



Marine Protected Areas Sub-Committee Meeting

To be held at:

**EIFCA Offices
6 North Lynn Business Village
Bergen Way, King's Lynn
PE30 2JG**

**Wednesday
13th March 2019
1200 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: **Marine Protected Areas Sub-Committee**

Date: 13th March 2019

Time: 12:00 hours

Venue: Eastern IFCA Office, 6 North Lynn Business Village, Bergen Way,
King's Lynn, Norfolk, PE30 2JG

Agenda

- 1 Welcome - *Chair*
- 2 Apologies for absence – *Chair*
- 3 Declaration of Members' interests - *Chair*

Action Items

- 4 Minutes of the Marine Protected Areas Sub-Committee meeting on 6th June 2018 - *Chair*
- 5 Matters Arising – *Clerk*
- 6 WFO Mussel Fishery 2019 – *CEO / Senior MSO (Research) / Senior IFCO (Regulation)*
- 7 WFO Welland Wall mussel fishery – *CEO / Senior IFCO (Regulation)*
- 8 Any other urgent business

To consider any other items which the Chair is of the opinion are matters of urgency by reason of special circumstances which must be specified

Julian Gregory

Chief Executive Officer

Date: 26th February 2019

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



A meeting of the Marine Protected Areas Sub-Committee took place at the EIFCA Offices, 6 North Lynn Business Village, Bergen Way, King's Lynn on Wednesday 6th June 2018 at 1030 hours

Members Present:

| | |
|-----------------|--|
| Cllr P Skinner | (Vice-chair) Lincolnshire county Council |
| Mr Roy Brewster | MMO Appointee |
| Cllr P Coupland | Lincolnshire County Council |
| Mr J Davies | MMO Appointee |
| Mr Paul Garnett | MMO Appointee |
| Cllr T Goldson | Suffolk County Council |
| Ms C Moffat | Natural England Representative |
| Mr K Shaul | MMO Appointee |

Eastern IFCA Officers Present:

| | |
|----------------|-----------------------------------|
| Greg Brown | IFCO |
| Jon Butler | Head of Operations |
| Luke Godwin | IFCO/Project Officer |
| Julian Gregory | CEO |
| Ron Jessop | Senior Marine Environment Officer |

MPA18/01 Welcome

In the absence of the Chairman the Clerk welcomed members to the meeting. An explanation was given as to why this sub-committee had not met for 4 years.

MPA18/02 Election of Vice Chair

Members were advised that the vice-chairman of this sub-committee had resigned from EIFCA it was therefore necessary to elect a new vice-chair.

It was Resolved that Cllr Skinner would be elected to the position of Vice-Chair of the MPA Sub-Committee.

Proposed: Cllr Coupland

Seonded: Mr Davies

All Agreed

MPA18/03 Apologies for Absence

Apologies for absence were received from Cllr Collis (NCC), Ms Dixon Lack (MMO Representative) Messrs Hirst (EA representative) and Spray (MMO Appointee).

MPA18/04 Declaration of Members Interests

Messrs Garnet and Brewster advised they had an interest in item number 7 related to the Wash cockle fishery. The CEO advised members that EIFCA have a dispensation under the Localism Act to allow members to contribute on matters which affect them, but they would not be permitted to vote.

MPA18/05 Minutes of the meeting of the MPA sub-committee held 15th October 2014

The minutes were accepted as a true record of the proceedings.

**Proposed: Mr Garnett
Seconded: Mr Brewster
All Agreed**

MPA18/06 Matter Arising

There were no matters arising. Mr Garnett advised that the lay ground which had been objected to on the grounds that it was historically cockle ground had subsequently had a good settlement on it which had formed part of the 2016 cockle fishery on the Thief sand.

MPA18/07 Wash cockle fishery 2018

Members were reminded that a previous decision had been taken that the Wash cockle fishery would default to a hand work fishery unless there were exception circumstances. For the 2018 fishery no exception circumstances were identified.

The Senior Marine Environment Officer provided members with a summary of the results of the 2018 cockle surveys. A total of 1204 sites had been surveyed none of which had highlighted areas of high density small cockles. The total stock was 29,876t of which 13,386t were adult. This amounted to a TAC of 4,462t.

During the two previous years the daily quota had been 3t to cater for the exceptionally high TACs. It was felt that it should revert to the regulatory 2t daily quota for the 2018 fishery as this would still allow sufficient time for the TAC to be taken and high mortality rates were not anticipated.

Members were advised there may be a need for closures near seal haul out sites during the pupping season, this would likely involve 2 areas on the Breast sand. The SMEO advised it was his intention to go out during the summer and assess the areas, considering ridges etc

which provide protection for the seal haul out areas. These closures were anticipated between June to September.

Members enquired why there was a need to protect the Wash seals when other seals around the North Norfolk Coast were quite happy with human interaction in a close proximity. Taking advice from the NE website the officers believed it was safest to keep a 600m buffer around the pupping sites.

Mr Garnett felt the closure of the Breast Sand site could have an effect on future fisheries, he would like this to be addressed. The SMEO advised that data from the Seal Mammal Research Unit had been taken into account when identifying areas for closure, however these were still being assessed and may change.

Cllr Skinner felt the research appeared thorough and the indication was that 2018 would be a substantial fishery.

Mr Brewster questioned whether the TAC rule of thirds was a bit strict. He felt that as the stocks were not fished until after they had spawned he felt as the small ones would then push the larger ones out of the sand to be lost to the fishery it would be prudent to take more of the adult stock in order to reduce the amount of loss. The SMEO advised that trying to factor on growth rates results in guess work, it was preferable to set a TAC and monitor the fishery sufficiently to allow management measures to be adapted if necessary.

Ms Moffat enquired how closure of the seal haul out areas would be advertised and enforced and requested that fishers complete seal disturbance sheets to inform future assessments and provide useful data.

Cllr Coupland believed there was a need for more work on the seal haul out issues. He also noted the paper suggested some fishers may attempt to exploit the management measures. He was concerned that tax payer's money may be being wasted and frittered away and questioned the controls in place to prevent deviation from the management guidelines.

The CEO advised intelligence led, risk-based enforcement would be in place. He advised that most fishers work diligently within the rules.

IFCO Brown gave members a presentation on the results of the consultation which had taken place involving skippers and entitlement holders who had taken part in the 2017 fishery. Except for preventing fishing for more than one species in a day and reverting the daily quota to 2t a day the management measures remained the same as those for 2017.

Most respondents agreed with the proposed opening dates but had requested that in the event of additional stocks being found on Holbeach sand adjustments could be made to allow the stock to be fished.

Use of tenders was to be moved from being a licence condition to a regulation to ensure all fishers were aware of it. In exceptional circumstances it may be possible to make an exception to this regulation.

Mr Garnett debated decisions being made around use of tenders, it was agreed the decision for 2018 would remain but it would be reconsidered for the following year.

Following lengthy debate and consideration members Resolved to:

Note the content of the report including the 2018 Wash cockle survey report at Appendix 1.

Note the responses to Entitlement holder consultation reported at the meeting.

Agree to a Total Allowable Catch (TAC) of 4,462 tonnes.

Agree to open a hand work fishery on a date to be determined by the CEO.

Agree to the proposed licence conditions set out in Appendix 2.

Agree that the CEO would amend the licence conditions to incorporate closed areas for the protection of seals once confirmed with Natural England.

Agree to endorse the enforcement policy and associated supporting rationale at Appendix 3 relating to Regulation 1 (fishing equipment) to allow the use of sea-anchors for the purpose of 'prop-washing'.

Approve the delegation of powers to the Chief Executive Officer, in consultation with the Chair and Vice-Chair, to introduce, vary or revoke management measures/licence conditions for the cockle fishery or to open and close the fishery or parts of the fishery as required for the purposes of fisheries management, including meeting the conservation objectives of the Wash and North Norfolk Coast European Marine Site (EMS) and supporting a sustainable and viable fishery.

Approve the delegation of powers to the CEO to introduce, vary or revoke management measures or to open or close the fishery or parts of the fishery, without 7 days' notice (as per the cockle charter) where it is judged necessary to do so to meet the conservation objectives of the Wash and North Norfolk Coast European Marine Site or for the sustainability or the viability of the fishery.

Proposed: Mr Shaul

Seconded: Cllr Coupland

All those eligible to vote Agreed

There being no further business the meeting closed at 1159 hours.

Vision

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Action Item 6

Marine Protected Areas Sub-Committee

13th March 2019

Report by: Ron Jessop, Senior Marine Science Officer (Research)

Wash Mussel Fishery - 2019

Purpose of report

The purpose of the report is to inform members of the current status of the WFO inter-tidal mussel stocks, to recommend that there is a re-laying fishery during 2019 and to agree management measures for the fishery.

Recommendations for the 2019 WFO mussel fishery

Members are recommended to:

- **Note** the results of the 2018 autumn surveys set out in this paper.
- **Agree** to open a re-laying fishery for the 2019 season with a Total Allowable Catch (TAC) of 482 tonnes with a minimum of 48 tonnes of the TAC allocated specifically to a hand-work fishery.
- **Agree** to open the beds identified in the table at Figure 4 and highlighted in the charts in appendix 1 to the 2019 relaying fishery with the maximum exploitation rates for each bed as set out in that table;
- **Agree** in principle to implement the Licence conditions as set out in Appendix 2 and 3 pending consultation with Licence Holders and Natural England;
- **Agree** to implement the enforcement policy in relation to WFO Regulation 2 as set out in Appendix 4 to allow fishers to store mussel in vessel holds for the purpose of relaying mussels onto WFO Lays within The Wash.
- **Agree** in principle to implement the enforcement policy as set out in Appendix 5 to allow Licence Holders to remove mussel below the minimum size set out in WFO Regulation 8 for the purpose of the relaying fishery, pending consideration of formal advice from Natural Enabled;

- **Agree** to delegate authority to the CEO to introduce, vary and revoke management measures (including the licence conditions, operating times and TAC allocation to the dredge and hand-worked fisheries) and to open and close part or all of the fishery as may be required for the protection of the Wash and North Norfolk Coast Special Area of Conservation and Special Protection Area or for fisheries management purposes including the sustainability of the mussel stocks.

