key limitations to this approach are outlined below. Overall, this approach could be considered cautious.

Nutrient recycling – Bivalve beds are thought to have a nutrient recycling role which is likely to stimulate primary production. Asmus and Asmus (1991) found that potentially significant increases in primary production were the result of nutrient recycling by filter feeding molluscs. In addition, Cugier et al (2010) suggests that understanding the feedback due to the mineralisation of biodeposits is crucial to fully evaluate the role of filter feeders on primary production. By not including this in the model presented above, the estimated impact on the standing stock of phytoplankton is likely overestimated.

Spatial variations in phytoplankton and seston quality – the model above assumes uniform phytoplankton concentrations based on a relatively small sample size of sonde readings. Cranford et al (date) indicate that, in determining standing stocks of phytoplankton in large areas, many spot samples are required – it was concluded that satellite data would actually only provide the required spatial coverage. Satellite derived data would not allow for a reactive enough system in this case – with data taking several months to become available and process.

The quality of non-algal organic matter will likely vary across The Wash also, affecting both feeding rates and mussel condition. Tidal and riverine inputs will affect this in addition to rainfall and changes in anthropogenic inputs of nutrients. Phytoplankton concentrations, turbidity and seston quality will also vary within mussel beds, particularly dense aggregations such as those found in cultivation beds (Strohmeir et al 2008 and Kamerma's 1993).

The Wash is thought to be well mixed horizontally and vertically with high current velocities conducive of a productive system. Despite this, not being able to reflect the spatial variability in plankton and seston is potentially a significant limitation in this simple model.

Grazing pressure in The Wash – Eastern IFCA has a limited understanding of the current grazing pressure of organisms in The Wash outside of those which are quantified during surveys (i.e. cockle and mussel surveys). Of potential significance are the razor clams (*Ensis* sp), slipper limpets and polychaetes.

Determining the contribution of the quantifiable bivalve stocks to grazing pressure is an important element to determining the overall grazing pressure. At present, a cautious estimate of 50% is used when comparing to cell doubling time. This is potentially an overestimate.

Given the above noted limitations, outputs from the model – particularly when being used to determine the proportion decrease in stocking density of the lays - should provide only a starting point for discussions to determine a figure. A final proportion decrease will be agreed with Natural England. The model as presented above represents the use of the current best available evidence.

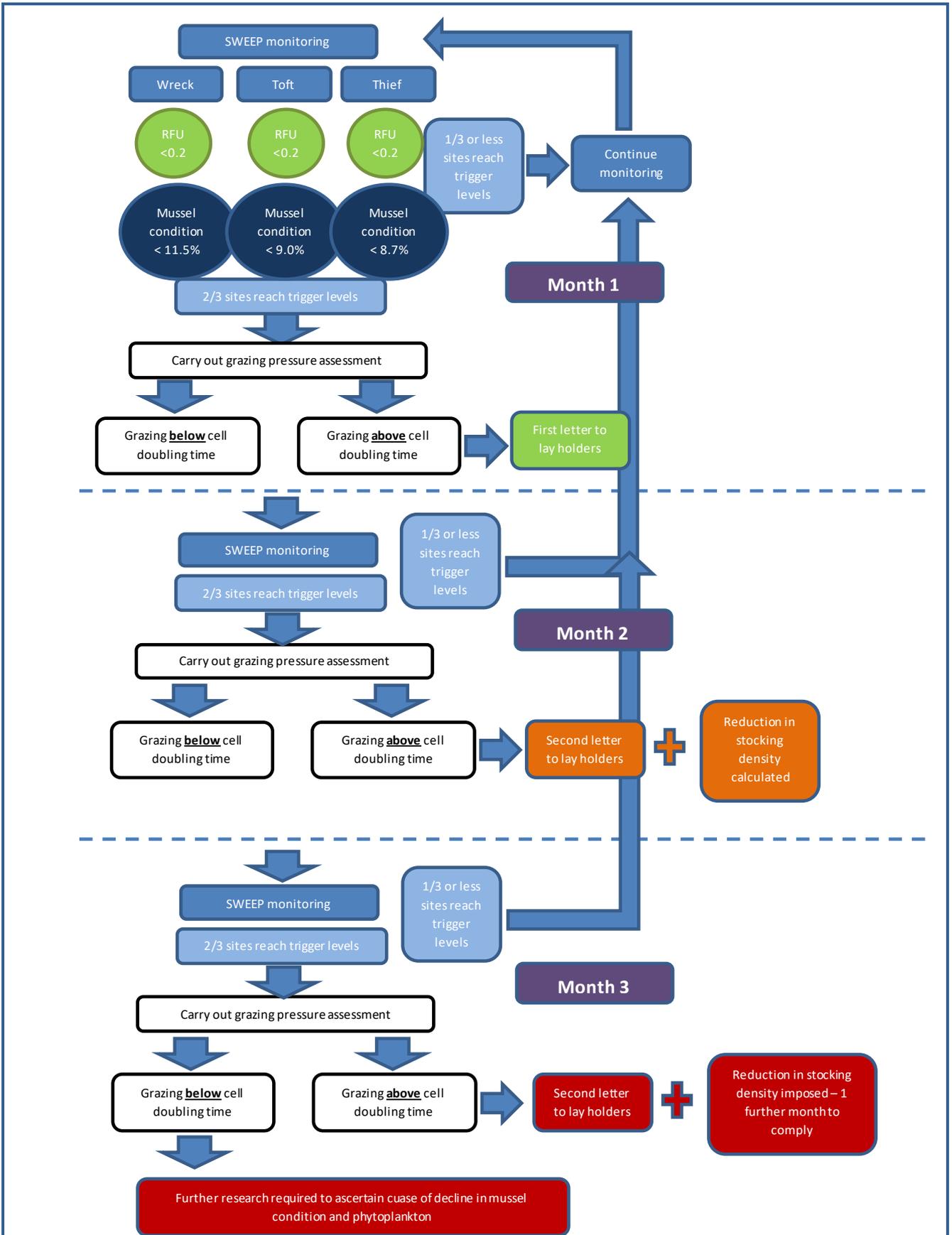
3. Limiting stocking density of lays

Where trigger levels have been met consecutively for three months and grazing pressure calculations have determined a shortfall in primary production against the grazing pressure assessment, stocking density will be reduced in accordance with the shortfall.

The procedure for this is presented in figure 2. The process is explained below.

When trigger levels are met at two or more sites (as detected by monthly SWEEP monitoring), a grazing assessment is carried out. Where there is a shortfall in chlorophyll standing stock relative to grazing pressure a letter is sent to lay holders indicating that trigger levels have been met and stocking densities may need to be limited. Reaching trigger levels for a single month will not result in actual reductions. If the grazing pressure assessment finds that there is not a shortfall in phytoplankton biomass, reductions in stocking densities will not have an effect and will not be suggested.

If trigger levels are reached at two sites for a second month, a further grazing assessment is carried out. Where the grazing assessment finds a shortfall in phytoplankton biomass (regardless of it this was true the previous month) a letter will be sent out to lay holders indicating that a reduction in stocking density will commence in two months' time if trigger levels are met for a third consecutive month. If the grazing assessment finds no shortfall, reducing stocking density will have no effect and no reductions in stocking density will be required. If trigger levels are met for a third month, a grazing pressure assessment will be carried out. Findings will be used to impose a stocking density limit for lay holders who will be given a further month to comply.



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Vision

The Eastern Inshore Fisheries and Conservation Authority will lead, champion and manage a sustainable marine environment and inshore fisheries, by successfully securing the right balance between social, environmental and economic benefits to ensure healthy seas, sustainable fisheries and a viable industry



Action Item 14

45th Eastern Inshore Fisheries and Conservation Authority Meeting

8th September 2021

Report by: J. Gregory, Chief Executive Officer

Review of Annual Priorities and Risk Register

Purpose of report

The purpose of this report is to update members on progress against 2020-21 priorities and to review the Risk Register

Recommendations

Members are recommended to:

- **Note** the content of this report

Background

Eastern Inshore Fisheries and Conservation Authority is mandated to produce an annual plan each year to lay out the expected business outputs for the year ahead.

The Authority has a rolling five-year Business Plan that incorporates annual priorities informed by the annual Strategic Assessment. The plan also includes the high-level objectives agreed with Defra.

The rolling five-year business plan reflects the need to engage in longer term planning in the context of high levels of demand and the requirement to be flexible with priorities to reflect the dynamic nature of inshore fisheries, the marine environment and the policy landscape.

The Risk Register is contained within the Business Plan, and it captures key issues that are judged to pose potential risks to the organisation. The matrix sets out the magnitude of the risk to Eastern IFCA from an organisational viewpoint, incorporating amongst others reputational and financial risks. It also sets out the likelihood of an identified risk occurring.

Report

This update encompasses the period from the last update to the end of June 2021.

The tables at Appendix 1 detail the progress against the key priorities for 2021-22, as set in the Business plan for 2021-26.