Background

The intertidal mussel stocks in The Wash have traditionally provided a valuable resource for the local fishing industry; either being harvested directly for market or relayed from poor-growing beds within the regulated fishery to leased lay ground within the several fishery. These stocks also provide an important habitat for invertebrate communities and an essential food resource for the internationally important communities of birds that reside or over-winter in The Wash. As such, the beds are protected under the SAC, SPA and SSSI designations of the site and have Conservation Objective targets. To help achieve these conservation targets, a suite of shellfish management policies was agreed between the Authority, Natural England and fishermen in 2008. These policies have formed the framework guiding the management measures for The Wash mussel and cockle fisheries since then¹.

Two of the main conservation targets that affect the mussel fishery are the requirements to maintain a total stock of mussels above 12,000 tonnes and an adult² stock above 7,000 tonnes. Following the introduction of these targets the mussel stocks have stabilised from the “boom and bust” fishery patterns seen the 1980s and 1990s but have still been subject to natural variations that on occasions have caused stocks to fall below target levels. The most impacting of these occurred between 2009 and 2010, when the stocks declined from a healthy level of 15,188 tonnes to 9,626 tonnes and the adult stock biomass declined from 7,011 tonnes to 4,189 tonnes. Cefas attributed the cause of this die-off to an unusually high abundance of the parasitic copepod, *Mytilicola intestinalis* that were present in samples. Although the total stocks have achieved their 12,000 tonnes target subsequent to this crash, the adult biomass has failed to achieve its target. Since the crash in 2010, there has been increasing concern over the declining state of the beds, with a combination of poor recruitment and high mortalities leaving most of the beds in poor condition. Of particular concern during this period has been the high levels of mortality observed among younger mussels (typically 2 or 3 years old). In several cases these die-offs among the younger mussel population have resulted in the sudden decline of beds that had previously appeared to be in good states of health.

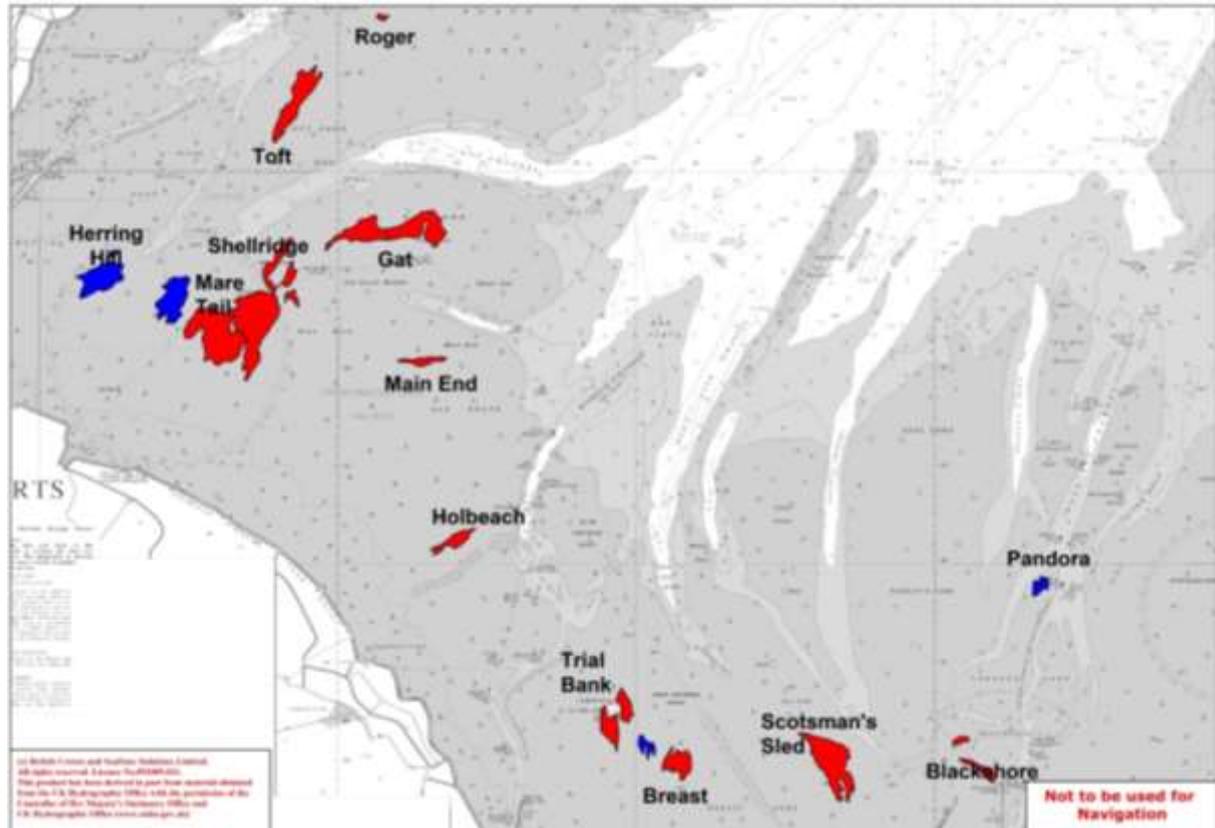
¹ The shellfish management policies insofar as they relate to the cockle fishery have been revised and await consultation with the industry. The policies pertaining to mussels are unchanged.

² Mussels ≥45mm length

In 2016 there was a widespread settlement of mussel spat that benefited most of the inter-tidal beds. The recruitment and subsequent growth of this cohort enabled the stocks to reach 15,953 tonnes in 2017, their highest biomass since the 1980s. There was concern, however, that the beds could be vulnerable to high mortalities during 2018 due to the high proportion of young mussels in the population, which had demonstrated high mortality rates in recent years,

2018 STOCK ASSESSMENT FOR THE WFO 1992 REGULATED MUSSEL STOCKS

The inter-tidal mussel beds in The Wash are surveyed each autumn to inform the Authority's management of the WFO 1992 mussel fishery. These surveys are usually conducted during September and October, when mussels tend to peak in yield, but recurring difficulties with both poor weather and vessel breakdowns severely impacted on the planned survey programme. This resulted in the programme extending into February, and when these surveys were also cancelled due to poor weather, it meant we had to conclude the survey programme with 4³ of the 20 beds remaining un-surveyed. In the absence of current data, an estimation of the stock on these four beds has been calculated using data from the 2017 surveys and overall trends seen on the other beds that were surveyed. Figure 1 shows the beds which were surveyed (red) and those that were missed (blue).



³ The un-surveyed beds are Herring Hill, West Mare Tail, West Breast and Pandora

Figure 1 – Chart showing the mussel beds surveyed during 2018 (red) and those un-surveyed (blue)

The surveys found that all but one of the beds had declined in mussel biomass compared to 2017, resulting in stocks falling from 15,953 tonnes in 2017 to 12,482 tonnes. There had been a relaying fishery in the spring, but this had only been lightly targeted with 109 tonnes being removed (mostly from the Trial Bank bed). Most of the reduction appeared to be natural, therefore, mainly as a result of high mortalities among young mussels of the 2016 year-class cohort. Based on the high level of young mussels in the stock, which in recent years have appeared vulnerable to high mortalities, high mortality rates had been anticipated this year. Because there are still high levels of this cohort on the beds, it is likely mortalities will continue to be high in the coming year. In addition to the decline in mussel biomass, the overall area covered by the mussels had also decreased from 521 hectares to 495 hectares. This was mainly due to the loss of some areas that had originally been colonised by the 2016 cohort adjacent to existing mussel beds.

Figure 2 summarises the stocks found on each of the surveyed beds, while figure 3 shows the stock levels on the inter-tidal beds since 2002 and their respective Conservation Objective targets.

Summary of the Wash inter-tidal mussel stocks - 2018

| BED | 2018 | | | | | | | 2017 | |
|-----------------------|--------------|--------------|-------------------|----------------------|----------------------|-------------|-------------------------|--------------|--------------|
| | AREA (ha) | COVERAGE (%) | DENSITY (kg/0.1m) | TOTAL STOCK (tonnes) | STOCK >45MM (tonnes) | % ≥45MM (%) | BED DENSITY (Tonnes/ha) | TOTAL STOCK | % CHANGE |
| Mare Tail North | 75.8 | 34 | 1.03 | 2665 | 949 | 35.6 | 35.2 | 3176 | -16.1 |
| Mare Tail South | 72.4 | 24 | 0.8 | 1506 | 240 | 15.9 | 20.8 | 1328 | 13.4 |
| Mare Tail East | 3.6 | 24 | 0.66 | 56 | 11 | 19.6 | 15.6 | 124 | -54.8 |
| Mare Tail West | 34.3 | | | 621 | 83 | 13.4 | 18.1 | 803 | -22.7 |
| Shellridge | 20.7 | 42 | 0.39 | 345 | 41 | 11.9 | 16.7 | 548 | -37.0 |
| Toft | 37.7 | 27 | 1.27 | 1294 | 1104 | 85.3 | 34.3 | 1878 | -31.1 |
| Roger | 1.7 | 36 | 0.75 | 45 | 35 | 77.8 | 26.5 | 51 | -11.8 |
| Gat, West | 28.6 | 42 | 0.96 | 1145 | 589 | 51.4 | 40.0 | 1255 | -8.8 |
| Gat, Mid | 21.2 | 24 | 0.77 | 393 | 268 | 68.2 | 18.5 | 443 | -11.3 |
| Gat, East | 17.3 | 18 | 0.6 | 188 | 132 | 70.2 | 10.9 | 356 | -47.2 |
| Main End | 7.8 | 19 | 0.72 | 110 | 80 | 72.7 | 14.1 | 142 | -22.5 |
| Holbeach | 12 | 32 | 0.83 | 318 | 42 | 13.2 | 26.5 | 452 | -29.6 |
| Herring Hill | 35.6 | | | 895 | 285 | 31.8 | 25.1 | 1157 | -22.6 |
| Trial bank | 27.2 | 28 | 1.15 | 881 | 214 | 24.3 | 32.4 | 1701 | -48.2 |
| Breast, West | 6.6 | | | 73 | 14 | 19.2 | 11.1 | 95 | -23.2 |
| Breast, East | 19.1 | 27 | 0.94 | 489 | 144 | 29.4 | 25.6 | 764 | -36.0 |
| Scotsman's Sled, East | 55.7 | 22 | 0.89 | 1101 | 314 | 28.5 | 19.8 | 1253 | -12.1 |
| Blackshore - a | 3.1 | 21 | 1.2 | 78 | 41 | 52.6 | 25.2 | 217 | -64.1 |
| Blackshore - b | 7.9 | 23 | 0.74 | 133 | 30 | 22.6 | 16.8 | 210 | -36.7 |
| Pandora | 6.6 | | | 146 | 107 | 73.3 | 22.1 | | - |
| TOTAL | 494.9 | | | 12482 | 4723 | 37.8 | 25.2 | 15953 | -21.8 |
| Welland Bank | 1.8 | 79 | 2.38 | 339 | 262 | 77.3 | 264.2 | 456 | -25.7 |

Figure 2 – Table summarising the details of the mussel stocks on individual beds at the time of the 2018 surveys (figures in amber are estimated)

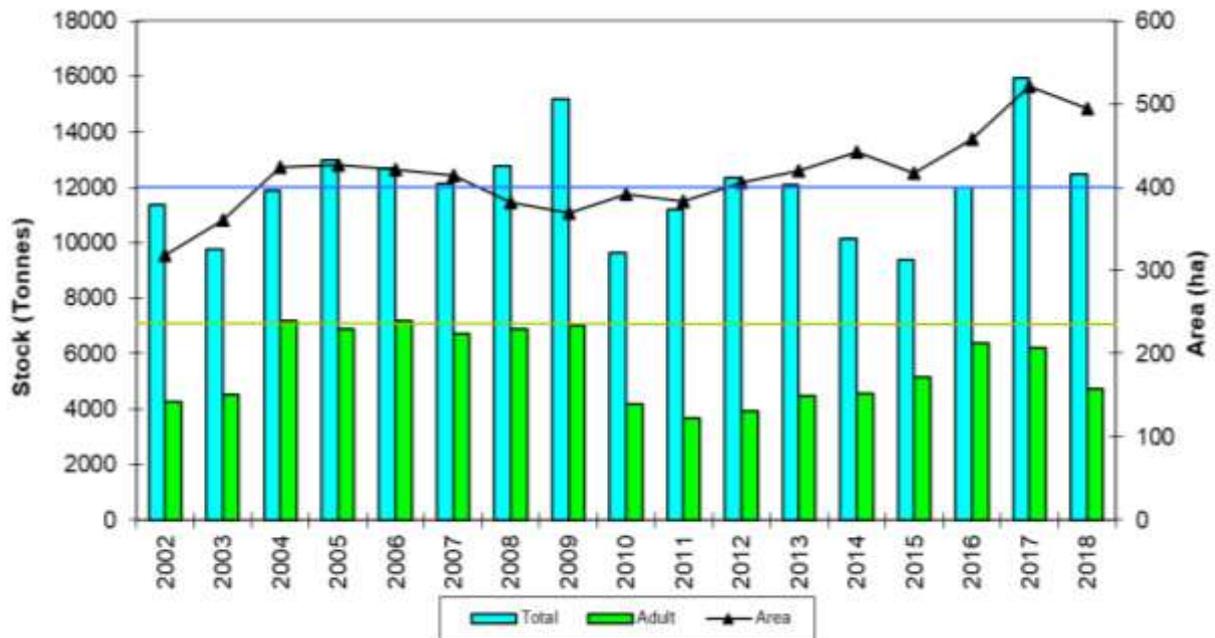


Figure 3 – Inter-tidal mussel stock levels in The Wash since 2002 and their Conservation Objective targets

Recommendations for 2018 mussel fishery

Type of fishery

Although there has been a decline in stocks since 2017, the total mussel stock of 12,482 tonnes exceeds its Conservation Objective target of 12,000 tonnes. This would enable a fishery of 482 tonnes to be opened. **Because the stock of adult mussels has failed to achieve its target of 7,000 tonnes, however, the fishery would need to be a relaying seed fishery that avoided disturbing the beds supporting predominantly adult stocks.**

Entitlement holders were sent correspondence in December informing them there would not be a harvestable fishery.

Potential level of exploitation

The shellfish management policies allow the relaying fishery to take up to 20% of the juvenile stocks, provided this does not result in the total mussel stock falling below 12,000 tonnes. The surveys found 7,759 tonnes of juvenile mussels on the inter-tidal beds, sufficient for a 1,552 tonnes fishery. However, that level of exploitation would reduce stocks below the overall target of 12,000 tonnes.

It is recommended, therefore, that a relaying mussel fishery is opened, but limited to a maximum of 482 tonnes

Management measures of the 2019 relaying mussel fishery

Prior to 2018, Eastern IFCA had not opened a mussel relaying fishery on the intertidal beds since 2014. Since then, the management of WFO fisheries has developed including through the use of licence conditions and as such, the 2018 fishery required wider consultation than normal and scrutiny of novel management measures. It is proposed that the management of the 2019 fishery follows broadly from the management measures used in the 2018 fishery which are summarised below. The key changes proposed for the 2019 fishery are the Total Allowable Catch, beds to be opened and the days of operation.

The aim of the management measures is to ensure that the activity does not have a significant impact on site integrity within the Wash and North Norfolk Coast Marine Protected Area ('the MPA') or on the mussel stocks.

The management measures are provisional and may be amended so as to take into account advice from Natural England once they have responded to the submission of a Habitats Regulation Assessment.

In addition, Eastern IFCA manages WFO fisheries adaptively, often considering threats and opportunities mid-season and responding with amended management measures as required and appropriate. To enable this, **it is recommended that the CEO is delegated powers to amend management measures (including the licence conditions, operating times and TAC allocation to the dredge and hand-worked fisheries) and to open and close part or all of the fishery as may be required for the protection of the MPA or for fisheries management purposes including the sustainability of the mussel stocks and that fishers will be notified of such within a reasonable timescale.**

Fishing methods and TAC allocation

The fishery is likely to be prosecuted through a combination of hand-work and dredge fishing, both at low levels. Only two dredge licences operated in the fishery during 2018.

To ensure that dredges do not impact the MPA, technical gear requirements of the mussel dredge (or the key components of such) are set out in Licence Condition 5 (dredges) in Appendix 2. This licence condition includes a requirement for fishers to obtain a certificate of approval for the gear based on an inspection undertaken by Officers. This replicates the provision of 'Byelaw 3: Molluscan Shellfish Methods of Fishing' which has been applied to this fishery as a matter of course previously.

In addition, a limited number of fishers will potentially look to prosecute the fishery by hand working or be limited to hand-working only by virtue of the limitations of their vessel. If the entire TAC was allocated across both fisheries, it is unlikely that hand-workers would be able to take much of the TAC before it is removed via dredge.

Therefore, it is recommended that a proportion of the TAC is allocated to a hand-work fishery only. The proposed delegations to the CEO would enable the proportions of the TAC allocated to each fishery to be varied in the event that there is a predominance of one fishing method over the other. This will enable facilitate as much of the small TAC to be taken as possible.

It is recommended that the TAC is allocated to each fishery as follows: 434 tonnes for dredge fishery and 48 tonnes for hand-worked fishery

Opening / closing date for the fishery

Relaying activities usually take place between March-May, once the sea temperatures start to increase. Officers recommend that the opening date for the fishery should be determined following consultation/feedback from the industry and after formal advice has been received from Natural England. **It is recommended that opening of the fishery therefore falls under the delegated powers to the CEO.**

Mussel surveys ordinarily commence in September each year and the fishery will need to be closed to enable effective surveys. In addition, the fishery would be closed on the exhaustion of the TAC if this occurs prior to 31st August 2019.

In addition, the recent cockle fisheries have highlighted the unpredictability of the WFO fisheries and the benefits of flexible management of the fishery. Such flexibility is considered particularly important in the context of recent behaviours in the cockle fishery (i.e. the removal of smaller cockles) and given that it occurs within a Marine Protected Area. It is considered appropriate mitigation to enable the CEO to close the fishery including to a reasonable timescale in response to potentially environmentally damaging or unsustainable practices. **It is therefore recommended that closure of the fishery also falls under the delegated powers to the CEO.**

Beds proposed to be opened and maximum levels of exploitation

To minimise any impact from the relaying fishery on adult stocks, those beds supporting high proportions of adult mussels should remain closed. This includes the Tofts, Gat, Main End and Roger beds.

Apart from rare occasions when mussel seed settles on “ridged out” cockles, the majority of mussel recruitment on the intertidal beds in The Wash occurs within existing mussel beds. Scientific studies indicate mussel larvae are attracted to existing mussel beds when they are seeking suitable strata to settle upon, and that a raised structure of live mussels and dead shell bound together by byssus threads provides them with shelter and protection from predators. Analysis of past survey data combined with field observations indicate this raised habitat tends to form when beds support densities of mussels higher than 25 tonnes/hectare. Below this level, beds tend to recover much slower and tend to decline and erode. To protect the structure

of the existing beds, therefore, our management policies restrict beds from being fished unless they exceed 25 tonnes/hectare.