The Risk Register is set out at Appendix 2 and the current status of each risk area is shown at Appendix 3.

Appendices

Appendix 1 – Update on priorities set for 2021-22

Appendix 2 – Risk Register

Appendix 3 – Update on Risk Register

Background documents

Eastern Inshore Fisheries and Conservation Authority Business Plan 2021-26.

APPENDIX 1 - Progress against Annual Priorities – April to August 2021

Four key priorities are established for 2021-22.

Financial Year 2021-22		
Priorities 2021-22	Progress	Comment
<p>1. To ensure that the conservation objectives of Marine Protected Areas in the district are furthered by:</p> <p>a) Development of management measures for ‘red-risk’ gear/feature interactions in the Inner Dowsing, Race Bank and North Ridge SCI,</p> <p>b) Assessing the impact of fishing activities on the Cromer Shoal Chalk Beds (MCZ) and delivering management measures (if required).</p> <p>c) Development of priority Monitoring and Control plans as identified by the strategic assessment.</p> <p>d) Completion of amber/green gear/feature interactions. Development of management measures where required.</p>		<p>1.a) Ongoing. <u>Haisborough, Hammond & Winterton</u>: The Marine Protected Areas Byelaw 2019, as agreed by the Authority provides protection of “red risk” features in this site. The management measures for the site have been agreed but the Byelaw is yet to be implemented (pending resolution of artisanal shrimp fishing management within a different MPA that is affected by the same byelaw).</p> <p><u>Inner Dowsing, Race Bank & North Ridge</u>: The Closed Areas Byelaw 2020 agreed by Authority in September 2020 (awaiting implementation) provides protection of most of the “red risk” feature in this site. After additional scrutiny of evidence and survey work, officers are proposing additional measures for Authority agreement in September 2021 to protect the remaining red risk feature areas from potential loss/damage by use of towed demersal fishing gear. It is proposed that the measures will be included in a Closed Areas Byelaw 2021.</p> <p>1.b) Ongoing. Officers are updating an assessment of the impact of non-potting fisheries on Cromer Shoal Chalk Beds MCZ to incorporate new information on netting activity. Management of bottom towed fisheries within MCZ has been agreed in the form of the Marine Protected Areas Byelaw 2019.</p> <p>An Adaptive Risk Management (ARM) approach has been agreed with Natural England to assess and manage the interaction between potting fisheries and the site features. This allows research to be conducted alongside the development of management measures. Management of the project has been reviewed and revised to provide a Project Board to direct and drive the work, Task & Finish Groups to undertake research and management workstreams and a</p>

<p>e) Effort Monitoring within the Wash SAC including implementation of new catch returns system</p>		<p>Stakeholder Group to enable wider engagement. In July and early August 2021 officers undertook initial video surveys using a remotely-operated vehicle (ROV), which has provided information on the location of the sensitive “rugged chalk” feature and the position of fishing pots and ropes. Initial tests of using vehicle trackers aboard boats to help improve our understanding of fishing activities within the site have been successful, and work is ongoing to roll out use of trackers to additional volunteers.</p> <p>A “gentlemen’s” agreement is being developed to structure the identification, removal and disposal of lost potting gear, which is understood to have the greatest potential risk to rugged chalk.</p> <p>1.c) Delayed. This work has not progressed since the last update, because resources have been directed towards priority “red risk” and MCZ work. However, it should be noted that monitoring and control comprise routine work for the Authority and continue despite formal monitoring and control plans not yet being produced.</p> <p>1.d) Delayed / Ongoing. Management agreed for “highest risk” amber/green gear/feature interactions, i.e. towed demersal fishing on subtidal sediment habitats. Amber/green assessments to be completed for more recently designated MPAs and management developed if found to be required. Original suite of amber/green assessments to be finalised (lower risk work that had been put on hold to enable focus on red risk and higher risk ambers).</p> <p>The MMO provided further feedback on the Shrimp Permit Byelaw 2018 (the mechanism to manage the primary ‘amber’ fishery within the District). Minor amendments were required, and work was undertaken to address these and resubmit for consideration by the Minister for consenting the measures.</p>
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		<p>Consideration of responses to the formal consultation on shrimp permit conditions was started in Q1 but resolution of such has not been completed. It is intended that the permit conditions are finalised to be issued at the time the Shrimp Permit Byelaw 2018 is approved so that they can come into effect at that time.</p> <p>1.e) Delayed / Ongoing. Shrimp return forms were revised with the intention to enhance their completion by shrimp fishermen. Implementation of the 'new' forms is intended for during Q2. It was intended that a new shrimp returns database would be developed during Q1 however, this has been delayed as a result of other priority workstreams. It is anticipated that fishing effort can be monitored during the development of the database once the forms are implemented.</p>
<p>2. To develop management of the fisheries regulated under the WFO (regulated and several fishery)</p> <p>a) Replacement of Several Order.</p> <p>b) Social/Economic study of Wash Cackle Fishery viability.</p> <p>c) Continued development of WFO policies.</p> <p>d) Replacement of WFO 1992 with permit byelaw</p> <p>e) Continuation of review in relation to access to the fisheries</p>		<p>2.a) Delayed / Ongoing. Defra have been notified of the intention to apply for a Several Order to manage aquaculture in The Wash however, development of the associated Fisheries Management plan was delayed due to other priority workstreams. Application for an Order is planned for Q2 including consideration by the Authority of a draft Fisheries Management Plan at the September Authority meeting.</p> <p>2.b) Ongoing. The economic assessment started in Q1 and is anticipated to provide initial results in Q2 and a final report in Q3.</p>

2.c/e. **Ongoing.** Development of policies to manage access to the Wash cockle and mussel fisheries was the primary focus of the project team during Q1. Dialogue with Wash fishermen continued during Q1 and into Q2 and the Aim and Objectives were agreed by the Authority at the 44th Eastern IFCA meeting. Further dialogue and development will continue as a priority workstream.

2.d. **Ongoing.** It was originally anticipated that the Wash Cockle and Mussel Byelaw 2021 would be submitted for formal QA by the MMO (as per the byelaw making process) during Q1, however, due to objections raised by stakeholders in relation to concerns about development of policies for access to the fisheries, the Authority agreed (at the 44th Eastern IFCA meeting) to defer the submission until further progress on the policies had been made. The byelaw has been informally submitted to the MMO so as to start to identify and address issues that may arise, particularly in relation to the wording of the byelaw, and officers are anticipating feedback from the MMO during Q2. It is intended that this will reduce the time required to have the byelaw consented given the hard deadline of 3 January 2023 (expiry of the WFO).

<p>3. Industry Viability</p> <p>a) Investigation into mussel die off</p>		<p>3.a) Ongoing. In February 2020 officers began collaborating with scientists from Cefas to study what might be the cause of the high mussel mortalities seen in The Wash since 2010. After an initial delay due to Covid-19 restrictions, officers have been collecting quarterly samples of mussels for Cefas to analyse. This spring, cockle samples were also collected for this project to study what might be the cause of the high “atypical” mortalities that have occurred each summer since 2008. The project will continue throughout 2021 in order to identify seasonal changes in the affected shellfish.</p>
<p>4. Obtaining better fisheries data</p> <p>a) Implementation of I-VMS for all fisheries specifically the Wash Shrimp fishery (dependent on partnership working with MMO led project).</p>		<p>4.a) Ongoing. Participation in the national project to deliver I_VMS is ongoing. Recent engagement has been to establish a reporting rate of sufficient frequency to meet IFCA requirements.</p>

Key:

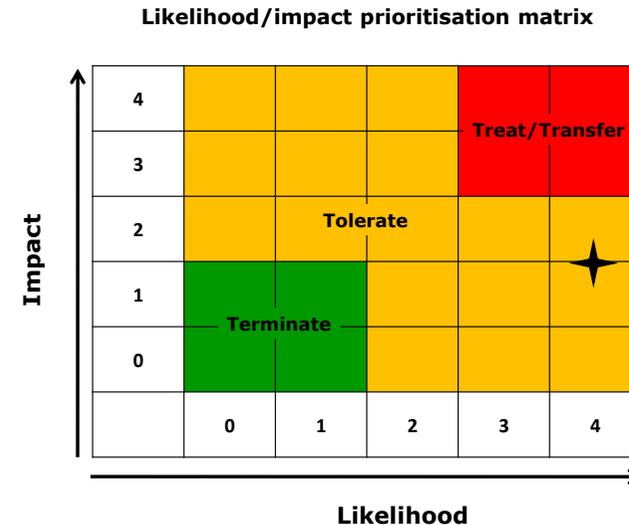
	Complete
	In progress
	Progress stalled

APPENDIX 2 - Risk Register

The risk matrix sets out the magnitude of the risk to Eastern IFCA from an organisational viewpoint incorporating amongst others reputational and financial risks. The matrix also sets out the likelihood of an identified risk occurring. Mitigation which is in place or to be introduced is identified. Risk is ranked on an arbitrary scale from 0 (low risk - coloured green) to 4 (high risk - coloured red). The average of the combined financial and reputational risk is taken and plotted on to the matrix below, the likelihood of that risk occurring is also plotted. Mitigation action is noted. It should be noted that in most cases there are already many actions being undertaken as part of routine working practices to reduce the risks to the Eastern IFCA.