The table below shows the beds which support predominantly juvenile populations and have densities exceeding 25 tonnes/hectare. The final column of this table shows the maximum weight of mussels that could be removed from each bed before their mean density fell below 25 tonnes/hectare. Exploitation on any individual bed should not exceed these levels.

| Figure 4 – table showing beds proposed to be opened in the 2018 mussel relaying fishery and associated maximum exploitation level. | | | | | | |
|---|--|------------------|------------------------|------------------------------|--|----------------------|
| Bed | | Area (ha) | Total Stock (t) | Mussel density (t/ha) | 'Maximum exploitation level' (tonnes) | WFO Licence |
| North Mare Tail | | 75.8 | 2,665 | 35.2 | 773 | Dredge and Hand-work |
| Trial Bank | | 27.2 | 881 | 32.4 | 201 | Dredge and Hand-work |

So as to prevent impacts on the stocks and the sustainability of the mussel fishery, it is proposed that neither bed should be fished beyond the 'maximum exploitation level'. The overall TAC is less than the maximum exploitation level of North Mare Tail and so there is no risk to this bed from over-exploitation. However, Trial Bank would potentially need to be closed prior to the full TAC being taken.

It is therefore recommended that the beds set out in figure 4 are opened to the mussel relaying fishery and that closure of beds falls within the powers delegated to the CEO.

Managing levels of exploitation on each bed

All licence holders could potentially seek to exploit the fishery in theory there is no proposal to limit the number of dredge licences issued. Exploitation at these levels has the potential to remove more than the entire TAC within a single open day (i.e. 61 licences taking 8-tonnes each). However, the 2018 fishery consisted of only two vessels and at levels lower than anticipated and actual levels of exploitation for 2019 are not considered likely to be significantly higher. Even so, a fleet of only 5 vessels operating in the dredge fishery has the potential to take the available TAC from the Trial Bank within 5 tides and as such it is proposed that daily catch returns are required as per the 2018 fishery.

This is set out in Licence Condition 8 – (Appendix 2 and 3) which requires the following with regards to providing catch data:

- Fishers to provide daily catch returns with the required information via text or email no later than 2 hours after high water on any given day of fishing;

- The required information will be the vessel name and port letter numbers, the estimated amount of mussel taken from the fishery and the name of the bed from which it was taken.

An additional licence condition is proposed which requires fishers to provide a valid mobile telephone number and email address to disseminate any bed closure information to. It will be incumbent on fishers to ensure that they are contactable by these means. The associated licence condition is set out in Licence Condition 3 (Appendix 2 and 3). It is proposed that fishers will be given a minimum of 12 hours' notice of the closure of a bed and this is set out in Licence Condition 2 (Appendix 2 and 3) and it is intended that this would be applicable to hand-work and dredge Licences.

Fishers will also be required to notify Eastern IFCA of their intention to fish (including where they intend to fish) 12 hours in advance of fishing. This will enable a more targeted enforcement presence and will provide opportunity to ensure fishers are kept informed with regards to bed closures. This Licence condition reflects a similar permit condition of the Kent and Essex IFCA Cockle permit (which requires 2 hours' notice) which several of the fishers in The Wash are familiar with and reflects the high risk associated with the fishery particularly in relation to the potential damage which may be caused through non-compliance. This is set out in Licence Condition 7 (Appendix 2 and 3).

This method of monitoring the level of stock removal proved effective during the 2018 fishery.

Maximum Daily Quota

The daily quota of mussels any vessel may take from the regulated beds as part of the Relaying Mussel Fishery is restricted by Regulation No.2 of the Wash Fishery Order 1992 to 8,000 kg/day. Accordingly, the maximum daily vessel quota is set at 8,000 kg.

Days of operation

The 2018 mussel relaying fishery opened initially on a limited basis as per the principles applied generally to the cockle fishery (i.e. four days per week, where tides are greater than certain height etc.). However, due to the low levels of activity and associated low risk to the fishery, the restrictions were removed and the fishery was open at all times.

Only two beds (North Mare Tail and Trial Bank) have sufficient densities of juvenile mussels to support a fishery this year. As the Trial Bank bed does not have sufficient mussels to satisfy the TAC alone, the majority of the fishery will have to take place on the North Mare Tail bed. However, access to the North Mare Tail is limited because it is situated within the Holbeach bombing range. Dialogue with the Ministry of Defence will be required to ensure safe use of the site but typically use of the range by fishers is limited to the weekends because it is in use as a range during weekdays.

Given the restricted access of North Mare Tail and the likely low levels of activity, it is recommended that no restrictions are placed on the days of operation. It is further recommended however that such would fall into the delegated powers of the CEO in the circumstances that the number of vessels operating does increase significantly.

Use of tenders

The restrictions on the use of tenders is well established and features as part of Regulation 1 of the WFO Regulations. However, it was identified that these resections required review and rewording to ensure that they were clear and form part of the Regulations being considered by the Minister presently. In the interim, the restrictions are set out in licence conditions so as to ensure that they are clear and transparent.

Exemption from Regulation 8: Mussel (*Mytilus edulis*) minimum size

Regulation 8 sets out that fishers must not '*remove from the area contained within the boundaries of the Wash Fishery Order 1992 any mussel which is less than 45mm in length but shall return such shellfish to the sea immediately*'. In order to enable a relaying fishery, it is necessary to provide an exemption from this regulation.

Mussels less than 45mm in length are unlikely to have spawned and as such, their removal will deplete the spawning stock (i.e. that portion of the stock which provides for future fisheries). However, it is the intention of the fishery that the majority of mussel seed will only be relocated, rather than removed from The Wash. Mussels are 'broadcast spawners' – spawn is released into the water and is carried by tides throughout The Wash. As such, the risk associated with 'fishing' these smaller mussels on the sustainability of the mussel stocks is largely mitigated.

In addition to mussel seed being relayed in The Wash, it is the intention of some fishers to relay mussel seed on the North Norfolk Coast. The proportion of seed relocated to the North Norfolk coast is likely to be small and as such pose a low risk to the sustainability of The Wash based mussel stocks. In addition, the benefit to the viability of this section of the industry is likely to outweigh the associated risk.

It is therefore recommended that fishers are exempted from Regulation 8 (Mussel (*Mytilus edulis*) minimum size) for the purpose of relaying such within shellfish 'lays' as set out in Appendix 5. To prevent the removal of significant amounts of pre-spawning individuals from The Wash, it is also recommended that fishers are required to relay any mussel taken from the fishery within The Wash and North Norfolk Coast Special Area of Conservation (which would still allow for the fishers of the North Norfolk coast to utilise the fishery). This is set out in Licence Condition 1 (Appendix 2 and 3).

Exemption from Regulation 2: catch restrictions (subsection 5 – use of bags, boxes or bins)

Regulation 2 (5) sets out that fishers must contain all catches of mussel within bags, boxes or bins. The majority of fishers fill the holds of their vessel with mussel seed and subsequently redeposit the shellfish directly onto lays. Requiring the mussel to be contained within bags etc. would be a significant burden to fishers looking to operate in this way, particularly given that fishers typically complete this process over one tide (i.e. fish the mussel and relay them over a single high water).

To enable the most efficient fishery, it is recommended that fishers are provided an exemption by way of an enforcement policy (Appendix 4) from this requirement when relaying mussel seed immediately after it has been fished.

It should be noted that fishers will also look to ‘land’ mussel seed in order to transport it via land (particularly to lays on the North Norfolk coast). It is recommended that the enforcement policy does not extend to such fishers but that all catch will have to be contained in accordance with the Regulation where it is to be ‘landed’ first. It should also be noted that Regulation 3 (seed movement) requires any fishers transporting mussel seed via road to first obtain the consent of the CEO. This mitigates against the risk that mussels are being taken to market.

Other management measures

In addition to the measures set out above, it is recommended that a ‘dual fishing prohibition’ is implemented to prohibit fishers prosecuting the Regulated mussel fishery on the same calendar day as operating within a separate fishery. This Licence condition is now an established feature of the WFO cockle fisheries. Its primary purpose is to reduce the risk of fishers taking mussel in excess of the daily quota by claiming that catch (or a proportion of such) has originated from another fishery.

Further management measures are established and set out in WFO Regulations⁴ and include vessel length restrictions, mussel dredge width restrictions and a restriction on the number of dredges permitted to be used by single vessel.

WFO Dredge licence fees

At the 27th Eastern IFCA meeting, members agreed to implement WFO licence fee increases with the effect of achieving greater cost recovery in relation to managing the associated fisheries. The first incremental increase comes into effect on the 1st April 2019 (pending Ministerial consent) and effects only the hand-work licence fee.

The CEO has proposed to the Minister a reduction in the fee associated with the dredge licence fee for this year (i.e. 1st April 2019 to 1st April 2020). This is in the

⁴ http://www.eastern-ifca.gov.uk/wp-content/uploads/2016/03/2010_04_the_wash_fishery_order_regulations.pdf

interest of limiting impacts on individual fishers and ensuring an incremental approach to increasing fees which mitigates the risk to business. A fuller report will be presented to the Authority at the next Eastern IFCA meeting.

Risks

There is an inherent risk in opening any shellfish fishery including over-exploitation and damage to the environment. The management measures proposed above are considered appropriate to mitigate the known risks associated with the fishery.

In addition, the above proposals include delegation of powers to the CEO to enable responsive management of the fishery in the event of changes in the circumstances presented or where the fishery or fishing behaviours pose a risk to a sustainable fishery or the features of the MPA.

Furthermore, restricting the fishery to prescribed periods will enable targeted and effective enforcement to ensure compliance with these measures.