The four actions that can be applied are:

Treat	Take positive action to mitigate risk
Tolerate	Acknowledge and actively monitor risk
Terminate	Risk no longer considered to be material to Eastern IFCA business
Transfer	Risk is out with Eastern IFCA's ability to treat and is transferred to higher level.



Risk matrix with worked example

Risk A poses a financial threat (2) to the organisation and a reputation threat (1) generating a combined impact level of 1.5. The likelihood of the threat occurring is determined as 4. The resultant risk to Eastern IFCA is therefore plotted using the matrix and is identified as a risk that should be tolerated.

Description	Owner	Implications	Organisational impact (Reputation + Financial/2)		Likelihood	Risk	Mitigation	Action
Eastern IFCA fails to secure funding to replace assets	CEO	Substantial reduction in Eastern IFCA mobility particularly seaborne activities with consequential inability to fulfil full range of duties	4		2 Finance Directors agreed to annual capital contributions from 2019-20 onwards to cater for the cost of asset replacement as an alternative to requests for a lump sum amounts as assets are replaced. No guarantees were given or implied. Eastern IFCA will explore all avenues for funding.		<ul style="list-style-type: none"> • Current level of reserves provides sufficient funding to cover replacement of <i>RV Three Counties</i> • The open RHIB, FPV Seaspray, was procured using EMFF funding • Seek efficiencies and promote cost effectiveness. • Demonstrate value for money. • Advertise/promote Eastern IFCA output and effectiveness to funding authorities through regular engagement with Council leaders and Financial Directors. • Engage with partner agencies to identify alternative funding sources • Explore asset sharing initiatives • Agreement in place with funding authorities for capital funding contributions each year. Confirmed at the annual meeting with representatives of the Finance Directors. 	Tolerate
			Reputation	Financial				
			4	4				
			Drive for savings may impact County Councils' decisions regarding Eastern IFCA funding. Visible presence reduced, enforcement and survey activities compromised.	Inability to generate sufficient reserves to meet asset replacement schedule would threaten Eastern IFCA's ability to function. Closure costs could result.				

Description	Owner	Implications	Organisational impact (Reputation + Financial/2)		Likelihood	Risk	Mitigation	Action
Impact of EU exit on Eastern IFCA duties and the wider economic environment	CEO	Potential changes in several areas, including: - regulatory framework - fisheries management methodology - regulations (enforcement) - environment conservation	3		3 EU exit will have an inevitable but currently unpredictable impact. Eastern IFCA responsibilities unchanged in the short term to medium term		<ul style="list-style-type: none"> Monitor developments in the post-EU exit landscape, particularly fish and shellfish exports Engage in national fora to help inform and influence developments (e.g. IFCA Chief Officers Group, Association of IFCAs) Continue "business as usual" Maintain communication with partners Eastern IFCA is fully engaged with the MMO in terms of operational readiness, with a MoU in place for the provision of vessels and joint patrols. Officers engaged in future of inshore fisheries management work with Defra and other stakeholders. The Authority is supportive the REAF initiative. 	Tolerate
			Reputation	Financial				
			3	3				
			Eastern IFCA may be affected by developments beyond their control (fisher's expectations were high and were not fully met). Blame for change and or lack of change.	Grant funding from EU not replaced. Market for fishers catch affected. Fee/licence income reduced. Operating costs increased.				

Description	Owner	Implications	Organisational impact (Reputation + Financial/2)		Likelihood	Risk	Mitigation	Action
Eastern IFCA fails to maintain relevance amongst partners	CEO	If Eastern IFCA fails to maintain relevance amongst partners Eastern IFCA's utility will come under scrutiny potentially resulting in re-allocation of duties	4 Reputation 4	Financial 4	2 Possible – Whilst positive relationships have been established the existence of disparate partner aspirations introduces complexities which may drive perceptions of bias or inefficiency.		<ul style="list-style-type: none"> Provide a leadership function. Be proactive and identify issues early. Engage with all partners routinely. Use Business Plan to prioritise and communicate outputs, Measure progress/deliver outputs Represent community issues to higher authorities Effective business planning process in pace. Leading role where appropriate e.g. Op Blake. Proactive approach to raising issues with Defra (e.g. Bass management, proposals for effort management trial). Participation in Parliamentary Review 2019. 	Tolerate
Negative media comment	CEO	Negative perceptions of Eastern IFCA utility and effectiveness created at MMO/Defra Loss of Partner confidence Media scrutiny of individual Authority members	3 Reputation 4	Financial 2	2 Possible – disenfranchised partners seek to introduce doubt as to Eastern IFCA professionalism, utility and effectiveness		<ul style="list-style-type: none"> Actively and regularly engage with all partners including media outlets. Utilise full potential of social media and web-based information. Embed professional standards and practices. Deliver change efficiently and effectively. Promote activity Assure recognition and understanding through community events Routine updating of news items on website. Active on social media with demonstrable improvements in 'reach'. Parliamentary Review (above). 	Tolerate

Description	Owner	Implications	Organisational impact (Reputation + Financial/2)		Likelihood	Risk	Mitigation	Action
Degradation of MPAs due to fishing activity	CEO	Loss or damage of important habitats and species within environmentally designated areas Potential for European infraction nationally resulting in significant financial penalties at the local level.	3.5		2	Possible - Eastern IFCA's approach to managing sea fisheries resources considers environmental obligations	<ul style="list-style-type: none"> Proposed fishing activities authorised by Eastern IFCA are assessed per Habitats Regulations Eastern IFCA is fully engaged in national fisheries/MPA project, prioritising management of highest risk fisheries in MPAs and implementing new management measures Effective monitoring of fishing activity and enforcement of measures Adaptive co-management approach to fisheries management – i.e. engagement with fishing and conservation interests in the development of management measures, and appropriate review of measures to respond to changing environmental and socio-economic factors Ongoing, close liaison with Natural England regarding all conservation matters Review agreed Wash Cockle & Mussel Policies Develop the use of iVMS as a management tool by the Authority Continue to progress research into the impact of fishing activities on MPA features to ensure the Authority has an up-to-date evidence base to inform its management decisions. MPA management has been a high priority since 2012 with substantial progress made. Current workstreams (e.g. Cromer Shoal MCZ, remaining 'red risk' sites) are a high priority and are being progressed. 	Tolerate
			Reputation	Financial				
			4	3	Eastern IFCA is not meeting statutory duties under EU & UK conservation legislation Eastern IFCA not achieving vision as champion of sustainable marine environment			

Description	Owner	Implications	Organisational impact (Reputation + Financial/2)		Likelihood	Risk	Mitigation	Action
Shellfish and fish stocks collapse	CEO	Risk of significant negative impact upon industry viability with associated social and economic problems	3		3	High	<ul style="list-style-type: none"> Annual stock assessments of bivalve stocks in Wash Annual review of the level of threat via the Strategic Assessment Ability to allocate sufficient resources to monitoring of landings and effective enforcement Consultation with industry on possible management measures Use Project Inshore Phase 4 output to inform MSC pre-assessment review of fisheries and validate management measures Develop stock conservation measures for crab and lobster fisheries through engagement with Cefas and fishing industry. Continue support for industry led Fisheries Improvement Plan SWEEP research into primary productivity levels within the Wash Regular engagement with the industry to discuss specific matters Continued research into the cockle mortality events Maintain whelk management measures Introduce shrimp management measures Consider bass management measures if necessary, in light of EU/UK measures Annual surveys of Wash cockle and mussel stocks alongside innovative approach to management of the cockle fishery. Ongoing workstream to identify cause of mussel mortality. Closure of cockle fishery in Nov 2019 due to emerging findings of mussel surveys in order to mitigate impact on 2020 cockle fishery. 	Treat
			Reputation	Financial	Possible - Bivalve stocks have high natural variation; "atypical mortality" affecting stocks despite application of stringent fishery control measures			
			3	3	Crustacean stocks not currently subject to effort control			
			Loss in confidence of the Eastern IFCA ability to manage the sea fisheries resources within its district	Resources directed at protecting alternative stocks from displaced effort Additional resources applied to research into the cause of collapsed stocks and increased engagement and discussion with partners	Bass stocks nationally and internationally under severe pressure Regional whelk and shrimp fisheries effort becoming unsustainable. Regional crab and lobster stocks being exploited beyond maximum sustainable yield			