It is worth noting that recent WFO fisheries have proven to be resource intensive, particularly in relation to the behaviours of some fishers. Additional resources are often reallocated to the consideration of claims and counter-claims made by the industry relating to unsustainable and environmentally damaging practices. This includes undertaking additional surveys of the site, additional enforcement activities and extended correspondence with the industry beyond that which is experienced in other fisheries. As such, there is a high risk associated with the reallocation of resources away from other high priority work-streams during the fishery. This was not the case for the 2018 relaying mussel fishery however, the potential remains.

Financial implications

The Authority has already planned for its resources to include an annual mussel survey and fishery.

Legal implications

Legal risks associated with the fishery are mitigated by ensuring the proportionate management of the fishery. Given the scrutiny on the protection of Marine Protected Areas (particularly the Wash and North Norfolk Coast) and the high-risk associated with the primary fishing gear (i.e. dredges) the above management measures are considered proportionate.

Legal risk is further mitigated through the recommendation that the CEO is delegated powers to implement additional measures (including the closure of the fishery) to ensure that site integrity is not significantly impacted.

The Wash Fishery Order 1992 does not include a mechanism for granting exemptions from Regulations (except for scientific purposes). However, two such regulations (i.e.

the minimum size for mussels and the requirement for catch to be contained within bags etc.) require exemption to enable the fishery and this is proposed to be done by way of enforcement policies which set out how these Regulations will be enforced.

There is an inherent risk in enacting such policies however, the rationale set out above (and in the policies appended to this paper) is considered sufficient to satisfy that the Authority has made a reasonable decision. Such rationale mitigates the associated risk.

Publicity

All Wash Fishery Order 1992 entitlement holders and local Fishermen's Associations will be informed in writing of the decision and the details of the potential fishery. These will also be published on the Authority's website.

Conclusion

Since 2010 the intertidal mussel beds in The Wash have suffered a combination of high mortality and poor recruitment that have led to a general decline of the beds. A widespread settlement of seed in 2016, however, established some new areas of mussel bed and helped the mussel biomass to improve to level last seen in the 1980s. This recovery enabled a relaying fishery to be opened in 2018, with a relatively large TAC of 1,500 tonnes. This fishery was largely unexploited, however, with only 109 tonnes being taken. There was, nevertheless, a large decline in stocks during the year, mainly as a result of high mortality rates among the young mussels from the 2016 cohort. This decline means there is only scope for a 482 tonnes relaying fishery this year. This fishery will be limited to two beds.

Appendices

Appendix 1 - Charts showing the beds proposed to be opened to the 2018 fishery

Appendix 2 - Proposed dredge licence conditions

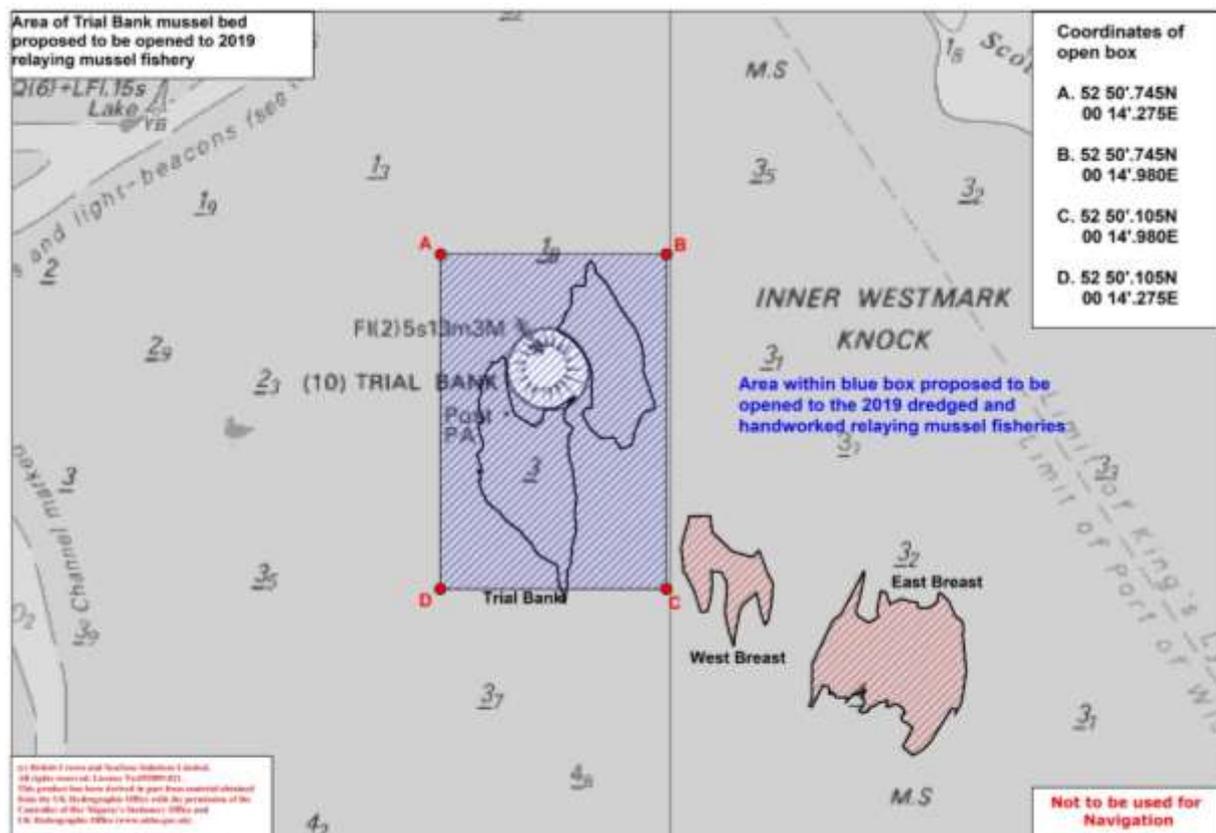
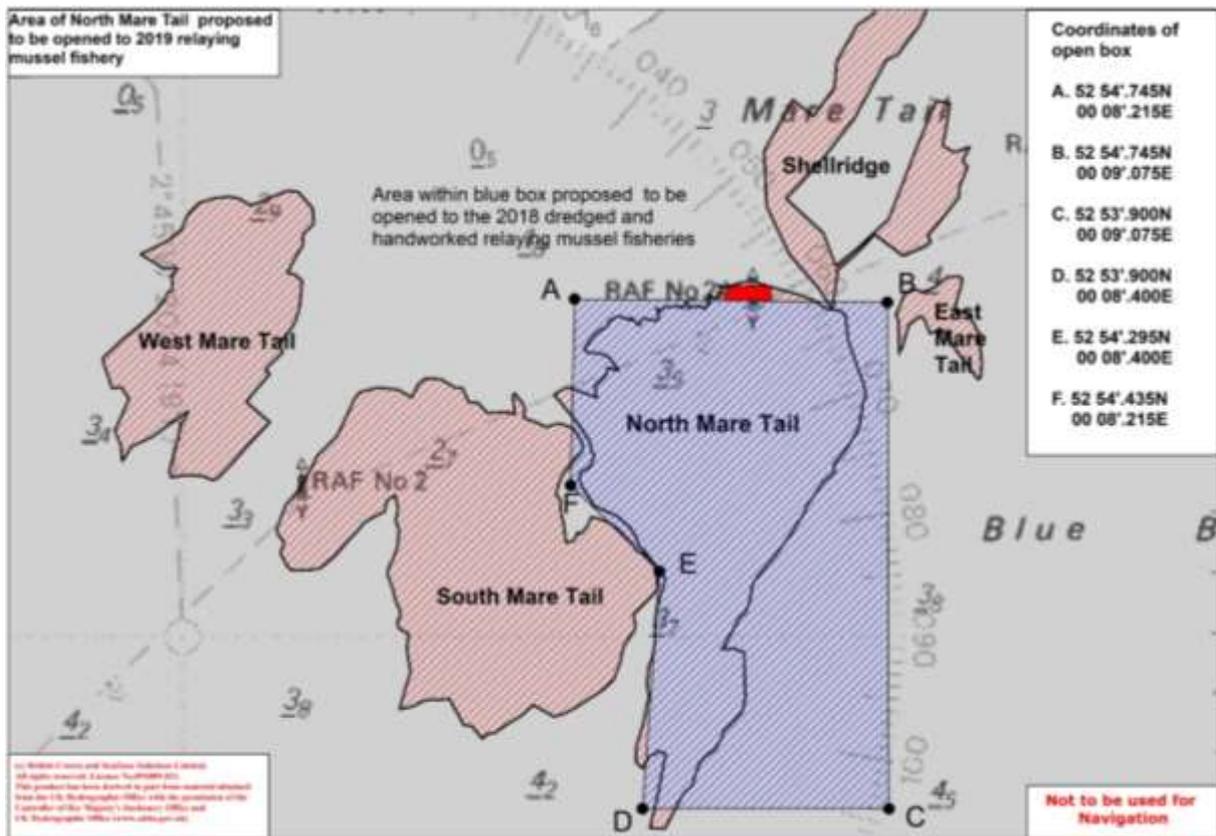
Appendix 3 – Proposed hand-work licence conditions

Appendix 4 - Proposed enforcement policy regarding Regulation 2(5): use of containers to store catch for the purpose of relaying mussels onto WFO Shellfish Lays

Appendix 5 - Proposed enforcement policy regarding Regulation 8: removal of mussel of less than 45mm

Appendix 1

Charts showing the beds proposed to be opened to the 2019 fishery



Appendix 2 - Draft WFO Mussel Relaying Fishery 2018 Dredge Licence conditions

Wash Fishery Order Mussel Relaying Fishery 2019 – Dredge Licence conditions

Fishers operating under a licence issued under Article 8(1) of the Wash Fishery Order 1992 are required to undertake their fishing activities in accordance with the conditions set by the Authority as per Article 8(5) of the same Order.