Description	Owner	Implications	Organisational impact (Reputation + Financial/2)		Likelihood	Risk	Mitigation	Action
Failure to secure data	CEO	Non-compliance with General Data Protection Regulations (GDPR) Prosecution casefiles compromised Loss of data in the event of fire or theft Breakdown in dissemination of sensitive information between key delivery partners	4		2	High	<ul style="list-style-type: none"> All computers are password protected. Individuals only have access to the server through their own computer. Secure wireless internet Remote back up of electronic files Access to electronic files is restricted Up to date virus software installed on all computers Important documents secured in safes ICT equipment and policies provided by public sector provider – including encrypted laptops/secure governmental email system All Eastern IFCA personnel undergo DPA training Electronic backup of all Eastern IFCA documents held by ICT provider offsite Policies and processes developed to ensure compliance with GDPR. 	Tolerate
			Reputation	Financial	Possible - Limited staff access to both electronic and paper files Office secure with CCTV, keypad entry system and alarm			
			4	4	Partners no longer believe that confidential information they have supplied is secure Personnel issues arise over inability to secure information			
New Burdens Funding discontinued	CEO	Substantial reduction in Eastern IFCA capability with consequential inability to fulfil full range of duties or additional burden on funding authorities.	4		2	High	<ul style="list-style-type: none"> Association of IFCAs has consistently lobbied for the continuation of funding Association of IFCAs have engaged with Defra review of New Burdens funding during 2018-19 and submitted a paper in support of an increase nationally from £3m to £6m as part of the planned SR2019 and SR2020 (both on hold due to the Covid-19 pandemic) Finance Directors representatives briefed and understand that in the event that the funding is discontinued there may be a desire to increase levies Financial plan in place to cope with loss of New Burdens 	Treat
			Reputation	Financial	Defra have continued to roll over new Burdens funding in recognition of the value that IFCAs provide in meeting national policy objectives.			
			4	4	Inability to meet all obligations would have a significant impact upon reputation.			

Description	Owner	Implications	Organisational impact (Reputation + Financial/2)		Likelihood	Risk	Mitigation	Action
The Wash Fishery Order 1992 is not replaced in time when it expires in January 2023	CEO	Inability to manage the fishery with consequential impact upon industry viability and associated social and economic issues	4		3 The Authority agreed to replace the WFO 1992 with a byelaw in March 2020 and work is underway to introduce such a byelaw. There is judged to be sufficient time to get a byelaw approved but industry opposition may adversely affect this. If a replacement Regulating Order were applied for then the likelihood rating would increase to 4 and it is thought that it would be very unlikely that a new Order would be in place in time		<ul style="list-style-type: none"> • Early decision taken to replace the WFO 1992 with a byelaw • Byelaw making process commenced • Work underway to develop polices that will sit under the Byelaw • Engagement with industry to address misgivings about the use of a Byelaw • Engagement with industry to develop policies that will sit under the Byelaw 	Treat
			Reputation	Financial				
			4	4				
			The effective management of all fisheries within the Wash is important in terms of industry viability, sustainability of stocks and managing the impact of fishing activity in a heavily designated MPA. Loss of confidence in Eastern IFCA's ability to manage the cockle and mussel fisheries is likely to be significant if the WFO 1992 is not replaced in a timely way	Potential for legal challenge against Eastern IFCA				

Appendix 3 – Risk Register Update April to June 2021

Risk Description	Update
Eastern IFCA fails to secure funding to replace assets	Agreement in place with funding authorities for capital funding contributions each year. Confirmed that this will continue at the annual meeting with representatives of the Finance Directors on Tuesday 10 th November 2020.
Impact of EU exit on Eastern IFCA duties and the wider economic environment	Whilst Eastern IFCA supported the MMO in terms of operational readiness for a 'no deal' scenario and in particular was prepared to provide sea patrols under a Memorandum of Understanding, planned patrols did not take place as a consequence of weather and a deal with the EU meaning that there was not a strong requirement for them. Officers continued to support Cefas (and the Fish Health Inspectorate) in engaging industry regarding export and import of shellfish and worked with North Norfolk District Council to facilitate registration of food 'premises' as a result of EU exit related changes to the requirements. Officers engaged in future of inshore fisheries management work with Defra and other stakeholders.
Eastern IFCA fails to maintain relevance amongst partners	Effective business planning process in pace. Leading role taken where appropriate e.g. CEO is one of two IFCA representatives on the IFCA/MMO Strategic Operations Group. Recent revisions to the Adaptive Risk Management project for Cromer Shoal MCZ to address wider stakeholder concerns about engagement with the project.
Negative media comment	Routine updating of news items on website. Active on social media with demonstrable improvements in 'reach'. The replacement of the WFO 1992 with a Byelaw has not been well received by industry and various means of expressing dissatisfaction are being employed, including the use of media. This is being monitored and explanatory information provided where possible and appropriate.
Degradation of MPAs due to fishing activity	MPA management has been a high priority since 2012 with substantial progress made. Current workstreams (e.g. Cromer Shoal MCZ, remaining 'red risk' sites) are established priorities in the Business Plan and are being progressed.
Shellfish and fish stocks collapse	Annual surveys of Wash cockle and mussel stocks alongside innovative approach to management of the cockle fishery. Ongoing workstream to identify causes of mussel and cockle mortality. Closure of cockle fishery in Nov 2019 due to emerging findings of mussel surveys in order to mitigate impact on 2020 cockle fishery. Innovative approach to surveys enabled the 2020 Wash cockle fishery. Active monitoring of the 2021 cockle fishery has identified that very small cockles are being landed, which is a threat to sustainability. Active consideration being given to the introduction of a minimum landing size.

	Work to support industry in establishing a Fisheries Improvement Plan for crab and lobster ongoing.
Failure to secure data	Policies and processes developed to ensure compliance with GDPR.
New Burdens funding discontinued	<p>Defra previously advised that 2020-21 would be the last year that New Burdens funding would be paid in its current form. Defra and the IFCAs worked on the 'co-design' of a replacement for New Burdens, which concluded that any funding would remain static at current levels, with the allocation to each IFCA unchanged. It was due to form part of SR 2020 but as a consequence of the Covid-19 pandemic there was a single year funding settlement for 2021-22, which did include funding for IFCAs. Budget planning had accounted for the possibility that central funding may not be forthcoming or may be reduced and the three Finance Directors representatives were fully briefed at the meeting of the 10th November 2020.</p> <p>Looking forward Defra have stated that they intend to continue to provide some funding and had included it in the spending plans, but it may be associated with the development of new metrics to demonstrate that the funding achieves value. More recently Defra have asked IFCAs to submit funding proposal linked to specific areas of work in anticipation of a government wide comprehensive spending review that will be conducted in Autumn. As a consequence, the Association of IFCAs has on behalf of all IFCAs, submitted their anticipated spending requirements for the next three years to Defra</p>
The Wash Fishery Order 1992 is not replaced in time when it expires in January 2023	The byelaw to replace the regulating order has been 'made' by the Authority and work to progress the associated policies for access to the fishery is being progressed as a high priority. The byelaw has not been formally submitted to the MMO and Defra for approval as a consequence of various objections but to mitigate the risks posed by delay it has been submitted informally to the MMO enable quality assurance work to progress. It is anticipated that policies on access to the fishery will go some way to addressing objections and it is intended to have this work complete in time for the Authority to consider formal submission of the byelaw for approval at its December 2021 meeting.

Vision

The Eastern Inshore Fisheries and Conservation Authority will lead, champion and manage a sustainable marine environment and inshore fisheries, by successfully securing the right balance between social, environmental and economic benefits to ensure healthy seas, sustainable fisheries and a viable industry



Information Item 16a

Eastern Inshore Fisheries and Conservation Authority Meeting

08 September 2021

Marine Protection Quarterly Report

Report by: Jon Butler Head of Operations

Purpose of Report

To provide members with an overview of the work carried out by the Marine Protection team during the period of April, May, June and July 2021

Recommendations

It is recommended that members:

- **Note** the content of the report

Enforcement and engagement priorities throughout district April:

Area 1- West-North (Hail Sand Fort to Gibraltar Point) Port visits and coastal patrols, conducting whelk gear inspections at sea.

Area 2- West-South (The Wash and North Norfolk Coast to Brancaster) Cockle Surveys (at sea or shore based). Shrimp gear compliance checks and education, re completion of Returns form. Whelk catch inspections and whelk gear inspections at sea. Wash Fishery Order replacement consultation.

Area 3- East-North (Brancaster to Great Yarmouth) Commercial landing inspections of crab/lobster catch and of vessels to ensure compliance throughout area. High visibility vessel patrol assessing fishing effort location and whelk gear inspection where possible. Monitor activity re possible Bass infringements. MCZ engagement along the coast.

Area 4- East-South (Great Yarmouth to Harwich). Commercial landing inspections. Monitor and detect Bass and Spurdog infringements. Whelk landing inspections and monitoring general activity levels.

Enforcement Outcomes:

Enforcement action included Words of Advice to both Commercial and Recreational fishermen regarding retention of below MCRS catch, Verbal Warning regarding landing berried lobster and further gathering of evidence for an ongoing investigation into whelk Permit infringements.



Enforcement metric	Number completed			
	Area 1	Area 2	Area 3	Area 4
Shore Patrols	1	9	15	10
Port visits	1	13	52	30
Catch inspections (landings observed)	0	0	36	17
Catch Inspections (landing not observed)	0	1	7	17
Vehicle Inspections	0	0	0	0
Premise inspections	0	3	1	7
Enforcement actions/Offences	1	1	1	0
Intelligence reports submitted	4	14	15	23
Fishers engaged	0	16	72	75
Vessel Patrols	2	19	3	0
Boardings	0	0	0	0
Gear Inspections	1	1	0	0

EMS monitoring:

Monitoring of 'restricted areas' under the Marine Protected Areas Byelaw 2018 was carried out throughout the reporting period. The following monitoring occurred:

Protected Feature	<i>Intertidal biogenic reef</i>	<i>Subtidal biogenic reef: Sabellaria spp. (Ross worm), subtidal stony reef, subtidal mixed sediments, subtidal mud.</i>	<i>Intertidal seagrass beds, subtidal mixed sediments, subtidal mud.</i>	<i>Eelgrass beds (Humber)</i>
Protected Areas	1-13	14-29	30-35	36
April 2021	5	4	1	0

Engagement messages received Continued high-profile discontent about the Wash Fishery Order Replacement in The Wash. Fishers keen for results of this year's Cockle Assessment.

MCZ- Fishers still feel that Authority is hitting Industry with one thing after another. Reluctant acceptance of some measures being necessary to actually protect Industry. Wind farm surveys near Weybourne including legal action causing some bad feeling.

General frustration around coast at inability to diversify. Bass hard to catch without spurdog which is being caught in large numbers. No sole yet. Only Thornback Ray worth targeting for prolonged period.

Fishing trends

Area 1: West-North (Hail Sand Fort to Gibraltar Point). No trends reported. Very little activity apparent.

Area 2: West-South (The Wash and North Norfolk Coast to Brancaster). Whelk fishery continues, some reports of shrimp dropping off and price increase to £5/kg due to reduced numbers. Many boats now geared up for potting.

Area 3: East-North (Brancaster to Great Yarmouth). Crab fishery would be in full swing apart from continued spells of poor weather. Cromer fishery busier than Sea Palling area. Water temperature increasing slowly but several weeks later than normal. Lobster catches generally poor due to volume of crab on the ground. Whelk effort still maintained with catches good enough to delay switching to crab. Herring catches are still productive overall, but becoming a bit hit and miss. Initially only small whiting and flatfish caught recreationally on beaches, but increased reports of landings of Bass, spurdog and smoothhound on the beaches as the month progressed.

Area 4: East-South (Great Yarmouth to Harwich). Crab fishery improving steadily throughout month. Lobsters thin on ground. Bass catches reported in increasing numbers moving north from Clacton, although price dropped to £5/kg. Longliners struggling to target Bass as huge numbers of Spurdog being caught. Some reduction in whelk effort as some fishers in area believed to have targeted Bass further south off Essex. Herring fishery finished.

Thornback Ray in good numbers throughout area.
RSA catching dogfish, whiting, rays, smoothhound and Bass on beaches.

Enforcement and engagement priorities throughout district: May

Area 1- West-North (Hail Sand Fort to Gibraltar Point). Port visits and coastal patrols, conducting whelk gear inspections at sea.

Area 2- West-South (The Wash and North Norfolk Coast to Brancaster). Shrimp management measures (Gear compliance checks and education, re completion of Returns form). Whelk catch inspections and whelk gear inspections at sea. Wash Fishery Order replacement consultation and engagement. Bass compliance inspections. Joint patrols with MMO.

Area 3- East-North (Brancaster to Great Yarmouth). Commercial landing inspections of crab/lobster catch and of vessels to ensure compliance throughout area. Bass compliance inspections. MCZ engagement along the coast. (promoting voluntary use of trackers on boats).

Area 4- East-South (Great Yarmouth to Harwich) Commercial landing inspections in general. Bass compliance inspections of all fishers. Joint patrols with MMO.

(West Runton beach showing exposed chalk- Spring LW)



Enforcement Outcomes:

Enforcement action included Words of Advice to Commercial fishermen regarding retention of below MCRS catch and a Verbal Warning regarding landing berried lobster.

Enforcement metric	Number completed			
	Area 1	Area 2	Area 3	Area 4
Shore Patrols	1	8	10	10
Port visits	7	11	26	24
Catch inspections (landings observed)	0	1	25	0
Catch Inspections (landing not observed)	0	1	0	5
Vehicle Inspections	0	0	0	0
Premise inspections	0	0	0	7
Enforcement actions/Offences	0	0	1	0
Intelligence reports submitted	0	1	1	10
Fishers engaged	2	10	63	37
Vessel Patrols	6	10	0	3
Boardings	0	0	0	0
Gear Inspections	0	3	0	0

EMS monitoring:

Monitoring of 'restricted areas' under the Marine Protected Areas Byelaw 2018 was carried out throughout the reporting period. The following monitoring occurred:

Protected Feature	<i>Intertidal biogenic reef</i>	<i>Subtidal biogenic reef: Sabellaria spp. (Ross worm), subtidal stony reef, subtidal mixed sediments, subtidal mud.</i>	<i>Intertidal seagrass beds, subtidal mixed sediments, subtidal mud.</i>	<i>Eelgrass beds (Humber)</i>
Protected Areas	1-13	14-29	30-35	36
May 2021	3	4	0	0

Engagement messages received

Continued high-profile discontent about the Wash Fishery Order Replacement in The Wash. Fishers keen for results of this year's Cockle Assessment.

General frustration around District as it feels like Industry is being squeezed by one thing after another, whether it be IFCA, MMO, MCA, Natural England or Defra.

Cromer and MCZ- cooperation levels vary by the week. Some fishers willing to accept trackers on boats, but many believe data will be used against them. Most fishers unimpressed by introduction of SF1 form.

General disappointment at lack of post Brexit change indicators.

Fishing trends

Area 1: West-North (Hail Sand Fort to Gibraltar Point). No trends reported. Very little activity apparent.

Area 2: West-South (The Wash and North Norfolk Coast to Brancaster). Whelk fishery continues, but reported as poor. Many boats now geared up for potting. Bait being described as expensive, commercially. Smoothhound being caught on beaches with Dab, Whiting and Bass.

Area 3: East-North (Brancaster to Great Yarmouth). Crab fishery in full swing. Initially Lobster catches poor due to quantity of Crab on ground but improved steadily throughout month at Cromer. Water temperature increasing slowly but several weeks later than normal.

Whelk effort reduced with some fishers struggling to find time to retrieve pots.

Some Mackerel catches at Caister

Regular reports of large Smoothhound, Bass (often small) and Thornback Rays being caught around entire area. Dogfish and Dab frequently caught.

Market Prices per kg- Cod £4.50, Skate £1 - £2, Whelk £1.20, Sole £4.50, Bass £10-£15, Lobster £16, Crab £1.40

Area 4: East-South (Great Yarmouth to Harwich).

Effort still limited for crab and lobster.

Bass catches reported in large numbers. Longliners struggling to target Bass as large numbers of Spurdog being caught.

Fishers still waiting for Sole to start being caught.

Some reduction in whelk effort as some fishers in area believed to have targeted Bass further south off Essex.

Thornback Ray in good numbers throughout area.

RSA catching dogfish, whiting, rays, Smoothhound and Bass on beaches.

Enforcement and engagement priorities throughout district: June

Area 1- West-North (Hail Sand Fort to Gibraltar Point). Port visits and coastal patrols. Joint work with MMO. Closed area byelaw (impact discussions)

Area 2- West-South (The Wash and North Norfolk Coast to Brancaster). Cockle landing inspections and closed area monitoring. Shrimp management measures and inspections. Whelk landings and gear inspections. Joint patrols with MMO. Wash Fishery Order replacement engagement. Netting consultation.

Area 3- East-North (Brancaster to Great Yarmouth). Landing inspections (crab/lobster). RSA vessel landings re Bass compliance. Evening/weekend patrols. MCZ Chalk bed engagement (gear innovation). Netting consultation.

Area 4- East-South (Great Yarmouth to Harwich). General landing inspections. Joint working with MMO. Attention to hand-gathering issues.