The following Licence Conditions are applicable to fishers operating in the Wash Fishery Order 1992 mussel relaying fishery 2019.

These Licence conditions must be read in conjunction with the Wash Fishery Order 1992 Regulations which also apply to this fishery.

Licence condition 1: Relaying Mussel Fishery

It is prohibited to fish for, take or remove from the fishery mussels unless such are deposited on private shellfish beds within the area of the Wash and North Norfolk Coast Special Area of Conservation.

For the purpose of this licence condition, the 'Wash and North Norfolk Coast Special Area of Conservation' is the area set out in Schedule 1 of these licence conditions.

Licence Condition 2: Open/Closed areas

It is prohibited to fish for, take or remove from the fishery mussels from any area except those areas marked out in charts produced by Eastern IFCA and designated as open to the 'mussel relaying fishery 2019'. Areas designated as open may be subject to closure and Eastern IFCA will provide a minimum of 12 hours' notice of such via text and e-mail to Licence Holders, Nominated Representatives and Nominated Deputies.

Licence Condition 3: Contact Details

It is prohibited to fish for, take or remove from the fishery mussels unless a valid e-mail address and mobile telephone number which is capable of receiving text messages has been provided to Eastern IFCA.

Licence Condition 4: Days of Operation

It is prohibited to fish for, take or remove from the fishery mussels other than during publicised opening times.

Licence condition 5: Fishing methods (dredge Licence)

- a) It is prohibited to fish for, take or remove from the fishery mussels using any bottom-towed-gear except a 'mussel dredge' for which has a 'certificate of gear approval' has been issued by Eastern IFCA.

- b) For the purpose of this Licence condition, a 'certificate of gear approval';
 - i) will only be issued if the 'mussel dredge' has been inspected by an Eastern IFCA Officer and meets the requirements of the conditions of this Licence and associated Wash Fishery Order 1992 Regulations;
 - ii) will be invalid if the 'mussel dredge' is modified in any way after the 'certificate of gear approval' has been issued;
 - iii) will be valid until the 31st December of the year it was issued.
- c) For the purpose of this Licence condition, a 'mussel dredge' is a dredge consisting of a mesh or net held open by a frame the bottom edge of which consists of a bar, blade or teeth which dislodges mussels from the surface of the mussel bed.
- d) Mussel dredges must not have any mechanism or device which enable the continuous lift of mussels from the dredge to the vessel.

Licence condition 6: Requirement to have vessel holds inspected

It is prohibited to fish for, take or remove from the fishery any mussels using a vessel unless:

- a) the dimensions of the hold have been recorded by an Inshore Fisheries and Conservation Officer; and
- b) a 'certificate of hold inspection' has been issued which will record the dimensions as per 6(a) above which will be invalid if the hold is modified in any way which would alter its volume or capacity after the certificate has been issued.

Licence Condition 7: Requirement to notify

It is prohibited to fish for, take or remove from the fishery any mussels unless the Licence Holder, Nominated Representative or Nominated Deputy has notified Eastern IFCA of the estimated time of commencement of mussel harvesting at least 12 hours prior to such commencement.

For the purpose of this Licence Condition, such notification must include the vessel name and port letter numbers, the intended fishing method and the name of the mussel bed intended to be fished and such notification must be in the form of a text message to the designated mobile phone number or email to the designated email address.

The designated mobile phone number is: 07748 182025

The designated email address is: enforcement@eastern-ifca.gov.uk

Licence Condition 8: Catch Returns Data

Fishers must submit the 'required catch data' to Eastern IFCA via 'text message' to a designated mobile telephone number or via email to a designated email address no later than 2 hours after high-water of any given day of fishing.

The required information is as follows: the name and port letter numbers of the vessel used to fish for mussels, the estimated weight of mussels removed from the Regulated Fishery, the name of the bed from which the mussels were removed and the destination of the mussels.

The designated mobile phone number is: 07748 182025

The designated email address is: enforcement@eastern-ifca.gov.uk

Licence condition 9: Dual Fishing Prohibition

It is prohibited for any person/vessel to fish for, take or remove from the Regulated fishery any mussels on the same calendar day as fishing for, taking or removing mussels from outside the regulated fishery or from a lay granted under the Wash Fishery Order 1992.

Licence condition 10: use of tenders

A person must not use a tender to a vessel unless:

- fishing for, taking or removing from the fishery mussels or cockles;
- all catch placed on the tender is placed on the licenced vessel to which it is associated at the earliest opportunity and before the vessel leaves the sand being fished;
- the tender is six metres in overall length or less; and
- the tender has an outboard engine with a power of ten horsepower or less.

A person must not use more than one tender or a tender which has an inboard engine.

Failure to comply with a licence condition is an offence under section 3(3) of the Sea Fisheries (Shellfish) Act 1967. The master, owner and charterer (if any) of a vessel used in the commission of an offence shall each be guilty of any such offence and liable to an unlimited fine on summary conviction.

Licence conditions are subject to change and fishers will be notified of any amendments to the licence conditions.

Schedule 1 - Wash and North Norfolk Coast Special Area of Conservation

The following table sets out the co-ordinates of the Wash and North Norfolk Coast Special Area of Conservation as Licence condition 1 above.

The Wash and North Norfolk Coast Special Area of Conservation is defined by a boundary drawn by the series of straight lines connecting points A to D and a line connecting point D to E which follows the land boundary which is to be taken as mean high water springs.

| Point | Latitude | Longitude |
|--------------|-----------------|------------------|
| A | 53° 07'.69 N | 00° 20'.55 E |
| B | 53° 03'.66 N | 00° 28'.16 E |
| C | 53° 02'.73 N | 00° 07'.55 E |
| D | 52° 57'.16 N | 01° 07'.10 E |
| E | 53° 07'.69 N | 00° 20'.55 E |

Appendix 3 – Draft WFO Mussel Relaying fishery 2018 – Hand-work Licence conditions

WFO Mussel Relaying Fishery 2019 – Hand-work Licence conditions

Fishers operating under a licence issued under Article 8(1) of the Wash Fishery Order 1992 are required to undertake their fishing activities in accordance with the conditions set by the Authority as per Article 8(5) of the same Order.

The following Licence Conditions are applicable to fishers operating in the Wash Fishery Order 1992 mussel relaying fishery 2019.

These Licence conditions must be read in conjunction with the Wash Fishery Order 1992 Regulations which also apply to this fishery.

Licence condition 1: Relaying Mussel Fishery

It is prohibited to fish for, take or remove from the fishery mussels unless such are redeposited on private shellfish beds within the area of the Wash and North Norfolk Coast Special Area of Conservation.

For the purpose of this licence condition, the ‘Wash and North Norfolk Coast Special Area of Conservation’ is the area set out in Schedule 1 of these licence conditions.

Licence Condition 2: Open/Closed areas

It is prohibited to fish for, take or remove from the fishery mussels from any area except those areas marked out in charts produced by Eastern IFCA and designated as open to the ‘mussel relaying fishery 2019’. Areas designated as open may be subject to closure and Eastern IFCA will provide a minimum of 12 hours’ notice of such via text and email to Licence Holders, Nominated Representatives and Nominated Deputies.

Licence Condition 3: Contact Details

It is prohibited to fish for, take or remove from the fishery mussels unless a valid email address and mobile telephone number which is capable of receiving text messages has been provided to Eastern IFCA.

Licence Condition 4: Days of Operation

It is prohibited to fish for, take or remove from the fishery mussels other than during publicised opening times.

Licence Condition 5: Fishing methods (hand-work Licence)

It is prohibited to fish for, take or remove from the fishery mussels unless:

- a) By hand;
- b) By hand rakes; or
- c) Under the authorisation of a Wash Fishery Order 1992 Dredge Licence and in accordance with such.

Licence condition 6: Requirement to have vessel holds inspected

It is prohibited to fish for, take or remove from the fishery any mussels using a vessel unless:

- a) the dimensions of the hold have been recorded by an Inshore Fisheries and Conservation Officer;
- b) a certificate of inspection has been issued which will be invalid if the hold is modified in any way which would alter its volume or capacity after the certificate has been issued.

Licence Condition 7: Requirement to notify

It is prohibited to fish for, take or remove from the fishery any mussels unless the Licence Holder, Nominated Representative or Nominated Deputy has notified Eastern IFCA of the estimated time of commencement of mussel harvesting at least 12 hours prior to such commencement.

For the purpose of this Licence Condition, such notification must include the vessel name and port letter numbers, the intended fishing method and the name of the mussel bed intended to be fished and such notification must be in the form of a text message to the designated mobile phone number or email to the designated email address.

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The required information is as follows: the name and port letter numbers of the vessel used to fish for mussels, the estimated weight of mussels removed from the Regulated Fishery, the name of the bed from which the mussels were removed and the destination of the mussels.

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It is prohibited for any person/vessel to fish for, take or remove from the regulated fishery any mussels on the same calendar day as fishing for, taking or removing mussels from outside the regulated fishery or from a lay granted under the Wash Fishery Order 1992.

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- the tender is six metres in overall length or less; and
- the tender has an outboard engine with a power of ten horsepower or less.

A person must not use more than one tender or a tender which has an inboard engine.

Failure to comply with a licence condition is an offence under section 3(3) of the Sea Fisheries (Shellfish) Act 1967. The master, owner and charterer (if any) of a vessel used in the commission of an offence shall each be guilty of any such offence and liable to an unlimited fine on summary conviction.

Licence conditions are subject to change and fishers will be notified of any amendments to the licence conditions.

Schedule 1 - Wash and North Norfolk Coast Special Area of Conservation

The following table sets out the co-ordinates of the Wash and North Norfolk Coast Special Area of Conservation as Licence condition 1 above.