Enforcement Outcomes:

Enforcement action included Written warnings to Commercial fishermen regarding landing cockles above daily quota and Verbal Warnings regarding recreational fishers retaining undersize fish

Enforcement metric	Number completed			
	Area 1	Area 2	Area 3	Area 4
Shore Patrols	1	15	18	9
Port visits	1	15	65	23
Catch inspections (landings observed)	0	111	32	6
Catch Inspections (landing not observed)	0	28	6	6
Vehicle Inspections	0	0	0	0
Premise inspections	0	1	1	5
Enforcement actions/Offences	0	2	1	2
Intelligence reports submitted	1	3	4	6
Fishers engaged		121	147	84
Vessel Patrols	6	14	1	5
Boardings	0	0	0	0
Gear Inspections	0	2	0	0

EMS monitoring:

Monitoring of 'restricted areas' under the Marine Protected Areas Byelaw 2018 was carried out throughout the reporting period. The following monitoring occurred:

Protected Feature	<i>Intertidal biogenic reef</i>	<i>Subtidal biogenic reef: Sabellaria spp. (Ross worm), subtidal stony reef, subtidal mixed sediments, subtidal mud.</i>	<i>Intertidal seagrass beds, subtidal mixed sediments, subtidal mud.</i>	<i>Eelgrass beds (Humber)</i>
Protected Areas	1-13	14-29	30-35	36
June 2021	6	7	0	1

Engagement messages received

Continued discontent about the Wash Fishery Order Replacement in The Wash although some now less vocal. Cockle fishery opened on 21st June as agreed. Some complaints that it was too late. Poor initial meat yield reported.

Netting consultation not received well as perceived as preparatory to more restrictions. General frustration around District as it feels like Industry is being squeezed by one thing after another, whether it be IFCA, MMO, MCA, Natural England or Defra.

Cromer and MCZ- cooperation levels vary by the week. Some fishers willing to accept trackers on boats, but many believe data will be used against them. Most fishers unimpressed by introduction of SF1 form. Two negative impact media circulations have provoked local fishermen.

Widely held view that IFCA should publicise negative effect of Seals on fish conservation.

Fishing trends

Area 1: West-North (Hail Sand Fort to Gibraltar Point). No trends reported. Very little activity apparent.

Area 2: West-South (The Wash and North Norfolk Coast to Brancaster). Cockle fishery opens with high effort but poor quality landings. Potting bait being described as expensive, commercially. Smoothhound being caught on beaches with Dab, Whiting and Bass. Mackerel not running yet.

Area 3: East-North (Brancaster to Great Yarmouth). Crab fishery in full swing. Lobster still hiding after moult. Expected improvement at end of month although poor weather has disrupted fishing.

Bass being targeted commercially instead of crab and lobster by some fishers as abundant and profitable.

Some Mackerel catches at Caister. Mackerel not reported at shingle beaches yet. Regular reports of large Smoothhound, Bass (often small) and Thornback Rays being caught around entire area. Dogfish and Dab also caught.

Market Prices per kg- Cod £4.50, Skate £1 - £2, Whelk £1.20, Sole £4.50, Bass £7-£17, Lobster £16, Crab £1.40

Area 4: East-South (Great Yarmouth to Harwich).

Bass catches reported in large numbers. Lots of juvenile Bass in rivers.

Sole landings increased but many fishers stating that the numbers don't justify effort and concentrating on Crab/lobster or Bass.

Some reduction in whelk effort as some fishers in area believed to have targeted Bass further south off Essex.

Thornback Ray in good numbers throughout area.

RSA catching dogfish, whiting, rays, Smoothhound and Bass on beaches.

Enforcement and engagement priorities throughout district: July

Area 1- West-North (Hail Sand Fort to Gibraltar Point) Gathering intel through high visibility port visits and coastal patrols. Joint work with MMO. Continue with Cockle and Mussel Byelaw dialogue.

Area 2- East-North (Brancaster to Great Yarmouth). Cockle landing inspections and closed area monitoring. Shrimp management measures and returns compliance. Cockle and Mussel Byelaw engagement. Recreational and commercial boardings.

Area 3- East-North (Brancaster to Great Yarmouth). Landing inspections (crab/lobster). RSA vessel landings re Bass compliance. Evening/weekend patrols on beaches. Hotel/restaurant inspections. Ongoing MCZ engagement re ARM and lost gear practices.

Area 4- East-South (Great Yarmouth to Harwich). Shrimp compliance check as practicable. RSA Bass inspections. Attention to hand-gathering issues in river Stour.

Enforcement Outcomes:

Enforcement action included 1x Written Warning to Commercial fisherman regarding landing lobster below MCRS; 2x Written Warning to Recreational fisher retaining U/S bass; 3x Verbal Warnings regarding recreational fishers retaining undersize fish and multiple instances of informal advice in particular regarding undersize mackerel.

Enforcement metric	Number completed			
	Area 1	Area 2	Area 3	Area 4
Shore Patrols	0	18	20	9
Port visits	0	18	66	21
Catch inspections (landings observed)	0	202	24	3
Catch Inspections (landing not observed)	0	69	5	8
Vehicle Inspections	0	0	0	0
Premise inspections	0	0	3	6
Enforcement actions/Offences	0	0	6	0
Intelligence reports submitted	0	11	10	6
Fishers engaged	0	145	184	60
Vessel Patrols	1	8	3	3
Boardings	0	2	0	0
Gear Inspections	0	0	0	0

EMS monitoring:

Monitoring of 'restricted areas' under the Marine Protected Areas Byelaw 2018 was carried out throughout the reporting period. The following monitoring occurred:

Protected Feature	<i>Intertidal biogenic reef</i>	<i>Subtidal biogenic reef: Sabellaria spp. (Ross worm), subtidal stony reef, subtidal mixed sediments, subtidal mud.</i>	<i>Intertidal seagrass beds, subtidal mixed sediments, subtidal mud.</i>	<i>Eelgrass beds (Humber)</i>
Protected Areas	1-13	14-29	30-35	36
July 2021	7	4	0	0

Engagement messages received

Many complaints from Wash fishermen that they are only catching small cockles and want other areas opened. Criticism of EIFCA for allowing this.

Cromer MCZ- 8 boats have now volunteered to carry vessel trackers.

Lowestoft fishermen struggle to sell boats and new fishermen can't use Lowestoft, as Port Authority put new owners on new higher tariff, which is prohibitive. Widely believed that intention is to exclude fishing boats from Hamilton Dock.

Many fishermen only survive on East coast due to survey compensation.

Continued reports that foreign fishermen take huge quantities of undersize fish from Norfolk beaches.

Fishing trends

Area 1: West-North (Hail Sand Fort to Gibraltar Point). No trends reported. Very little activity apparent.

Area 2: West-South (The Wash and North Norfolk Coast to Brancaster). Whelk effort low.(£1/kg). High effort on cockles but quality of landings often poor and reportedly small.(£0.58- £0.86). Shrimp effort not started yet. Lobster landings increasing, crab decreased. Large numbers of mackerel and bass at start of month.

Area 3: East-North (Brancaster to Great Yarmouth). Bass effort high (£10-£15/kg). Lobster catches (£16) increased throughout month. Crab landings (£1.40) down. Sole effort increased. Mackerel effort and catches high at the start of month then tailed off. Majority of reports suggest catches are undersize. Large numbers of smoothhound being caught around coast recreationally. No whelk effort.

Area 4: East-South (Great Yarmouth to Harwich).

Bass catches slightly down. (£6-£15/kg). Lots of juvenile Bass in rivers.

Sole landings increased. (£5-£9/kg)

Some local effort on whelk (£1.19/kg)

Thornback Ray reduced in numbers (£1.50-£3.50)

RSA catching dogfish, whiting, rays, Smoothhound and Bass on beaches.

Financial Implications

None

Legal Implications

None

Appendices

Not Applicable

Background Documents

Not Applicable

Vision

The Eastern Inshore Fisheries and Conservation Authority will lead, champion and manage a sustainable marine environment and inshore fisheries, by successfully securing the right balance between social, environmental and economic benefits to ensure healthy seas, sustainable fisheries and a viable industry



Information Item 16b

Eastern Inshore Fisheries and Conservation Authority Meeting

08 September 2021

Marine Science Quarterly Reports

Report by:

- Ron Jessop, Senior Marine Science Officer (Research)
- Judith Stoutt, Senior Marine Science Officer (Environment)

Purpose of Report

The Authority runs a year-round programme of research projects, fishery assessment and development advice. This work provides evidence to underpin the development of fisheries management measures and supports other marine regulators in planning and licensing decisions. This paper informs Members of key activities undertaken by the Authority's Marine Science team during the period April to July 2021, any issues that have arisen (through internal or external drivers), and an indication of up-coming developments that could require future actions.

Recommendations

It is recommended that members:

Note the contents of the report.

Background

The Marine Science team continues to progress workstreams for the assessment and management of fisheries in marine protected areas (the "revised approach"), and towards the sustainable exploitation of stocks. The ongoing COVID19 pandemic has required some adaptation to the programme of field surveys, quayside catch monitoring and measurement and laboratory analysis (set out in the Marine Science Plan) but it has been possible to continue most of the practical work and all desk work. Online meetings have enabled engagement with partner organisations and the Marine Protection Team at Eastern IFCA to continue, while the national vaccination programme is allowing some normality to return to the workplace. Because of the high number of marine developments affecting the Eastern IFCA district, provision of advice on marine licence applications remains an important role for the Science team.

Report

Research

Following a year in which Covid-19 restrictions limited survey work to only the most essential activities, recent months have seen the return to some semblance to normality with the research programme, albeit with social distancing and PPE in place.

WFO 1992 Cockle surveys

With Covid-19 restrictions limiting the 2020 cockle surveys to a rudimentary stock assessment, it was important that a comprehensive survey was conducted this year. As Covid-19 still posed a significant risk to crew safety and the potential to complete a full survey, however, a survey plan was developed that would minimise the risk of being unable to complete the survey, leaving significant stocks unsurveyed. This involved reducing the overall number of survey stations from approximately 1,150 to 960. This reduction in stations was accomplished in a manner that would have minimal impacts on the results, by:

1. Re-aligning 450 stations in the South West area of The Wash that had formally been sampled at a higher resolution to the rest of the beds, and
2. the removal of any stations that had not contained any cockles during the previous ten years.

The surveys, which commenced on March 14th, progressed smoothly and were completed during April. These identified there had been a better than expected survival of the 2018 year-class cohort of cockles, which had been considered highly vulnerable to “atypical” mortality die-offs in 2020. This survival boosted the total cockle stock to 20,153 tonnes, and because most of this cohort had attained a size of 14mm width, the biomass of adult (≥ 14 mm width) cockles was a relatively high 15,848 tonnes. This resulted in a Total Allowable Catch (TAC) for the fishery of 5,283 tonnes. However, while these stocks were widely distributed, fisheries and natural losses in 2019 and 2020 had thinned them on several of the beds to relatively low densities. It was anticipated, therefore, that harvesting the full TAC would be difficult once the remaining denser patches on the Dills, Tofts, Hook Hill and Inner Westmark Knock sands had been fished.

The surveys also identified there had only been poor settlements in 2019 and 2020. This is expected to create difficulties for the 2022 fishery, which will also have a reliance on the remaining 2018 year-class stocks. To help support a small-scale fishery in 2022, some of the slower-growing beds will remain closed to the current fishery.

Cromer Shoal Marine Conservation Zone (MCZ)

An Adaptive Risk Management (ARM) approach is being used to assess and manage the impacts of the potting fishery in the Cromer Shoal MCZ. A Research and Development Task and Finish group has been set up to deliver the evidence required for this and will report to the Project Board. The main objectives for the group are to understand better the sensitivities of various chalk structures to potting impacts and to map these features; to improve our understanding of the current fishing practices and activities in the MCZ; to determine and quantify the impacts that the potting fishery has on the chalk and to identify whether there are viable alternative ways that would help reduce the impact from the potting fishery.

To help gain a better understanding of fishing practices within the MCZ, a trial has been conducted using the voluntary use of a vehicle tracker aboard a fishing boat. This unit successfully recorded regular updates of the fishing vessel while at sea, from which positions of its deployed pots could be determined. Following the success of this trial, ten more units have been purchased for use aboard further vessels.

The original “Phase 1” study commissioned by Natural England to assess the impact of potting gear on the sensitive chalk features, utilised divers to collect the evidence. The cost and logistics of using commercial divers for a larger project was prohibitive, however, so the Authority will use an ROV to help map the seabed features within the MCZ and to assess the impact gear may have on them. The Authority owns an old VideoRay ROV, which was used to test whether ROVs would be suitable in this role. During the trial, the VideoRay was successfully towed slowly above the seabed, demonstrating it was possible to collect video footage using this approach. Because of its age, this ROV only has a low-resolution camera and poor vertical manoeuvrability to avoid obstacles. Having proved the method can work, though, a new BlueROV2 ROV has been ordered, which will have a high-resolution camera and much more powerful thrusters to enable better manoeuvrability.

Inner Dowsing Sabellaria survey

In September 2020 the Authority agreed to introduce some restricted areas to towed demersal fishing in the Inner Dowsing, Race Bank & North Ridge SAC. At that time there were additional areas advised by Natural England “to be managed as reef” that officers did not have sufficient confidence in the supporting evidence to recommend for management. In the interim, officers have continued to liaise with Natural England concerning these sites to focus on the supporting evidence. This has resulted in an updated approach to evaluating the reef feature in part of the site and the need to collect more data from evidence-poor locations. Over the summer a side scan survey was conducted to characterise the seabed in some of these areas, followed by a ground truth survey using a VideoRay ROV. Usually underwater video surveys are conducted on neap tides, when the slower currents provide better water clarity. Unfortunately, due to poor weather conditions on the neap tides, this survey had to be conducted on a spring tide, so visibility was poor and the ROV was towed above optimal speed for collecting good video footage. It was nevertheless sufficient to identify seabed features and the presence/absence of Sabellaria to inform the assessment.

EHO/biotoxin and SWEEP sampling

Despite Covid-19 restrictions, the Authority has managed to continue collecting the monthly EHO and biotoxin samples on behalf of the Local Borough Councils.

Mussel die-off study

Mussels have been suffering unusually high mortality levels in The Wash since 2010. Although these were originally attributed to the presence of the intestinal parasitic copepod, *Mytilicola intestinalis*, subsequent studies have found no correlation between the presence of this parasite and mortality rates. Last year, therefore, the Authority launched a joint project with Cefas in the hope of determining what could be causing the die-offs. Officers have been collecting quarterly mussel samples from three beds for Cefas to analyse. This year cockle samples from two beds were also added to the samples in the hope of identifying what may have been causing the high cockle mortalities that have been occurring in The Wash since 2008.

Environment

Assessment and management of commercial fishing in Marine Protected Areas (MPAs) - "Revised Approach" work

This work remains the key priority for the Marine Science team. It directly supports the fulfilment of obligations relating to marine protected areas, which cover 96% of the Eastern IFCA district. The Authority's Business Plan sets out six priority marine protected area projects. An overview of progress with these is set out in Appendix 1 of the Quarterly Progress Report.

Table 1 (below) outlines the fishing/feature interactions for which management has been required (to prevent adverse effects on marine protected areas), and the mechanisms in place or in development to deliver this management. Management has either been agreed and implemented (shaded green), or agreed and pending implementation (shaded amber), for all red risk interactions, and most amber risks. Management still in development (for some amber interactions) is shaded red.

Most of the MPA casework extends across months or years, as evidence is gathered, analysed and used to assess fishery/feature interactions, management needs identified and measures developed.

The Marine Science team's MPA work during the quarter has focused on:

- Chalk/potting interactions in the Cromer Shoal Chalk Beds Marine Conservation Zone (MCZ);
- Small-scale shrimp fishery in the Cromer Shoal Chalk Beds MCZ;
- Small-scale netting activity in the Cromer Shoal Chalk Beds MCZ;
- *Sabellaria* reef extent in the Inner Dowsing, Race Bank and North Ridge SAC
- Production of the Habitats Regulations Assessment (HRA) in connection with the cockle fishery within the Wash MPAs.

Chalk/potting interactions in the Cromer Shoal Chalk Beds Marine Conservation Zone (MCZ)

The Cromer MCZ Steering Group – now renamed "Project Board", to better reflect its role – has met several times to define and adopt terms of reference for itself, and for the Research and the Management Task and Finish Groups, and to set goals for these T&F Groups. The Project Board has also instigated a Stakeholder Group, to afford all legitimate stakeholders the opportunity to remain informed of progress with development of management measures with Cromer MCZ, and to contribute information and evidence as will support this process. This Stakeholder Group will be facilitated by the "Agents of Change" project, which has been operating in the Cromer Shoal MCZ for some time to bring all interested parties together.

A trial has been conducted using a vehicle tracker to provide reliable fine-grain data on pot fishing activity without requiring the fishermen to fill in complex returns forms. This has proven very practical and useful, demonstrating that it will produce very useful information to better understand the interaction between fishing and habitats, and the importance of some specific areas to the local fishing fleet. It will be expanded to include more willing fishermen.

Small-scale shrimp fishery in Cromer Shoal Chalk Beds Marine Conservation Zone

Officers assessed the impacts of the small-scale shrimp fishery identified as taking place within the MCZ and identified that the conservation objectives of the site would

not be hindered as long as the fishing activity continued in a manner consistent with current practice, and at no higher a level than in the recent past. Officers then went on to identify and consider options for the management of the fishery in order to ensure that these conditions are met. The preferred option is that effort will be managed by setting a threshold level and fishing activity halted if that level is exceeded (rather than having a limit on the number of vessels). This will be coupled with limits on gear size and vessel size to ensure that the level of activity is compatible with recent history.

Small-scale netting activity in the Cromer Shoal Chalk Beds MCZ;

Having identified that there is an appreciable level of netting activity with Cromer Shoal MCZ, Officers designed and undertook an informal consultation exercise with fishermen to support better understanding of the level, location and methods of the activity. The results of this are being analysed at the end of this reporting period.

Sabellaria reef extent in the Inner Dowsing, Race Bank and North Ridge SAC

Side scan surveys were undertaken in order to characterise the sea bed within the areas where there was lack of sufficient confidence in the supporting evidence to recommend these areas for management as *Sabellaria* reef. Good results were obtained, which will be processed to identify suitable stations for ground truthing. Several areas were identified which seem to support the presence of *Sabellaria* reef. This work supported the development of the bottom-towed gear management areas set out at Agenda Item 11.