The Wash and North Norfolk Coast Special Area of Conservation is defined by a boundary drawn by the series of straight lines connecting points A to D and a line connecting point D to E which follows the land boundary which is to be taken as mean high water springs.

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| E | 53° 07'.69 N | 00° 20'.55 E |

Appendix 4 - Proposed enforcement policy regarding Regulation 2(5): use of containers to store catch for the purpose of relaying mussels onto WFO Shellfish Lays

Wash Fishery Order (1992) Mussel Relaying Fishery 2019

Regulation 2 of the Wash Fishery Order 1992 (WFO) requires that all catch of mussel (and cockle) must be contained within bags, boxes or bins.

Typically, fishers operating in a mussel relaying fishery transport mussel catch from the mussel bed to a WFO Shellfish lay over a single high-tide. Mussel 'seed' is relayed directly from the holds of vessels, often using shoots which release the mussel into the water. Regulation 2(5) would preclude fishers from undertaking this activity in an efficient manner.

Other fishers who land catches of mussel seed in order to transport it via road to a shellfish lay typically use mesh sacks to contain mussels.

Policy

Where a licenced vessel is fishing for and depositing mussel seed onto lays without landing catch within the mussel relaying fishery 2019, fishers will not be required to use bags, bins or boxes and Eastern IFCA will not take enforcement action against fishers who are not compliant with Regulation 2(5) in this regard.

Regulation 2(5) does apply to any fisher landing catch to be transported by land to be relayed.

Rationale and mitigation

Requiring fishers to contain mussel catch in the context of a mussel seed fishery is considered to be disproportionate given the practice of fishing and relaying over a single high-tide. The time taken to pack the catch into bags etc. would likely preclude fishers from having the time to relay the mussels onto their lay and return to port before low water (noting that the ports of King's Lynn and Boston – the principle ports from which fishers will operate – are tidal).

Requiring fishers to contain catch in bags is an effective enforcement tool in other fisheries. For example, within the cockle fishery so called 'standard bags' are used which are of a known dimension to enable IFCOs to visually detect where catches are in excess of the daily quota. To mitigate against the risk of fishers taking mussel in excess of the daily quota, fishers will be required to have their holds inspected and measured by IFCOs prior to fishing. During seaborne inspections, IFCOs will estimate the volume of mussels within the hold using the known dimensions of the hold. Where IFCOs suspect a fisher has removed mussels in excess of the daily quota, powers can be used to undertake a more complete inspection of the catch including requiring vessels to return to port.

Where fishers are landing catch which is to be transported via road, catch will be required to be contained in bags, boxes or bins as per Regulation 2(5).

Eastern IFCA will undertake engagement with the industry to ensure that fishers are aware of the policy and its limitations.

Appendix 5 - Proposed enforcement policy regarding Regulation 8: removal of mussel of less than 45mm

Eastern IFCA Enforcement Policy – Regulation 8: Mussels (*Mytilus edulis*) minimum size

Wash Fishery Order (1992) Mussel Relaying Fishery 2019

Regulation 8 of the Wash Fishery Order 1992 (WFO) prohibits the removal of mussels less than 45mm in length from within the WFO.

Mussel relaying fisheries target juvenile mussels for the purpose of ‘relaying’ the mussel onto beds allocated for private aquaculture. The majority of mussel removed from the wild beds for this purpose are relayed within WFO Shellfish Lays within The Wash.

The mussel relaying fishery is an established practice and is guided by associated policies which ensure the sustainability of the mussel fishery.

Policy

Eastern IFCA will not take enforcement action against fishers licenced to fish within the WFO Mussel Relaying Fishery 2019 with regards to non-compliance with Regulation 8.

It is a requirement of the WFO Relaying Fishery 2019 that fishers must relay all catch taken from the fishery within the Wash and North Norfolk Coast Special Area of Conservation. Any mussel fished for, taken or removed from the fishery for any other purpose would be subject to Regulation 8 and Eastern IFCA would enforce the minimum size.

Rationale and mitigation

Eastern IFCA has enabled several mussel relaying fishers in the past and it is an established fishery. Pending the planned review of the WFO Regulations, there is no formal mechanism to grant exemption from Regulation 8 for the purpose of aquaculture cultivation (as there is for Eastern IFCA byelaws). As such, an enforcement policy is required to enable the fishery.

Mussels less than 45mm in length are unlikely to have spawned and are therefore protected from removal during a ‘normal’ fishery. Removal of pre-spawning individuals has the potential to negatively impact the sustainability of the mussel fishery. However, the annual mussel survey has indicated that the mussel stocks will not be adversely affected by a limited fishery targeting juvenile mussels. This is primarily a reflection of the high biomass of juvenile mussels. The full survey report and rationale for the opening of a ‘relaying fishery’ is set out in Action Item 6 of the Eastern IFCA Marine Protected Area Sub-committee meeting of 13th March 2019. In addition, potential impacts on the integrity of the Wash and North Norfolk Coast Special Area of Conservation have been assessed and found to be not significant.

Potential impacts on the mussel stocks are mitigated primarily through the implementing of a Total Allowable Catch (TAC). The TAC has been set to prevent excessive removal of pre-spawning mussels to the extent that the stocks will not be significantly impacted.

Eastern IFCA will undertake engagement with the industry to ensure that fishers are aware of the policy and its limitations.

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 7

Marine Protected Areas Sub-Committee

13th March 2019

Report by: Luke Godwin – Senior IFCO (Regulation)

Wash Mussel Fishery - 2019

Purpose of report

The purpose of this report is to present a review of the management of the Welland Wall mussel fishery within the Wash Fishery Order 1992 and to consider formalising the management approach and enforcement policy regarding this fishery.

Members are recommended to:

- **Note** the review of the management of the Welland Wall mussel fishery;
- **Agree** to maintain the Welland Wall hand-work mussel fishery as open to relaying and harvestable fisheries;
- **Agree** in principle to the approach to managing the Welland Wall mussel fishery pending formal advice from Natural England;
- **Agree** in principle to implement licence conditions as at Appendix 1 for the Welland Wall mussel fishery pending consideration of formal advice from Natural England;
- **Agree** in principle to implement the Enforcement Policy with regards to enforcement of Regulation 8 (Minimum size of mussels) for the purpose of the relaying fishery pending consideration of formal advice from Natural England;
- **Agree** to delegate authority to the CEO to introduce, vary and revoke management measures (including the licence conditions, operating times and TAC allocation to the dredge and hand-worked fisheries) and to open and close part or all of the fishery as may be required for the protection of the Wash and North Norfolk Coast Special Area of Conservation and Special Protection Area or for fisheries management purposes including the sustainability of the mussel stocks.

Background

Welland wall is the name given to the mussel fishery situated on the seaward most extent bank of the River Welland in Lincolnshire. The area which serves as a mussel fishery is within the boundary of the Wash Fishery Order (WFO) 1992. A light-touch approach to managing this fishery has been employed since 2015. The fishery was discussed at the January 2015 Eastern IFCA meeting as set out in Box 1.

Box 1 - Extract from minutes of the 17th Eastern IFCA meeting, January 2015.

This [stock] was excluded from the SSSI conservation objection target as the area was treated discreetly to the rest of the Wash.

The nature of the Welland Bank was such that it effectively managed itself, receiving regular spatfall. The rocky nature of the area prevented dredging or over fishing. It was therefore suggested this bed should be opened for a handwork fishery, and should remain open until the surveys were carried out later in the year unless the CEO deemed it necessary to close it sooner.

Resolve *to open the Welland Bank until such time as the 2015 mussel surveys began or earlier if the CEO deemed it necessary.*

The fishery has subsequently continued to remain open with only limited management as a reflection of the low risk posed by the fishery. The stocks on the Welland Wall are surveyed annually during mussel surveys however these mussels do not contribute towards the Wash mussel stock when considered against conservation targets.

Report

Fishing activity within the Welland Wall fishery

Activity within the fishery has been relatively low since 2015. Five different vessels have prosecuted the fishery during this time, visiting the bed 54 times in total and taking 104 tonnes. During this period the stock has remained relatively stable, with the exception of 2018 when biomass fell by circa 25%. It is understood that the vast majority of mussels which were taken from this fishery were used for relaying onto private beds either in The Wash or the North Norfolk Coast.

Given that the fishery has been continuously open during this period, the level of fishing activity is considered very low. It is likely that the rocky substrate and difficulty of access has effectively limited effort. Dredging has not been permitted but the site is unsuitable for dredging given the rocky terrain (which would damage gear). In addition, attempting to dredge the area would likely damage the associated vessel given how steep the bank is. It is therefore recommended that the fishery is opened only to hand-work fishing.

Table 1. fishing activity and stock biomass of the Welland Wall mussel fishery over the period 2015 to 2018 (inclusive).

| | Year | | | |
|--|--------|--------|--------|--------|
| | 2015 | 2016 | 2017 | 2018 |
| Biomass removed by fishery (kg) | 12200 | 54250 | 33050 | 4500 |
| Fishing trips | 7 | 27 | 14 | 3 |
| Stock biomass (kg) | 442000 | 438000 | 456000 | 339000 |
| proportion of stock taken (%) | 2.76 | 12.39 | 7.25 | 1.33 |
| Stock biomass > 45mm (kg) | 300000 | 345000 | 339000 | 262000 |
| proportion of stock >45 mm taken (%) | 4.07 | 15.72 | 9.75 | 1.72 |

Review of effectiveness of management - stock

Management measures which presently apply are the general provisions of the WFO (i.e. that a licence is required to fish for mussel within the area) and the WFO regulations (including, for example, minimum landing size and the daily catch restriction).