Production of the Habitats Regulations Assessment (HRA) in connection with the cockle fishery within the Wash MPAs.

Following completion of the annual cockle survey in April 2021, officers produced an HRA in order that the Authority would be able to authorise the opening of a commercial fishery within the relevant MPAs. After consideration of bird food availability, potential for disturbance to seals and waders, and needs to restrict activities to protect future cockle stocks, a proposal for management was sent to Natural England which they quickly assessed and agreed with. This involved a more precautionary assessment of the potential for disturbance to seals than usual, following updated advice from Natural England, and proposed three spatial closures to protect seal haul out sites. This precautionary assessment was made to ensure the fishery could be opened in June 2021 on the basis that proposed management measures to protect seal haul out sites would be reviewed prior to 31st August 2021.

Partnership work and stakeholder engagement

Eastern IFCA officers continue to participate in a range of partnership and stakeholder groups. These enable sharing of information and identification of best practice, effective communication and information-gathering to inform assessments and to support the development of appropriate management. Whilst all partnership working is important, significant focus is given to relationships with fishery stakeholders, Natural England and conservation NGOs.

Much of this activity during the period April, May and June 2021 was restricted to remote interaction, due to Covid-19 measures. Many organisations – including Eastern

IFCA – have adapted well to working in this way, and it has in fact proven to have benefits in terms of efficiency.

In addition to “routine” engagement with a range of groups and bodies as described in previous Reports, the following activities have been undertaken -

- Marine Plan Implementation Training (with the MMO)
- IFCA and MMO Licensing engagement meeting
- Interactions with other IFCAs to develop techniques of use of the ARIS sonar camera
- Work with Plymouth Marine Laboratory to examine the “S3-EUROHAB” project for the use of satellite data to identify plankton productivity.

Table 1. Revised approach⁵: summary of progress of priority assessments and development of management.

Key: Green shading = management in place; amber = management agreed but pending implementation; red = management in development.

Revised approach category	Interaction		Site	Management mechanism and status (N.B. each byelaw supersedes the previous)					
	Fishing activity/ activities	Designated feature(s)		Protected Areas Byelaw 2014	Marine Protected Areas Byelaw 2016	Marine Protected Areas Byelaw 2018	Marine Protected Areas Byelaw 2019	Closed Areas Byelaw 2020	In development
Red risk	Towed demersal fishing	<ul style="list-style-type: none"> • Biogenic reef: <i>Sabellaria</i> • Subtidal stony reef • Eelgrass 	The Wash & North Norfolk Coast SAC	√	√	√	√	√	n/a
		<ul style="list-style-type: none"> • Intertidal mussel beds 				√	√	√	
Red risk	Towed demersal fishing; bait collection; hand gathering	<ul style="list-style-type: none"> • Eelgrass 	Humber Estuary SAC	√	√	√	√	√	n/a

⁵ Revised approach: assessment and management of commercial fisheries in Marine Protected Areas

Revised approach category	Interaction		Site	Management mechanism and status (N.B. each byelaw supersedes the previous)					
	Fishing activity/ activities	Designated feature(s)		Protected Areas Byelaw 2014	Marine Protected Areas Byelaw 2016	Marine Protected Areas Byelaw 2018	Marine Protected Areas Byelaw 2019	Closed Areas Byelaw 2020	In development
Red risk	Towed demersal fishing	<ul style="list-style-type: none"> Biogenic reef: <i>Sabellaria</i> 	Haisborough, Hammond & Winterton SAC				✓	✓	n/a
							✓	✓	
Red risk	Towed demersal fishing	<ul style="list-style-type: none"> Subtidal chalk Peat and clay exposures 	Cromer Shoal Chalk Beds MCZ				✓	✓	n/a
							✓	✓	
Red risk	Towed demersal fishing	<ul style="list-style-type: none"> Biogenic reef: <i>Sabellaria</i> 	Inner Dowsing, Race Bank & North Ridge SAC					✓	✓

Revised approach category	Interaction		Site	Management mechanism and status (N.B. each byelaw supersedes the previous)					
	Fishing activity/ activities	Designated feature(s)		Protected Areas Byelaw 2014	Marine Protected Areas Byelaw 2016	Marine Protected Areas Byelaw 2018	Marine Protected Areas Byelaw 2019	Closed Areas Byelaw 2020	In development
Red risk	Towed demersal fishing	<ul style="list-style-type: none"> Intertidal biogenic reef: <i>Sabellaria</i> 	The Wash & North Norfolk Coast SAC					✓	n/a
Amber / Green risk	Towed demersal fishing	<ul style="list-style-type: none"> Subtidal mixed sediment Subtidal mud Subtidal sand 	The Wash & North Norfolk Coast SAC			✓	✓	✓	n/a
						✓	✓	✓	
Amber risk	Static gear (potting)	<ul style="list-style-type: none"> Subtidal chalk (rugged chalk) 	Cromer Shoal Chalk Beds MCZ						✓

The agreement of the Closed Areas Byelaw 2020 (at 41st Authority meeting) resulted in management being agreed for all the priority MPA interactions set out in the table above. A new priority MPA interaction was added to the table following receipt of conservation advice on the impact of potting on chalk in the Cromer Shoal Chalk Beds MCZ in August 2020.

Eastern IFCA input to consultations on marine developments

The Eastern IFCA district is subject to multiple marine and coastal activities that are regulated through consents by authorities such as the Marine Management Organisation (MMO), the Planning Inspectorate, Environment Agency, Defra and the Authority itself. The Marine Policy Statement and East Marine Plans provide overarching context. The impact of activities on fishing and marine conservation interests is considered by Authority officers through the consultation process. IFCA's are regarded as primary advisors to the MMO on marine licensing issues.

As well as providing consultation input, officers record feedback on whether and how our comments are reflected in planning or licensing decisions. MMO notifications on licensing decisions show that EIFCA's input regularly forms part of MMO licence conditions.

In the period April to June 2021, the Eastern IFCA Marine Science team received eight consultation requests, mostly relating to marine licence applications. These related to a range of proposed activities or plans for the local marine environment, including aquaculture, pipelines and cables, ports and marinas and offshore renewable energy. Renewable energy works were the most dominant category, reflecting the ongoing growth of this sector off the East Anglia coast. In addition to these one-off consultations, officers continued involvement in "ongoing" examinations relating to Planning Inspectorate examinations for two offshore wind farms (East Anglia One North and East Anglia Two) and the Sizewell C nuclear power station. Officers are keeping a watching brief but there are no matters under examination that relate directly to inshore fisheries.

Examples of consultations / engagement include:

- Sheringham Shoal and Dudgeon offshore windfarm extension project - Although both windfarm arrays are outside EIFCA's district the cable route is planned to come through 0-6nm to make landfall in Norfolk via Cromer Shoal Chalk Beds MCZ. Officers have raised concerns regarding suspended sediment; displacement of fishing activity; EMF and issues relating to aquaculture potential - officers are in ongoing communications with the applicant.
- Lowestoft Eastern Energy Facility Project - The owner and operator of the Port of Lowestoft, Associated British Ports (ABP), is proposing to re-develop the eastern extent of the Port's Outer Harbour so that the Port can continue to support the growth of the North Sea's offshore energy industry and enable it to continue to meet customer demand. Although EIFCA believe that the proposed works are unlikely to have significant effects on the overall marine protected area network, we have requested that cumulative impacts be considered. Officers have also requested that the applicant undertakes liaison with local users of the Lowestoft harbour area and highlighted that continued access to fisheries grounds is vital for small inshore fisheries that operate from Lowestoft Harbour.

Derogations from Eastern IFCA byelaws

The marine science team processes requests for derogations from Eastern IFCA byelaws. These typically relate to retention of undersized fish or shellfish, and/or

operation of vessels within restricted areas for shellfish relaying or for scientific survey purposes. An increasing number of scientific survey requests are coming via the Foreign Commonwealth and Development Office (FCDO). As the majority of EIFCA's district (over 96%) has marine protected area designations, the process involves liaison with Natural England, with the requirement to consider the likelihood of impacts occurring on protected habitats and species within these areas.

Between 1st April and 30th June 2021, one derogation request was received, which requires a derogation from Eastern IFCA byelaws.

Ref. no.	Organisation	Details	Decision	NE consulted
203	Environment Agency	Scientific trawl survey to determine the effect of the Lincshire Coastal Defence scheme (beach nourishment) on the physical and biological environment.	Required (pending)	Yes

Publicity

Officers continue to publish work of the Marine Science team via the Authority's website and increasingly through social media. Followers of EIFCA continue to grow and officers endeavour to keep material fresh to encourage people regularly check for updates.

Financial Implications

This report is a summary of ongoing activities so has no financial implications.

Legal Implications

This report summarises ongoing work activities and does not have any legal implications. These would be highlighted in specific papers brought before the Authority if required.