There is not currently a restriction on the 'type' of fishery (i.e. both harvestable and relaying fisheries would be permitted), there is no Total Allowable Catch (TAC) and there is no requirement to complete catch return forms. In addition, none of the measures and licence conditions introduced in the cockle and recent mussel relaying fisheries have been implemented (e.g. dual fishing prohibition, requirement to land etc.).

In spite of the lack of regulation, this fishery does not appear to have been excessively fished. The regular mussel fishery which operates within the intertidal beds is managed through the application of the Eastern Seas Fisheries Joint Committee Fisheries Management Policies⁵. One important element of this is for example, that only 20% of the adult biomass is 'open' to the fishery. Table 1 shows that, over the past four years, the highest proportion of adult stock possibly taken was less than 16% (i.e. less than the 20% that would normally be open to a mussel fishery). The obvious caveat being that table is based on catch returns for which there is no requirement on fishers to complete, so the actual level of take is potentially different from that presented.

⁵ ESFCJ 2008 Fisheries Management Policies. These are presently under review.

Review of effectiveness of management – Marine Protected Area

The Welland Wall fishery is within Wash and North Norfolk Special Area of Conservation and Special Protection Area. Therefore, Eastern IFCA has a duty to ensure that fishing activity does not have deleterious impacts on the associated features and site integrity.

Bird disturbance is a consideration within an HRA, taking into account the potential to impact the breeding success of designated birds within the site. The fishery is not within a 'core bird area' as per Garbutt et al 2010⁶ and is of very low scale (i.e. a maximum of 27 visits over a year). It is therefore unlikely to cause any significant bird disturbance.

In addition, the mussel stock present on Welland Wall do not contribute towards the Wash inter-tidal stock figures. Available bird food resources are considered in the context of the Wash Stock and Eastern IFCA management of the main fisheries which operate within that stock ensures that sufficient bird food resource is available. Therefore, removal of mussel from the Welland Wall stock will not impact on bird food resources.

With regards to the protection of habitats, the area is only subject to hand-working activity as the rugged, rocky nature of the site precludes dredging activity. This type of rocky substrate is unlikely to be impacted by hand-working and is considered of very low risk.

Whilst the fishery has not been the subject of a dedicated HRA since 2015 the fishery is considered of very low risk with regards to impacts to site integrity of the MPA. It is recommended that a HRA is required and that officers start dialogue with Natural England to progress this but in the context of a very low risk fishery.

Welland Wall Management

In the context of a small-scale fishery which is of low risk to the sustainability of the stocks and site integrity of the associated MPAs, it is recommended that a light-touch approach to management is appropriate and proportionate. This reflects the 'self-regulating' nature of the fishery and the low risk it poses to sustainability and protection of the MPA. Key measures will be the continuation of the annual stock assessment and assessment of data from weekly catch returns. That said, it is proposed that two licence conditions are introduced in relation to this fishery.

Monitoring of fishing activity will continue through the completion of catch returns forms. It is suggested that a licence condition is introduced which requires fishers to complete and return such in keeping with the other WFO fisheries. This is augmented through proportionate compliance checks.

In addition, it is recommended that the 'use of tenders' licence condition is included. It is understood that fishers use tenders to fish on the bank. This was introduced as a

⁶ A Garbutt, M Yates, E Rispin & Dave Norris, 2010; CENTRE FOR ECOLOGY AND HYDROLOGY; Low tide survey of The Wash Special Protection Area. Final report of the winter 2009-10 shorebird survey

licence condition during 2018 cockle fishery, effectively replacing the WFO regulation which was implemented to provide more clarity.

In addition, it is proposed that the fishery is maintained as a 'relaying' and 'harvestable' fishery. Ordinarily this would be considered to add complexity and increase the potential for non-compliance (for example, enforcement of the different daily catch restrictions for a 'harvestable' vs a 'relaying' fishery). However, given the small-scale risk is still considered low.

The two licence conditions are set out in Appendix 1. No further restrictions are considered necessary for the fishery presently however further licence conditions can be implemented as required. It is recommended that the CEO is delegated authority to introduce, vary or revoke licence conditions and other management measures (for example closure of the fishery) as required to enable a flexible and adaptive approach. This will also allow for any potential requirements which come from further dialogue with Natural England regarding the fishery and any changes to fishing behaviours and practices which occur over time.

In order to enable the relaying aspect of the fishery, an enforcement policy is required with regards to the removal of undersize mussel. This is required because there is no formal mechanism for exempting fishers to take undersize mussel for the purpose of relaying onto private lays within the WFO. A similar policy was established in 2018 for the mussel relaying fishery in the Wash proper. The enforcement policy is set out in Appendix 2.

Financial implications

None identified

Legal implications

None identified.

Conclusion

A limited fishery has been open at Welland Wall (Lincolnshire) since 2015 and is not considered to be having a deleterious impact on stocks or the environment. The small scale and low risk of this fishery lend themselves to a light-touch management approach which essentially relies on Eastern IFCA maintaining a watching brief. Given that the fishery operates within the Wash and North Norfolk Coast MPA, officers will undertake a formal Habitat Regulation Assessment of the fishery although it is not considered likely to be having an impact on site integrity.

Two licence conditions are proposed for the fishery; a requirement to complete catch returns and restrictions on the use of tenders. In addition, an enforcement policy is proposed which enables fishers to take undersize mussel for relaying which is also considered to be of limited risk. It is recommended that the CEO is delegated authority to introduce, vary or revoke such management measures if circumstances change (such as a sudden increase in effort).

Appendices

1. Proposed Wash Fishery Order 1992 Hand-Work Licence conditions – Welland Wall Mussel fishery
2. Proposed enforcement policy regarding Regulation 8: removal of mussel of less than 45mm

Appendix 1 – Action Item 7: Proposed Wash Fishery Order 1992 Hand-Work Licence conditions – Welland Wall Mussel fishery

WFO Welland Wall mussel fishery – Hand-work Licence conditions

Fishers operating under a licence issued under Article 8(1) of the Wash Fishery Order 1992 are required to undertake their fishing activities in accordance with the conditions set by the Authority as per Article 8(5) of the same Order.

The following Licence Conditions are applicable to fishers operating in the Wash Fishery Order 1992 Welland Wall mussel fishery.

These Licence conditions must be read in conjunction with the Wash Fishery Order 1992 Regulations which also apply to this fishery.

Licence Condition 1: Catch Returns Data

An accurately completed weekly catch return form, as supplied by Eastern IFCA, must be returned for each week of fishing, to Eastern IFCA's offices by no later than the Friday of the week following any such fishing activity.

Licence condition 2: use of tenders

A person must not use a tender to a vessel unless:

- fishing for, taking or removing from the fishery mussels or cockles;
- all catch placed on the tender is placed on the licenced vessel to which it is associated at the earliest opportunity and before the vessel leaves the sand being fished;
- the tender is six metres in overall length or less; and
- the tender has an outboard engine with a power of ten horsepower or less.

A person must not use more than one tender or a tender which has an inboard engine.

Failure to comply with a licence condition is an offence under section 3(3) of the Sea Fisheries (Shellfish) Act 1967. The master, owner and charterer (if any) of a vessel used in the commission of an offence shall each be guilty of any such offence and liable to an unlimited fine on summary conviction.

Licence conditions are subject to change and fishers will be notified of any amendments to the licence conditions.

Appendix 2 – Action Item 7: Proposed enforcement policy regarding Regulation 8: removal of mussel of less than 45mm

Eastern IFCA Enforcement Policy – Regulation 8: Mussels (*Mytilus edulis*) minimum size

Wash Fishery Order (1992) Welland Wall mussel fishery

Regulation 8 of the Wash Fishery Order 1992 (WFO) prohibits the removal of mussels less than 45mm in length from within the WFO.

Mussel relaying fisheries target juvenile mussels for the purpose of ‘relaying’ the mussel onto beds allocated for private aquaculture. The majority of mussel removed from the wild beds for this purpose are relayed within WFO Shellfish Lays within The Wash or the North Norfolk Coast.

The mussel relaying fishery is an established practice and is guided by associated policies which ensure the sustainability of the mussel fishery.

Policy

Eastern IFCA will not take enforcement action against fishers licenced to fish within the WFO Welland Wall mussel fishery with regards to non-compliance with Regulation 8 where such is removed for the purpose of relaying onto private aquaculture.

Eastern IFCA will enforce Regulation 8 where fishers fish for, take or remove any mussel from the Welland Wall fishery for the purpose of selling to market or as part of any harvestable fishery where mussels are not used for relaying.

Rationale and mitigation

Eastern IFCA has enabled several mussel relaying fisheries in the past and it is an established fishery. Pending the planned review of the WFO Regulations, there is no formal mechanism to grant exemption from Regulation 8 for the purpose of aquaculture cultivation (as there is for Eastern IFCA byelaws). As such, an enforcement policy is required to enable the fishery.

Mussels less than 45mm in length are unlikely to have spawned and are therefore protected from removal during a ‘normal’ fishery. Removal of pre-spawning individuals has the potential to negatively impact the sustainability of the mussel fishery. However, the annual mussel survey has indicated that the mussel stocks in The Wash will not be adversely affected by a limited fishery targeting juvenile mussels. This is primarily a reflection of the high biomass of juvenile mussels.

The Welland Wall fishery is distinct from The Wash mussel stock on which conservation objectives are based on. As such, there is limited risk site integrity of the Wash and North Norfolk Coast Special Area of Conservation or Special Protection Area.

Risks of over-fishing and environmental impacts are mitigated primarily through WFO regulations and licence conditions. There is limited management of this fishery by virtue of its small scale and low risk as set out in the 2019 assessment⁷. Eastern IFCA

⁷ Eastern IFCA Marine Protected Area Sub-Committee meeting, 13th March 2019: Action Item 7.

monitors activity through weekly catch returns and monitors stock health through annual stock surveys.